

**INFORMATION BEHAVIOUR IN HEALTH-CARE OF HOME-BASED ELDERLY
PEOPLE IN NAKURU DISTRICT, KENYA**

by

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SUMMARY

This study investigated access and use of information in the health-care of home-based elderly people (EPs) in Nakuru District, Kenya. The literature review revealed a gap with respect to information behaviour in health-care of EPs in a development context. The researcher used qualitative methods; with exploratory and descriptive research design because the focus of the study was on the little-known and socially disadvantaged community of EPs in Nakuru District. Respondents were sampled by using the snowball technique. At the end of an interview session, each respondent was encouraged to nominate someone who either shared the same or had different experiences, views, socio-economic levels and gender. The researcher collected data through face-to-face interviews with EPs, informal care providers (ICPs) and formal health-care providers (FHCPs), in order to gain insight of information behaviour in health-care of EPs, by focusing on aspects of information needs; sources; use of information and factors that influence the respective groups of respondents to access and use health-care information health-care of EPs. The findings showed that the respective groups of respondents had similar as well as diversified needs for information for health-care. The groups used both formal and informal sources of information and channels of communication to access information for health-care, with FHCPs using authoritative sources more than the EPs and ICPs. Factors such as being a professional or a lay person, cost, ease of accessibility, availability of sources and channels of communication, time and trustworthiness of a source or channel of communication determined preference for use of information. The major contribution of the study is to the theory about information behaviour: some EPs and ICPs used CAM services without informing FHCPs, thereby revealing a form of concealed information use behaviour (CIUB).

Key terms: Elderly people in Kenya, Informal care providers, Formal health-care providers, Information behaviour, Information needs, Health-care, Elderly people in a development context, Concealed information use behaviour (CIUB), Information for health-care.

STUDENT NUMBER: 34407278

DECLARATION

I declare that **Information behaviour in health-care of home-based elderly people in Nakuru District, Kenya** is my work and that all the sources that I have used or quoted have been indicated or acknowledged by means of complete references.

SIGNATURE

DATE

Miss Khayesi MK

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TABLE OF CONTENTS

SUMMARY.....	i
DECLARATION.....	ii
ACKNOWLEDGMENT.....	iii
DEDICATION.....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES.....	xv
LIST OF FIGURES.....	xvi
LIST OF MAPS.....	xvi
LIST OF ACRONYMS.....	xvii

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 INTRODUCTION.....	1
1.2 BACGROUND OF THE STUDY.....	2
1.3 ELEDERLY PEOPLE (EPs) AND HEALTH-CARE.....	2
1.4 STATUS OF ELDERLY PEOPLE (EPs) IN KENYA.....	4
1.4.2 Care.....	4
1.4.3 Economic situation.....	5
1.4.4 Education and literacy.....	6
1.4.5 Geographical location.....	7
1.4.6 Service providers.....	7
1.5 STATEMENT OF THE RESEARCH PROBLEM.....	8
1.5.1 Sub-problems.....	9
1.5.2 Research questions.....	9
1.6 RESEARCH METHODOLOGY AND DESIGN.....	10
1.7 RELEVANCE OF THE STUDY.....	11
1.7.1 Theoretical relevance.....	11
1.7.2 Practical relevance.....	11
1.8 MOTIVATION AND JUSTIFICATION.....	11
1.9 SCOPE OF THE STUDY.....	12

1.10 KEY CONCEPTS.....	13
1.11 OUTLINE OF CHAPTERS.....	16
1.12 SUMMARY AND CONCLUSION.....	17

CHAPTER TWO

THEORIES AND MODELS OF INFORMATION BEHAVIOUR RELEVANT TO HEALTH-CARE

2.1 INTRODUCTION.....	18
2.2 USER GROUPS.....	19
2.2.1 Elderly people (EPs).....	19
2.2.2 Informal care providers (ICPs).....	20
2.2.3 Formal health-care providers (FHCPs).....	21
2.3 INFORMATION BEHAVIOUR.....	21
2.3.1 Elderly people (EPs).....	22
2.3.2 Informal care providers (ICPs).....	22
2.3.3 Formal health-care providers (FHCPs).....	23
2.4 MODELS OF INFORMATION BEHAVIOUR.....	23
2.4.1 A model of information needs.....	24
2.4.2 Models of information seeking.....	26
2.4.2.1 <i>Model of information seeking of professionals</i>	26
2.4.2.2 <i>Model of information encountering (IE)</i>	29
2.4.2.3 <i>Theory of information grounds (IG)</i>	31
2.4.3 Models of information use.....	33
2.4.3.1 <i>Model of information acquiring-and-sharing</i>	34
2.4.3.2 <i>Taylor's information use environment</i>	34
2.4.3.3 <i>Communities of practice</i>	36
2.5 FACTORS THAT INFLUENCE INFORMATION BEHAVIOUR.....	37
2.5.1 Environmental factors.....	37
2.5.1.1 <i>Economic factors</i>	38
2.5.1.2 <i>Cultural factors</i>	38
2.5.2 Personal factors.....	39
2.6 SUMMARY AND CONCLUSION.....	41

CHAPTER THREE
HEALTH-CARE ISSUES WITHIN A DEVELOPMENT CONTEXT

3.1 INTRODUCTION	43
3.2 DEFINITION OF DEVELOPMENT CONTEXT.....	43
3.2.1 Variations in health-care contexts for elderly people (EPs).....	44
3.2.1.1 <i>Developing countries</i>	44
3.2.1.2 <i>Africa</i>	46
3.2.1.3 <i>Kenya</i>	48
3.3 THE HEALTH-CARE SYSTEM IN KENYA.....	50
3.3.1 Legislation	51
3.3.2 Administrative structures.....	52
3.3.3 Services.....	54
3.3.3.1 <i>Counselling in health-care</i>	55
3.3.3.2 <i>Preventive personal health-care</i>	56
3.3.3.3 <i>Diagnostic care, treatment and medication</i>	56
3.3.3.4 <i>Environmental health</i>	57
3.3.3.5 <i>Social services</i>	57
3.4 STAKEHOLDERS IN HEALTH-CARE FOR ELDERLY PEOPLE (EPs).....	58
3.4.1 The Government.....	59
3.4.2 The public.....	60
3.4.3 The private sector.....	61
3.5 INFORMATION PREFERENCES.....	62
3.5.1 Elderly people (EPs).....	62
3.5.2 Informal care providers (ICPs).....	63
3.5.2 Formal health-care providers (FHCPs).....	65
3.6 SUMMARY AND CONCLUSION.....	66

CHAPTER FOUR
RESEARCH METHODOLOGY

4.1 INTRODUCTION.....	68
4.2 RESEARCH DESIGN.....	68
4.2.1 Exploratory and descriptive research design.....	69

4.2.1.1 <i>Exploratory research design</i>	70
4.2.1.2 <i>Descriptive research design</i>	70
4.3 GEOGRAPHICAL SETTING FOR THE STUDY	70
4.4. POPULATION AND SELECTION OF RESPONDENTS	74
4.4.1 Sample population	75
4.4.2 Sampling technique	76
4.5 PILOT STUDY	78
4.6 DATA COLLECTION METHODS	79
4.6.1 Face-to-face interviews	79
4.6.2 Secondary sources	82
4.7 DATA ANALYSIS	82
4.8 ETHICAL CONSIDERATIONS	84
4.9 VALIDITY OF THE STUDY	86
4.10 RELIABILITY OF THE STUDY	87
4.11 PREVENTING BIAS IN THE STUDY	90
4.11.1 Selection of participants	90
4.11.2 Data collection	90
4.11.3 Data analysis and report writing	91
4.12 RESEARCH CHALLENGES	91
4.13 SUMMARY AND CONCLUSION	92

CHAPTER FIVE

INFORMATION NEEDS IN HEALTH-CARE OF THE HOME-BASED ELDERLY

5.1 INTRODUCTION	93
5.2 INFORMATION NEEDS IN HEALTH-CARE OF ELDERLY PEOPLE (EPs)	93
5.2.1 Elderly people	94
5.2.1.1 <i>Information about medication</i>	95
5.2.1.2 <i>Information about complementary and alternative medicine (CAM)</i>	96
5.2.1.3 <i>Information about nutrition</i>	98
5.2.1.4 <i>Information about spiritual and emotional support</i>	100
5.2.1.5 <i>Information about financial aid</i>	102
5.2.1.6 <i>Information about physical fitness and exercise</i>	104
5.2.1.7 <i>Information about clothing</i>	106

5.2.1.8 <i>Information about geriatric health-care services</i>	106
5.2.2 Informal care providers.....	108
5.2.2.1 <i>Information about medication</i>	109
5.2.2.2 <i>Information about nutrition</i>	111
5.2.2.3 <i>Information about complementary and alternative medicine</i>	113
5.2.2.4 <i>information about advising elderly people (EPs)</i>	114
5.2.2.5 <i>Information about emotional and spiritual support</i>	115
5.2.2.6 <i>Information about financial aid</i>	116
5.2.3 Formal health-care providers.....	117
5.2.3.1 <i>Information about elderly patients</i>	118
5.2.3.2 <i>Information about medication</i>	119
5.2.3.3 <i>Information about nutrition</i>	120
5.2.3.4 <i>Approaches to counselling</i>	121
5.2.3.5 <i>Information about professional growth</i>	122
5.3 OVERVIEW OF THE FINDINGS.....	123
5.4 SUMMARY AND CONCLUSION.....	125

CHAPTER SIX

SOURCES AND CHANNELS OF COMMUNICATION USED FOR INFORMATION ABOUT HEALTH-CARE

6.1 INTRODUCTION.....	126
6.2 FORMAL SOURCES OF INFORMATION.....	126
6.2.1 Elderly people (EPs).....	127
6.2.2 Informal care providers (ICPs).....	129
6.2.3 Formal health-care providers (FHCPs).....	130
6.2.3.1 <i>Books used by formal health-care providers (FHCPs)</i>	131
6.2.3.2 <i>Journals</i>	132
6.3 INFORMAL SOURCES OF INFORMATION.....	134
6.3.1 Informal sources of information used by elderly people (EPs).....	134
6.3.1.1 <i>Family members</i>	136
6.3.1.2 <i>Friends and neighbours</i>	137
6.3.1.3 <i>Past experience</i>	137
6.3.1.4 <i>Previous professional responsibilities</i>	138

6.3.2 Informal care providers (ICPs).....	140
6.3.2.1 <i>Family members</i>	141
6.3.2.2 <i>Friends and neighbours</i>	141
6.3.2.3 <i>Experience</i>	142
6.3.3 Formal health-care providers (FHCPs).....	143
6.3.3.1 <i>Elderly people, their families and friends</i>	144
6.3.3.2 <i>Experience and prior knowledge</i>	145
6.4 CHANNELS OF COMMUNICATION.....	147
6.4.1 Elderly people.....	147
6.4.1.1 <i>Professional health-care services or facilities</i>	150
6.4.1.2 <i>Television</i>	152
6.4.1.3 <i>Radio</i>	153
6.4.1.4 <i>Newspapers and magazines</i>	155
6.4.1.5 <i>Telephone</i>	157
6.4.1.6 <i>Complementary and alternative medical (CAM) services</i>	158
6.4.1.7 <i>Women groups</i>	161
6.4.1.8 <i>Religious meetings</i>	162
6.4.1.9 <i>Agricultural shows</i>	163
6.4.1.10 <i>The Internet</i>	164
6.4.2 Informal care providers (ICPs).....	165
6.4.2.1 <i>Professional health-care services or facilities</i>	167
6.4.2.2 <i>Television</i>	168
6.4.2.3 <i>Radio</i>	169
6.4.2.4 <i>Newspapers and magazines</i>	170
6.4.2.5 <i>The Internet</i>	171
6.4.2.6 <i>Telephone</i>	173
6.4.2.7 <i>Complementary and alternative medicine (CAM)</i>	173
6.4.2.8 <i>Women groups</i>	174
6.4.2.9 <i>Religious meetings</i>	175
6.4.3 Formal health-care providers (FHCPs).....	175
6.4.3.1 <i>Professional colleagues</i>	176
6.4.3.2 <i>Television</i>	178
6.4.3.3 <i>The Internet</i>	178
6.4.3.4 <i>Telephone/cell phone</i>	180

6.5 OVERVIEW OF THE FINDINGS.....	181
6.6 SUMMARY AND CONCLUSION.....	182

CHAPTER SEVEN

THE USE OF INFORMATION IN GERIATRIC HEALTH-CARE

7.1 INTRODUCTION.....	185
7.2 SPECIFIC USES OF INFORMATION.....	185
7.2.1 Elderly people (EPs).....	187
7.2.1.1 <i>Decision making</i>	189
7.2.1.2 <i>Sharing information</i>	190
7.2.1.3 <i>Providing home-based health-care</i>	191
7.2.1.4 <i>Seeking of information about CAM treatment</i>	193
7.2.2 Informal care providers (ICPs).....	195
7.2.2.1 <i>Decision making</i>	197
7.2.2.2 <i>Sharing with other people</i>	198
7.2.2.3 <i>Providing home-based health-care to elderly people (EPs)</i>	200
7.2.2.4 <i>Seeking information about CAM treatment</i>	201
7.2.3 Formal health-care providers.....	203
7.2.3.1 <i>Decision making</i>	204
7.2.3.2 <i>Sharing of information</i>	205
7.2.3.3 <i>Advising elderly people (EPs) and informal care providers (ICPs)</i>	206
7.3 OVERVIEW OF THE FINDINGS.....	207
7.4 SUMMARY AND CONCLUSION.....	209

CHAPTER EIGHT

FACTORS THAT INFLUENCE ACCESS OF INFORMATION FOR GERIATRIC HEALTH-CARE

8.1 INTRODUCTION.....	211
8.2 ENVIRONMENTAL FACTORS THAT INFLUENCE ACCESS TO HEALTH-CARE INFORMATION.....	211
8.2.1 Elderly people (EPs).....	212

8.2.1.1 <i>Financial resources</i>	213
8.2.1.2 <i>Atmosphere in health-care facilities</i>	213
8.2.1.3 <i>Cultural traditions</i>	215
8.2.1.4 <i>Political support</i>	216
8.2.2 Informal care providers (ICPs).....	217
8.2.2.1 <i>Financial resources</i>	218
8.2.2.2 <i>Atmosphere in health-care facilities</i>	219
8.2.2.3 <i>Political support</i>	220
8.2.3 Formal health-care providers (FHCPs).....	221
8.2.3.1 <i>Financial resources</i>	223
8.2.3.2 <i>Atmosphere in health-care facilities</i>	224
8.2.3.3 <i>Cultural traditions of elderly people (EPs)</i>	225
8.2.3.4 <i>Political support</i>	226
8.3 PERSONAL FACTORS THAT INFLUENCE ACCESS TO HEALTH-CARE INFORMATION.....	228
8.3.1 Elderly people (EPs).....	228
8.3.1.1 <i>Cognitive factors</i>	230
8.3.1.2 <i>Connative factors</i>	231
8.3.1.3 <i>Affective factors</i>	232
8.3.2 Informal care providers (ICPs).....	234
8.3.2.1 <i>Cognitive factors</i>	235
8.3.2.1 <i>Affective factors</i>	236
8.3.3 Formal health-care providers (FHCPs).....	237
8.3.3.1 <i>Cognitive factors</i>	238
8.3.3.2 <i>Connative factors</i>	239
8.3.3.3 <i>Affective factors</i>	239
8.4 OVERVIEW OF THE FINDINGS.....	240
8.5 SUMMARY AND CONCLUSION.....	241

CHAPTER NINE
CONCLUSION AND RECOMMENDATIONS

9.1 INTRODUCTION.....	243
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9.2 RESEARCH PROBLEM.....	243
9.3 THEORETICAL APPROACHES TO THE STUDY OF INFORMATION BEHAVIOUR.....	244
9.4 METHODOLOGY.....	244
9.5 FINDINGS.....	245
9.5.1 Information needs in health-care of elderly people (EPs).....	245
9.5.2 Sources of information for geriatric health-care.....	246
9.5.3 Use of information in health-care.....	247
9.5.4 Factors that influence access to information.....	248
9.6 CONTRIBUTION OF THE STUDY TO THEORY.....	250
9.7 CONCLUSION.....	252
9.8 SUGGESTIONS FOR FURTHER RESEARCH.....	253
BIBLIOGRAPHY.....	254

APPENDICES

- Appendix I Interview guide for elderly people
- Appendix II Interview guide for informal care providers
- Appendix III Interview guide for formal health-care providers
- Appendix IV Informed consent from respondents
- Appendix V Research authorization letters

LIST OF TABLES

Table 4.1 Description of respondents.....	77
Table 5.1 Health-care information needs of elderly people	95
Table 5.2 Health-care information needs of informal care providers	109
Table 5.3 Health-care information needs of formal health-care providers.....	118
Table 6.1 Formal sources of information for formal health-care providers.....	130
Table 6.2 Informal sources of information that elderly people used in health-care.....	135
Table 6.3 Informal sources of information for informal care providers.....	140
Table 6.4 Informal sources of information used by formal health-care providers.....	143
Table 6.5 Channels of communication used by elderly people.....	149
Table 6.6 Channels of communication used by informal care providers.....	166
Table 6.7 Channels of communication used by formal health-care providers.....	176
Table 7.1 Use of information in health-care by elderly people.....	188
Table 7.2 Use of information in health-care by informal care providers.....	196
Table 7.3 Use of information in health-care by formal health-care providers.....	204
Table 8.1 Environmental factors that influenced elderly people in accessing information.....	212
Table 8.2 Environmental factors that influenced informal care providers' access to information.....	218
Table 8.3 Environmental factors that influenced formal health-care providers' access to information.....	222
Table 8.4 Personal factors that influence elderly peoples' access to information.....	229
Table 8.5 Personal factors that influenced informal care providers' access to information for health-care.....	234
Table 8.6 Personal factors that influenced formal health-care providers' access to information for health-care.....	238

LIST OF FIGURES

Fig 2.1 Dervin’s sense-making theory.....	24
Fig 2.2 Leckie’s model of information seeking of professionals.....	27
Fig 2.3 Erdelez’s information encountering.....	29
Fig 2.4 Information grounds.....	32
Fig 2.5 Wilson’s general model of information behaviour.....	40
Fig 7.1 Information use in health-care of EPs.....	186
Fig 7.2 Contributions of information in geriatric health-care.....	187

LIST OF MAPS

Fig. 4-1 Administrative boundaries of	72
Fig 4-2 Administrative divisions of Nakuru district.....	73

LIST OF ACRONYMS

AARP	American Association of Retired Persons
CAM	Complementary and alternative medicine
CME	Continuing medical education
EPs	Elderly people
FHCPs	Formal health-care providers
HINARI	Health Internetwork Access to Research Initiatives
IB	Information behaviour
HAI	HelpAge International
HAK	HelpAge Kenya
ICPs	Informal care providers
KMA	Kenya Medical Association
KNCHR	Kenya National Commission for Human Rights
LIS	Library and Information Science
MDGs	Millennium Development Goals
NGOs	Non-governmental organizations
NTHPA	Natural Traditional Healers and Practitioners Association
OTC	Over the counter
PGH	Provincial General Hospital
UN	United Nations
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

Researchers and practitioners in the field of Library and Information Science (LIS) serve the public in a variety of ways, including through the collection, organization, storage, retrieval and dissemination of information. It is because of the need to conscientiously fulfil these functions that these researchers and practitioners have a particular interest in understanding how information as a resource can be applied to improve the quality of people's lives. Researchers and practitioners in LIS endeavour to understand the information behaviour (IB) of different social groups in order to design or recommend systems that are appropriate for delivery and access of information to the groups. One of the social groups whose information behaviour needs to be studied from Information Science perspective is elderly persons.

For purposes of this study, it is important to understand how elderly people (EPs) can benefit from health-related information under circumstances in which formal geriatric health-care services are not ideal, and where informal care and support is an important component of geriatric health-care. This study therefore focuses on IB in health-care of home-based EPs in a development context, using the situation in Nakuru District of Kenya as a case illustration. The home-based EPs in Nakuru district live within their communities and not in institutions such as homes for the elderly and often care for themselves or receive informal care from family members, friends, neighbours and well-wishers known collectively as informal-care providers (ICPs). Formal health-care providers (FHCPs) including doctors, nurses and clinical officers also provide health-care services to home-based EPs when they visit health-care facilities.

This study attempts to generate a better understanding of IB related to the health-care of home-based EPs in Nakuru District of Kenya. In doing this, it is expected to contribute to an improvement in the health-care environment of the EPs and their ICPs and FHCPs. The next section will put health-care of home-based EPs in Kenya into perspective.

1.2 BACKGROUND OF THE STUDY

The lack of a government policy which is focused specifically on the health-care of the elderly within a very diverse economic and social environment is creating major challenges in Kenya in caring for this sector of the population. National development and the current strategic plans in the health sector demonstrate that little attention is paid to health-care and the general welfare of EPs (KNCHR 2009:1-24; Republic of Kenya 2007; Republic of Kenya 2001; Republic of Kenya 1997; Juma, Okeyo & Kidenda 2004:1-8). The literature has shown that education and information are core components of systems that provide services for ageing populations (WHO 2003: 41-55; Hansen & Clarke 2000:129-137). However, a review of the literature in the current study revealed that little has been done to capture process and store data about education or information activities related to the health-care of the EPs in Kenya.

On a personal level, the researcher's attention was drawn to the current situation in Kenya with regard to geriatric health-care information while caring for her late mother. The researcher encountered challenges related to the lack of specific geriatric health-care programmes and information; lack of information for dealing with a wide range of issues; and guidelines to help the EPs and ICPs respond to negative attitudes from some of the FHCPs. The researcher also learnt from the press that some EPs were reluctant to use government health-care facilities in part because of the unfriendly manner in which the EPs were handled by the FHCPs (Muigana 2006:30-32; Mathangani 2005:3). The lack of research about information for geriatric health-care in Kenya, the researcher's own personal experiences as a caregiver and press reports contributed to the unfolding of a deep desire to undertake the current study so as to fill up, at least partially, the gap in knowledge about IB in the health-care of home-based EPs in a development context.

1.3 ELDERLY PEOPLE (EPs) AND HEALTH-CARE

The increase in the number of EPs all over the world has implications for provision of health and related services to this group (UN 2003;UN 2000). Reports indicate that many countries are faced with the challenges of an ageing population and providing services such as health, housing, financial and other support for the elderly (Galasso & Profeta 2006:1-3; Simonovits

2006:1-2; WHO 2003:1-5). It is possible that an elderly population increases the share and expenditure of welfare and health-care programmes. An actual or projected increase in expenditure could make it difficult for developing countries to implement a policy of care for the elderly. The lack of a policy and programmes for geriatric health-care may require families to take responsibility for providing health-care for their elderly relatives.

Families experience challenges due to changes in social structures. For example, rapid urbanization in Kenya has attracted many younger people to towns and cities away from their homes, leaving many EPs on their own. In addition, the reduced income of most EPs and changes in family structure imply that most of them find it difficult to pay for health-care services. Strategies aimed at helping the EPs should therefore take into account the fact that the majority of them face major health-care challenges.

Population ageing is an issue for all countries, regardless of the socio-economic level, but it is a particularly pressing matter for developing countries (Kalasa 2005; Apt 1997). Most developing countries, though they have a projected increase in the elderly population, have not yet implemented policies for their care (Kenya national Commission for Human Rights 2009; Waithaka, Anyona & Koori 2003:1-13; Apt 1997). The increasing elderly population in developing countries highlights the need to address the needs of EPs through specific care programmes, including health-care. Health is a major concern of EPs since it is critical in determining their ability to care for themselves in order to contribute to the socio-economic activities of their communities (Charles & Sevak 2005: 1174-1190). It is also an important concern for the country as the healthier the elderly population is, the more self-sufficient it is and the less dependent on social benefits or support from families and communities.

Kenya participates in regional and international forums about policy and care of EPs (KNCHR 2009:1-11; Waithaka, Anyona & Koori 2003:1-13). However, the rapid increase of the elderly population, and the poor economy of the country seem to have outpaced the efforts of the government to provide for its social and economic needs (Mathangani 2005:3; Waithaka, Anyona & Koori 2003:1-13). The lack of government plans to care for the elderly necessitates that individuals and families continue to take responsibility to care for EPs.

Currently Kenya lacks a satisfactory elderly-specific information delivery system, and apparently nothing of this kind is being anticipated. It is therefore argued that knowledge of

IB of the EPs, ICPs and FHCPs is relevant to the work of health policy makers and in designing information services suited to the care of home-based EPs. The lack of studies about EPs served as a strong impetus to undertake meaningful research to better understand this specific IB of the EPs, ICPs and FHCPs.

1.4 STATUS OF ELDERLY PEOPLE (EPs) IN KENYA

The preceding sections provided context of the study with regards to the elderly persons and information for health-care. Reference is made to Kenya while discussing the general situation of EPs. This section provides details on the situation of EPs in Kenya, which could not be adequately covered in sections 1.1, 1.2 and 1.3 but which is necessary for understanding the context of the study. The elderly form a heterogeneous group with variations in demographic and socio-economic characteristics within a broader political and policy setting at national and international levels. Some of the variations are discussed below.

1.4.1 Age

Most governments use retirement age as the milestone for marking the onset of old age. However there are different stages at which people go into retirement and grow old. The EPs have been grouped as new old (those just entering retirement age, between 55/65 to 70/75 years of age), young old (75 to 85 years of age) and oldest old (85 or more years of age) (Asla, Williamson & Mills, 2005:1-3; Wicks, 2004:1-4). The categorization of groups of EPs may also vary according to their specific community.

The categorization shows that EPs cannot be treated as a homogenous group having exactly the same type of information needs for health-care but should rather be considered as a heterogeneous group. For example, people just entering old age are likely to need less health-care information compared to those who are frailer and are in the later stages of young old or in the category of oldest old, would be more prone to declining conditions of health.

1.4.2 Care

The EPs need care because of physical changes that occur in their bodies as they age. Similarly, changes in family structures contribute to a need to find new ways to care for the EPs as many younger relatives leave their homes to look for employment elsewhere. Such

changes may result in new and different approaches to geriatric health-care. Some EPs carry out self-care because they live alone and are unable to pay for health-care services. Families and friends of EPs sometimes provide care. If they exist in the community, the EPs may also find care in geriatric-care institutions, but this is usually unavailable in most developing countries like Kenya because governments lack adequate financial resources. Within a context of a developing country such as Kenya, traditional cultural practices require that families take care of their elderly members. Social traditions make it difficult for most families living in a development context to place EPs in geriatric-care institutions, even if such institutions are available.

Variations in the care of the EPs imply that there are also variations in the related geriatric health-care information needs. For example, EPs providing self care may need information for themselves whereas ICPs and FHCPs might need information that is specific to help them to understand the care of the EPs.

1.4.3 Economic situation

The financial resources available to EPs may vary in relation to their prior and current sources of income. Some EPs have a stable income while others are in need of financial support. For example, EPs who worked in the public sector may retire and earn a pension based on the position held while other EPs who worked in the private sector may have been paid a lump sum benefit on retirement. Some of the EPs invest their retirement benefits into businesses such as chicken keeping; operating a retail shop or kiosk, keeping of one or two dairy cows, operating public transport commonly known as *matatu*, or get involved in any other business of their choice. Another group of EPs are self-employed since they were young, and owned personal business like shops, transport vehicles, hotels or farming. As self-employed entrepreneurs, they do not have to retire and can continue working as long as they are fit. Still, another group of EPs may have neither ever been employed nor have had financial resources to help them to run independent business.

The former official retirement age of 55 years has contributed to an increase in the number of the EPs who need health-care and related information services in Kenya. The government did increase the retirement age of people working in the public sector to 60 years at the time of this study but retirees still lose allowances for housing; commuting and medical care as they

leave employment. The increase in the number of the elderly combined with limited funding for their health-care increases the demand for information for health-care of home-based EPs in Kenya. Reports show that some EPs in Kenya experience negative attitudes, abuse and neglect in primary health-care; poor nutrition; insecurity and poor economic situations (Mathangani 2005:3; Juma, Okeyo & Kidenda 2004:1-8; HelpAge International 2001a:1). The delay to implement a policy for care of the elderly population in Kenya seemed to serve as a further constrain to efforts of individuals and groups in providing services for geriatric health-care.

From the literature consulted, it seems that there is a lack of studies in Kenya focused on establishing the information needs of the increasing population of EPs living in an environment like the one described above. It seems that despite the contributions that EPs in Kenya made, and continue to make to their families and communities (such as paid or unpaid workers, consumers and volunteers), the challenges that the group faces in health are largely ignored by Kenyan policy makers and planners. The increase in the number of EPs and their involvement in activities that contribute to their personal, family and social lives reinforce the need of this population group for information to help them maintain their health.

The discussion above shows that EPs have different sources and levels of income. However, involvement in economic activities after retirement shows that some EPs make efforts to cushion themselves against economic hazards experienced in retirement. The scenario indicates that a majority of EPs would find it challenging to pay for health-care and related services like purchasing information. Above all, the emerging picture shows that EPs need information to help them to take care of their health since they continue to contribute to socio-economic activities of their families and communities.

1.4.4 Education and literacy

Literacy levels among EPs vary. Education and exposure to different environments make it possible for some EPs to be literate in foreign languages in addition to being literate in one or more indigenous languages. EPs that are literate may prefer to get information in written format. EPs that have missed opportunities for education remain illiterate in old age unless they take advantage of adult literacy classes. Illiterate EPs may prefer oral communication and visual demonstrations about how to access and use health-care information and may

commit information to memory and recall it for use when the need arises. EPs that are literate in several languages have the advantage of being able to access information in more than one language. This discussion shows that literacy levels among the elderly should be considered in planning for access and delivery of information for use among EPs. Some EPs are able to access and use information on their own while others need help to be able to use information.

1.4.5 Geographical location

The growth of towns and search for employment opportunities contribute to movement of people from rural to urban centres. Some EPs continue to live in urban areas upon retirement while others go back to rural areas. Most of the EPs who prefer an urban setting do so because of the availability of opportunities for investment and re-employment, and greater amenities, which include health-care facilities

Most people who work in urban areas traditionally keep a rural home as well and prefer to invest in and keep their roots in rural areas to which they can return upon retirement. The economic status and interests of an individual is determinant in whether or not they continue to live in an urban area or relocate to a rural home. The environment, urban or rural, in which EPs settled, contributes to their exposure to types of information, including information for health-care.

1.4.6 Service providers

Some EPs provide services to their families and their communities in different ways. For example, some of them run businesses in which they employ members of the community. In addition to contributing to economic activities in their communities, some EPs provide parental care for their grand children. A number of the elderly take in their HIV/AIDS orphaned grandchildren and provide homes for them. The EPs also provide services as counsellors in their communities (Nyambedha, Wandibba & Aagaard-Hansen 2003:33-52). EPs have indigenous knowledge to which members of their communities often need to refer to in times of crises. Some serve as board members for local schools, churches and community development projects. The new roles that EPs assume in old age show that they need information to help them take care of their health to be able to contribute to activities in their families and communities.

However, the care of the home-based EPs in Kenya has been neglected by all the governments in office, both before and after independence. The literature shows that there are little or no support services to help individuals and families care for EPs (Okoth 2010:8-9; KNCHR 2009:1-23; Mathangani 2005:3). Nonetheless, because of their involvement in serving families and communities, home-based EPs need appropriate information to help them to care for their health, though related services and research are lacking. This current situation, in which information is lacking, brings the researcher to focus sharply on questions about IB of EPs, ICPs and FHCPs in health-care and assumes that the provision of information services might help to alleviate some of the many challenges faced by people involved with geriatric health-care in Kenya and contribute towards filling in the existing gap in knowledge.

1.5 STATEMENT OF THE RESEARCH PROBLEM

The core research problem that the current study identified is the general neglect of health-care for the EPs in Kenya. Research output about the EPs in the country is minimal. At the time of the current study, there was no research to inform policy and practice about IB of EPs and groups involved in health-care of home-based EPs. A study in this area is imperative to the understanding of issues relating to information-seeking and using behaviour in geriatric health-care in Kenya. The study investigated issues such as information needs, sources of information for health-care, use of information and factors that influence the EPs, ICPs and FHCPs in accessing and using health-care information.

The study assumed that the problem of health-care of home-based EPs in Kenya may partly be addressed by the provision of appropriate health-related information to the EPs and their ICPs and FHCPs. It is important to have an understanding of characteristics and IB of these three groups in order to make meaningful suggestions for the provision of geriatric health-care information. The study used Nakuru District as a case study setting to respond to the main research question and problem: *How is information accessed and used in the health-care of home-based EPs in the Nakuru District of Kenya?*

1.5.1 Sub-problems

The main research question is addressed through focusing on four sub-problems as described below:

- **Information needs for health-care of the EPs:** An analysis of the information needed by a heterogeneous user group (home-based EPs, ICPs and FHCPs) was carried out. The data was disaggregated to examine how the information needed varied according to the three groups. This analysis provided a profile of the specific health-care information needs. This analysis was important in indicating variations in the needs. It is important to understand characteristics of users in order to assess their contribution to the information behaviour of users.
- **Types of sources of information used:** An examination of the sources used to obtain information about health-care of home-based EPs in Nakuru District was carried out. The study also examined preferences of sources according to each of the three groups.
- **Use of information in health-care of the EPs:** The study examined specific situations in which respondents used information in geriatric health-care. The analysis considered the different types of information and how these were accessed and used by the three groups of respondents.
- **Factors that influence access and use of information:** The study analysed factors that influence the EPs, ICPs and FHCPs to access and use geriatric health-care information. The study identified and analysed factors related to variations in individual and environmental situations.

1.5.2 Research questions

The study achieved its aim by examining the following four research questions:

1. *What kind of information is needed for health-care of home-based EPs in Nakuru District?* This was the main question that helped the study to identify the information needs of the EPs and their ICPs and FHCPs. The question helped the researcher to focus on the sub-problem about information needs that individuals and groups experience in health-care of the EPs. The researcher returned to this question throughout the study as it was important in the investigation of the IB of each group.

2. *What kind of sources do the EPs and their ICPs and FHCPs in Nakuru District use to get information for health-care?* The question helped the researcher to investigate the formal and informal sources of information and channels of communication used by the three groups of respondents in the health-care of EPs in the Nakuru District.
3. *How do the EPs, ICPs and FHCPs in Nakuru use geriatric health-care information?* The question sought to find out the different ways in which the three different groups of respondents used geriatric health-care information.
4. *What factors influence the EPs, ICPs and FHCPs to access information for health-care?* The question focused on the sub-problem related to individual and environmental factors that determined how respondents accessed information for geriatric health-care in the Nakuru District of Kenya.

1.6 RESEARCH METHODOLOGY AND DESIGN

The study followed a qualitative approach due to the nature of the area of research. The researcher carried out an in-depth investigation of information behaviour in geriatric health-care, with the intention of collecting the most meaningful form of data possible. The data was collected by means of open ended interviews, which was conducted to reveal the information needs, use of sources of information and factors that influenced the information behaviour of the three groups of respondents. Face-to-face interviews with all three groups proved to be the most efficient and effective method for both the researcher and the individual respondents who participated in the study.

The study used the snowball technique to find a sample. The focus on a small sample enabled the researcher to study the phenomenon of information behaviour in depth. Samples for studies using a qualitative research design tend to be small and an appropriate sample size for a qualitative study is one that adequately answers the research question (Mugenda 2008). The study sampled three groups of users: EPs, ICPs and FHCPs. Details of the research method and design, sampling procedures are discussed in Chapter Four, including a map of the site in which the study was conducted.

1.7 RELEVANCE OF THE STUDY

An examination of the current national development plan and health-care policy shows that there is lack of a plan for a system for health and information for EPs (Republic of Kenya 2007 & 2001). The current study addresses one facet of this weakness by investigating information seeking and using behaviour in the health-care of home-based EPs. The findings of the study are relevant on both theoretical and practical level.

1.7.1 Theoretical relevance

From the literature study it was evident that there was a gap in research about the IB of EPs, ICPs and FHCPs in Kenya in general and in health-care as a specific service (Okoth 2010; KNCHR 2009; Juma, Okeyo, & Kidenda 2004; Mooka 2004; Bii & Otike 2003; Njuguna 2003). It is therefore envisaged that this study would contribute towards a better understanding of this behaviour with regard to needs, sources, use and factors that influence access and use of information. Special attention is given to environmental and individual factors to be able to show their influence on IB of the respondents. A better understanding of the IB of a heterogeneous user group in a development context could serve as a guideline for the design of a customised information service for the home-based EPs.

1.7.2 Practical relevance

It is envisioned that the findings of the current study will contribute to two areas of practical relevance. Firstly, the findings may inform health-care policy makers about the importance of formulating and implementing a government policy on access to information for health-care of the EPs in Kenya.

Secondly this study draws attention to the need to provide a customised information service for geriatric health-care. Such a service should be adjusted to the real life and health-care information needs of the EPs and their ICPs and FHCPs within a development context.

1.8 MOTIVATION AND JUSTIFICATION

There are two main interrelated reasons that contributed to the need to undertake this study, namely:

- The study partly fills a knowledge gap on the IB of EPs and their ICPs and FHCPs in a development context. Users of information in a development context comprise heterogeneous user groups, with varying economic and literacy levels. For example, studies about EPs in Kenya show that some EPs are poorly nourished and that political and socio-economic decisions affect most of the EPs in ways such as how they access appropriate information regarding health-care services (HelpAge International 2001a:1; HelpAge International 2001b). Other studies show that EPs in Kenya sustain injuries due to domestic violence (Amuyunzu, Muniu & Katsivo 1997:614-618), and sometimes receive rationed medications, in spite of their poor health (McLigeyo 1997:607-610). Despite the challenges that they experience, EPs positively contribute to society as guardians for HIV orphaned children (Nyambedha, Wandibba & Aagaard-Hansen 2003), and as advisors in their local communities (Weinreb 1999). Also, people who live in a development context tend to value information as a resource to help them to cope with day-to-day challenges (Meyer 2003; Sturges & Neill 1998, 1990).
- The professional work of the researcher in LIS revealed the lack of information resources on social gerontology, and related health-care training and services in Kenya. Parallel research (Ahmed et al. 2005; Mba 2004; Kalasa 2001; Akanji, Ogunniyi & Baiyewu 2000; Kawaguchi 2000; Apt 1997) focused on conditions in other developing countries revealed a similar situation. This led to the conclusion that this was a research theme that merited systematic exploration and analysis.

1.9 SCOPE OF THE STUDY

Since it was not the objective of this research project to cover information behaviour in its entirety, it is necessary to clearly demarcate the parameters of the various issues that influenced the information behaviour of the home-based EPs in Nakuru District, Kenya. The focus of this study was:

- An investigation about information behaviour of EPs, ICPs and FHCPs and not the social behaviour in general.
- Information behaviour of the home-based EPs, and not EPs cared for in retirement homes or under institutionalized care. Home-based EPs live in a different context from EPs that live in institutionalized homes. The care in the two contexts also varies.
- Information behaviour of informal care providers and formal health-care providers involved in geriatric services for the home-based EPs. The experiences and

information needs of ICPs and FHCPs involved in geriatric care are different from the experiences of care providers of other patients.

- Health-care of the elderly, and not health-care in general. Health-care in general applies to all people and may also refer to general or common ailment that people suffer from. EPs have unique health conditions for which they need specific information.
- Home-based EPs in a development context, excluding home-based EPs in general, and more specifically as understood in a developed society or context. Developed countries have a higher economic income than the developing countries. The economy of each context, developed or developing contributes to the type of health-care services that people, particularly EPs get.
- The home-based EPs in a development context, more specifically in Nakuru District, Kenya where people hailed from diverse socio-economic backgrounds. The backgrounds could have an impact on the type and volume of information they could access.
- Home-based EPs from Nakuru District, ranging from illiterate to a variety of literacy levels. Levels of literacy would have an impact on how EPs seek information, make sense of information and apply newly acquired information in health-care situations.
- Finally, the generalization of the study findings is limited because, unlike with quantitative studies, this qualitative investigation forms an in-depth study which may only be applicable to a similar group but cannot be generalised across the population, and is thereby weak in external validity. The design for the current study is both exploratory and descriptive in the tradition of qualitative studies and aims to explore the unique manner in which people in a development context access and use information for the health-care of the home-based EPs.

1.10 KEY CONCEPTS

Every research study has guiding concepts that may be defined and applied in a unique way within the framework of the specific study. The key concepts used in this study are operationally defined below.

Elderly people (EPs): People who are 55 years or older. A number of studies about the elderly in Kenya use this age limit (Nyambedha, Wandibba & Aagaard-Hansen 2003:33-52;

Odongo 2002:3-5; Weinreb 1999:1-13). At the beginning of the current study, the government used 55 years as the retirement age for employees in the public sector (Republic of Kenya 2001, 1999, 1996 & 1989).

Formal health-care providers (FHCPs): Professional health-care providers including doctors, nurses, clinical officers, community nurses, dentists and opticians. They are trained in different fields and provide health-care services at a variety of levels. FHCPs refer to medical literature and their colleagues to obtain information for use in health-care of their clients, including EPs. They are paid for the services that they provide.

Health-care: This term refers to services that go beyond the treatment of disease to include biomedical, psychological and social-economic factors and risks that contribute to or hinder total human wellbeing. Health-care focuses on prevention, treatment and post-treatment (palliative and rehabilitation). It includes all goods and services designed to promote health, whether directed to individuals or to the population as a whole, to help maintain health and to prevent and cure diseases (WHO 2002:1-2).

Health-care information: This includes knowledge and facts about health-care issues including diseases, medicine, food and nutrition, sanitation, first aid and hygiene. Health-care information may not always be sought intentionally even when it is known that the information is available from given sources, but the information produces results when it is used or applied in a health-care situation.

Health-care providers: These are people and institutions providing health-care services. In this study, people who are health-care providers fall in two groups; ICPs and FHCPs.

Home-based elderly people: These are people who are 55 years or older and live within their communities as opposed to living in old-age homes or other institutions that provide care for EPs. In order to contribute to socio-economic activities of their families and communities, these EPs have chosen to continue to live in their homes or with their families.

Home-based health-care: In the context of this study, home-based health-care refers to the provision of services such as medication, nutritional care, counselling, and assistance with activities of daily living (bathing, washing of clothes, waking up, and toileting, taking walks

and eating) to people within household or family environments by both ICPs and FHCPs. It is care given to clients outside the formal health-care settings such as hospitals, clinics and dispensaries (Bishop 1999:146-155; Kawaguchi 2000:1-7).

Informal care providers (ICPs): These are non-professionals who provide health-care services to other people and include immediate family members, other relatives, friends, neighbours and well-wishers (WHO 2002:1-2). They often offer their services free-of-charge, except in cases when they are hired as house-help for EPs. ICPs may not necessarily read medical literature to get information that they use in providing services. They depend on FHCPs, other people and sources to get health-care information. Informal health-care provision in a typical African setting often involves more than one person. Several family or community members play different roles in provision of health-care for EPs. For example, one member of a family may provide financial support while others take care of cooking, bathing, feeding and other services as they arise in the life of an elderly person. One family member may also coordinate the different health-care services of an elderly person

Information behaviour (IB): This is the core concept of the current study. The concept refers to the manner in which users go about getting information that they need to use in given situations or circumstances and includes needs, sources, seeking, searching, use of information, and factors that influence the IB of users (Wilson 2000:49). According to Wilson, IB is the totality of human behaviour in relation to sources and channels of information, including both active and passive information seeking and information use. The concept of information or user behaviour therefore implies a response to questions like: Who needs what information? Who uses what information, when and why? What sources and channels are used to get the information? What factors influence which user to seek and apply information in the different situations?

Information need: This refers to a state or situation in which something is necessary or must be done (Hornby 2000:784). The Dictionary of Library and Information Science (2004:357) further defines an information need as a gap in a person's knowledge that when experienced at the conscious level as a question, gives rise to a search for an answer and indicates that users take action when they realize an information need. If the need is urgent, the search may be pursued with diligence until the desire is fulfilled. Information needs may be external or articulated (expressed) or internal or unexpressed (dormant or unspoken) (Davies 2007:79).

Articulated or expressed needs on the one hand are those that a user is aware of and can communicate to information workers or other people who can help to avail information. On the other hand, unarticulated or unexpressed needs (sometimes unconscious needs) are needs that a user is unaware that he or she needs information and may be current or future (UNISA 2001:55). In this study, information needs are viewed as wants and demands, which are expressed or unexpressed, or the inner promptings that drive users to seek for information for the health-care of the home-based EPs.

Information-seeking behaviour: This includes all activities undertaken by users to acquire the information in order to satisfy their needs or wants which may be articulated or unarticulated. Wilson (2000:49) defines it as “a purposive seeking for information as a consequence of a need to satisfy some goal”. IB in the current study refers to the activities of respondents in obtaining information in both formal and informal settings for the health-care of EPs. These include *how, why and where* they obtained information.

Information use behaviour: This is a composition of the physical and mental acts involved in incorporating the information found into a person’s existing knowledge base (Wilson 2000:50). It involves the manner in which a user applies information to contend with particular challenges.

1.11 OUTLINE OF CHAPTERS

The current chapter, introduces the study, provides background information, states the research problem, sub-problems and questions, gives definitions of key terms and concepts, and presents an overview of the study.

- Chapter Two reviews theories and models of information-seeking and information-use behaviour related to health-care. The chapter also discusses the concepts of Communities of Practice, context in information behaviour and other factors that influence these behaviours.
- Chapter Three reviews the literature about health-care in a development context to show how the health-care of the EPs may be differentiated between a developed and developing context.
- Chapter Four describes the research methods used in the current study which include the methods and techniques used to sample respondents, as well as those used to collect,

process and analyse data. It also provides background details about the geographical setting of the study.

- Chapter Five presents the findings about the information needs of the EPs, ICPs and FHCPs in relation to the health-care of home-based EPs in a development context.
- Chapter Six presents and analyzes findings related to the sources of information used by the EPs, ICPs and FHCPs in relation to the health-care in a development context.
- Chapter Seven presents findings about the different ways in which the EPs and their ICPs and FHCPs used information in relation to the health-care in a development context. These are differentiated to show how each of the three groups of respondents used information.
- Chapter Eight presents the findings related to the factors influencing different ways in which the EPs, ICPs and FHCPs accessed and used information in geriatric health-care.
- Chapter Nine serves to conclude the study and discusses the contribution of the findings to theoretical knowledge and scholarship. The chapter also makes recommendations on areas meriting further research, in the interest of building on the findings of the current study.

1.12 SUMMARY AND CONCLUSION

Information is at the core of all human activity and it is important that human beings have ready access to it. Improvements can be made with regard to the geriatric health-care situation in a developing country such as Kenya, where there is not yet a government policy in place, by making critical health-care information available and by helping people access it. It is against this backdrop that the current study is set to investigate IB in health-care of home-based elderly people in Nakuru District in Kenya. The next chapter reviews some models and theories of IB in relation to health-care as investigated in the current study.

CHAPTER TWO

THEORIES AND MODELS OF INFORMATION BEHAVIOUR RELEVANT TO HEALTH-CARE

2.1 INTRODUCTION

Chapter one set the roadmap for the study by briefly spelling out the problem statement and significance of the study. The chapter achieved this through presenting the background of the study; specifying three sub-problems; indicating the relevance, motivation and justification for the study; setting the limitations; and defining key concepts. This chapter discusses theories and models relevant to information behaviour in health-care. The chapter starts off by describing the user groups central to this study who were elderly people (EPs), informal care providers (ICPs) and formal healthcare providers (FHCPs). It then reviews theories relevant to issues specific to this study; information needs, sources, information seeking behaviour and use of information. The chapter also discusses factors that influence users to seek and use information. Each of the issues discussed in this chapter shades light on concepts and research questions identified in chapter one.

There are several theories and models on information behaviour (*Theories of information behaviour* 2005). Given the focus of this study on needs, sources, use and factors that influence the information behaviour of people involved in the health-care of the elderly, the these theories and models were carefully considered and a group of core theories was selected that can contribute towards understanding the information behaviour of the elderly, formal and informal care providers – the three user groups central to this study. The core theories include sense-making theory, information encountering, general model of information seeking of professionals, and information grounds and Wilson's model of information behaviour. The researcher selected a few complementary theories that provide insights into general issues on information behaviour. The complementary theories include information acquiring-and-sharing; information use environment, and communities of practice. Taken together, the core and complementary theories and models contribute towards understanding the general and specific aspects of information behaviour of users. All theories to draw a road map for data collection for this study. This chapter covers the following aspects:

- User groups: elderly people; informal care providers, and formal care providers.
- Information behaviour of: elderly people; informal care providers and formal care providers.
- Models on information behaviour: information needs; information seeking; and use.
- Model on factors that influence information behaviour.

The discussion under 2.2.1 to 2.2.3 reflects primarily the situation in Kenya as this is the focus of the present study.

2.2 USER GROUPS

For purposes of this investigation, information users are divided into two main groups: professional and lay people. Formal health care providers (FHCPs) were the professional respondents and users of information for the current study. Elderly people (EPs) and informal care providers (ICPs) were the lay respondents and users of information. This section first discusses the profile of each group. A general view of information required by the respective groups is provided in section 2.3, but a more detailed discussion for each group is presented in Chapter Three of this study.

2.2.1 Elderly people (EPs)

Elderly people are defined in this study as people aged 55 years and older. The current study used the age of 55 years because it was the retirement age up to the year 2007 for staff that worked in the public sector. The government of Kenya increased retirement age to 60 years in 2008. There are still variations in retirement age. Staff that work in certain parastatals can opt to retire at the age of 65 or 70 years. There is no one single age for elderly people. Therefore the experiences and information behaviour of individuals in health-care may also vary as they age.

Other features that characterize most EPs are reduced income, changes in living arrangements, and decline in health (Souza, Morals & Barth 2006: 903). The discontinuation from active economic activities results in reduced income for most EPs. It is also at this stage

that a majority of EPs experience ill health because of decline in the functions of their physical bodies.

Educational levels of EPs also vary. Some EPs are illiterate while others attained education at nursery, primary, secondary, college or university level (Souza, Morals & Barth 2006: 903). Education is linked to many aspects of health and well being of individuals. Levels of education influence choice of language and formats in which EPs prefer to receive information.

Some EPs are care providers of other family members, both young and old. There may be other characteristics or ways of identifying EPs. It is important to note that the socio-economic, environmental, personal and other characteristics that define EPs make them potential and actual users of information for their own health-care.

2.2.2 Informal care providers (ICPs)

This study defined informal care providers as non-professionals that provide health care services to people who in this case were EPs. However, some of them may be staff in health sector but provide health care services to elderly people in the home environment.

Like elderly people, informal care providers are a diverse and heterogeneous group. They may be literate, illiterate, young, old, male, female, spouses, children, friends or neighbours. Care providers offer many kinds of essential services for general well-being and health care of elderly people. They may support a physically ill or disabled elderly person, provide services for daily living activities such as waking up, bathing, dressing, doing laundry, preparation of meals, feeding and toileting (EUROFAMCARE 2006:3-14). In addition, some informal care providers cater for financial support for elderly people. An informal care provider is an “unofficial geriatric case manager” and sometimes acts as “a walking record” for an elderly person (Bookman & Harrington 2007:1025).

Some informal care providers may be in full-time employment. Their time is therefore divided between their official duties and care responsibilities. Informal care providers that live in most developing countries carry on their work without structural support from their governments (Kalasa 2005; Apt 1997). They cater for the needs of elderly people from their

earnings or receive financial support from family members. The care responsibilities and environment in which informal care providers operate make them seekers and users of information for health and other care needs of elderly people.

2.2.3 Formal health-care providers (FHCPs)

Formal health care providers are professional staff that include doctors, clinicians, nurses, nutritionists, pharmacists, opticians and other staff in the discipline of health care. Non-governmental organizations that provide services or have specific research interests in health are also part of the formal health care service providers. Formal health care providers are usually paid for their services.

FHCPs qualify at different levels of training to be able to provide services in health care. Some staff specialize in given fields in medicine such as pediatrics, dentistry, pharmacy, gerontology and other health related areas. However, there are others that are general practitioners who attend to patients with varied ailments.

Qualified staff may work in public (government) or private hospitals, community health centers, clinics or with research based organizations. Staff that work in hospitals are expected to provide complete medical care for patients. These range from diagnostic services and surgery to nursing care. Therefore, FHCPs sometimes work on shifts in inpatient or outpatient sections in health care institutions. FHCPs are often confronted daily with challenges of seeing many patients without breaks.

Studies show that staff that work in the health sector often see many patients and rarely have enough time to search for information from traditional libraries (Pakenham-Walsh & Bukachi 2009; Andrews et al. 2005; Bryant 2004). Because they see patients with varied health care needs, FHCPs are major users of information for health care.

2.3 INFORMATION BEHAVIOUR

Information behaviour implies a range of activities a user is involved in. These include identifying ones needs, seeking information, using sources, and the information accessed. People's awareness of what they lack in the knowledge that they possess often leads them to

seek and use information. Information seeking implies the actual steps or actions that people take to address their information needs. Information behaviour of individuals may vary because of their perceptions, experiences, knowledge and skills that they possess at the time that they encounter information needs. Individuals and groups may seek information using different approaches. Models and theories of information behaviour show that the concept of information behaviour has been explored over time and new discoveries have been made about the concept (*Theories of information behaviour* 2005). Information behaviour is discussed in the current study in relation to whether an individual or a group is professional or belongs to the lay public. This implies that the approaches that professionals and lay people use to seek and use information may not be the same. This section discusses models relevant for understanding information behaviour of groups identified for this study.

2.3.1 Elderly people (EPs)

As people grow old, they often experience changes in status of their health, particularly due to illness. Studies show that changes in health give rise to the need for information (Morey 2007; Courtright 2005). Because of variations in health conditions, elderly people may need different types of information for their health-care.

Elderly people may have diverse needs for information in health care, which range from emotional to factual needs. Their choice of sources, seeking and use of information may also be influenced by factors such as individual characteristics, health-care environment, economic abilities and services that support the provision of health-care. These issues are addressed in detail in Chapters Three and Eight of this study.

2.3.2 Informal care providers (ICPs)

Informal care providers are usually family members, friends and neighbours who feel a commitment to care for patients, who in this case are elderly people. Quite often, informal care providers are unpaid for their services, except in the case of hired labour.

Many informal care providers take over their responsibilities without formal preparation. Most of them are lay people as far as health care is concerned. It is also possible that some of

them have professional skills from other disciplines, with a few of them having professional training in health care.

The information behaviour of informal care providers may be determined by individual needs as well as the needs of people under their care (Hepworth 2007; Barrett 2000). Factors similar to the ones already identified for elderly people (see 2.3.1) influence the information behaviour of informal care providers. The influence of factors is discussed in more detail in Chapters Three and Eight.

2.3.3 Formal health-care providers (FHCPs)

This study identified doctors, nurses, clinicians and nutritionists as the formal care providers. Information behaviour of staff is generally determined by their professional roles and tasks. Other determinants may be the stage of a health condition, the type of treatment needed for a patient, and the desire of staff to grow professionally (Bryant 2004:84-93; Bryant 2002:88-90; Gorman 1995:729-736). Because of training and practice, a majority of staff are likely to use sources that provide professional information to help them provide health care services.

2.4 MODELS OF INFORMATION BEHAVIOUR

The term behaviour refers to ways in which people respond when they come into contact with particular phenomena. Responses from individuals are activated by their inner feelings or emotions and perceptions towards phenomena. Information behaviour implies that people's inner feelings, emotions and reactions are expressed or displayed when they encounter information.

Numerous theories and models of information behaviour (needs, seeking, use of, and factors that influence information of individuals and groups) have been discussed (Fisher, Erdelez & McKechnie 2005). The theories and models show that they all draw from each other to explain the concept of information behaviour. This section presents models that the researcher found relevant for use in investigating needs, seeking and using information, as well as factors that influenced information behaviour for the current study.

2.4.1 A model of information needs

This current study used Dervin's model of sense-making to discuss information needs of respondents.

Dervin developed her sense-making theory between 1976 and 1989 (Dervin 1992). The theory advocates that information should be seen as a tool for making sense of a situation perceived to be disorderly or chaotic. The elements of the sense-making theory include context, situations, bridge, verbings, space-time, gap and outcomes. The researcher will focus on the bridge element for purposes of this study. Figure 2.1 is a graphic representation of the theory.

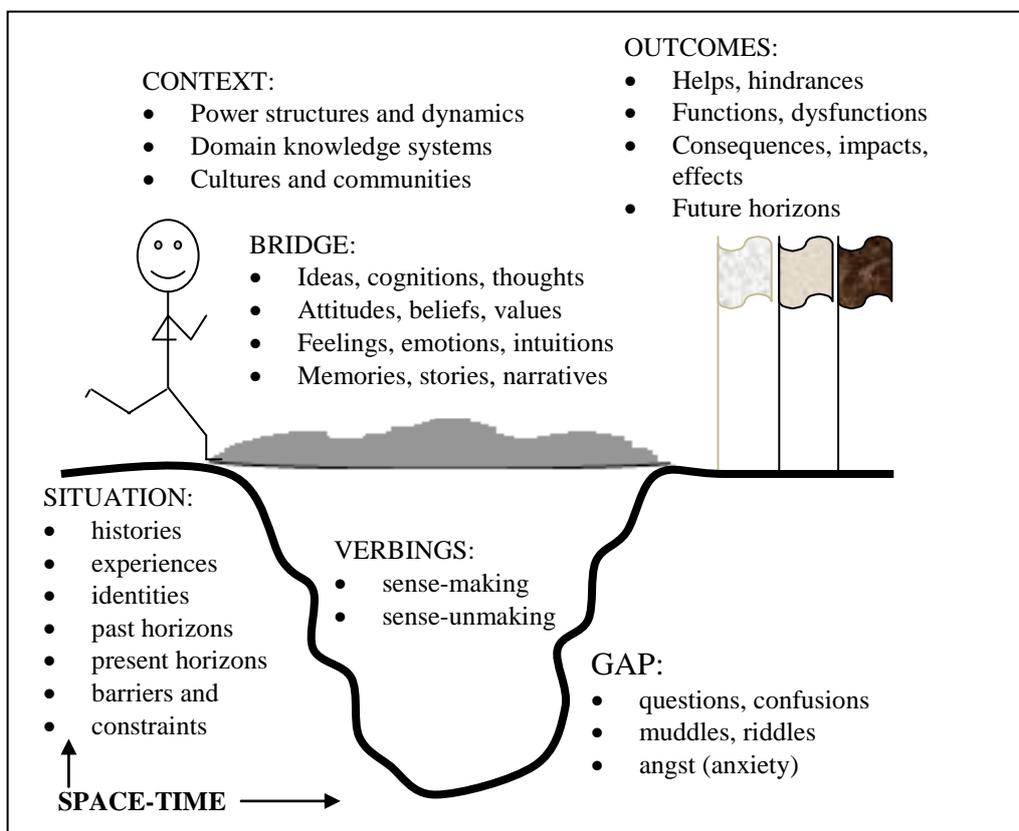


Fig. 2.1: Dervin's theory of sense-making

Source: *Theories in information behaviour* (2005:28)

Dervin (1983:3) defines Sense-Making as a behaviour, both internal (cognitive) and external (procedural), which allows the individual to construct and design his or her own movement through space and time. This implies that Sense-Making is communicating behaviour with

central activities of information seeking, processing, creating and using. As a process, sense is the product of the process. According to Dervin (1992), individuals experience ‘gaps’ in knowledge. Based on the elements in the theory, the assumptions in Sense-Making theory focus on the role of “gaps” or chaos in the efforts of human beings to seek and use information. The theory advocates that information seeking should be conceptualized as gap-bridging (*Theories of information behaviour* 2005:27). Gaps arise from differences in time, place, observing strategies, cultural assumptions and narratives, personal assumptions and narratives, linguistic and interpretive approaches and so on (Dervin 1999). When they recognize the inadequacy of the information they have or experience “gaps”, individuals look for information which makes “sense” to fill or bridge the “gaps” or respond to the need.

Sense-Making theory shows that factors such as power structures and dynamics, knowledge systems available, cultural influences and communities help people to find their identities as they start to think about who they are in the context and to interpret events. People extract cues or leading ideas from the contexts to help them to identify specific situations. The theory shows that gap-bridging is anchored in specific situations or conditions with structural arrangements such as histories, experiences, past and present horizons, barriers, constraints etc. The realities of the environments that people face are represented in dialogues and narratives (individual and collective), referred to as “verbings.” People speak and build narrative accounts that help them to understand what they think. Verbings also help people to organize their experiences and decide how to seek information to fill gaps. Each step made towards filling gaps is movement through time and space, irrespective of whether the steps are planned (conscious) or unplanned (unconscious). When individuals find information (ideas, cognitions, attitudes, beliefs, memories, stories, narratives, intuitions, values etc) that makes sense, it is like finding a “bridge” to help them to go over barriers in order to function or apply information in situations that surround them.

The theory was viewed as relevant for this study because it sensitized the researcher to the use of a neutral interview strategy where respondents were guided to express their information needs on their own. The theory further helped the researcher to investigate the different approaches or “bridges” which individuals and groups of respondents used to get information that was relevant or made “sense” in the health-care situations in which they were involved. Finally, the theory shed light on the investigation of results or specific

'outcomes' that respondents witnessed after using information in the health-care of elderly people.

However, for purposes of the current study the theory seems to be inadequate to investigate issues of seeking and factors that influence information behaviour in a development context. Therefore the study also drew on other models (discussed in this chapter) to be able to investigate the other aspects of information behaviour. The next section looks at models of information seeking.

2.4.2 Models of information seeking

This section reviews three models of information seeking, namely the Leckie Model for the Information Seeking of Professionals (Leckie, Pettigrew and Sylvain 1996), Erdelez' functional Model of Information Encountering (Erdelez 1997) and Fisher's Theory of Information Grounds (Fisher 2005). The first model is relevant to the study of information seeking of professionals and the other two are for understanding information seeking by lay people.

2.4.2.1 Model of information seeking of professionals

A professional user of information is someone who has gone through formal training for a specific discipline, has theoretical knowledge base of the discipline and belongs to a professional association (Leckie, Pettigrew & Sylvain 1996:162). Primarily, professionals provide services and are task or role-oriented. Training makes it possible for a professional information user to understand terminology and use information daily in a professional environment as he or she attends to tasks and roles. Leckie, Pettigrew and Sylvain (1996) developed a model that they called the General Model of Information Seeking of Professionals (ISP). The model was a result of their research in information needs of engineers, lawyers, and health care professionals. Figure 2.2 is a graphic presentation of the model.

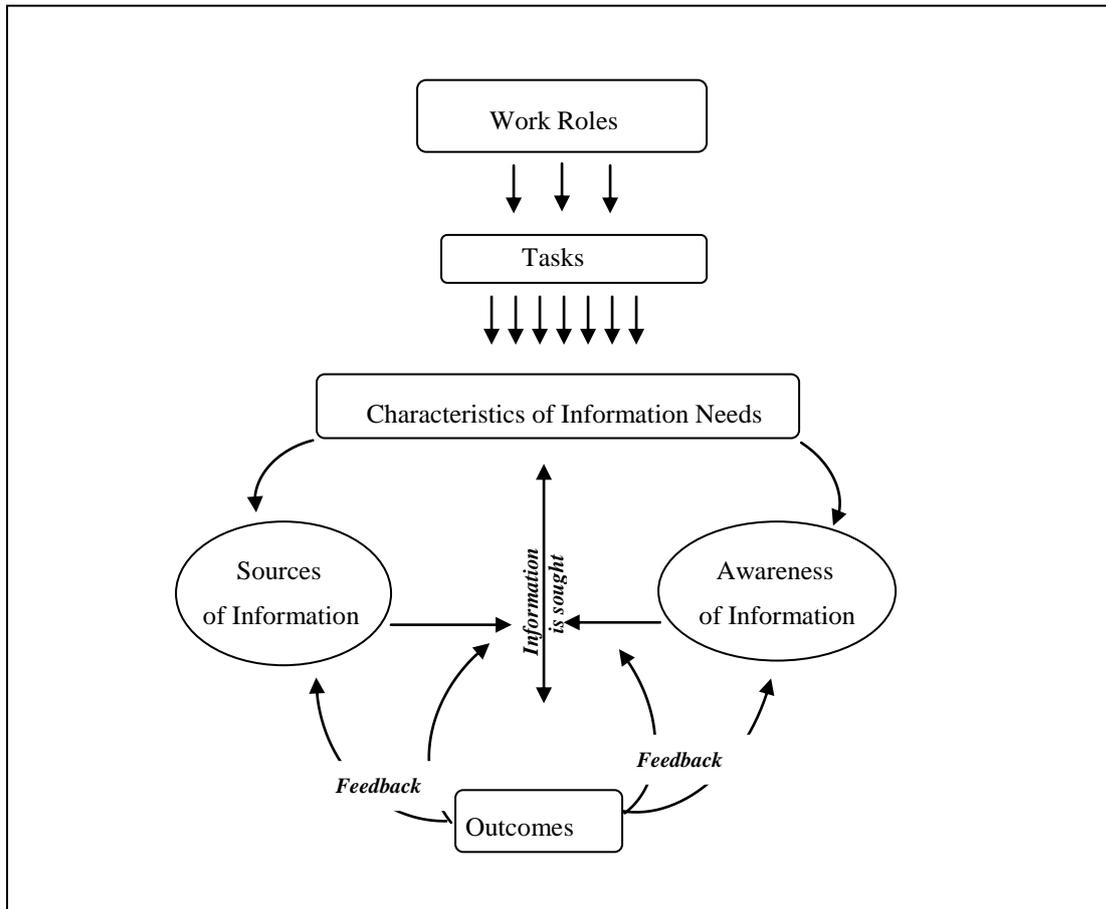


Fig. 2.2: Leckie's model of information seeking of professionals

Source: Leckie, Pettigrew and Sylvain (1996:180)

The supposition of ISP model is that roles and related tasks that professionals undertake daily prompt information needs which in turn give rise to information seeking processes (Leckie, Pettigrew & Sylvain 1996:180). The features of the model are:

- *Work roles and associated tasks*: Professionals lead busy lives, sometimes assuming multiple duties because of complicated work roles. For example, a professional could be a service provider, an administrator, a researcher and a student. Although the most prominent role of a professional is service provision, the additional responsibilities and related tasks create needs for distinct information needs.
- *Characteristics of information needs*: Information needs is the result of situations pertaining to specific tasks of the roles played by a professional. Information needs are not constant and can be influenced or shaped by factors such as

personal or individual characteristics of a professional, context, frequency, predictability and complexity of a task. According to the model of ISP, each factor in the information need component interacts with others in a complex fashion. Therefore the level of complexity of a task, the degree of importance and urgency of information need, and whether the information need is anticipated or unexpected will influence the information seeking activity.

- *Sources of information:* Professionals have a variety of sources at their disposal. These could be formal sources (for example, conferences, books, journals etc.) or informal sources (personal conversations, colleagues, experience etc). The choice of a source depends of the information need of a professional. Professionals sometimes use a combination of sources in order to get the information that they want. In this way, sources also influence the information seeking of professionals.
- *Awareness of information:* Information seeking of professionals is also influenced by their knowledge about various sources and the perception they have about the process of seeking information or about the information that the retrieve. For example, a professional is most likely to consul a specific type of source if he is familiar with it or successfully accomplished a task after using information from the source. The trust that a professional has in a source, the way the source is packaged (convenience of use), accuracy, the cost and ease of accessibility increases and influences professionals' awareness and use of sources.
- *Outcomes:* Outcomes are the results or products of the information seeking process that individuals engage in, in this case the professionals represented in the model. The most important outcome is to meet an information need to help a professional to accomplish a current or future task. The model shows that if information needs are not met or if a task is not accomplished due to lack of appropriate information, a professional may decide to seek information again. This further information seeking is represented by "feedback' loop. During the repeat of seeking information, some of the factors that influence information seeking of professionals might change or alter. For example, a professional may decide to use more than one type sources of information.

The ISP model generally shows that a number of interacting variables influence information seeking of professionals. The model was relevant for the current study because first, it provided a background for understanding the specific work roles and tasks that formal health-care providers in Nakuru District undertook to be able to provide services for the health-care of elderly people. The model also helped to understand how the roles and tasks influenced information seeking of FHCPs in a development context. Like the outcomes shown in Dervin's sense making theory (Dervin 2005), the model of ISP helped to understand the manner in which, for example FHCPs used information, and the actual results (outcomes) which they witnessed or experienced in the health care of EPs in Nakuru District.

2.4.2.2 Model of information encountering (IE)

Erdelez (2004) developed the Information Encountering (IE) model based on her earlier study that provided an understanding of information encountering in an academic environment (Erdelez 1995). The model shows that the elements in a typical IE episode are noticing, stopping, examining, capturing and returning. Figure 2.3 depicts the model of information encountering.

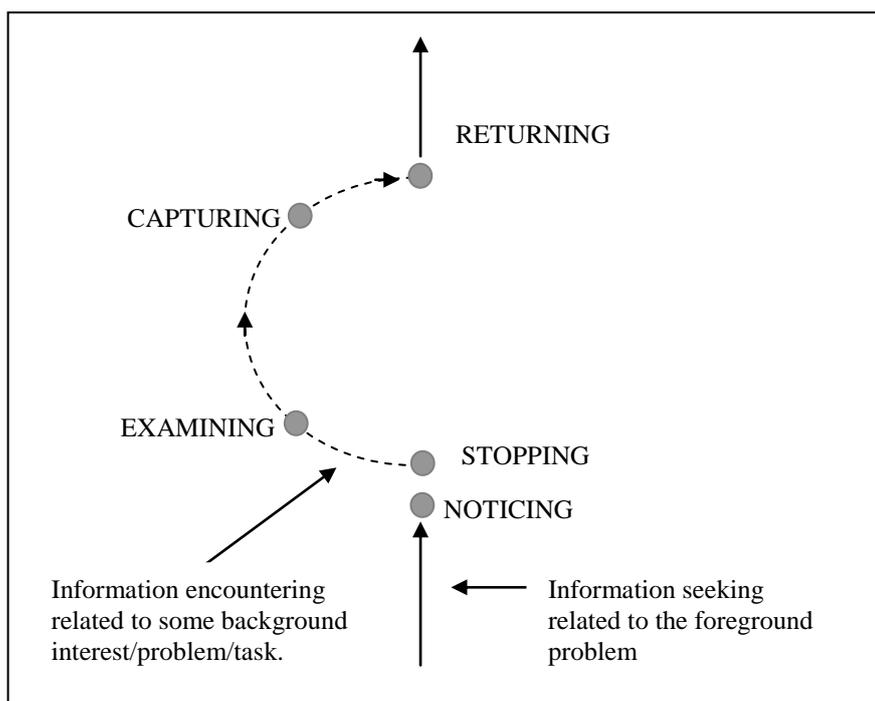


Fig. 2.3: Erdelez's information encountering

Source: Erdelez (2005:181)

Information encountering is a form of information behaviour that involves accidental acquisition of information, or a form of information acquisition that is unplanned and unanticipated (Erdelez 1995:3, 44-45). The behaviour is also characterized by users' low involvement or no involvement in looking for information which they acquire, and by low expectation or no expectation that such information will be acquired although the event is memorable among encounterers (Erdelez 1995:145). The aspect of memorable implies that the most appropriate way to understand IE episodes is to ask users to recall their experiences or events when they encountered information.

The elements in the model imply that users encounter information while performing both information and non-information related activities (Erdelez 1995:142). The model assumes that users maybe seeking information related to a specific problem, or be involved in a non-information related activity. However, when users notice or become aware of the meaning of information, they interrupt the initial information or, non-information seeking activity and switch to the background information that is related to another problem in their lives, or to other people that they know. Thus, there is a tendency among users to stop what they may be doing in order to collect information that they think could be useful or interesting to help them or other people to solve a different problem, whether past, current or anticipated.

Erdelez (2004) assumed that people have varied discrete problems that make them to switch to a background problem or task. The IE model shows that something happens and reverses the positions of problems that users seek information for. When users stop or interrupt the original search process, they examine or assess the usefulness of the encountered information, capture or save it for immediate or future use. For example, if a user gets interested in the encountered information, he may peruse through it, make notes, scan it, photocopy, book mark etc. Eventually, a user will return or reconnect to the initial information seeking activity for the foreground problem (Erdelez 2005:181).

For purposes of this investigation the IE model enhanced understanding of information behaviour of respondents in a research topic that was least studied. Although Erdelez developed the model after studying users' search for information in an academic environment, results of Erdelez's study showed that the model could be useful in understanding information seeking in general, and particularly information seeking of lay users such as the EPs and ICPs. Lay people seek information either for their own use or act as

intermediaries for other people. Lay users of information are individuals that have not gone through training or socialization of a particular profession and may use information in environments that differ from each other (Cifter & Dong 2008:3). Lay people are not homogeneous in their use of information. They may be people without any form of training, or individuals with varied professional backgrounds that seek information from a new discipline. In this case, lay people that seek information for health-care could be illiterate groups of people with different professional training, or literate groups of people without any form of training.

The IE model does not discuss other aspects of information behaviour, namely needs, sources, use and factors because of its focus. However, the model shows that it is important to understand the information user who encounters information, the environment where the information is encountered, the characteristics of the information encountered and the characteristics of the information needs that the information addresses. These aspects have also been addressed in the other models investigated for purposes of this study.

2.4.2.3 Theory of information grounds (IG)

Pettigrew's theory of Information Grounds, as cited in *Theories of information behaviour* (2005:185-190) is based on studies of foot clinics at a community to find out how nurses, the elderly and other people shared information regarding social services. Pettigrew also based her theory of Information Grounds on earlier works of researchers such as Wilson (1997), and Tuominen and Savolainen (1997). Figure 2.4 represents the theory of Information

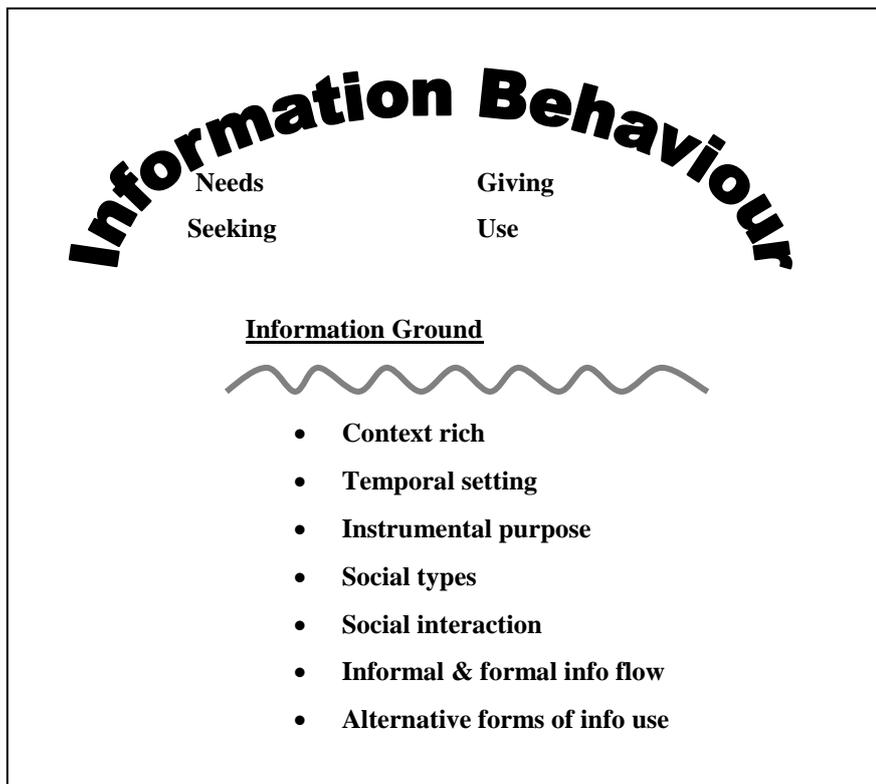


Fig. 2.4: Pettigrew's theory of information grounds

Source: *Theories of information behaviour* (2005:187)

The main assumptions of the theory of information grounds indicate that:

- Information grounds are temporal in nature. They can occur anywhere and anytime as long as there are people. The ground disappears as people disperse.
- People gather at information grounds for different purposes (for example religious meetings, funerals, sport activities etc). The aim of such gatherings is not primarily to share information but as people interact during the events, they share information for other issues of life.
- People of different social backgrounds or types attend information grounds. Some of the people may play important but different roles in sharing of information. The information could also be about varied topics.
- People gather at information grounds primarily to interact socially. Therefore information flow is a by-product among the people gathering at the ground.
- As people interact, they engage in both formal and informal sharing of information. For example, if people attend a religious meeting, they will listen to announcements and the sermon. These are formal aspects of information flow. But before, during and

after the announcements and sermon, people share information about other issues in their lives (informal).

- People make use of the information gathered at information grounds in different ways to benefit physically, socially and in other personal ways.
- There are many sub-contexts in an information ground, based on physical factors and people's perspectives. But when they are put together, the sub-contexts form a major or grand context of information grounds.

The theory proved to be relevant to the current study in identifying temporary environments or gatherings which respondents, particularly elderly people and informal care providers normally use as grounds for sharing or exchanging information for health-care. People may share information on a range of topics and in a multitude of directions. Notably, information needs are not presented in a formal manner but emerge through casual talks. According to Pettigrew (2000:47-8; Pettigrew 1999:801-817), information grounds are rich contexts because there are many sub-contexts or situations that give rise to sharing of information among people. Because of their age, elderly people are a unique group of information seekers and users. They may take advantage of different situations to access and use information to help them to address their concerns in health-care. Therefore, the theory shed light on our understanding of the types of context in which elderly people and informal care providers gather and used information without prior plans of seeking information.

2.4.3 Models of information use

Information use implies application of information to specific situations or response to particular needs. All the models discussed above had elements of information seeking, access and use. The models indicated that information use goes hand in hand with access in order to understand the different situations in which users applied information. Individuals can use information all alone or share it with other people. People may use information as soon as they access it or later. This implies that there are factors that support or hinder the use of information. This section presents models that are specifically associated with the use of information.

2.4.3.1 *Model of information acquiring-and-sharing*

The Information Acquiring-and-Sharing model is based on Rioux's (2004; 2000) studies of the general characteristics of information acquisition and sharing in Internet-based environments. Erdelez's concept of information encountering (Erdelez 1997), encouraged Rioux's to explore ideas as represented in the model of Information Acquiring-and-Sharing cited in *Theories of information behaviour* (2005:169-173).

The main concept of the model states that when someone "encounters" information perceived useful and desirable, he or she often thinks of someone else he or she knows whose needs could be met by the information. Subsequently, the person that found the information shares it with other people who may need it. The model asserts that acquiring and sharing information are fundamental human practices.

In a study about use of information, Erdelez and Rioux (2000) found that users of the Internet find information for themselves and for other people. The respondents in the study indicated that the Internet environment was a friendly environment for sharing information because it was easy to retrieve and send information to other people that could be contacted via email addresses.

The model of Information Acquiring-and-Sharing (Rioux 2004) applies to the current study because the researcher believed that the concept of sharing was useful in understanding how individuals and groups of respondents in a health care situation used information as they interacted with each other. For example, the model contributes towards undertaking the manner in which elderly people as well as informal care providers used information among themselves though many of them may not have access to the Internet. The concept also helped the researcher to understand the environments in which health care staff used information among themselves, and with elderly people and informal care providers.

2.4.3.2 *Taylor's information use environment*

Users normally process information that they acquire in order to apply to situations or conditions that influenced their information search. Information use is postulated as the final stage of the information behaviour process (Savolainen 2000: 35-50). If information use is

understood from this perspective, it means that use of information is associated with the activity of applying information in real situations.

Talking about situations introduces the question of context or environments in which information needs are identified, the need to seek information is realized, and information is used when found. Environments in which information needs are identified and information is used (directly or indirectly) may also influence the information behaviour of users. Taylor's model of information use environment (Taylor 1991) provides a useful framework for understanding the aspect of use in information behaviour from the context of users. In other words, the model helps in understanding how context (environment) contributes to use as an aspect of information behaviour.

Taylor's model was influenced by Dervin's Sense-Making theory (discussed in 2.4), which was developed over a period of years (Dervin 1992). Dervin's theory advocated for a shift in information behaviour research to move from system-centred user studies to undertaking information needs, seeking and using information from the perspective of users.

Building on Dervin's ideas, Taylor (1991) suggested that an environment or situation of a user influenced the kind of information he or she needed to attend to challenges he or she experienced (Palmquist 2005:354-357). Taylor (1991) defined information use environments as the set of elements that affect the flow and use of information messages into, within, and out of any definable entity. The elements also determine the criteria by which the values of information messages are judged. Taylor categorized the elements into four main groups: user demographics (primarily education and profession); how users conceptualize the problems that would set in motion information practices; the constraints and opportunities that characterize users' settings; and finally, the types of problem resolutions that users would seek or accept.

The Model of Information Use Environment (Taylor 1991) was used in the current study because of its contribution towards understanding the concept of information use. The model contributed to the understanding of the environments in which individuals and groups of respondents used information in health-care. Firstly, the model shed light on specific health care situations or environments in which the elderly, formal and informal care providers operated and therefore looked for information to use. Secondly, the model also helped in

understanding the impact of factors such as user demographics (education, profession, age gender, etc); living environments, socio-economic and others on information use by individuals and groups involved in the health care of elderly people.

It may be possible that individuals and groups living in the same environment, experiencing similar challenges in health care or dealing with a common task may be influenced by different factors to use information.

2.4.3.3 Communities of practice

Information and knowledge sharing has become a practice in society. One of the ways of understanding this aspect of information behaviour is to understand activities that take place through what is known as communities of practice.

Wenger (2001:1) defines a community of practice as a group of people that shared an interest in a domain of human endeavour, and engaged in a process of collective learning that created bonds between them. In communities of practice, people take the initiative to organize themselves informally for purposes of learning. Davies (2005:104-105, Davenport and Hall (2002:180 -183) show that the main characteristics of communities of practice are:

- Their focus is on a domain of shared interest. Therefore, membership implies that one should have a level of competence in a domain that distinguishes members from the rest of the people in the community. Members must understand the objectives of the community, and feel a sense of belonging, contribution and accountability.
- Members interact and learn together by jointly engaging in activities like discussions, helping each other, and sharing information. Regular interactions help members to develop mutual understanding, relationships and trust for each other.
- Members develop a shared collection of experiences, stories, best practices and approaches to solving problems that they encounter either as individuals or as a group.

The concept of Communities of Practice helped the researcher to understand information interests shared among the elderly, formal and informal care providers as specific user groups. The user groups identified in the current study may not have organized themselves informally for learning. However, because of the shared interests in health care, the groups sometimes might find themselves together and share information.

Members of a community of practice may identify themselves collectively or remain unidentified collectively. The concept helped to understand how groups of respondents interacted and shared information although they lack a formal forum that could bring them together.

These models of information use show that environments help individuals and groups to use information and define their identity in society. The models also show that communities of practice can be formally established because of professional ties, or they can exist informally as is the case in environments where marginalized groups are not formally brought together.

2.5 FACTORS THAT INFLUENCE INFORMATION BEHAVIOUR

A factor is something that contributes to accomplishment of an activity, results or processes. The implication is that a factor is a fundamental element or influences the unfolding of events (*Macmillan English Dictionary for Advanced Learners 2002: 495*). Factors can be related to environments (economic, social, cultural, technological etc) in which people live and work and to personal characteristics (psychological, cognitive, conative, and affective factors). This section discusses the influence of some environmental and personal factors on information behaviour.

2.5.1 Environmental factors

Environmental factors are external elements or things that are situated outside the control of an individual (*Chambers 21st Century Dictionary 1996: 467*). The definition suggests that external elements influence ways in which individuals and groups behave. In the case of information behaviour, it can be assumed that people's responses in identifying needs, accessing and using information in health-care will vary because of the influence of economic, social, cultural, political, technological advancements and other external elements or factors upon them.

2.5.1.1 Economic factors

Financial costs and time involved in an information search also influence individuals and groups towards seeking and using information.

The cost of information searching varies with individuals because of their different levels of income and the time they can allocate to look for information. The increased availability of information in electronic formats has financial implications for buying equipment and paying for time spent on the Internet. Individuals that experience financial constraints often find it expensive to pay for information sources (Kalasa 2001:1-10). Economic factors can play a role in having access to information in the sense that users – especially in a development context might be poor and cannot afford information sources, or access to information, or education that provide them with a capacity to use information. For example, some users might not afford the cost of training to do internet searches.

Time is a resource that many people use to attend to different activities in the course of the day. Information seeking requires allocation of time to be spent either in reading, discussions, consultations or searching on the net. In view of the fact that individuals are engaged in formal and/or informal commitments, they might find it difficult to set aside time to look for information. This may partly explain the concept of information encountering or gathering information by chance.

2.5.1.2 Cultural factors

Cultural factors refer to beliefs, practices and attitudes in a particular community. Some communities have common beliefs about ways in which to handle information. The attitude of a community or group towards seeking and use of information can help or hinder the flow of information. Cultural beliefs about new or existing information might also enhance or hinder access and use of information by individuals and/or entire communities. Courtright (2007) showed that factors such as rules, resources and culture of an organization influence ways in which people access information. This implies that rules that govern relationships among members of a community also contribute to sharing of information. In this regard, communities and organizations experience a better flow of information if members trust each other and are willing to share information in their possession. Courtright (2007) further shows

that networks, norms and collaborations in work places and everyday life settings contribute to the environment in which people living in the same community, or working in a particular organization share information.

However another useful discussion on factors that influence information behaviour proved to be that of Hepworth (2007: 33-56) that discusses personal factors.

2.5.2 Personal factors

Personal factors may be related to individual characteristics as already indicated. According to Hepworth (2007:42-53), personal factors are categorized in three groups: connative, cognitive and affective. He shows that connative factors are associated with inherent characteristics. For example, mobility and physical impairment that affect motivation of individuals and groups contribute to different learning styles and a preference for certain things over others. Cognitive factors relate to the thinking processes and behaviour of individuals to be able to recognize, define, analyse, induct, deduct, and perform all other activities that require thinking processes. Cognitive factors may not be sufficient to explain ways in which individuals access information.

In some cases, the affective or emotional dimension of users affects their behaviour in accessing information. Affective factors are associated with feelings, emotions or psychological states of individuals in seeking and using information (Hepworth 2007: 42-50). Individuals express their emotions through behaviour or actual mental activities that drive them towards taking an action. For example, individuals and groups may search for information passively, talk to other people and display their information behaviour in different ways. For purposes of this study Hepworth's typology of factors proved to be relevant in explaining common and varied personal factors (cognitive, connative, and affective) that influenced the ways in which individuals and groups of EPs, ICPs and FHCPs accessed information for purposes of health-care.

For purposes of this study, Wilson's general model of information behavior (Wilson 1997) also proved to be relevant in investigating factors that influence EPs, ICPs and FHCPs' accessing information for health-care. Wilson refers to these factors as intervening variables

which influence the activities associated with information behaviour. The model is presented in Figure 2.5.

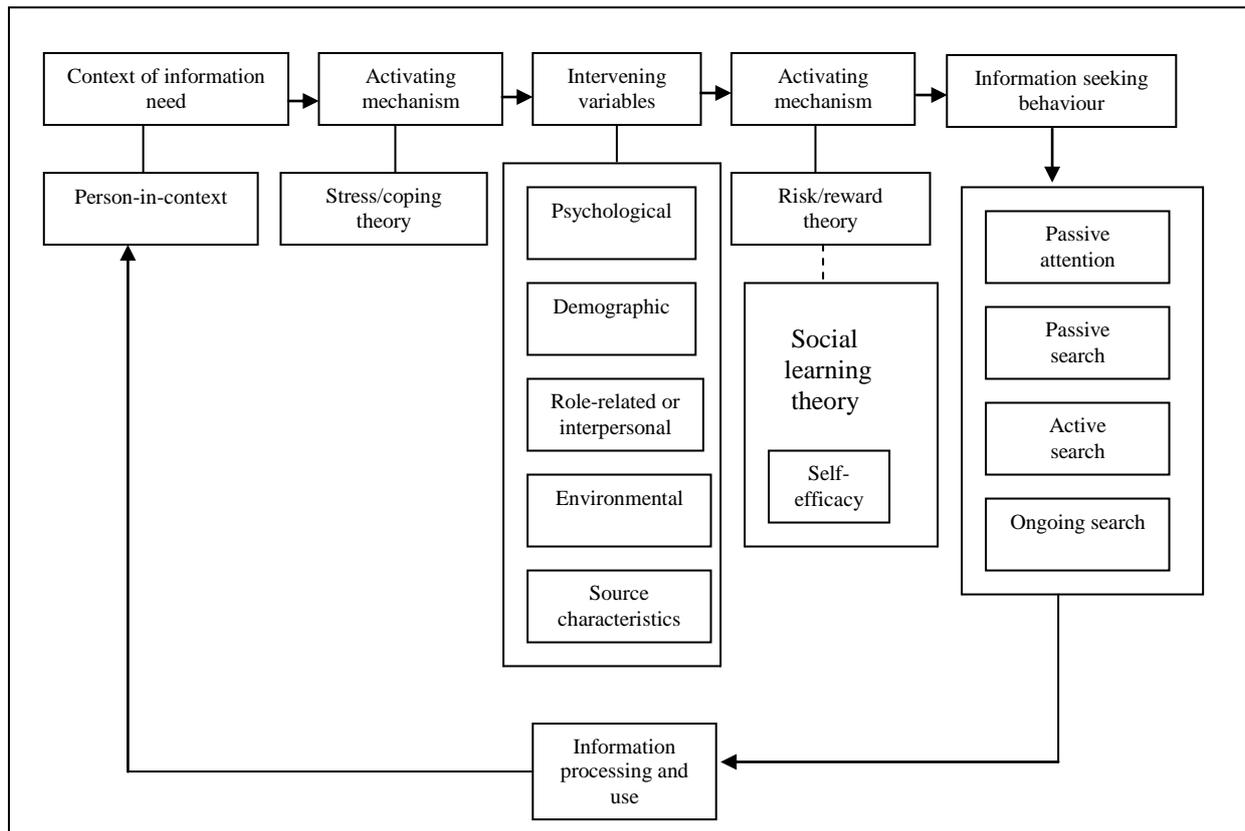


Fig. 2.5: Wilson's general model of information behaviour

Source: Wilson (1997:551-572)

Models already discussed in this chapter did not seem to include the general concept of information behaviour as explicitly as it is done in Wilson's model (Wilson 1997:551-572). Wilson's model assumes that information needs are secondary needs and that they arise from context characterized by primary needs or psychological needs (physiological, cognitive, affective and connative). These are similar to the needs discussed by Hepworth (2007). Wilson shows that the need for information activates a search process among information users. As people start the process, they encounter factors that influence their search and use of information. The factors related to context may also influence each other with regard to efforts of individuals to access and use of information. Wilson refers to these factors as intervening variables which could be psychological in nature, demographic (for example age, gender etc), role related or interpersonal (the type of role one plays, for example, student,

manager, researcher, etc), the environment (could be economic or financial, political, cultural factors), and the characteristics of a source (print, electronic, illustrated etc).

Wilson's model also shows that information seeking behaviour of individuals varies. Some people are passive while others are active information seekers. However, when people find information, they process it for use and if they are not satisfied with the search, they may go back to start the search process again.

The current study found Wilson's model useful, because it provides a general background for understanding the entire process of information behaviour of users. The model acts as a road map for researchers investigating the whole range of issues, including factors which have a significant influence on information behaviour.

The discussion shows that a variety of models could be used to understand the elements of information behaviour of individuals and groups. The models discussed also show that factors influence information behaviour of people. The current study identified personal characteristics (personal factors – cognitive, conative and affective) and elements in the environment or context (environmental factors – socio-economical, political, cultural, institutional) that could influence the information behaviour of EPs, ICPs and FHCPs in Nakuru District.

2.6 SUMMARY AND CONCLUSION

This chapter discussed concepts introduced in Chapter One and reviewed theories and models of information behaviour relevant to the study. Two key perspectives emerged from the models discussed. On the one hand there is a view that information behaviour is a planned and rational activity. On the other hand, there is a perspective that it is unplanned and accidental.

The review of theories and concepts of models of information behaviour showed that information behaviour is a complex but an important part in understanding the manner in which people identify their needs, as well as seek and use information in different situations. The concepts and models discussed above provided guidance and are useful in understanding information behaviour of professionals and lay people in a development context.

In the process of discussing concepts and reviewing theories and models for this study, aspects of information behaviour in a health care context became much clearer. Considering relationships among the models contributed towards understanding the different aspects of information behaviour (needs, sources, seeking and use) of individuals and groups.

Chapter three presents a review of subject literature on information environments in the health-care of elderly people with a focus on a developing context such as the one in Kenya.

CHAPTER THREE

HEALTH-CARE ISSUES WITHIN A DEVELOPMENT CONTEXT

3.1 INTRODUCTION

In the previous chapter, basic concepts relevant to this study and theoretical models that offer explanations of information-seeking and use behaviour were discussed. Several factors were found to have had a critical influence on these components of information behaviour. This chapter presents a synthesis of the literature on the EPs and their ICPs and FHCPs with regard to a health-care information environment set within a development context. Given that this study focuses specifically on information behaviour related to the health-care of home-based EPs in the Nakuru District of Kenya, this chapter focuses on health-care practices as they manifest in a development context, with special reference to the situation in Kenya. Special attention is given to the existing structure and organisation of the health-care system in the country. Most importantly, the discussion focuses on the information behaviour of the most prominent users of health-care, namely EPs and their ICPs and FHCPs. The discussion of these three groups of users serves to ground this study within a clearly defined context.

3.2 DEFINITION OF A DEVELOPMENT CONTEXT

When conducting an investigation into how and why a group of people use information, a key problem is related to the influence of the context on the IB of people operating within a particular context. Within any context there are a variety of factors that can influence the information-seeking and use behaviour of a group of people. In the case of the current study, the fact that the setting is within a development context seems to play a cardinal role in determining the IB of EPs, ICPs and FHCPs that support the elderly.

The concept of “development” is difficult and elusive to define (Lund 2010:19). A simple way of defining the term is “to make the world a better place”, especially for the poor (Chambers 2004:1). The concept of development has also been defined as “the reproduction and transformation processes which somehow impinge on inequality, impoverishment and human insecurity” (Lund 2010:20). These various definitions are consistent in referring to a change or an improvement in people’s lives by providing education, a better income, tools for

communication, improved skill levels, employment, better and more secure housing, and reliable and accessible health-care services. A development context is by nature, dynamic rather than static and as Meyer (2009:4; 2000) observes, information users in a development context are not a homogeneous group. Some may be illiterate and dependent on indigenous systems of knowledge and oral communication to access and use information, while others may be literate and have more ready access to health-care information. Discussions about the particularities of a development context are bound to be broad-based because the concept covers a wide range of issues affecting virtually every aspect of human life: industry, agriculture, transport, health, education, social services and nutrition, to mention only a few (Sturges & Neill 1990:42). This study highlights the health-care of EPs as one focused dimension within a development context in order to illustrate how conditions specific to such a context are pivotal to determining the information behaviour of the EPs and their ICPs and FHCPs.

3.2.1 Variations in health-care contexts for elderly people (EPs)

There seems to be variations in health-care services in developed and developing countries in terms of policy and provision of services. Health policy is one of the factors impacting on the lives of the elderly within the development context. Formulation and implementation of health-care policies in developing countries seems to focus on providing services to segments of the population deemed to be socially and economically productive for the growth of the country (Republic of Kenya 2007; Waithaka, Anyona & Koori 2003; Kalasa 2001). Policy makers seem to assume that populations like those of EPs are naturally catered for through health-care services provided to the public. This assumption may be correct to some degree but also wrong since EPs form a unique group of users of health-care services. This section provides a review of literature about health-care services for EPs in developed and developing contexts. There are aged populations in both contexts.

3.2.1.1 Developing countries

Developing countries are sometimes collectively called the “South” or countries and tend to be associated with low and middle income countries with a gross national income per capita of under US\$ 905 or with a gross national income per capita of US\$ 906-US\$ 3595 (World Bank, 2008, Definitions of Groups section, Para. 3). Countries that fit in this category are

considered to be in a state of economic development and thereby fall into the category of “developing countries”. Developing countries are less industrialized and characterized than developed countries by having high levels of premature mortality, illiteracy and poor health-care for a large part of their populations (Anand 2000:2029-2049). Kenya falls in the category of a developing country.

On the other hand are the “North” or developed countries. Developed or upper-middle or high income countries have a gross national income per capita of US\$ 3596-US\$ 11,115 and above (World Bank, 2008, Definitions of Groups section, Para. 3). Countries in this category are industrialized more than the developing countries. They also experience low levels of premature mortality; they have high levels of literacy rates and good health-care for their populations.

Most developing countries look towards developed countries for economic support and for models of development. As observed for developed countries, health is one of the indicators used to determine levels of development among nations. In many developing countries, healthcare is provided by the government and the private sector. In most cases, public health facilities are affordable for low income earners in developing countries. Services in public health facilities may not be within the reach of most people, particularly the ones from the rural areas. With the exception of charitable health institutions, the private sector often provides health services at a profit making level, making it too expensive for poor people to benefit from them. Health is one of the key yardsticks for human development. This section provides an overview of health-care of EPs in a development context, with a specific focus on Kenya.

Health-care systems in developing countries are set against a backdrop of complex social, economic and political factors that contribute to the challenges that marginalized groups experience as they endeavour to access health-care services (HelpAge International 2001b; Apt 1997). Poverty and poor health among most populations in developing countries are linked to low or declining economic growth. The introduction of cost sharing or user-fee payments in the health-care sector has made it more difficult for people living in developing countries to access health-care services (Mbatia 2003). Such a situation is still less tenable for the EPs and their ICPs and FHCPs as they access information relevant to geriatric health-care. It seems that the health-care situation of EPs in developing countries is aggravated by

the lack of political support to implement policies for the care of the elderly (Kalasa 2005; 2001; Waithaka, Anyona & Koori 2003:1-13; Apt 1997; 1991), and this failure relates to the constraints of internal conditions of national socio-economic growth and governance.

Cultural beliefs and practices also contribute to the type of health-care services provided for marginalized groups in a more traditional context in developing countries, such as EPs. For example, in some communities, adult children are expected to take care of older members of their families (Kalasa 2005:7-22; Waithaka, Anyona & Koori 2003:1-13; Apt 1997:1-14). Governments in developing countries seem to take advantage of this cultural practice and make little or no plans for provision of elderly specific health-care programmes. Currently, no African government has fully implemented a policy for the care of ageing populations (Waithaka, Anyona & Koori 2003). Also, research in the field of gerontology in developing countries, in particular, in relation to how people seek for and use information in geriatric health-care was found to be almost non-existent. Thus, EPs and their ICPs and FHCPs in developing countries have very limited access to geriatric health-care services and information and very little is also known about their IB.

3.2.1.2 Africa

Reports about aged populations in Africa show that there is a relationship between poor health and socio-economic levels of most EPs (Kalasa 2005:7-22; Mathangani 2005:3; Mba 2004:14-18; Waithaka, Anyona & Koori 2003:1-13; Gilbert & Soskolne 2003:11-13; Kalasa 2001:1-10; Apt 1997:1-14). Limited financial resources may make it difficult for individuals, families and communities to meet the cost of health-care services.

Most EPs depend on their own income or receive financial support from their families. Although HelpAge International and Help-Age Kenya (non-governmental organizations) make efforts to assist the elderly in Kenya the impact of their efforts may be limited by factors such as an increasing elderly population, limited funding and other conflicting institutional commitments (Muigana 2006; Mathangani 2005). Most EPs have difficulty in accessing health-care services because they cannot pay for these services without financial and other forms of support.

Health-care service delivery in Africa is also challenging because of the frequent migration of health-care workers, popularly known as “brain drain” from the continent to wealthier countries which offer better remuneration, (Couper & Worley 2006:1). It has also been found that a high level of absenteeism of FHCPs (Muthama et al. 2008:2) and low levels of governmental funding (McIntyre & Gilson 2005:2-6) have a detrimental effect on the quality of health-care services provided. These factors, among many others, may make it difficult for health-care systems in Africa to accommodate the needs of special groups such as the aged. Due to limited human and financial resources, most African countries are currently focusing their health-care policies and services on mothers, children and HIV/AIDS, while geriatric health-care issues remain low-priority concerns (McIntyre & Gilson 2005:2-6).

Research demonstrates nonetheless that there is an emerging awareness among some researchers in Africa about the need to provide specific health-care programmes and services for EPs on the continent (Ahadzie & Doh 2008:5; Gureje et al. 2006:1784-1789; Asagba 2005:39-41; Akanji, Ogunniyi & Baiyewu 2002:1289-1292; Apt 1997:11-14; 1991:5-10). They argue that their increasing numbers points to a need for programmes that can provide them with information about employment, family care, individual rights, housing, social welfare, and food and nutrition. For example, EPs in Africa may need services that provide information to help them with household chores, claim pensions and to care for themselves and their dependants. A geriatric health-care policy focused on the care of the elderly is needed to help EPs, ICPs and FHCPs in a development context to access services for geriatric care.

The call for research to inform policy makers to plan for the elderly in Africa is gradually emerging (Ahadzie & Don 2008:35-38; Kalasa 2005:1-10; Mathangani 2005:3; Mba 2004:4-18; Waithaka, Anyona & Koori 2003:1-13; Apt 1997:1-14; Apt 1991:5-10). At the same time, the lack of meaningful evidence-based research has been a major impediment to policy formulation (Asagba 2005:39-41; Kalasa 2001:1-10; Apt 1997:1-14). Research has shown that governmental policy implementation is crucial in the provision of effective health-care services for EPs in the developing countries of Africa. Correspondingly, research is necessary to sensitize policy makers to the many related challenges and issues and to ensure that they realise what the consequences would be if these issues were ignored in the face of the current rapid increase in the size of the elderly population (Asagba 2005:40). Unfortunately, access to information about health-care especially that which is related to geriatric care, in Africa is

very limited, unlike in developed countries (Couper & Worley 2006:1). Lack of support from governmental authorities in Africa contributes to situations where EPs look after themselves or depend on their families for support.

The general picture emerging from the literature referred to in this section reveals that governments in developing countries apparently assume that EPs are catered for by their families and through health-care programmes and other services that are already available to the public (Kalasa 2005:7-22; Mathangani 2005:3; Mba 2004:14-18; Waithaka, Anyona & Koori 2003:1-13; Gilbert & Soskolne 2003:11-13; Kalasa 2001:1-10; Apt 1997:1-14). Existing initiatives for providing care for EPs and disseminating health-care information include HelpAge Kenya, HelpAge International, and Health InterNetwork Access to Research Initiatives (HINARI). These initiatives focus their efforts towards a few groups in the urban areas, researchers, health workers and academics. However, such initiatives have not yet addressed issues of how to provide information for groups such as the EPs and their ICPs and FHCPs who are not catered for in health-care and other governmental policy documents in developing countries.

3.2.1.3 Kenya

Studies show that the number of EPs in the country is increasing against a backdrop of lack of social and geriatric services (KNCHR 2009; WHO 2006a:1-22; Waithaka, Anyona & Koori 2003:1-11). The growing numbers of EPs in Kenya should be a wake-up call to the government to plan for social services appropriate to the population group.

A World Health Organization (WHO) study that investigated the health seeking behaviour of the EPs in Kenya found that they were sometimes unable to pay for the high consultation fees charged in private health facilities, that there was a lack of professionals specialized in geriatric services in hospitals and that FHCPs sometimes used bad language when speaking to the elderly (WHO 2006a:1-22). The WHO study also found that some FHCPs were reluctant to examine EPs thoroughly at primary health-care facilities and that the EPs were deprived of access to information because the environment in the facilities was unfriendly towards them. The EPs interviewed in the WHO study (WHO 2006a) expressed concern about drugs being prescribed without making laboratory tests, long queues that discouraged them from waiting to receive services, being considered as having merely “old age”

complaints by some of the FHCPs and a lack of continuity in health-care services for EPs by way of home-based care or visits from FHCPs to the aged in their homes. The results of the WHO study suggested that the flow of information to EPs seeking services from formal health-care systems was low. The results also showed that FHCPs in Kenya are inadequately prepared to handle the health-care issues of EPs and that their conduct towards the EPs showed that they lacked the appropriate information for providing geriatric health-care services. Although the core business of FHCPs is to provide a health-care service, their approach to the elderly had a negative impact that helped in creating a reciprocal negative attitudes towards the public health-care system. This consequently leads to some of the EPs having an adverse attitude towards receiving health-care services in public health facilities. As a result, they had less exposure to professional health-care information with which to care for their health.

The literature also showed that EPs in Kenya found it difficult to meet the cost of medical services for diseases such as poor eyesight, arthritis, cardiovascular and others (Amuyunzu, Muniu & Katsivo 1997:614-618; McLigeyo 1997:607-610). The struggle to maintain good health among these EPs was complicated for some of them as they had additional domestic responsibilities like caring for HIV/AIDS orphaned grandchildren (Juma, Okeyo & Kidenda 2004:1-8). In such a socio-economic environment, the elderly nonetheless still need information to help them to care for themselves and others. However, due to the lack of formal studies about the problem of information access on geriatric health-care in Kenya, little is known about the information behaviour of EPs, ICPs and FHCPs.

Some studies found that EPs in Kenya sometimes experience abuse and neglect in local health-care facilities (KNCHR 2009:25; WHO 2006a:1-22; Mathangani 2005:3; HelpAge International 2001b). The experiences include negative attitudes from some FHCPs, rushing EPs through consultations, and having their consultations brushed aside as “old age” complaints. Subjecting EPs to abuse was intimidating and the experience became a barrier to them to access information for health-care from some FHCPs. It seems that efforts to implement a policy for care of the elderly in Kenya have not been fully realised (KNCHR 2009; Muigana 2006; Waithaka, Anyona & Koori 2003). Apparently, this lack of political good will to implement a policy for the care of the elderly is also a barrier and marginalises EPs from accessing information for geriatric care. In addition, some of the EPs in Kenya carry out self-care out of necessity when their children migrate to other regions, including

urban centres as they search for greener pastures (Muigana 2006; Gachui 2001). These events make it necessary for most EPs to be assisted in accessing and using health-care information.

Recent reports in the news media show that the government is planning to support EPs aged 65 years and above by providing each of them with a monthly allowance of Ksh 1,500 (US \$ 19.48) for food and health-care services (KNCHR 2009; Jamah 2009). Such a gesture represents a good beginning for care of the elderly people. However, it seems that the amount of money allocated by the government is still far from taking a significant part of the responsibility for caring for EPs (Okoth 2010; KNCHR 2009). Personal discussion with some members of the public after the press reports and launching of the KNCHR report about ageing in Kenya showed that they were unaware of the government plan to give EPs a monthly allowance and of the initial pilot project that would benefit only 33,000 of them. From both the literature and from personal observations, it became apparent that the general public knows little about gerontology and this ignorance seemingly affects the ability of the public to effectively advocate for better health-care services for EPs.

Gachui and Kiemo (2005:36-38) indicated that research about ageing is given low priority in African countries and universities. It seems that there is little concern about the issue of population ageing in African countries than in Western countries. It is thus not surprising that no studies could be found dealing with EPs and health information behaviour in Kenya. This study therefore, has attempted to address this gap in research. In addition, other studies about the environmental contexts show that, even within the same country, city or community, there are variations due to different socio-economic and educational levels that were determinants in accessing information and other services related to geriatric health-care.

3.3 THE HEALTH-CARE SYSTEM IN KENYA

For purposes of this study, it is necessary to take a closer look at some features of the health-care system that could influence the provision of health-care information to EPs in Kenya, including legislation, administrative structures, official services, user groups and stakeholders. These are discussed below.

3.3.1 Legislation

The purpose of legislation is to provide laws or a framework for daily operations in the provision of services. The resulting laws should govern the delivery of health-care services to individuals, and groups within communities. Legislation can be applied under local, regional or international agreements. For example, Kenya is a signatory to regional and international policies and legislation, including the ones applying to health-care services. The government also has its own policies that govern the provision of health-care services to citizens. Therefore, health-care legislation and policies in the country are shaped by decisions of national governments, regional and international organizations policies for the health sector.

Health-care legislation should provide information about types of services and how they are delivered. The legislation should also provide information about the rights of individuals and groups and how they may be protected from exposure to risky health-care services and conditions. Legislation normally stipulates how specific user groups such as EPs are to be treated when receiving health-care and therefore places the responsibility for the delivery of information on the health-care providers.

Current governmental health-care policy in Kenya is focused on meeting the goals of the Alma-Ata declaration that stated that countries should provide health-care for all by the year 2000 (WHO 1978). Towards the end of the period Alma-Ata, the UN led countries to adopt the Millennium Development Goals (MDGs) (UN 2000). The goals for health-care services under the MDGs include reducing child mortality; improving maternal health, and combating HIV/AIDS, malaria and other diseases (UN 2000). The current health-care policy in Kenya is also based on the same goals (Republic of Kenya 2007), but it says little about how to best provide geriatric information to benefit the EPs and their ICPs and FHCPs.

With regard to EPs, the current health-care policy briefly states that “EPs will practise healthy lifestyles; be protected against exploitation and abuse, and ensure that they are able to survive common health conditions affecting them” (Republic of Kenya 2007: 8). The policy now needs to move from theory to become part of a day-to-day structured health-care service delivery for EPs.

The current health-care policy in Kenya includes an annual operation plan specifying expected results for each identified group of health-care service users but as already indicated, it does not specify geriatric health-care activities. The priorities expressed in the current plan indicate a need to include elderly specific programmes of health-care in government policies which could, in turn, be channels for sharing information about health-care.

The most recent Government Health Policy is *Vision 2030* (Republic of Kenya 2008:4-5), which gives guidance on the planning and delivery of health-care services in the country. The objectives, in line with *Vision 2030*, are to reduce children under-5 and maternal mortality; increase the population of birth deliveries by using trained personnel; increase the proportion of immunized children below one year and reduce the number of cases of tuberculosis. The government also plans to reduce the proportion of in-patient malaria fatality and national HIV/AIDS prevalence rate. Like other government policies, *Vision 2030* lacks a plan for programmes of health-care and information for EPs in the country. This leaves Kenya still without immediate plans for specific geriatric health-care.

Considering the situation discussed above, Kenya as a developing country urgently needs programmes to encourage and support the care of EPs who are often impoverished along with their families (KNCHR 2009:20-23; Muigana 2006: 30-32; Mathangani 2005:3; Odongo 2002:3-5). Some of the programmes could be the actual implementation of policies for improved social and physical environments, the promotion of healthy lifestyles and the provision of related information.

3.3.2 Administrative structures

Kenya has two main complementary health-care systems: the conventional and the traditional. Conventional health-care refers to what is often called Western medicine, first introduced in the country by missionaries and the colonial government. Traditional health-care refers to indigenous African and other complementary and alternative medicine (CAM) or herbal medical systems that are found in the country. This study focuses more on the former system because it has a formal administrative structure but it is important to note that both systems are important and may complement each other.

There are two main providers of conventional health-care services in Kenya: the government and private agencies (churches, missions, industrial health units, private institutions, individuals and NGOs). The government is the major provider of health-care services in the country and is responsible for the conventional health-care system which provides information about its preventive, promotive and curative health-care services. It helps individuals to understand how they can stay free from contracting diseases, be able to maintain good health and seek treatment from specialists.

In contrast, the CAM health-care system provides information for natural health-care. It would appear that the conventional and the CAM systems are complementary but in actual fact, they operate independently. According to Nyongesa and Makenzi (personal communication 27 August 2008) practitioners in CAM register their business with the Natural Traditional Healers and Practitioners Association (NTHPA) and the Ministry of Culture and Social Services. It appears that the CAM system lacks the administrative structures like the ones found in conventional health-care systems, and most of the practitioners operate independently of one another although there is a CAM association that welcomes the membership of CAM practitioners.

The administrative structure in the governmental health-care system, often referred to as the public health-care system, is headed at the ministerial level and branches out into provincial, district and divisional administrative levels. Currently, Kenya has two ministries providing health-care services: the Ministry of Medical Services and the Ministry of Public Health and Sanitation. Each is headed by a minister who is assisted by two assistant ministers, a permanent secretary, provincial, district and divisional medical officers. The Ministry of Medical Services focuses on the management of community health needs within the social context of diseases and health (Republic of Kenya 2008:92). The Ministry of Public Health and Sanitation deals with implementation of disease prevention and health promotion interventions (Republic of Kenya 2008:77). There is also a top-level director of medical services within the governmental health-care sector. The national hospitals (Kenyatta National Hospital, Moi Teaching and Referral Hospital, and Mathare Mental Hospital), provincial and district hospitals, and health centres provide subsidized health-care services to the public.

Each ministry is responsible for formulation of policies and strategic planning that respect principles of equity, gender balance and human rights (Republic of Kenya 2007:4-5). The Ministry also monitors and evaluates the performance and impact of policy changes, conducts research, ensures security for public health commodities, strengthens capacity, plans for resource mobilization and coordination and operationalization of health-care plans (Republic of Kenya 2007:4). Provincial directors coordinate health-care services at the provincial level, while the district medical officer of health coordinates services at the district level. Each district has a health management team made up of officers-in-charge from provincial and district hospitals, health centres and dispensaries that provide what could become an infrastructure permitting the flow of information about geriatric health-care, given the nature of the services they provide, that would reach the EPs at the grass-root level.

The public health-care sector in Kenya is thought to have some of the most highly qualified FHCPs in the country and is characterized by having a large number of users; high staff turnover; and occasional complaints from users – particularly the EPs – (Muigana 2006:30-32; Mathangani 2005:3), which may make it difficult for users of the service of the FHCPs to access health-care information.

3.3.3 Services

The hallmark of a good health-care system is the provision of appropriate services adapted to the particular needs of a user group. The stated vision of the Government of Kenya regarding health-care is to “provide equitable and affordable health-care at the highest affordable standard to all citizens ... through a devolution approach ... thereby empowering Kenyan households and social groups to take charge in improving their own health” (Republic of Kenya 2008:5). The government therefore plans to realize this vision through a well-managed service system allocating funds and distributing responsibilities from national hospitals down to dispensaries.

Currently, governmental services disseminate information about family planning, HIV/AIDS prevention and control, community health education, malaria control and the training of community health-care workers. These services provide for water and sanitation, education for nutrition, community based rehabilitation services, dental health, school health and community mental health. Although there is an assumption that health-care service needs of

the EPs are met through the main-stream services, which may be partly correct, there is no concrete research evidence showing how the EPs benefit from the main-stream services, and whether these services provide the EPs with geriatric health-care information. As has already been pointed out in the literature (Muigana 2006:30-32; Mathangani 2005:3; Amuyunzu, Muniu & Katsivo 1997:614-618), EPs often have complex health and social problems for which they may need specific information and support services including counselling, preventive health-care and social services including financial support and the provision of home-based care. If such services were provided, they could also be used to channel information to raise awareness and educate the EPs, the ICPs and their communities about geriatric health-care. Some of these services are discussed below.

3.3.3.1 Counselling in health-care

Counselling and other services are means through which the EPs could be exposed to information. Caring for EPs may necessitate a change of family role, sometimes making it necessary for adult children to assume parental responsibilities and elderly parents to be cared for as children by their adult offspring. Such role reversals may result in feelings of fatigue and stress among unprepared ICPs while the EPs may have negative feelings due to their loss of independence (Cleary & Matteson 1998:20-29). Such emotionally tiresome situations necessitate the inclusion of counselling services for the EPs and ICPs in the health-care system.

Some EPs feel neglected, and sometimes indulged in alcohol abuse (Oranga 1997:611-613). Other studies found that falls resulting in bone fractures among the EPs resulted from stressful lives combined with inactivity (Center for the Advancement of Health 2006:14-24) and that interpersonal relationships grew increasingly strained with age (Amuyunzu et al 1997:614-618). EPs and their ICPs and FHCPs were found to have been in emotionally difficult situations for which they needed counselling services but these were largely lacking within conventional health-care programmes. Such services, if they were to be provided, could also provide the EPs and ICPs with geriatric health-care information.

3.3.3.2 Preventive personal health-care

Preventive health-care is primarily focused on measures preventing diseases from occurring and, on the secondary level, focused on detecting disease in the early stages and providing treatment as soon as possible.

If preventive health is to be successful, it must provide effective health-care education and promotion services, implying provision of the necessary information accompanying these services. Preventive health services are offered to the public in Kenya through the distribution of brochures about the cause and treatment of specific diseases (Republic of Kenya 2008). The Ministry of Public Health and Sanitation also uses the media to educate the public. However, there are no specific programmes to educate EPs *per se* about disease prevention. The lack of such programmes denies EPs and ICPs in a development context access to health-care information.

3.3.3.3 Diagnostic care, treatment and medication

A diagnostic service deals with the treatment of a specific disease for which FHCPs often prescribe medication. In cases of chronic conditions such as high blood pressure, diabetes, arthritis and cancer, they also offer consulting services and provide underlying information in the form of advice about long term care. As this is required by most EPs, consultations with FHCPs could be used not only to learn how to manage health conditions but also for sharing health-care information with the EPs and their ICPs.

Government reports show that the service is available to the general public, including the EPs (Republic of Kenya 2008) and assume that EPs are given geriatric health-care information when in contact with FHCPs in hospital or health centres. However, other literature has shown that EPs complained about being neglected and abused by the conventional health-care system in Kenya and sometimes avoided going to the facilities for treatment (WHO 2006a; WHO 2006b; Mathangani 2005:3; HelpAge International 2001). Although it can be assumed that the elderly could obtain information in this way, the approach of the FHCPs when diagnosing and treating EPs hindered the free flow of information about the EPs.

3.3.3.4 *Environmental health*

Environmental health services relate to the maintenance and use of clean and safe water and air, the provision of sewage and waste disposal services, and any other services that contribute to maintaining good health by providing for clean surroundings. They benefit the general population, and individuals are also encouraged to take part in keeping their environment clean because it contributes to the betterment of their personal health.

Most EPs experience reduced physical strength, and need help to maintain a clean environment inside and outside their houses. However, there are no formal programmes of information to help people to maintain a clean environment in some residential areas, particularly in the poorer, rural settings where the majority of EPs live. In the areas where programmes actually exist, the main activity is about how to collect garbage every week. Such programmes about environmental cleanliness could be expanded to educate EPs and their communities about the many health benefits emanating from keeping one's surrounding clean.

3.3.3.5 *Social services*

A social service is “one of the services provided by a government or local council for people with social problems” (*Macmillan English Dictionary* 2002). It goes beyond the provision of medical services to include the provision of financial assistance, transportation, meals, house cleaning and guidance on the selection of appropriate health-care facilities, services that many EPs may need in addition to strictly medical services. This type of service also provides information from which EPs can benefit individually. A social-service system that is able to identify the specific services needed by a social group, including the EPs, can establish mechanisms for providing information and serve as a core channel for distributing health-care information to the EPs and the general public. A report about social services in Kenya reveals that the Ministry of Gender, Children and Social Development is preparing a national social policy and strategy targeting EPs to provide financial support and pensions (KNCHR 2009:21), thereby confirming earlier reports about how a policy for ensuring a proper social-service system, including the sharing of health-care information, had been lacking for the EPs.

Literature discussed in this section (3.3.3) indicates that health-care of EPs involves provision of services from medical counselling, social services and related disciplines. The services discussed above are all possible channels for generating and communicating information about geriatric health-care. The literature also indicated that the health-care system in the country provides geriatric information to some extent. However, notable barriers exist in the system including: a lack of training in gerontology for the FHCPs, negative attitudes on the part of the FHCPs towards the EPs (and the reverse) and a lack of motivation on the part of the EPs to seek health-care services, among others. Although the above reveals that there is some form of information provision, there is no evidence of an awareness of the importance of the role of information behaviour in the health-care of EPs within a development context and for this reason, the current study was undertaken. The next section discusses some of the stakeholders in health-care of EPs considered in this study.

3.4 STAKEHOLDERS IN HEALTH-CARE FOR ELDERLY PEOPLE (EPs)

According to a general definition of a stakeholder, it is “someone who has an interest in the success of a plan, system, or organization” (*Macmillan English Dictionary* 2002). The definition further states that a stakeholder is someone who affects or is affected by a decision or action of the things he is interested in. Applied to health-care of EPs (dealing with information from which health-care providers and EPs can benefit) stakeholders could be viewed as persons involved in the health-care of the latter.

In the present study, stakeholders are people and institutions which affect or are affected by decisions and provision of services for geriatric health-care. Therefore, there is a need to understand individuals and groups that have interests in or are affected by a service provided to the public in order to understand their information-seeking and information use behaviour. For example, the government, the public, the private sector, as service providers, are among the key stakeholders along with many others, including the pharmaceutical companies. In this study the government, the public sector and the private sector are the most critical service providers.

3.4.1 The Government

Due to its commitment to the provision of health-care and related services to its citizenry, the Government is a major health-care stakeholder. The two Kenyan ministries providing health-care specific services were discussed in section 3.3.2. One of them, the Ministry of Medical Services provides clinical, surgical, rehabilitative, pharmaceutical, nursing, regulatory, planning and technical services along with diagnostic and forensic standards. The other, the Ministry of Public Health and Sanitation provides reproductive, maternal and child care along with basic care, including the treatment of minor ailments, and also offers environmental and health-promotion services (Republic of Kenya 2008). Each ministry monitors the delivery of its services at all levels.

The Government of Kenya introduced user fees into the health-care sector in the 1980s as one of the measures of what was then called the Structural Adjustment Programmes (Mbatia 2003; Oyaya & Rifkin 2003). This was part of a cost-sharing programme allowing all users of government health services to pay a small and specified amount for the services they received while the government subsidized the remaining, larger portion of the cost, in order to allow users to meet escalating costs. A relatively recent study of health-care services in Kenya showed that some people still found it difficult to pay user fees in public health-care facilities (Mbatia 2003:15), suggesting that the objectives of the Government to provide quality services and ensure equity in access to health-care were still not being met. In particular, most of the EPs seeking health-care from the existing conventional health-care system found it difficult to pay for the latter due to their low level of income (KNCHR 2009:24-25; Odongo 2002), and were barred from accessing these services and information for health-care. A new challenge appears for the Ministries of Health in finding a way to coordinate their work with that of other ministries in order to provide appropriate geriatric-care services.

Oyaya and Rifkin (2003) studied health sector reforms in Kenya and found that the reforms were set against a backdrop of complex social, economic and political factors triggering in turn equally complex problems in terms of health-care needs and services and resulted in difficulties in the governmental situation which had a negative impact on the provision of geriatric health-care information. It seems that as a major health-care stakeholder, the Government needs to bring together other stakeholders who can contribute to its provision of health-care services and information sharing for EPs.

3.4.2 The public

In this study, the general public are the end users of health-care services and are represented by the EPs and ICPs. The public finance health-care services either directly or indirectly, through the payment of taxes and medical fees. In Kenya the views of the public are solicited by local and national leaders and they participate directly in the design of health-care services at all levels of policy- and decision-making process (Republic of Kenya 2008). Though the importance of the general public is appreciated, it is often unable to impact health policy due to a lack of knowledge about how to do so and may be poorly informed because of poor lines of communication and sometimes a lack of interest in health-care debates. For this reason, there is a need for researchers from different disciplines to investigate the concerns of various segments of the public about health-care and communicate these to policy makers.

Due to the fragility of their health and the complexity of their health-care needs, the EPs pose a particular challenge to health-care systems and also vice versa. A study that investigated user values in health-care services found that the EPs preferred effective, sufficient, affordable, flexible and timely services (Gallagher & Hodge 1999:79-87) and also valued an overall health-care system that was able to coordinate health-care services and communicate clearly about how medications were to be used. Results of the study showed that the general public often has its own ideas about the kind of health-care services it wants and drew attention to how important it is that researchers and policy makers find out what these views are and, subsequently, incorporate them in the planning of health-care services. However, in Kenya as portrayed in the literature health-care policy-makers have neglected the views of EPs in planning the delivery of health-care services.

ICPs, as members of the general public, are involved in a variety of types of geriatric care activities including: organizing and responding to health-care needs, providing personal, physical, emotional, psychological and social care, providing and managing finances and doing domestic chores (Vilans Centre of Expertise for Informal Care (n.d):4). They also need information to help them to provide these and other services, including the interpretation of health-care policy for the EPs. According to the same report, the ICPs appreciate recognition; social inclusion; support and rewards (such as time off) for the work they do and also need information, guidance, advocacy, advice and training; financial security, including compensation; health promotion and protection. There is no evidence in the literature

suggesting that, within the current health-care policy and administrative structure in Kenya, the ICPs are recognized and valued and as a result, nothing is known about the ICPs as health-care stake holders.

In more advanced countries there is also a lack of support given to ICPs and little access given to appropriate information. Bookman and Harrington (2007:1005-1041) investigated the roles of ICPs caring for EPs in the USA and found that the geriatric health-care system lacked user friendly information to help carers learn to understand the organization of the health-care system for the EPs. The ICPs in the study reported that they experienced problems such as delays in the provision of services due to understaffing in health-care facilities resulting from staff turn-over. Bookman and Harrington found that ICPs would like to contribute views about the type of services they expect for EPs in conventional health-care systems.

The literature discussed above showed that the general public in developed countries were represented in policy formulation about health-care of EPs. The studies showed that the EPs and ICPs all need information on various aspects of health-care. The author was not able to find prior studies based in a development context to show active participation of the general public in the formulation of health-care policies. However, the general public may expect health-care services to meet their information needs for health-care. For purposes of this investigation, it is important to find out to what extent the EPs and ICPs in the development context of Kenya represent the views of the public as key stakeholders in geriatric health-care.

3.4.3 The private sector

The private sector comprises individuals, organizations (including NGOs), and religious groups. This sector complements the efforts of the government to provide public health-care services and works in close relationship with the government although it may have its own internal policies regarding the actual provision of health-care services. The private sector provides primarily curative health-care services and a few preventive services. Some NGOs from the private sector are stakeholders because of their interests in health-related research. Among them are HelpAge Kenya (1999) and HelpAge International (2002; 2001a, 2001b; 2000 & 1999), both of which found that some EPs experienced problems in nutrition because

they lacked proper food and information. The results of the studies also revealed that these EPs complained of neglect and abuse in health-care.

The Catholic Church also cares for very desperate EPs by feeding and giving them clothes (Muigana 2006:30-32). The efforts of the church are limited because of lack of funds and political support. The services of the church for EPs could be a useful channel for communicating geriatric health-care information.

There is no formal directory of stakeholders in health-care, particularly with regard to the EPs in Kenya. The literature review also revealed limited activities of these organisations. The few in operation worked independently of one another and were not known to the general public, particularly in the rural areas. Facilities and the number of staff vary considerably among private health-service providers and ranged from individual clinics with one or two people providing services to hospitals with more staff, most of whom were part time public-sector professionals. The private health sector in Kenya is increasingly attracting employees from the public sector. The NGOs are also attracting people for treatment services because public-health-care facilities are growing saturated. Because of the nature of the sector, some services are either available or limited to the private health-care sector, with personal and institutional factors influencing how FHCPs in the private sector access and use information.

3.5 INFORMATION PREFERENCES

Users of information may obtain information from formal and informal sources. Formal sources include books, journals and the media while informal sources refer to family, friends, and neighbours. Particularities in the experience of individuals and groups often determine the type of sources used to obtain health-care information. In the following section, the preferences of EPs and their ICPs and FHCPs for various sources of information are discussed.

3.5.1 Elderly people (EPs)

As already pointed out in Section 3.4, there have been few studies about health-care of EPs in Kenya and the related information-seeking and use behaviour but some reports suggest that EPs obtain pertinent health-care information from FHCPs in public health-care facilities

(Muigana 2006:30-32; Mathangani 2005:3). The reports by Muigana and Mathangani drew attention to the general geriatric-care situation in Kenya and showed that EPs would first approach government-owned health-care facilities for care before looking elsewhere. This is indicative that FHCPs do, to a certain extent, expose EPs to geriatric health-care information.

Other reports showed that some of the EPs chose CAM when they had negative experiences with FHCPs (WHO 2006a:12-21; WHO 2006b:15-24; Wagah, Ochola & Omalla 2000:14). This suggests that EPs appreciated the care and information provided by CAM providers to complement conventional health-care services. Another related study that examined the geriatric health-care situation in Nigeria found that because of financial constraints, the EPs turned to spiritual healers, homes where herbal medicine was sold, CAM medication and dealers in illegal drugs when seeking treatment (Akanji, Ogunniyi & Baiyewu 2002:1289-1290). The CAM treatment network also channelled geriatric health-care information and the EPs in a development context often preferred these sources of health-care information because it was often communicated and interpreted to them orally (Akanji, Ogunniyi & Baiyewu 2002:1289-1290). Apparently CAM caregivers spent more time listening to EPs and explaining to them how to use herbal portions. Herbalists would make treatment decisions based on what EPs revealed about their state of health and the EPs often found that the CAM services were less expensive (Easom & Quinn 2006; Gureje et al. 2006; Bosomptra 1987). A recent study about the elderly in Kenya found that policies in critical areas such as health, housing employment and social protection lacked focus on EPs (KNCHR 2009:18-37) and that as a consequence, little or no research had been undertaken to identify the information preferences of EPs in the critical areas. From the discussion above, it seems obvious that there is still a gap in the literature regarding the availability of information in support of the information needs of the elderly.

3.5.2 Informal care providers (ICPs)

Informal health-care and service provision for EPs in a typical African setting often involves having several family or community members playing different roles. For example, one family member might provide financial support while others provide day-to-day care by cooking, bathing, feeding, and providing other services for the EPs. There may also be one person who serves to coordinate the different care services for EPs. However, as most ICPs are not professionally trained, they may need specialized information in order to provide care.

Studies showed that people in a development context generally depend on their family members, friends and neighbours as sources of information for general health-care (Bii & Otike 2003:155-174; Kaane 1997:577-585). Communication channels such as radio and television also provided them with health-care information (Kaane 1997). Another study indicated that the general public consulted health workers, pharmacists and business people for health-care information (Bii & Otike 2003:155-174), and this would include ICPs as they are considered to be a part of the general public in this study, as stated in 3.4.2. The current study strove to determine the specific sources of information that ICPs used in providing geriatric health-care in a development context.

Akanji, Ogunniyi and Baiyewu (2002:1289-1290) reported that some ICPs and EPs in Nigeria turned to spiritual healers, homes and stores that sold herbal medicine. They also turned to illegal drug dealers, CAM and other alternative systems of treatment and sources of health-care information that were affordable; easy to access, and provided information in oral form. The socio-economic abilities of ICPs in developing countries such as Nigeria reflect the abilities of ICPs to access information to help them to provide care for EPs. This implies that the limited financial resources of ICPs and the EPs for whom they provided care were a barrier to their access to health-care information.

The results of a study by Mooka (2004:114-119) about the home-based care of chronically ill persons in Botswana revealed that ICPs were often ill-prepared to handle sick relatives, and often consulted FHCPs to obtain health-care information. It was also found that the lack of programmes and policies for educating ICPs limited their access to geriatric health-care information. The literature reviewed in this regard (Muigana 2006:30-32; Mathangani 2005:3 and Mooka 2004:114-119) reveals that little is known about the information preferences of ICPs of the EPs in a developing context, though they found that the FHCPs had access to professional sources of health-care information which they saved and shared with the EPs and ICPs. It was also found that there was close affective interaction between EPs and ICPs but this interaction was weak in terms of sharing information about alternative forms of treatment. Muigana (2006:30-320), Mathangani (2005:3) and Mooka (2004:114-119) implied that there is a weak interaction between FHCPs and ICPs because their contact was through EPs. Occasionally ICPs contacted FHCPs on behalf of EPs. In addition, the literature showed that political good will, financial status of individuals, institutional structures, lack of geriatric information and personal characteristic contributed to the information behaviour of

ICPs in a development context. Therefore, the current study has been undertaken to also address this gap in our understanding of the information-seeking and information use behaviour of ICPs assisting EPs in a development context.

3.5.3 Formal health-care providers (FHCPs)

FHCPs include doctors, nurses, clinicians, pharmacists and other professionals trained to provide health-care services. As trained professionals, it seems natural that they may require information related to their various professional tasks and that these tasks may determine their preferences with regard to particular sources of information. The section below discusses the information preferences of FHCPs working in a development context, as reported in the literature.

Musoke (2000) found that FHCPs usually obtained pertinent information about patients directly from the patients themselves and their family members and friends who accompanied the patients to the health-care facility. In her study about the value of information to health-care workers in rural Uganda, Musoke found that these FHCPs used information provided by the patients when making patient-care decisions and prescribing treatment. Studies have shown that FHCPs working in a development context usually consulted colleagues and referred to books along with professional records and reports about patients as sources of health-care information (Musoke 2000; Apalayine & Ehikhamenor 1996). The FHCPs, particularly from rural areas, also relied on communications from the Ministry of Health, workshops, seminars, training courses and radio programmes for health-care information (Apalayine & Ehikhamenor 1996). In addition, the studies found that some FHCPs used old books. Ajuwon speaks of how the new electronic communication technologies now make it possible for FHCPs in Africa to access information over the Internet (Ajuwon 2006:1-15) and found that FHCPs with higher professional qualifications, such as physicians, would have privately established connections to access the Internet in order to obtain health-care information.

The literature consulted did not include any substantive research about the information-seeking and use behaviour of FHCPs in Kenya, which reflected the findings of still another review of the literature about information needs of FHCPs in Africa (Pakenham-Walsh & Bukachi 2009). This lack of research corresponds to a lack of empirical evidence about the

type of health-care information sources used by FHCPs in a developing country such as Kenya. None of the studies were found to provide an overview of the level and type of information sources available to FHCPs. The results showed that FHCPs needed a geriatric information resource system but such a system is currently lacking in Kenya. The FHCPs used sources related to their professional work to access health-care information corresponding to their professional roles and tasks. The current study has identified the lack of sources of geriatric health-care information sources as a gap in knowledge in a development context and goes on to investigate how sources of information are used in order to contribute to filling in this gap in knowledge.

3.6 SUMMARY AND CONCLUSION

This chapter has presented a synthesis of the literature so as to better situate this study within the context of the emerging research on information behaviour in a development context. A number of gaps in our knowledge of the IB of the core user groups (i.e. EPs, ICPs and FHCPs) were identified that merit further research about the general health-care information-seeking and use behaviour of the latter in a development context. Gaps were also identified with regard to information about the impact of lack of a governmental policy and social-support networks for geriatric health-care. The literature review also revealed that:

- A variety of service providers dealt with the care of EPs but the general public knew relatively little about geriatric care and had little access to related information. The literature showed that unequal distribution of health-care services in a development context is a critical factor that may prevent EPs and their ICPs and FHCPs from accessing geriatric health-care information.
- Health-care practices for EPs varied between developed and developing countries, with developed countries having governmental policies in place which supported geriatric health-care and research while this was lacking in developing countries. As a consequence, little is known about the information behaviour of EPs and their ICPs and FHCPs in developing countries. The literature indicated that some of the relevant information for the health-care of EPs is available but not accessible due to environmental and individual factors which make it difficult for EPs and ICPs to access and use geriatric information.

- Environmental conditions, including poverty, inadequate health-care facilities and a lack of an enabling governmental policy could contribute to a lack of access to and use of geriatric health-care information. The environment was also a determining factor in fostering the use of CAM and influenced related information-seeking and using behaviours, particularly with regard to the EPs and ICPs. In addition to environmental factors, the literature revealed that individual characteristics such as levels of literacy and income, age and time commitments influenced information behaviour of EPs, ICPs and FHCPs.

It also became apparent from the literature that conditions can influence the behaviour of people within an information environment and within the context of a developing country. Additionally, it can shape the behaviour so that information is used in a positive way or not used at all. Similarly, these conditions can influence the behaviour of people in a development context and serve to determine the preferred formats for presenting information. There are numerous gaps remaining in the literature with respect to information needs, sources, and factors that influence the access and use of information by EPs and their ICPs and FHCPs in geriatric health-care in Kenya. The next chapter will address the methods used to collect and analyze data for this study.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter describes the methodology used for this study with regard to the study design; geographical setting; population and sampling, data collection, pilot study and data analysis. It also discusses some important issues in research, in particular, the validity and reliability of the study and the challenges faced.

4.2 RESEARCH DESIGN

Every research topic may lend itself to more than one possible method and design. There are two broad methodological approaches in research: qualitative and quantitative. The diverse techniques, assumptions and approaches of the two main methodological approaches should be appreciated. It is less a matter of choosing between either quantitative or qualitative research designs as it is a question of ensuring that the methods chosen are appropriate and are used properly to shed light on the research topic (Babbie 2007:184-185; Amin 2005:212; Creswell 2003:184-205). The current study used qualitative design to provide a deeper understanding of emerging patterns of information behaviour in health-care of home-based EPs in a socially disadvantaged setting.

Research requires formal design and close adherence to defined systems of inquiry to be able to find new facts or collate existing ones (Trochim 2002:1). A research design can be visualized as the structure of the research or the plans and strategies developed to seek, to explore, and to discover relevant answers to a research problem.

The study identified differences in the contexts in which EPs live and found gaps in literature about information behaviour in health-care of home-based EPs. Literature reviewed in the study also found that and EPs are a heterogeneous group as indicated in the objectives in Chapter One, the theories and concepts of information behaviour discussed in Chapter Two, and the literature review conducted in Chapter Three. Explanations of the three main findings of the literature reviewed in the study are provided below:

- There are differences between the EPs with regard to exposure to information or health-care because of differences in the contexts in which they live (Litwin & Attias-Donfut 2009:1-91). EPs that live in developed contexts can choose between living in their own homes or in an institutional home for the elderly, within which they could access health-care information and services, while the elderly people living in developing countries do not have such an option.
- EPs are a heterogeneous group and have varying levels of education, income, exposure to information about health-care and are from diverse geographical and social settings (KNCHR 2009; Couper & Worley 2006; WHO 2006a; WHO 2006b; Muigana 2006; Waithaka, Anyona & Koori 2006; Mathangani 2005; Odongo 2002; Amuyunzu, Muniu, & Katsivo 1997; Apt 1997; Apt 1991). Therefore, their ability to access and use information also varies depending differences between them.
- There was a gap with respect to research on information behaviour related to the health-care of home-based EPs, a socially disadvantaged group within the context of a developing country (KNCHR 2009, WHO 2006a; WHO 2006b; Muigana 2006; Waithaka, Anyona & Koori 2003; Mathangani 2005; Bii & Otikey 2003; Kaane 1995). The current study was undertaken, in part, to attempt to fill this gap.

The three main findings of the literature study above served as the research design and data collection framework for this study. From several possibilities, the researcher chose to use a phenomenological design including two major elements: exploratory and descriptive, in the qualitative research tradition. The qualitative design was found most appropriate because of the need to gain a deeper understanding of the emerging patterns of information behaviour in the health-care of home-based EPs in a development context. The exploratory and descriptive elements are explained below.

4.2.1 Exploratory and descriptive research design

Qualitative methods are designed to help researchers to gain a deeper understanding of issues, people and the social-cultural contexts within which they live (Dey 1993:30-40; Flick 2002:1-9; Creswell 2003:181; Babbie 2007:84-185). The choice of a qualitative methodology enabled this researcher to gather data in a "natural" setting. This approach was useful for understanding subjective experiences, insights and actions of EPs, ICPs and FHCPs in a

developing context with regard to their positions about access and use of information in health-care.

4.2.1.1 Exploratory research design

An exploratory research technique is essentially a fact-finding approach, the purpose of which is to deal with the nature and challenges of a community (Kasomo 2006). Exploratory elements arose because the study focused on the little-known and socially disadvantaged community of Nakuru District of Kenya.

4.2.1.2 Descriptive research design

The study went further to describe and analyse factors that determine access to information and the different ways in which information was used for geriatric health-care in the Nakuru District. Descriptive studies are concerned with describing events, communities or regions by responding to questions of who, what, how, when and where of a situation at a particular time (Amin 2005:212; Creswell 2003:184-205). Descriptive designs help to provide analysis that is factual and accurate as possible through use of frequencies. A descriptive design was necessary for this study because the researcher had to establish the information needs, sources and factors that influenced the access to and use of information among the EPs their ICPs and FHCPs.

4.3 GEOGRAPHICAL SETTING FOR THE STUDY

The geographical setting for this study was the Nakuru District in Kenya. (See a map of the district in Figure 4.1.). Four villages served as the research sites: Rongai (in the rural area) and three estates within the Nakuru Municipality (or the urban area). The sites were selected after careful consideration to establish if there are any differences in information needs between rural and urban areas among the three groups of respondents of this study. These sites enabled the researcher to make a comparison of access and use of information between people from different socio-economic backgrounds. Although people from these settings interacted frequently with one another, the four village sites also showed differences in their economic, social, political and institutional composition that influenced how individual

members of the communities accessed and used health-care information. The selection and description of the sites are dealt with in more detail in section 4.4.1.

A decision was made in 2007 by the government of Kenya to subdivide some districts, the former Nakuru District was divided into four new districts: Nakuru, Nakuru North, Molo and Naivasha Districts. The researcher had piloted the research instruments in Mbogoine Division, then part of the old Nakuru District. Following the changes already mentioned above, the researcher conducted the study in the current Nakuru District made up of the Municipality (Nakuru Town) and the Rongai Division.

The Nakuru District was chosen as the research site because of its rich history, having been the headquarters of the expansive Rift Valley Province and the regional economic and commercial centre. The agricultural and commercial opportunities offered in Nakuru District have attracted people from other parts of Kenya since the colonial period. Nakuru was also one of the earliest white settler areas and generations of Kenya's labour force were drawn from ethnic groups found in the District. Tribal groups including the Maasai, the Luhya, the Kalenjini, the Kikuyu, the Taita, the Kamba and the Kisii who came to Nakuru from other parts of the country have since settled there. For such reasons, the District provided an ideal setting for gathering information about people of different ethnic backgrounds in Kenya, which gives it a heterogeneous outlook.

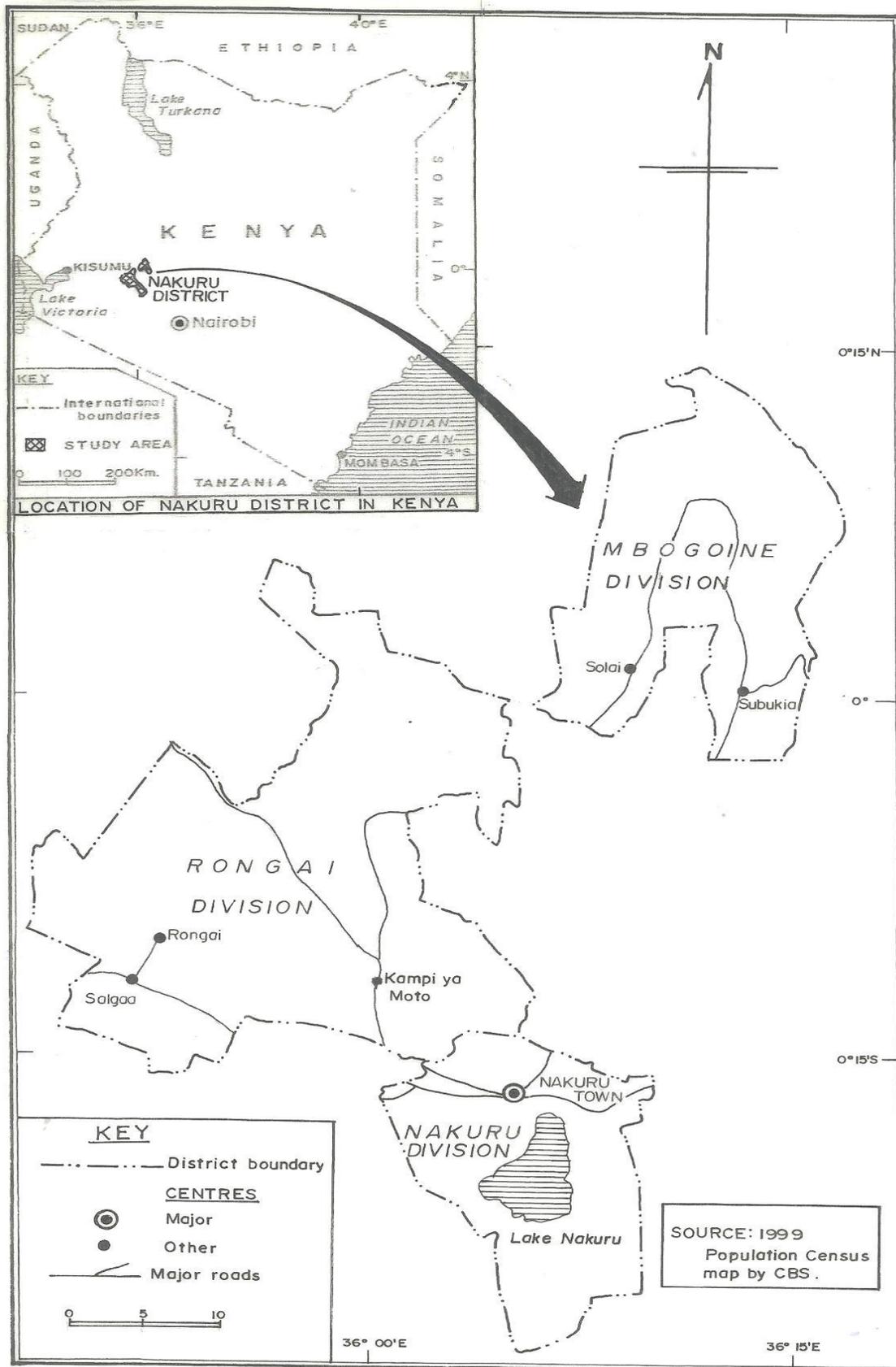


Fig. 4.1: Administrative boundaries of Kenya
Source: District Commissioner's Office, Nakuru 2008

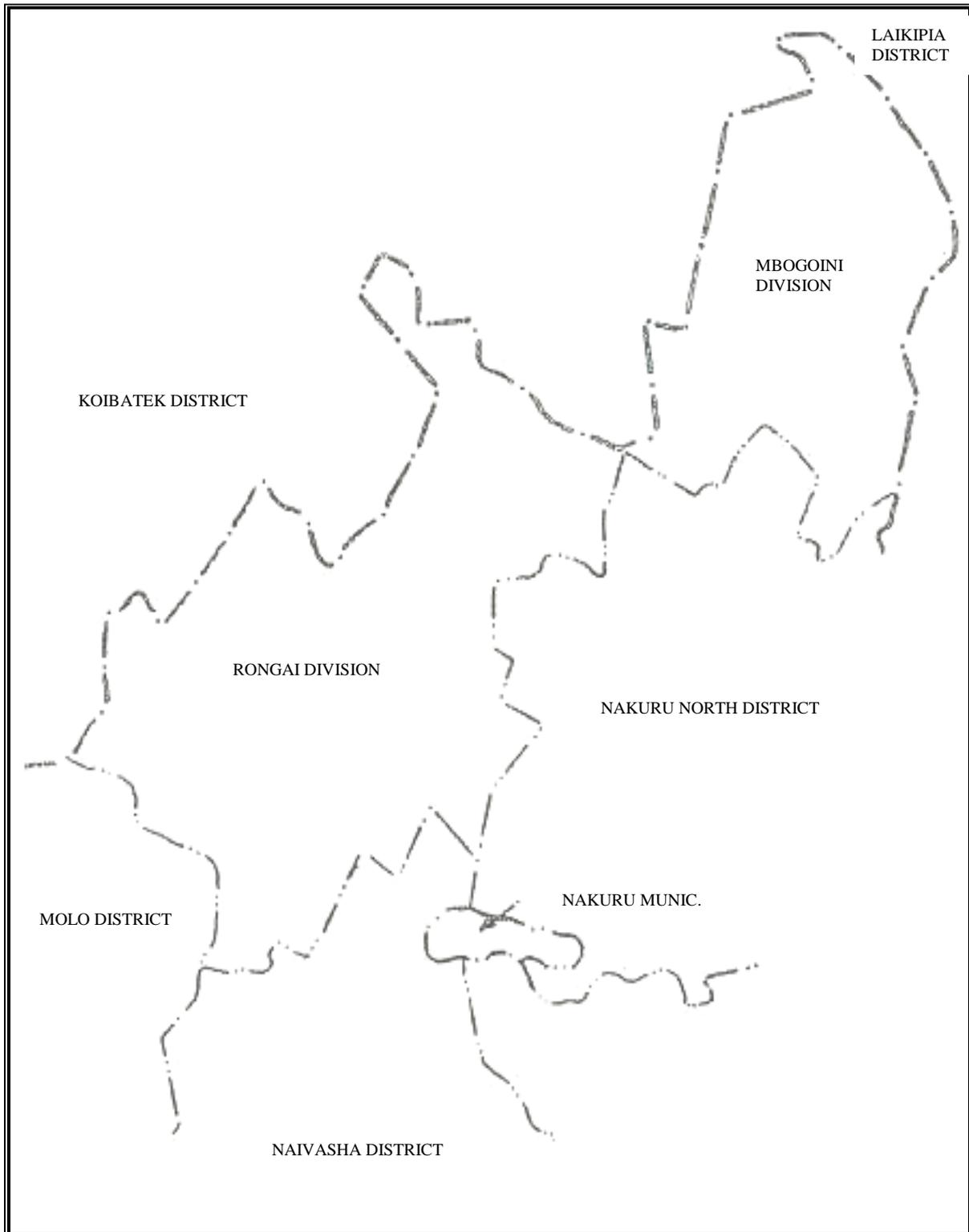


Fig. 4.2: Administrative divisions of Nakuru District

Source: District Commissioner's Office, Nakuru 2008

A district is composed of divisions and each division is divided into administrative areas known as locations. Locations are divided into sub-locations composed of villages. Several

families or households make up a village and are under the administrative authority of a village headman, usually assisted by other respected village elders. In the case of the Municipality, a number of residential estates made up an administrative area known as a ward, under the leadership of a councillor.

In the past couple of years, Nakuru District has experienced closure of some of the industries that attracted people from other parts of the country to seek employment or to invest in the area. The later generations of some of the people that first migrated to the region decided to live in the District despite the changes. Some families are now settled on smaller pieces of land following subdivisions of the once large farms among the increased number of family members. The changes in the size of land that some people live on in the District imply a lesser income for families that depend on agriculture for economic support. The effects of HIV/AIDS have also made the socio-economic situation of some EPs more complicated since they have to take care of grandchildren who have been orphaned due to the HIV/AIDS pandemic, and yet they do this with little or no support at all from the government. Diminished physical strength, limited capital, the absence of resourceful family members and added parenting responsibilities in old age affects the health of some EPs in the District. In addition, the lack of education and job opportunities in old age, and long distances from health-care facilities make it difficult for the elderly population to care for their health independently.

4.4 POPULATION AND SELECTION OF RESPONDENTS

The researcher's intention was to understand how health-care information was accessed and used in the care of EPs in the Nakuru District and to determine what the information needs were. For the purpose of this research, three groups of respondents were used as the population base of the study, the EPs, the ICPs and the FHCPs. They are described in the following sections.

4.4.1 Sample population

Three sub-populations were selected to constitute the universe for the study. These were; the EPs (55 or more years-of-age); the ICPs (family members, friends, community members); and the FHCPs (doctors, nurses and clinical officers).

The EPs were the key respondents in the study because there was little known about their experiences in accessing and using information for health-care. Conducting studies about EPs in the Nakuru District proved to be challenging due to lack of up-to-date records or databases that could provide information about the location and actual numbers of individual EPs. Also, there had been no prior research studies on the topic in Kenya.

As a qualitative research design was followed, the sample size of respondents did not need to be as large as in quantitative studies (Mason 2010; Cresswell 1998:64; Morse 1994:225). It is important to remember that qualitative studies are naturalistic – studying people in their natural settings (Marshall 1996:522-525) and focuses on selecting information rich cases, that is individuals or cases that are selected with the purpose of fitting the study (Patton 1990). The focus of the current study was to find out why respective groups of respondents adopted a specific type of information behaviour.

The researcher used snowball or chain sampling technique to identify respondents for the study. At the end of each interview session, respondents were encouraged to nominate someone else who could respond to the interview. The sample size was expanded in this manner, as explained in Section 4.4.2, until the data reached saturation, that is no new data seemed to emerge regarding each category (Strauss & Corbin 1998; Glaser & Strauss 1967). The researcher also used snowball technique because in addition to lack of up-to-date records about EPs in the country, the respondents did not live in a particular formal institution in the District.

The ICPs and FHCPs formed the second and the third group of respondents respectively and were also selected through the snowball technique and included in the study in order to provide a better perspective on how information is accessed and used in geriatric health-care in the Nakuru District. They were important in the current study because they interacted closely with the EPs as their health-care providers.

4.4.2 Sampling technique

This study used the snowball-sampling technique to identify all respondents (EPs, ICPs and FHCPs). The snowball technique, which is also known as the chain-sampling technique, begins with one representative member of a community recommending other similar community members to be interviewed (Babbie 2007:184-185). The first two EPs chosen for this study, one from the Municipality and the other from Rongai, were selected with the help of the local administration. These two respondents were requested to identify other EPs they knew whom they thought would be willing to be interviewed. Thereby, the process “snowballed” as the researcher at the end of each interview session encouraged each respondent to nominate one or more individuals to participate in the study. Respondents were encouraged to nominate people sharing their own views, who were of a different socio-economic level, of the same or opposite gender, and who held different opinions and were from different ethnic backgrounds.

The nomination of respondents with distinct characteristics helped the researcher get a balanced and objective view of the topic of research. The newly nominated respondents would also be interviewed and the process continued until the data collection process was saturated, that is to say, when no new perspectives on the research topic could be gathered (Strauss & Corbin 1998; Sandelowski 1995; Glaser & Strauss 1967). A total of consenting 40 respondents were interviewed: 18 EPs, 6 ICPs, and 16 FHCPs (See Table 4.1.). The respondents gave the researcher written consent if they were literate and verbal consent if they were not. Illiterate respondents were given an oral explanation in Kiswahili or the local vernacular for the purpose of this study, and they were given a choice whether or not to participate in the study. The researcher proceeded with interviews only with the full consent of the respondents.

The first elderly respondent interviewed in this study contributed to identifying other EPs, ICPs and FHCPs to serve as respondents and to identify the different health-care facilities used by the EPs. The researcher viewed the respondents for the study as a “self-selected group”, willingly participating in the study. The EPs were encouraged to identify their actual ICPs and FHCPs and the health-care facilities they visited. This enabled the researcher to interview respondents who were actively involved in the care of the EPs and to talk with people playing a central role in either securing or providing information about geriatric

health-care. Such an approach helped the researcher to eliminate from the study care provider respondents who were only peripheral in the provision of geriatric care in the District.

Table 4.1: Description of respondents

Sub-group	Number	Characteristics
Elderly people (EPs)	18	<ul style="list-style-type: none"> • Gender: 11 men and 7 women • Age: between 55 and 89 years • Setting: rural (4 men and 4 women respondents – total of 8 respondents); urban (7 men and 3 women – total of 10 respondents) • Living arrangements: alone (12), with spouse (2), with family members (2), family members living within a walking distance (2) • Self care (12) • With informal care providers (6) • Economic status: varying with some EPs with pension and others did not have pension
Informal care providers (CPs)	6	<p>Relationship to elderly:</p> <ul style="list-style-type: none"> • Gender: 2 men (sons of elderly parents) and 4 women (2 spouses, 1 daughter and 1 daughter-in-law)
Formal health-care providers (HCPs)	16	<ul style="list-style-type: none"> • Gender: 9 men and 7 women • Ranks: 5 male doctors, 5 women nurses, 4 men clinical officers; and 2 women nutritionists

The snowball technique was also used to identify the FHCPs from the Provincial General Hospital (PGH) and Rongai Health Centre. The administration at the PGH and the Health Centre helped the researcher to identify one staff member, in the filter section¹ or triage who then identified another case and the process continued until others were identified to include nurses, clinicians, nutritionists and doctors.

¹ The filter section or triage is an area in out-patient services where staff classify patients by assigning them to appropriate health-care services within the hospital

4.5 PILOT STUDY

The pilot study was conducted in Mbogoine Division (now part of Bahati District) and the Nakuru Municipality between October 2005 and January 2006, the purpose was to test the effectiveness of the research instruments. These pilot responses were pivotal because they led to a decision to replace a self-administered open-ended questionnaire with face-to-face interviews as the primary method of data collection; to refine the questionnaires, and it was decided to involve an interpreter in the research process.

The researcher collected data from two rural villages in Mbogoine Division, one low and one middle level income residential estates in Nakuru Municipality. A total of twenty respondents were interviewed using open-ended questions. Ten of the respondents were EPs; five were ICPs and five were FHCPs. The experiences gathered during the pilot study were helpful in reformulating and finalizing the topics covered in the questionnaire. Initially, the researcher planned to use an open-ended questionnaire with the FHCPs because of their high level of literacy but finally decided to also use face-to-face interviews in cases where they failed to complete a questionnaire.

It was also found during the pilot study that some of the EPs, particularly the men, preferred to be interviewed in the company of their spouses, most of who doubled up as ICPs. The elderly couples tended to consult each other and/or ICPs about their health and related care. This behaviour confirmed that the choice of the data-collection method gave respondents opportunities to discuss and share experiences. Two elderly couples with similar mannerisms were encountered. In this instance, the researcher allowed the spouses to consult among themselves while gently probing the respondent to focus on the main topics. Only one of the spouses would be interviewed in this type of situation to avoid duplication of responses.

During the pilot study, it was observed that some of the EPs (especially from the rural area) were intimidated by tape recorders. It was found that many people were suspicious of anyone using a tape recorder due to an incident in which a government officer secretly taped conversations with other top political and government officials while investigating a case of corruption and then used the recorded information against the suspects. Therefore, the plan to use digital voice recorder was dropped and data were recorded instead by listening and taking notes which were then later transcribed.

It was found during the pilot study that a number of EPs (from the rural area) could not speak English or Kiswahili, but were at ease in contributing to a discussion orally using their native Kalenjin language. For this reason, the interview guides were translated into Kalenjin as well as Kiswahili and an interpreter with experience in LIS who spoke Kiswahili and Kalenjin was recruited and trained to communicate with respondents in these two languages. The researcher trained the interpreter by involving her in interviews conducted in English or Kiswahili, thereby enabling the interpreter to communicate effectively with non-English and Kiswahili using the interview guides. The interpreter also helped, under the guidance of the researcher, in taking interview notes.

The researcher learnt from the pilot study that a lot of patience is required in working with EPs, which had implications for planning data collection sessions. Some of the respondents for the pilot study scheduled themselves for other activities on the same day the researcher planned to meet them and did not inform the researcher. The author had to make new appointments and confirmed the availability of respondents before going to meet them. The pilot experiences also showed that most of the respondents felt that health and related issues were private matters and preferred discussion in the privacy of their homes or in the presence of family members. Some families also expressed concerns about interviewing their elderly parents away from their homes. For example, a member of one family misinformed the father about the purpose of the research and influenced him to withdraw from the exercise. For the final study, the researcher had to find out whether the respondent families had spokespersons that required consent to interview the EPs among them.

4.6 DATA COLLECTION METHODS

This study used two methods for data collection. The first one, which was the primary source of data collection, was face-to-face interviews and the second one was the use of secondary sources. The researcher selected these two methods as they complement each other. The two respective methods are described below.

4.6.1 Face-to-face interviews

Interviewing implies a form of questioning, usually characterized by verbal questioning as the major technique for collecting data. The use of face-to-face interviews in this study was

underlain by a concern to promote dialogue and narration as a way of giving the respondents a "voice" to provide details and experiences about access and use of information in health-care of EPs in Nakuru District. The method was useful in securing of detailed information about information behaviour in the health-care of EPs that might have been difficult to gather through other methods of data collection. Face-to-face interviews are normally used by LIS researchers to yield data about health information seeking behaviour of marginalized or vulnerable groups since very little is known about them (Wathen & Harris 2006; Courtright 2005:1-15; Bii & Otike 2003).

The face-to-face interview technique has the advantage of producing high response rates as opposed to other data-collection techniques such as telephone interviews or questionnaires sent by mail. In addition, the method provided an opportunity for the researcher to observe the non-verbal behaviour of respondents during the interview and correspondingly adjust her choice of language to be able to probe for details (Babbie 2007:305-308; Neuman 2003:290; Cooper & Emory 1995:270-290). The researcher used English and Kiswahili² languages as these were spoken by most of the EPs and ICPs. However, an interpreter with research and work experience in library and information science translated some of the topics of discussion into Kipsigis³, a Kalenjin language that some EPs (from the rural site) spoke.

Interview guides were used to collect information from respondents (Appendix I, II and III). Items on each guide were translated from English into Kiswahili and Kipsigis language with the help of experts to ensure that the appropriate words were used during interviews to convey or represent concepts of information that the study investigated. The interpreter was trained for two days to familiarize with the research topic and interview schedules to be able to provide translation services in the rural site as the need arose. In order to ensure consistency, the researcher conducted all of the interviews. The individual sessions lasted between two and half to three hours.

² Kiswahili is the national language of Kenya.

³ This local language was spoken predominantly in the rural site by EP respondents who could not speak English or Kiswahili.

The interviews involved at least two visits over the course of data collection from all three groups of respondents in their homes or places of work. The first visit was for familiarization between the researcher and potential respondents. The decision to interview respondents in their homes or places of work provided a natural setting for them to feel at ease and respond to the interview (Babbie 2007:304-308; Kasomo 2006:43-46; Neuman 2003:290-291). The second visit was for actual data collection. The visits also provided more opportunities of interactions between the researcher and the respondents in order to facilitate a fairly naturalistic approach to gathering and verifying the required data. This increased the validity and reliability of the results.

The researcher introduced the subject for discussion in a general manner that allowed respondents to talk briefly about their experiences about health-care. The researcher picked cues from respondents' brief discussion to lead and probe them gently to discuss the topic of the study starting with any of the questions. Respondents were encouraged to express their views in their own words as the researcher probed, conversed with them, and recorded their responses. The researcher listened carefully during the discussion and recorded responses from each interviewee separately. As the researcher probed respondents, she asked them to explain non-verbal expressions that they used during the discussion. The researcher took notes on other behaviour and occurrences during the discussion and incorporated them in the analysis of the data.

The interpreter recorded responses in the local language and translated them to the researcher in English. The researcher was able to probe respondents with the help of the interpreter. The researcher and interpreter went over the notes at the end of each session to confirm if the information was correct. The researcher transcribed and wrote out a summary of each interview after each session at the end of the day. The summaries were typed and stored as texts in MS Word, rechecked and analyzed continuously during the study.

The experiences from the pilot study showed that the primary respondents, the EPs, needed to be interviewed face-to-face because of personal limitations such as illiteracy, which made them unable to respond to a questionnaire. For some of the EPs, it was the first time they participated in a research study and so they needed a data-collection method that would enable them to receive assistance from researchers. The face-to-face interview approach was personal and enabled the interviewer to study the body language and facial expressions of the

respondents (Kitchin & Tate 2000: 216), which would have been missed out on, in a telephone interview or in a questionnaire.

4.6.2 Secondary sources

Secondary sources, upon which much research is built, are not original as they are extracted from information already stored although was initially obtained from primary sources. They analyze, interpret, and discuss primary sources of information. Secondary sources include journal articles, books, encyclopaedias, dictionaries, reviews, newspaper articles, essays, CD-ROMs, magazines, videotapes, and television shows.

Though face-to-face interviews were the main method of data collection, a literature review was conducted first to define the scope of the study. The items were refined in a pilot study of the instruments to show the:

- Type of information needed for health-care of EPs;
- Sources that EPs, ICPs and FHCPs used to get information for health-care;
- Ways in which the groups of respondents used information in health-care; and
- Factors that influence the groups of respondents to access information for health-care.

Information from secondary sources was also beneficial in the identification of the method for collecting data. The literature review and the pilot study revealed that it was difficult for some of the EPs to contribute effectively to the data-collection process if they had to provide written responses. In this case, a more “elderly-friendly” research method involving face-to-face interviews was chosen. In addition, information from secondary sources continued to be collected throughout the research process to ensure that the study was informed by the relevant literature on theoretical, methodological, empirical and contextual issues.

4.7 DATA ANALYSIS

Data analysis in qualitative research can be defined as consisting of three major actions; data reduction; data display; and conclusions and verification (Berg 2007; Ritchie & Spencer 2002:305-330). The data analysis in this study involved data reduction, display, conclusion, pattern matching and verification in the tradition of qualitative research (Berg 2007:48-49). Data reduction refers to the process of selecting, focusing, simplifying, abstracting and

transforming the collected data. Data needs to be reduced in order to make it more readily accessible and understandable. According to Ritchie and Spencer (2002:305-320), data display is intended to organize the collected data in such a way that it permits the drawing of conclusions.

The researcher also used pattern matching in analysing the data. Pattern matching refers to relating several pieces of the same case to a theoretical proposition (Yin 1984). Pattern matching helped to reduce fragmentation of data and provided more direct empirical grounds for making connections between categories of data collected from the EPs, their ICPs and FHCPs (Dey 1993:169). The third component of the data analysis process is verification and drawing conclusions. The study drew conclusions related to each of the findings about the information behaviour in the health-care of the EPs in the Nakuru District using these methods.

Responses from each interview in the current study were transcribed and summarized at the end of each session. The study simultaneously collected, analyzed and wrote up the research report, following the procedure of data processing and analysis in qualitative research (Babbie 2007:378-401; Berg 2007:302-316; Creswell 2003:190-196; Dey 1993:30-54). Each script was separately stored in MS Word. Data were analyzed using content (words and sentences). Content analysis means that “a researcher uses objective and systematic writing and recording procedures to produce quantitative description of the symbolic content in a text” (Neuman 2003:311). The researcher carried out a line-by-line analysis of each interview in order to fully appreciate the sense of the responses.

Open coding was used to categorize and classify data and similarly recurring items from the scripts were highlighted. Field notes were also analyzed and incorporated into the report summaries. These initial analyses led to the drafting of the report which was then critiqued and commented upon by supervisors after which further analysis was undertaken leading to a refinement of the themes and categories prior to drawing conclusions (Berg 2007:303-307; Babbie 2004:375-381; Finch 1990:128-146). Content analysis helped the researcher to identify themes based on the objectives of the study. These included the types of information needed in health-care, the sources of information, the various ways in which health-care information was used, and specific factors determining access to and the use of information

in geriatric health-care. Descriptive statistics were used to analyze data, which were also summarized into tables and diagrams.

4.8 ETHICAL CONSIDERATIONS

The researcher complied with requirements about ethical considerations such as responsibility to colleagues and respondents and the larger society as suggested in literature (Berg 2007:53; Babbie 2007: 26-27, 62-74 & Peil 1982:18). The political situation in Kenya at the time of study predisposed the respondents and their communities to be suspicious of the researcher, who also needed authorization from the Ministry of Education, Science and Technology to conduct the research. Letters of introduction obtained from local community leaders along with explanations of the purpose of the research at all levels of the process, helped to dispel suspicions. The use of an English, Kiswahili and Kalenjin speaking interpreter, and getting express consent from respondents facilitated the data-collection process within the multi-lingual community of the Nakuru District.

The researcher also had concern for ethics. The concern was paramount throughout the periods of problem formulation, data collection, analysis, writing and dissemination of results. Observing ethical concerns provided in published literature and by the government of Kenya contributed the credibility and reliability of the findings of the study. Key ethical concerns, as discussed in Babbie (2007:26-27, 62-74) in relation to how they are considered in the current study, are summarized below:

- An under-researched topic is investigated with a focus on a neglected social group and their needs in health information, hopefully drawing the attention of the government and other players to the pressing needs facing this group. The researcher formulated the research project in order to find and propose solutions to problems facing the elderly in the Nakuru District. If the government and community were to take heed of the findings and implement the recommendations, the elderly would benefit.
- *Respect is shown for the integrity and privacy of individual respondents and communities involved in a study.* This important ethical concern has been addressed by many authors (Magnusson & Hanson 2003:431-439; Neuman 2003:116; Black 2002:62). All the information gathered by the researcher was treated with a very high degree of

confidentiality. The results were communicated in a scientific manner and the identities of the respondents were kept anonymous.

- *Established procedures of research were followed.* The researcher obtained clearances from relevant government authorities: the Ministry of Education, Science and Technology, the Nakuru District Commissioner's Office, the Nakuru District Health Office and the local administrations including chiefs, assistant chiefs and village elders. A written explanation of the purpose of the study was given to the respective authorities as well as to the respondents, prior to the interviews. The respondents were engaged as collaborators by sharing with them copies of letters of authority or explaining the purpose of the study to them orally and they were assured of the anonymity and confidentiality of the data-collection process.
- *Explanations were given to individual respondents about the purpose of the study and their consent was requested prior to interviews.* The purpose of the academic study was explained to the respondents in such a way that they were able to appreciate how their participation would be a highly-valued part of the research. The respondents were allowed to suggest a time and date that was convenient for them for the interview, and appointments were made well in advance and were confirmed by the researcher at least twice prior to the actual interview. This approach helped to create an atmosphere of trust between the researcher and respondents and to make it possible to collect valuable data.
- *Cultural expectations were met and appointments were kept.* The researcher dressed in an appropriate manner in as far as the cultural practices were concerned, used respectful language and demonstrated respect for the respondents and the authorities, thereby demonstrating respect for the cultural environment. Appointments were kept and, if scheduling changes were necessary (as was necessary in one instance due to a death in the family) respondents were informed well in advance so that the respondents would not feel disappointed about a postponed interview.
- The researcher maintained the anonymity of the respondents, in accordance with accepted standards of research. The researcher used information gathered from respondents as per the agreement in the consent and did not include the names of in the report.

4.9 VALIDITY OF THE STUDY

Validity considers the accuracy; meaningfulness and credibility of a study as well as its results and may be at external, internal or content levels. The external validity of research findings refer to the ability of the results to be generalized across persons, settings, and time (Cooper & Emory 1995:149). The internal validity refers to the extent to which a given instrument truly measures what it is supposed to measure (Leedy & Ormrod 2005:28-29). Content validity is more concerned with the measuring instrument and the extent to which the instrument adequately covers the topic under study (Cooper & Emory 1995: 149). A well-designed instrument should measure what it intended to measure and do so correctly. Validity is linked to truth and is fundamental in establishing the credibility of a study. Validity can be regarded as the degree to which a researcher gives a true picture of the phenomenon under study.

Validity in qualitative research assumes that the report is accurate, unbiased and credible from the standpoint of the researcher, the participant or the reader as long as certain techniques, methods or strategies are correctly followed during the research (Creswell 2003: 95-196). Therefore, at the core of validity in qualitative research lies the observation of specified procedures and guidelines. These were the following in this study:

- A participatory approach;
- A pilot study was conducted;
- Detailed descriptions were used to convey findings; and
- Draft reports were shared at every stage of the process and the views conveyed by supervisors were carefully integrated before the final report was written.

The key respondents, the EPs, participated in the study by helping to sample the ICPs and FHCPs. The sampling technique the researcher used helped to identify the respondents who were all involved with the actual care of the EPs and in need of health-care information. All of the respondents voluntarily chose to participate in the interviews and to share their experiences. Only three people withdrew participation in the study. One of them, an elderly respondent indicated that he was busy because he had been engaged in an evening and weekend job. Another elderly person could not participate because her son took her for

medical treatment in a different town and the third withdrew after intimidation from a family member for participating in an exercise for which he would not be paid in cash.

To ensure validity of the current study, the interview guides for EPs, ICPs and FHCPs were tested in a pilot study in Mbogoine and Nakuru Municipality Divisions to determine their clarity, completeness, relevance and shortcomings. The major shortcoming found during the pilot study was related to data collection techniques. The experiences during the pilot study showed that there was need to change the method of data collection from an open-ended questionnaire to face-to-face interviews that could elicit more complete and more detailed responses from EPs and their ICPs and FHCPs. The researcher changed the method of data collection following the experiences of the pilot study, prior to data collection for the main study.

At the level of data analysis, the researcher used triangulation, as described by Neuman (2003:137-138). Triangulation involves examining evidence from different sources of information and using it to build a coherent text or report that can justify the themes (Creswell 2003:196; Yin 1984:99-120). In this study, the researcher deliberately sought evidence from the literature about information behaviour of EPs, ICPs and FHCPs in geriatric care to be able to make comparisons with statements of respondents in the current study. The researcher also compared responses from the EPs, ICPs and FHCPs. For example, the researcher made cross comparisons of statements from all of the EPs, ICPs and FHCPs in writing the report. Validity was further enhanced by observations made, and personal experiences shared during the interviews, as well as through the verification of information obtained from some of the respondents before including them in the final report. Information from secondary sources including books, journal articles and related research findings were used in interpreting the findings. The researcher translated some of the responses from the EPs, ICPs and FHCPs and presented them as direct quotations in the report to enhance the validity and interpreted the quotes to fit them into the data analysis.

4.10 RELIABILITY OF THE STUDY

Reliability is a concept that is used to refer to the testing or evaluation of qualitative research (Golafshani 2003:601-602). The reliability of a study relates to the extent to which the designed instrument can be employed repeatedly under constant conditions and can produce

the same results (Babbie; 2007:143 & 314-315; Cooper & Emory 1995:153). Reliability also refers to the consistency, stability, and dependability with which an instrument of research is found to be free of error. Consistency or the potential for using an instrument, such as a face-to-face interview repeatedly, as in qualitative studies is questionable because the interviews are developed to be used for a specific study or for a particular group. This challenge needs to be kept in mind when planning for interviews and an accurate description of the phenomenon under study needs to be presented. As the purpose of qualitative studies is to help readers to understand a situation or a phenomenon (Golafshani 2003:601), trustworthiness is crucial in ensuring reliability in qualitative research. Mugenda (2008) presents guidelines for reliability or trustworthiness in a qualitative study. The guidelines are discussed below in relation to how the current study achieved reliability.

- **Truth:** Truth in qualitative studies is also referred to as credibility value. It is demonstrated by establishing a link between the data and phenomena that the data represents (Mugenda 2008:56). The researcher in the current study interviewed the EPs, FHCPs and ICPs in order to capture a true picture of their day-to-day experiences in accessing and using of information for geriatric health-care.
- **Generalization of findings:** Quantitative studies achieve generalization, also referred to as the transferability or applicability of findings through demonstrations that the data was collected from a representative sample of the population studied (Mugenda 2008:57). Statistical tests are used to test the randomness of the data. Though such a procedure may not be applicable to qualitative studies, the use of a “thick description” about a phenomenon may make it possible to generalize the findings of qualitative studies to some degree (Mugenda 2008:57). The researcher used this technique to describe in detail findings about some of the issues in order to generalize them to some degree to similar respondents and settings in a development context.
- **Consistency:** Qualitative research defines consistency in terms of dependability (Mugenda 2008:57) and assumes that a study can be repeated under the same circumstances, in another place and time and yield similar results (Babbie & Mouton 2001:120-121). However, designs in qualitative research are emergent, permitting changes to be consciously built into studies (Mugenda 2008:57). As descriptive designs are by nature limited in geographic scope, the aim of qualitative research is to describe the uniqueness of situations or human behaviour, and to show variations instead of duplication or identical repetition. The researcher used a descriptive design in this study

to show variations on a range of issues related to the information-seeking and using behaviour in the health-care of the EPs in the Nakuru District.

- **Neutrality:** The concept addresses the confirmation of research findings, free of bias, personal interest or perspectives of the researcher or other individuals (Mugenda 2008: 58). Triangulation is used in qualitative studies to enhance confidence in findings of a study. Some qualitative studies use a single research method and as such may suffer from limitations associated with the method. Triangulation offers an opportunity for enhanced confidence in the findings of such studies. In this study, the researcher wrote down all the responses of the EPs, ICPs and FHCPs during data collection. Comparisons were made between the responses and information from secondary sources such as books and research reports to confirm the data collected through the face-to-face interviews with the three groups of respondents, thereby to obtaining a more comprehensive view of information behaviour of the EPs, ICPs and FHCPs in health-care.

The pilot study increased the reliability of the research by ensuring that the data collected responded to the issues under study. The researcher conducted a pilot study with similar populations of the EPs, ICPs and FHCPs, in line with the tradition of qualitative research (Neuman 2003:180-182; Kitchin & Tate 2000:218-219). The pilot study helped to refine instruments of research and to focus the interview schedules on the key issues, so as to generate meaningful findings about the information-seeking and using behaviour of the EPs and their ICPs and FHCPs.

The researcher administered all the interviews personally whilst making efforts to listen carefully, record responses accurately, interpret and report fully all responses from participants. The researcher also included observations that were made during the interviews and provide a detailed description of the data collected. The combination of all of these data-collection activities provided unique insights reflected in a rich description about the needs, attitudes and process of accessing and using information in the health-care of the EPs in the Nakuru District.

4.11 PREVENTING BIAS IN THE STUDY

Bias is any influence, condition, or set of conditions that singly or together distort data in research (Leedy & Ormrod 2005:208). Although scientific research involves accuracy and precision in the measurement of the phenomena, it sets out to investigate, researchers may become biased at any level of the research process. Efforts were made to avoid bias in the current study at the levels of sampling, collecting and analysing data.

4.11.1 Selection of participants

Researchers almost always have to work with samplings rather than the full populations and the sampling needs to be representative of the population if the results are to be accurately generalized. In order to avoid a sampling bias, the researcher first conducted a pilot study which helped to establish the various ethnic groups in the Nakuru District and thereby decided to conduct the final study using a rural and an urban site to be able to capture the varied views of the urban and rural population in the District. During the sampling process, the researcher encouraged participants to nominate male and female respondents from different socioeconomic and ethnic backgrounds to generate lists of participants to represent the populations of the EPs, ICPs and FHCPs. These lists of respondents were “self-selected or nominated” participants of different backgrounds, selected by the respondents themselves to avoid the bias that might have occurred if only the researcher had selected the respondents.

4.11.2 Data collection

Qualitative research should not be an impressionistic report of a pre-conceived point of view of the researcher but rather an authentic reflection of the results of the actual data collection. The researcher spent extensive amounts of time with the respondents in order to become familiar with them and to collect data that was meaningful. Each individual who consented to participate in the study was interviewed and every response, comment and suggestion made by the respondents was carefully studied. The researcher sought from EPs, ICPs and FHCPs clarification of responses that were not clear to be able to capture the correct views of the participants.

4.11.3 Data analysis and report writing

Results of studies should be factual and accurate accounts of the data collected from the field. In order to maintain and present an accurate account of views from the EPs, ICPs and FHCPs, the researcher documented and maintained all records of interview schedules and also used direct quotations from some of the data to allow readers to experience the views of the respondents. The research report was regularly submitted to supervisors for comments and was edited before submitting the final draft.

4.12 RESEARCH CHALLENGES

The main challenges experienced and ways in which they were handled are discussed below.

- **Methodology:** Initially, the researcher intended to use an open-ended questionnaire for all the respondents but the pre-test revealed that this would be inappropriate due to varied levels of literacy among EPs, some of whom were illiterate. The experience with the pre-tests therefore guided the researcher in changing the methodology and deciding to use face-to-face interviews instead. However, it was found that these were very time consuming and so more time was allotted and the researcher also explained to every respondent about the possibilities of spending more than one hour with them to be able to collect the information needed for the study. The training and work experience of the interpreter, and her ability to speak two local languages fluently helped to save on time and labour for the researcher.
- **Political context:** The Nakuru District was one of the areas in Kenya that experienced intense post-election violence following the disputed presidential results of the December 2007 general elections. The researcher was unable to collect data within the stipulated time frame because of the post-election unrest and the displacement of potential respondents in both the urban and rural areas. However, the researcher used the time to refine instruments of research and to expand the literature review. When data collection was resumed, a number of new respondents had to be identified to replace those lost during the unrest or those who were displaced from their original home, so as to comply with the numbers selected for the respective research-population groups.
- **Change in government policy:** The government of Kenya implemented a decision to create new districts in some parts of the country by dividing up old districts, resulting in

the division of the former Nakuru District into four new districts. This decision made it necessary for the researcher to change the study sites from Bahati, Njoro and Municipality to Rongai and the Municipality. The latter two, together with Mbogoine now formed the new Nakuru District. In addition, there was prolonged hostility in Mbogoine against members of the researcher's ethnic group, prevented her from conducting research in Mbogoine and Bahati Divisions. Therefore, only respondents of Rongai and Nakuru Municipality following the new administrative divisions remained, though the researcher had carried out the pilot study of research instruments in Mbogoine.

- The decision of the government to increase retirement age for civil servants did not affect the current study because the policy was implemented after the researcher had collected data for the study.

4.13 SUMMARY AND CONCLUSION

This chapter was devoted to the discussion of the research methodology used in this study, which took a qualitative approach and used face-to-face interviews as the main method of data collection. Appropriate qualitative techniques of data analysis, including pattern matching, were used to process the data collected. The next chapter presents findings on the information needs of EPs, ICPs and FHCPs in health-care.

CHAPTER FIVE

INFORMATION NEEDS IN HEALTH-CARE OF THE HOME-BASED ELDERLY

5.1 INTRODUCTION

This chapter presents the findings of the study focused specifically on the information behaviour of elderly people (EPs), informal care providers (ICPs) and formal health-care providers (FHCPs) in Nakuru District of Kenya. The findings in this chapter address the research question: “*What kind of information is needed for health-care of home-based EPs in Nakuru District?*” The interviews conducted showed that respondents needed information about medication, complementary and alternative medicine (CAM) nutrition, emotional and spiritual support, physical fitness, clothing, financial assistance and geriatric services. The findings are presented to show the specific needs of each group. However, the responses given by the respondents themselves added value to the data collection process, helping the researcher discover further, more detailed dimensions of information needs related to health-care for home-based EPs. The chapter reports on and disaggregates findings drawn from interviews with 18 EPs, 6 ICPs and 16 FHCPs about their information needs in health-care of the aged.

The findings provide a profile of the geriatric information needs of the EPs, ICPs and FHCPs for home based elderly in Nakuru District. The findings are then placed within the theoretical context of the literature on information user needs and an attempt is made to demonstrate their contribution to scholarly research in the field of Library and Information Science.

5.2 INFORMATION NEEDS IN THE HEALTH-CARE OF ELDERLY PEOPLE (EPs)

A need for information arises when an individual is unable to use the knowledge that he or she possesses to solve problems within a specific situation and thereby, triggers a search for new information. Since the existing research provides little insight into the information needs for the health-care of the elderly in a development context, this study placed importance on learning more about the information-seeking behaviour of the EPs, ICPs and FHCPs when they encounter problems with regard to a lack of knowledge about medication, nutrition and

other health-care related matters. It was envisaged that by probing into the information behaviour of the target groups in Nakuru District, areas where information was lacking could be identified so that improvements could be made to the current system for providing appropriate health-care information services to the elderly. These findings, it is anticipated, should be generalised to similar situations in other parts of the developing world.

5.2.1 Elderly people (EPs)

A total of 18 EPs participated in the interviews, eight from Rongai Division (the rural site) and ten from Nakuru Municipality (the urban site). Eleven were male and seven were female, and all were between 55 and 89 years of age. With regard to other demographic characteristics, ten of the elderly participants had a tertiary education and eight were illiterate. Eight of the respondents were retirees living on pensions and supplemented their income from small businesses. Another eight EPs had small businesses or were involved in farming activities and two had no income-generating activity. Only six of the EPs reported having ICPs while the remaining 11 cared for themselves. Only one respondent among the 18 EPs had private health insurance coverage.

In order to determine their information needs, respondents were asked to talk about areas in which they needed information for health-care. Overall, the EPs reported that they need information about medication, CAM, nutrition, emotional and spiritual support, physical fitness, clothing, financial assistance and geriatric services. Table 5.1 is a summary of the information needs of EPs in health-care.

Table 5.1: Health-care information needs of elderly people (EPs)

Information	Reasons for need of information
Medication	<ul style="list-style-type: none"> • To help EPs to follow instructions for use of medicine • To help EPs update their knowledge about new developments in treatment of diseases that they suffered from • For EPs to be aware about side effects of conventional medicine that they used
Complementary and alternative medication	<ul style="list-style-type: none"> • To help EPs to distinguish genuine from counterfeit CAM products and treatment • For EPs to be aware about expiry dates of herbal medicine
Nutrition	<ul style="list-style-type: none"> • To help EPs to improve conditions of their health • To help EPs to use appropriate diet
Spiritual and emotional support	<ul style="list-style-type: none"> • To help EPs to respond to situations that affect their health • To help EPs prepare for end of life
Financial aid	<ul style="list-style-type: none"> • To help EPs pay for cost of health-care (for example medicine, diet, transport)
Physical fitness and exercise	<ul style="list-style-type: none"> • About easy-to-follow exercise and activities at home
Clothing	<ul style="list-style-type: none"> • For EPs to experience physical and psychological comfort
Geriatric health-care services	<ul style="list-style-type: none"> • To respond to special health-care needs of EPs

Table 5.1 shows that EPs needed information that could help them to respond to health conditions when they were away from FHCPs. The information needs are discussed in the sections below.

5.2.1.1 Information about medication

All EPs interviewed in this study reported that they needed information about medication because they used at least one type of medication to treat their ailments. Ten of the respondents (mainly urban) reported that they were able to follow the instructions on the medication prescribed for them at the hospital or the health-care centres while the remaining eight (mainly rural) reported that because they were illiterate, they needed help to follow instructions about medication. The findings showed that some EPs routinely took medication while not having a complete understanding of the related information about diagnosis and

treatment. The findings indicated that the majority of EPs need information about medication to be translated into their native language and presented in a way that they could understand.

A group of EPs suffering from chronic diseases reported that they were aware that they would need to use medication for the rest of their lives. They reported that they needed information about new developments in the treatment of their particular diseases, including CAM, so that they would be able to benefit from the treatment. One of the respondents observed:

“I am aware that I will use medicine for the remaining years of my life to maintain the condition of my health. But I would like to know if there are new findings about this or if there is new treatment about management of high blood pressure, diabetes, and other ailments associated with old age,”

The observation of the respondent showed that EPs did not access research findings and current information about conditions of their health.

Eight out of 18 elderly respondents indicated a concern about the side effects of conventional medication and a need for information to help them understand the benefits in relation to possible long-term effects of a specific medication. Their concerns about long-term side effects arose from information about the dangers of conventional medicines gathered from informal sources through friends and family. The respondents said that FHCPs encouraged them to use conventional medication without informing them of possible long term effects of the drugs prescribed. The findings showed that EPs did not have access to all the relevant information that is usually needed when using conventional medication. This finding reiterates the findings of Beckman, Parker and Thorslund (2004:186-191) that show that EPs may be unaware of the side effects of conventional medication partly because of lack of professional advice or as a result of administering over the counter prescriptions to themselves without having a complete understanding of the benefits and possible side effects of the medication.

5.2.1.2 Information about complementary and alternative medicine (CAM)

Complementary and alternative medication (CAM) is defined as “a group of diverse health-care systems, practices, and products that are not presently considered an integral part of

allopathic health-care” (National Center for Complementary and Alternative Medicine 2004). CAM practices have also been described as herbal or traditional medicine, and also as home remedies. Complementary medicine is sometimes used along with conventional medicine. However, the term “alternative medicine” implies that practitioners may be involved with health-care practices that are very different from conventional practices. Examples of therapies involving CAM include chiropractics, acupuncture, massage, and self-directed practices (such as nutritional and herbal supplements), meditation, and more recently, the use of magnetism. In the context of the current study, CAM medicine was supplied by individuals, research organizations, groups of people and multinational firms. The level of training varied from traditional methods for training herbalists to professional and on-the-job training provided by CAM colleges and international companies.

During the interviews, it was learnt that half (9 out of 18) EPs used CAM to provide for their health-care needs. The respondents argued that herbal medicine was less expensive and had minimal side effects. They sought information about CAM from sources ranging from individuals in the villages to well established CAM groups representing multinational firms. It became clear from the interviews that EPs were exposed to extensive publicity about the benefits of CAM, making it difficult for some of the aged people to decide on what brand of medicine to buy and where to buy it. They acknowledged that sometimes it was difficult for them to distinguish between genuine and counterfeit herbal medication and that some regretted spending money on CAM medication when it failed to give the expected results.

Three EPs from the urban site with tertiary education indicated that they searched for products and information about CAM from reputable firms or dealers. They said they used CAM because they thought a combination of CAM and conventional medication would help to resolve their health-care problems. Some of the EPs used CAM therapies when they felt that conventional medicine had failed or when it was too expensive for them to buy. Life in an urban environment, a higher level of education and socio-cultural influences favouring the use of herbal treatments also contributed to the use of CAM among the EPs.

The findings revealed that EPs sought authoritative information about each type of herbal medication and that they lacked information about details such as the expiry dates of herbal medicine obtained from unregistered private vendors, making them vulnerable to vendors who might market medications that could be harmful to their health. The findings also

showed that FHCPs were unaware that the EPs in their care sometimes used CAM in addition to conventional health-care services.

Studies have shown that some EPs use herbal treatment or home remedies when these are recommended by FHCPs (American Association of Retired Persons (AARP) 2007) while other EPs use CAM due to financial constraints, a socio-cultural predilection or as a supplementary treatment (Easom & Quinn 2006:32-46). The findings of the current study show that EPs use CAM without advice or recommendations from conventional health-care providers.

5.2.1.3 Information about nutrition

Nutrition is “the sum total of the processes involved in the intake and utilization of food substances by living organisms, including ingestion, digestion, absorption, and transport” (Williams 2005:9). The primary purpose of good nutrition is to provide the body with a variety of essential nutrients. Poor nutrition, on the other hand, can prolong recovery from illnesses, increase the costs and incidence of hospitalization, and lead to a poorer quality of life. In the context of this study, good nutrition is understood to refer to the preventive, promotive and therapeutic values that EPs need and acquire from the healthy intake of food.

More than half of the EPs (11 out of 18) reported that they took a keen interest in information about nutrition because FHCPs prescribed diets to help them to improve conditions of their health. The EPs indicated that nutrition clearly remained an important concern throughout their lives and many conditions that may develop later in life, such as osteoporosis can be averted or mitigated by good nutrition.

One elderly respondent, however, indicated he found it difficult to accept information that advised him to change his diet and stop eating red meat. During the interview, it was learnt that meat (beef and mutton) was a part of the main diet in the community where the old man had grown up. Other EPs reported that they tried to stop eating meat and other foods, as advised by FHCPs, but often went back to their prior diet because they were used to it or lacked money to buy food for a healthier diet. The responses showed that personal preferences and cultural practices among EPs were sometimes in opposition to information about healthy nutrition provided by health-care professionals. This behaviour showed the importance of considering carefully the influence of already existing individual preferences

and the cultural practices of a community when helping EPs to access and accept new health-care information.

Seven elderly women interviewed in the study reported that they sought information about traditional and natural food stuffs including whole grains such as millet and sorghum. They believed that specific green vegetables such as amarantha, (also called cat-tail or love-lies-bleeding); stinging nettle (commonly known in as *thabai* in Kenya), solanum (known as *managu* in Kenya); corchorus olitorius (belongs to the family of *tiliacea* (the vegetable is known as *murele* or *murenda* in Kenya) were among those that contained medicinal nutrients that could help to improve their health and that of their spouses. Females in the current study seemed to more actively search for and make use of information about nutrition than the males. Four elderly male respondents indicated that, although they valued information about nutrition, they left the practical aspects of the search for and use of this information to their spouses or female care providers. One elderly man said:

“Issues of food and cooking have been best done by ladies since the time of our fathers.”

The comment implied that socio-cultural practices influenced the behaviour of elderly men in identifying needs and in searching for information about nutrition. The observation also showed that most of the information about nutrition was not accessible to the wider community and that this limited access to information about nutrition exposed EP to varied and sometimes disparate views, about the role of nutrition in health-care. An understanding about the scarcity of information for nutrition of the EPs could be valuable to individuals and organizations providing nutritional food products and information to EPs.

Studies show that use of appropriate information for and actual nutrition helps to improve health and immunity among EPs (Center for the Advancement of Health 2006:17-24; Charlton, Rose & Wagah 2001:2424S-2428S; HelpAge International 2001b:1-22; HelpAge International 1999).

5.2.1.4 Information about spiritual and emotional support

All EPs interviewed for the current study reported that they attended religious services for spiritual nourishment. But three of them (3 out of 18) said that they needed information about spiritual and emotional support, particularly when they were back in their homes. However, they were quick to add that they were concerned about the type of people that would provide emotional support to them in a home environment. One elderly person said:

“I go to church and it is good. But I cannot share all my challenges with members of the church. Some thoughts and experiences one goes through are deep and personal; one can only share them with a trusted person.”

The observation by the elderly person showed that religious gatherings did not meet all their emotional and spiritual needs. In addition, the elderly preferred to find spiritual and emotional support from individuals who observed confidentiality and privacy regarding the personal matters shared. Knowledge about dealing with, and caring for the emotional needs of the elderly can make a significant difference in these people’s lives (Zhan 2005; Ross 1997). The findings suggest that some EPs needed closer relationships for obtaining spiritual and emotional support than was provided by religious gatherings. The findings also show that some EPs lacked adequate information to enable them to tackle the emotional and spiritual challenges encountered towards the end of life. The findings reveal that the right spiritual information shared with a person trusted by the recipient can add to EPs’ quality of life. These findings suggest a need for consolation type of information to be offered when the EPs need it.

The Provincial General Hospital (PGH) in Nakuru District had set up an office for a chaplain who had the responsibility of meeting the spiritual needs of patients admitted to the hospital. The office was run by volunteers from different religious groups and all of the patients, including the elderly were free to request guidance from a spiritual leader of their choice to minister to them in the privacy of the office. The FHCPs at the PGH observed that some of the elderly shared their experiences more easily with their chosen spiritual leaders than with professional health-care providers. The FHCPs reported that religious leaders kept strictly private anything that they shared with patients, including the aged. The FHCPs reported that

they had noted improved attitudes towards medication among some of the elderly patients and their subsequent responses. The positive changes resulted from visits by spiritual leaders.

Many people equate spirituality with religion. In their perception, the spiritual pertains to worship and membership in a particular faith. For such persons, spirituality can be appropriately expressed and experienced only through a faith community. However, though the two terms are conceptually related, they are not synonyms. The meaning of the term *spirituality* is broader in scope than the term *religion*. A person's spirituality may be defined as evoking the characteristics and qualities determining one's relationship to the divine. Spiritual needs, and hence support for individuals, may cover a wide range of issues extended beyond the scope of religion that may be related to human beings' need in life for meaning, purpose, love, forgiveness, hope, creativity, peace and comfort (Ross 1997:710-711).

Closely related to such spiritual needs is the need for emotional support. It is a well established fact that, as people age, their emotional needs change (WHO 2006a&b; Easom & Quinn 2006; WHO 2004; Barrett 2000; HelpAge-Kenya 1999). Stressful situations that commonly distress EPs may involve experiences such as the loss of a spouse or affliction with health problems, lack of financial support and someone to provide care. Often EPs that need emotional support will not have the accustomed forms of support from their children or their community because of socio-economic changes that have taken place over the course of their lives. EPs that face life or health-threatening situations often also experience moments of anger, denial, fear, loneliness, depression and anxiety. They may need information about people who can help them and about things they can do to feel secure, and to be able to communicate and be connected with other people, or to reconcile difficult situations and find peace, acceptance and comfort. It is necessary for a person such as a close family member or friend to understand the emotional state of an elderly person and to know how to provide care.

Studies also show that EPs that attend religious meetings and pray find meaning; feel accepted and come to terms with loss (Easom & Quinn 2006:32-46; Baker 2004:78-82; Ross 1997:710-715).

5.2.1.5 Information about financial aid

In a traditional society, the extended family throughout all generations provided both financial and emotional support to one another and to the elderly family members in particular. The custom remains in some parts of society but the practice appears to be gradually dying out. Norms of family life and responsibilities in most developing countries have evolved and changed and nowadays the elderly may no longer have the financial support of an extended family to help them to meet their day-to-day needs. EPs interviewed expressed a need for information about health-care in part due to their lack of financial support from an extended family.

Majority of EPs (17 out of 18) reported a need for information to help them to meet the costs of health-care and buy sources of information such as books, magazines and periodicals, where possible. The exception and the only elderly person who indicated that he was able to buy some science based text books and a periodical reported that his pension, income from his businesses and a health-care policy enabled him to meet most of his needs for information for his health-care. The elderly person indicated that the income he generated from his businesses was sufficient for him to live on and to settle any medical bills that he incurred. The following observation showed that most people needed information to help them to prepare for financial support in old age:

“It is advisable for people to save or invest when they are still strong and in employment. My wife and I depend on investments that we made when we were still in formal employment. Society has changed and it is difficult to depend on children for financial and other forms of support.”

The majority of the EPs were aware that the government did not have a policy (which they referred to in popular speech as a “plan”) for care of EPs, and indicated that they were unable to pay for medication, food, transport and the other costs of their health-care. The respondents expressed a need for information about organizations that could help them to pay, at least for drugs or hospital bills when they were admitted to hospitals as in-patients. An introductory remark from one elderly respondent at the start of an interview session revealed the overall perception of EPs about the absence of programmes for their support. When he learnt about the purpose of the interview, the respondent first remarked:

“Yes, the elderly. People that are not catered for, people that are not included in government plans.”

This remark implied that EPs would appreciate if their needs were included in government plans for them to receive care.

EPs reported that because of either lack of funds or limited finances, they looked for information about health-care facilities (hospitals, private clinics and pharmacies) that provided treatment or sold medicines at affordable price. The analysis showed that EPs needed information about programmes that provided additional support services for their health-care. The EPs explained that, while they depended on their pensions as well as their children and relatives to help them pay for medication and other health-care services, these funds were inadequate. This implies that EPs need information on financial aid to help them pay for health-care.

All EPs interviewed in the current study indicated that they were unaware of the existence of financial aid programmes for the aged, particularly for health-care in the country. The findings showed that there was inadequate communication to local communities about the programmes of organizations such as HelpAge Kenya and HelpAge International who work to provide financial assistance to EPs. The researcher learnt from an official from one of the organizations that deal with EPs that information about their activities was disseminated via written publications (both print and electronically). The information was available on their website. The organization also had brochures which they gave out to clients that visited their offices. Considering the format in which information is provided compared to the preferences of the target group who are the EPs, it seems that the means used by the local organization to communicate about the care of EPs was ineffective for a number of reasons. The first is that some EPs are illiterate both in English and local languages and need help to be able to follow written information. Secondly, brochures were not distributed to reach majority of the EPs. Most EPs lack IT skills to help them to access information posted on websites of organizations. They may also be unaware of the availability of information for their care.

Studies have shown that most EPs experience health-care challenges because of financial constraints (KNCHR 2009; Juma, Okeyo & Kidenda 2004; Akanji, Ogunniyi & Baiyewu 2002; Apt 1997 & 1991). Findings of the current study further confirm the research and shed

more light on the complexity of the issue of the need of the elderly living in a development context for adequate information that will help them to obtain financial assistance for the care of their health.

5.2.1.6 Information about physical fitness and exercise

As human bodies weaken with age, a lack of physical activity can be a major contributor to the development of coronary artery disease and strokes (Center for the Advancement of Health 2006:17-24). It can also contribute to the development of obesity, high blood pressure, a low level of HDL ("good") cholesterol and diabetes among the aged. But by doing specific exercises, the elderly may relieve joint aches, feel stronger, and lead a more active life.

All the elderly respondents interviewed reported that they had experienced physical weakness, especially in the joints. However, only four male elderly respondents from the urban setting expressed a need for information for physical fitness, reporting that they had watched television programmes about physical fitness and had been influenced by some of the information from the programmes about activities such as taking regular walks around the estates, walking to shopping centres and to visit their friends or relatives living within a radius of about two to three kilometres away. These four male respondents from the urban site, through the medium of television, were exposed to useful information about physical fitness which gave rise to a conscious need for this type of information unlike their rural counterparts. These four respondents also reported that they did manual work such as repairing broken fences around their compounds or mowing the lawn as additional ways of exercising so as to keep physically fit. The findings of the current study revealed that there was an emergence of a group of EPs that were more conscious of the benefits of using information about physical fitness and exercise in order to lead a healthy lifestyle.

The four elderly respondents also said that they felt the demonstrations of exercises on television were too difficult for them to try in their advanced age and that they needed information about easy-to-follow exercises geared for the elderly and demonstrations of the same. The four male urban respondents said that they were aware that there were health clubs or gymnasiums in the town where they could also access information about physical fitness but that due to lack of funds, it was difficult for them to go to these places for information and exercise.

In contrast, the findings from the rural data collection site showed that none of the elderly respondents watched programmes about physical fitness. Discussions with the respondents revealed that FHCPs advised them to keep physically fit by doing work or walking a given distance in the village. The rural elderly obtained information about physical fitness and exercise from personal contacts since most of them did not have television sets in their homes and believed that manual work and walking would keep them sufficiently physically fit to go about their daily routines. For example, all four of the elderly male respondents from the rural site reported that they went to their farms to supervise work and look after their animals. The elderly female respondents from the rural site also felt that their active involvement in farm and household chores would keep them physically fit. These rural EPs needed information about how to keep fit as they did household chores but were not conscious of this information need because of lack of exposure to related television programmes. Overall, the findings of the current study showed that most EPs living in the context of a developing country lacked an awareness of the contribution of physical exercise to their long-term health.

FHCPs reported that they advised EPs to engage in physical exercise but that this was perceived as “child’s play” by some of the elderly who associated physical exercise with activities for school children. These findings suggest that information about physical fitness needs to be repackaged to relate more directly to the concerns and lifestyles of the elderly. The findings also show that a strategy for the dissemination of information to address the needs of the elderly for information on physical fitness should be developed for those EPs who live in rural areas and who may not have access to television thus missing programmes on physical fitness. Researchers in this domain may need to explore in greater depth the views of the elderly living in the context of a developing country about their perception of the value of physical fitness and exercise as forms of health therapy. The findings of the current study suggested that some EPs are selective in the type of information they perceive as useful for their health condition. While the findings of the current study have shown that walking and gardening were the most popular physical fitness activities of the elderly respondents, the challenge remains as to how to help these EPs acquire a greater appreciation of the importance of finding information and consequently using it to help them keep physically fit.

Research has shown that EPs need information about facilities for engaging in physical exercise as a part of a healthy lifestyle (Center for the Advancement of Health 2006:17-24; Easom & Quinn 2006:419; DeLong 2006:1-25).

5.2.1.7 Information about clothing

Clothing should provide physical and psychological comfort to the elderly as they do to other people. EPs may be uncomfortable wearing clothes that are mismatched or that no longer fit. Most EPs prefer clothing that is easy to put on and take off, provides physical comfort and easy mobility, as well as enhances their appearance.

Two EPs (2 out of 18) reported that they needed information about clothing that would be suitable for health conditions experienced by the elderly. The two respondents added that they found some jackets, coats and shoes too heavy to wear and that they had developed skin rashes when they wore clothes made from synthetic materials. They said that they had had to resort to finding information about light weight, warm clothing from second-hand clothing dealers known as *mitumba* in Kiswahili. The findings show that there is a need for providing EPs with clear, comprehensible information about appropriate clothing and that this could play an important role in helping EPs make their own choices on suitable garments appropriate to their physical conditions.

The findings show that only a few of the respondents actually requested information about clothing. It was nonetheless clear that the elderly were conscious of this need for information and that it could contribute to greater physical and psychological comfort as well as an enhanced appearance. The findings also showed that family members and other well wishers that provided clothing for the elderly also needed information to guide them in selecting appropriate garments for the elderly.

5.2.1.8 Information about geriatric health-care services

Most EPs experience multiple ailments and have specific concerns with regard to health and medicine while the actual presence of disease in the elderly may be specific or vague and non-specific. EPs need geriatric services to promote their health and to prevent and treat

disease and disabilities among them. Comprehensive geriatric care services are available in some countries but not all.

Four EPs indicated that they wished to know if there were gerontologists and geriatric services in Kenya, expressing an awareness that developed countries provided these. One of the elderly respondents observed:

“The government hires specialized doctors for children and expectant mothers. It should kindly treat the elderly in a similar manner. The elderly need doctors that know about ageing, and can help us to understand ourselves.”

The comment from the elderly respondent showed that geriatric services in Kenya were perceived by the EPs as inadequate. The sentiments of the respondent also showed that EPs were aware that geriatric services could however be a channel for disseminating and accessing information about health-care.

FHCPs and staff teaching in the medical school at the Provincial General Hospital reported that the study of geriatrics was unpopular in local medical schools because it was not lucrative for FHCPs who also practised in private health facilities as most EPs would not be able to afford geriatric services even if they were offered. A consideration of geriatrics was therefore often covered within other major courses of study but otherwise given little emphasis. Negative perception of geriatrics by FHCPs is counterproductive to provision of information for health-care of the aged. The attitude contributes to an information gap in geriatric services for EPs in a development context. The findings suggest that the training given to FHCPs did not adequately prepare them to provide geriatric services as well as information about these services. As a result, EPs were unable to access geriatric services and related information in order to respond to specific health-care needs. The findings also showed that only a small number of EPs were aware of a need for geriatric services while the majority were either unaware of it or felt that they did not need these services.

A study of information needs creates a greater awareness of existing gaps in information and also contributes to a deeper understanding of the information-seeking behaviour of specific individuals and groups. The findings presented above revealed that the elderly need information about health-care issues including CAM, nutrition, sources of spiritual and

emotional support, financial aid, physical fitness and exercise, clothing, geriatric and related care services to help them attend to challenges that they experience in caring for their own health. The findings demonstrated that this information was required so that the elderly could perform daily tasks and consequently function in a dignified manner in their everyday life.

All EPs interviewed expressed concern about the lack of information and services for the ageing population in Kenya, with a number of EPs asking the researcher during the interviews to “report our case to them or those people” (meaning the Government). The type of information the respondents expressed a need for, also influenced the way they would search for information and then use it. This dimension of the findings is discussed in Chapters Six, Seven and Eight. In the next section of this chapter, the information needs of ICPs involved in the health-care of home-based EPs in a development context are discussed.

5.2.2 Informal care providers (ICPs)

The EPs interviewed were encouraged to identify their actual informal care providers. Only six ICPs comprising two males and four females from 30 to 54 years of age, were identified and consequently participated in the current study. This suggested that most ICPs were more often female. Four of the ICPs were from the urban site while two were from the rural. This pointed to the fact that perhaps most EPs from rural areas carry out self care. Two of the ICPs were spouses; one was a daughter, and another a daughter-in-law while two were the sons of EPs. The two sons were from the urban site, were married and lived with their own families, but at a distance from their parents. The sons that cared for elderly parents explained that they had made their own arrangements with their parents about how care was provided.

Information needs of ICPS fell into two main categories: information required to care for the elderly and information helping them to improve their understanding of the elderly. Their information needs closely resembled those of the elderly they cared for because the responsibilities ICPs have in supporting the elderly are very closely aligned with the actual health-care needs of the elderly. ICPs therefore also needed information about CAM, nutrition, sources of spiritual and emotional support, financial aid, physical fitness and exercise, clothing, geriatric and related care services. Table 5.2 summarizes geriatric information needs of ICPs.

Table 5.2: Health-care information needs of informal care providers

Information	Reasons for need of information
Medication	<ul style="list-style-type: none"> • To help ICPs to understand long term effects of medicine on health of EPs • To help ICPs to respond to emergencies that occur in health-care of EPs
Nutrition	<ul style="list-style-type: none"> • To help ICPs to provide appropriate diet for EPs • To help ICPs create awareness among family members about the importance of providing EPs with recommended diet
Complementary and alternative medicine (CAM)	<ul style="list-style-type: none"> • To help ICPs to understand ways of using CAM products for treatment of EPs
Advising elderly people	<ul style="list-style-type: none"> • For ICPs to help EPs to adhere to medication schedules
Emotional and spiritual support	<ul style="list-style-type: none"> • To help ICPs to respond to challenges arising from providing care to EPs
Financial aid	<ul style="list-style-type: none"> • To help ICPs to meet costs of health-care for EPs • To help ICPs meet costs of living for themselves and their families

Table 5.2 shows that ICPs needed information to help them to provide health-care to EPs that they looked after. The needs are discussed in the sections below.

5.2.2.1 Information about medication

Most ICPs do not have professional training or knowledge of medicine and in some cases, they are providing care services for the first time. They often find the tasks challenging and need adequate information that will provide them with an understanding of medications prescribed for the EPs in their care, how and when the medication is to be administered, the potential side effects as well as how to respond in cases of emergencies.

Majority of ICPs (5 out of 6) indicated that they wanted simplified information that would help them understand the long-term effects of medicine on the health of EPs they cared for as well as information about how to handle emergency situations that might develop when caring for the elderly. These providers reported that like their elderly parents, FHCPs discussed little or said nothing to them about the long-term effects of conventional drugs. Staff only gave ICPs and EPs a verbal briefing or short written instructions about how to

administer medications at home. The findings also showed that most of the ICPs accepted professional responsibilities for which they were unprepared for and thereby experienced a need for assistance from FHCPs in order to fully understand information about medication that they were entrusted with to administer to the elderly. The ICPs indicated that FHCPs usually did not ensure that EPs understood all the information. The ICPs felt that FHCPs should spend more time briefing them about the pros and cons of medications that they gave to the elderly for use at home. One respondent said:

“We carry out work that is normally done by trained medical staff. One gets stranded once in a while and needs help from medical personnel.”

The findings further revealed an unspoken feeling among the ICPs that FHCPs should better appreciate the importance of the role of ICPs and treat them as partners in the health-care for the elderly. The need for simplified medical information for the ICPs was also indicated along with the belief expressed by five of the ICPs that FHCPs should write notes in a language and at a level that ICPs providers could understand. ICPs were also of the opinion that FHCPs should share as much information as possible with them about expected responses, reactions and side effects of medications prescribed for the EPs under their care.

Research indicates that most ICPs are lay people in terms of health-care practices and need guidance from FHCPs to be able to administer medicine with an understanding about the advantages, disadvantages and side effects of a course of treatment (Basil, Kathleen & Shanton 2008:5; Dunbrack 2005:1-20; Zhan 2005:27-38; Cooper & Urquhart 2005:107-116; Smith et al 2003:138-145; Hanson & Clarke 2000:129-137). The situation in Kenya is reflective of the research and the findings of the current study further reinforce this reality. The findings show how a specific group of six ICPs in the Nakuru District had to provide care for the elderly under conditions which they were unprepared to deal with as care givers and in which FHCPs did not give them adequate information about geriatric health-care. These findings reveal a lack of responsibility on the part of the local FHCPs in furnishing ICPs with essential information about medications to be administered to the elderly. These findings reveal indifference or a lack of awareness of the sometimes unarticulated information needs of ICPs about medications prescribed for health-care of the elderly.

5.2.2.2 Information about nutrition

Among the tasks of ICPs is that of meal preparation for the elderly. They therefore need to be able to access appropriate information about the nutritional requirements of the EPs.

All six ICPS reported that they were interested in information that could help them to provide proper diet for the elderly. The two male ICPs reported that because they lived at a distance from their parents and had other obligations; it was sometimes difficult for them to monitor how effectively information about a healthy diet is used by their parents. One of the two male respondents stated:

“I live in a separate estate, about two kilometres away from my father. My father suffers from high blood pressure and diabetes. He is able to walk but cannot cook, clean the house and wash clothes for himself because of age and sickness. I check on him weekly and share with him new information I have about his diet. It is difficult for me to be here daily because of the distance and personal commitments. Sometimes I call to find out how he is doing, whether he has all his food and if he needs anything.”

The other male informal-care provider had this to say:

“I live on a plot that my mother acquired some time back – that is about three kilometres away. My mother suffers from multiple ailments: high blood pressure, arthritis, and diabetes. I check on her regularly because she is unable to move without assistance. Sometimes I send my wife or children to help her to wash, cook and take her to hospital. I have made arrangements for one or two of my children to spend the night in her house. Her neighbours are kind and they help us to look after her during the day. I search for information to help us to provide the right diet for her. But I cannot determine the type of food neighbours give her when we are away.”

The comments show that the realities of life in an urban setting made it difficult for the two male respondents to live in close proximity with their parents. As the two respondents had other obligations and lived at a distance from their parents, there were delays in sharing information for nutrition between the two male care providers and their elderly parents. The two male respondents also reported that they could not attend to domestic chores such as meal preparation and so needed to share information with other family members who would

prepare meals for their elderly parents. The response of the second male respondent indicated that outsiders such as neighbours could be given information about nutrition to help them to provide the right food for these EPs.

Four of the six ICPS who were female reported that they had to search for information about nutrition and would then use most of this information for the EPs they cared for. The findings showed that gender strengthened the realization of importance of accessing reliable information about nutrition in health-care of the elderly as female providers were more conscious of a need for information about nutrition than their male counterparts. Apparently, the female providers are familiar with domestic chores like cooking, and this could be ascribed as a reason for their greater awareness of the importance of nutrition and information for the same.

All the ICPs reported that they could not use all the types of food recommended due to limited financial resources. They indicated that they sought information about nutrition which encouraged the use of less costly food stuffs available on the local market and would purchase these from shopkeepers selling whole grain and local produce. It was apparent from the findings that other members of the family and local community were sources of information about nutrition and also that the respondents sought information about local foodstuffs conducive to the good nutrition of the EPs as this information was easier for EPs to understand than information about foreign foods. The finding clearly indicated a need for FHCPs to work closely with EPs and ICPs to share information about local foods nutritious to the elderly.

Although research indicates that it is important for EPs to get proper nutrition for improvement of their health status (Charlton & Rose 2001:2424S-2428S; Wagah, Ochola & Omalla 2000:13-15), the studies were not undertaken from the perspective of information science. The findings of the current study show that there is need for information about nutrition in health-care of EPs, and that ICPS should be able to access this information to help them provide appropriate nutrition when caring for the elderly.

5.2.2.3 Information about complementary and alternative medicine

The findings of the current study showed that half of the EPs (9 out of 18) used CAM treatment. The elderly respondents reported that they used various CAM providers to get information about their health-care but did not discuss their decision to use CAM with conventional health-care providers and only sometimes with ICPs. This behaviour indicated that information was needed for ICPs, in particular, about how to use CAM for the EPs they cared for.

All the ICPs confirmed that EPs whom they cared for used herbal medicine when they felt that conventional medicine was too expensive, or failed to yield the desired results or had negative side effects. The respondents reported that sometimes EPs decided to use herbal medicine without discussing this practice with them and that EPs sometimes dealt with their information needs for CAM in a secretive manner.

The ICPs (spouses, children and a daughter-in-law) indicated that they need information about how to use herbal medicine in order to guide their elderly parents. These providers observed that there were many types of herbal medicines available in the local market and that it was a challenge for them to help their parents to choose from all the varieties. The decision by EPs to use CAM triggered an information need among ICPs to better understand herbal treatment. ICPs found the situation was more challenging when some of the local herbalists who provided medicine to their parents were reluctant to reveal the true composition of a medication out of fear of losing clients or having competitors copy their formulas. This made it difficult for ICPs to access reliable information to help them understand and safely administer herbal medicines to their parents. The ICPs also reported that they could not access information about CAM from conventional health facilities because FHCPs seemed to be unwilling to discuss the subject. ICPs had nowhere to turn to for authoritative and trustworthy information about the use of CAM or herbal medication.

The findings showed that the behaviour of EPs when using health-care information partially contributed to determining the information needs of ICPs. ICPs needed information to help them to decide when to administer herbal medication as opposed to conventional medication. The findings of the current study showed that ICPs lacked adequate information for guiding EPs in the use of CAM. ICPs need information to help them to understand the behaviour of

EPs who wish to use CAM (Basil, Kathleen & Shanton 2008:3-10; Easom & Quinn 2006:32 - 46).

5.2.2.4 Information about advising elderly people (EPs)

Taking care of an elderly person is an exhausting job, both mentally and physically (Zhan 2005). People that are involved in care provision for the elderly may need to be given advice throughout the process. The EPs receiving care may also need to articulate their concerns and help ICPs to advise them and to deal with changes taking place in their health and in their lives in general.

Five of the ICPs reported that sometimes it was difficult for them to implement recommendations from FHCPs within an elderly person's home environment because of the attitude of family members and the EPs themselves. The respondents indicated that they needed help to be able to advise EPs to adhere to recommendations from FHCPs as well as to be able to care for themselves. Their concern was captured in the words of a female respondent who cared for her mother-in-law:

“I need information to help me take care of myself in order to be strong enough to take care of the elderly person. Sometimes I need someone to talk to about my emotional experiences in taking care of an elderly parent⁴.”

The quote above is evidence of a need for information that could help ICPs to better understand how to deal with the challenges in their own lives and those of the elderly. The data showed that the ICPs need advice about caring for EPs while the care providers indicated that EPs also need advice about their own health-care. The findings of the present study show a gap in local conditions in providing both information and counselling services to ICPs and the elderly themselves.

⁴ This situation may have been especially challenging for her due to cultural barriers in a case where she was taking care of her mother-in-law.

5.2.2.5 Information about emotional and spiritual support

Research indicates that some ICPs for the elderly experience depression, exhaustion, and sometimes are unable to function well in their personal lives because of lack of emotional support (Zhan 2005). Two ICPs interviewed in the current study indicated that they often felt physically drained and at times, experienced strained relationships with the EPs that they cared for. They indicated that economic, social, physical and other challenges that they experienced sometimes impacted negatively on their physical, mental and spiritual strength. They said that they needed to hear messages of encouragement in moments of exhaustion although they took time to pray, listen to inspirational religious messages, play music or sing to find encouragement. An informal-care provider stated:

“Some of my close relatives and neighbours often remind me that I am a lady and have no rights in this home; that I am wasting time concentrating on caring for my aged parents. I go back to my parents to share the challenges, and to discuss solutions for health of the two. We have agreed that I go on with the responsibility of caring for them. But it is not easy for unmarried and unemployed daughters like me to care for parents in their own home. I need someone else to share the experience with other than the parents I care for. I encourage myself to continue caring for them because they need help.”

Yet another respondent commented:

“I need encouragement for myself. I know that I serve God as I attend to my mother-in-law. Sometimes the work of caring is demanding and I need help to deal with my own feelings”

The quote above is evidence of a need for information that could help informal-care providers to better understand how to deal with the challenges in their own lives and those of the EPs.

The findings of this investigation revealed that ICPs have little or no access to information that can help them to respond to emotional and spiritual challenges of caring for EPs. ICPs were ill prepared to care for EPs. This view is supported by Zhan (2005) and Mooka (2004).

The findings show that ICPs were in need of information about activities and programmes to help them to deal with the emotional challenges of caring for an elderly person.

5.2.2.6 Information about financial aid

Families involved in providing care to their elderly members incur great economic costs because financial support for EPs is a major responsibility. The form of this provision of financial support varies greatly from one family to another. Some ICPs shoulder the responsibility of meeting costs of caring for EPs alone and find it difficult to deal with the many costs that care for the elderly may involve. In some cases, family members provide financial support to help ICPs to care for the EPs.

The issue of financial support was pressing for all ICPs interviewed in the current study due to the high costs involved. Discussions with ICPs revealed that as the cost of drugs and nutritional foods for the elderly increased the challenge of being able to afford them also increased for care providers. The two ICPs from the rural area were especially challenged by the costs, in relation to their counterparts in the urban setting. This was due to few opportunities to earn money in the rural setting. ICPs from the urban setting reported that the income they got from small businesses such as selling vegetables and charcoal and running a bookshop on the estate helped them but was inadequate to meet their own financial needs along with the needs of the EPs they cared for. The ICPs indicated that they needed information about organizations providing financial support for the care of the elderly. The findings showed that ICPs for the elderly were also concerned with finding employment opportunities so as to have funds for care giving and that they all needed information about sources of financial support for themselves and the elderly.

A report published at the time of conducting this study showed that the government of Kenya planned to include ICPs in the initial pilot project to give financial support to EPs (KNCHR 2009). Although the decision had been taken, it had not been implemented in practice. The findings of this study further show that like EPs, ICPs are unaware of local organizations which could advocate for them to receive financial aid to help them to take care of EPs. Earlier research has also indicated that ICPs often express a need to obtain financial support to be able to care for EPs (Dunbrack 2005:1-20; Zhan 2005:27-38; Lopez, Lopez-Arrietta & Crespo 2005:81; Smith et al 2003:138-145; Barrett 2000).

In concluding this section, it is noted that ICPs deal with two levels of information needs. First of all, they have the same type of information needs as the EPs they care for, such as the need for information about the use of conventional medication, CAM, financial support, proper nutrition and counselling services. In addition, the findings revealed that ICPs also needed information about how to provide care services along with appropriate information for EPs they care for. These two levels of information needs determine the information-seeking behaviour of ICPs as they search for their own information about how to care for the elderly and also act as intermediaries providing both care services and appropriate information to the elderly. The findings show that ICPs are an important group in the health-care team of EPs. They need information, skills and guidance from professional health-care providers and other services providers in all aspects of home-based care for the aged.

5.2.3 Formal health-care providers (FHCPs)

The first responsibility of FHCPs (doctors, clinicians, nurses, dentists, nutritionists and the like) is to provide professional health-care services to patients of all ages. For this reason, FHCPs need information about appropriate health-care. Interviews with FHCPs in the current study indicated that they needed information related to the care of elderly patients to help them care for the elderly who sought medical attention in health-care facilities.

Like ICPs, FHCPs needed information for two major reasons. First of all, they needed information about EPs and secondly, they needed information to share with the aged. This included data about the elderly patients themselves as well as information about medication, counselling and nutrition, and professional growth. Table 5.3 is a summary of the needs for information among FHCPs.

Table 5.3: Health-care information needs of formal health-care providers

Information	Reasons for need of information
Elderly patients	<ul style="list-style-type: none">• To help FHCPs to diagnose the ailments that EPs suffered from
Medication	<ul style="list-style-type: none">• To help HCPs to prescribe the right medicine for EPs
Nutrition	<ul style="list-style-type: none">• To help FHCPs to advise EPs and ICPs about appropriate nutrition for EPs
Counselling	<ul style="list-style-type: none">• For FHCPs to be able to counsel EPs and ICPs about health-care
Professional growth	<ul style="list-style-type: none">• For FHCPs to gain better understanding of geriatric care

Table 5.3 shows that FHCPs needed information that would help them to provide professional services for health-care of EPs. The information needs of FHCPs are discussed in the sections below.

5.2.3.1 Information about elderly patients

All the FHCPs reported that they first looked for information about the history of the illnesses that EPs suffered from. This was essential if they were to correctly diagnose and prescribe treatment of illnesses and in some cases, to determine if EPs needed care and services involving referrals to more specialized facilities within the hospital or elsewhere. They also sought personal information about their elderly patients including personal details such as age, next of kin, residence and occupation to use in case of an emergency such as death in the absence of a relative. Such data served to set the stage for FHCPs who cared for the elderly.

The findings also indicated that EPs as well as their relatives, who accompanied them to health-care facilities, needed up-to-date information about their health history to share with professional health-care providers so as to help them correctly diagnose their condition. It was therefore necessary that EPs and their ICPs cooperated in sharing of information about their health status and prior treatment history with the FHCPs.

Studies have shown that professional health-care providers usually conduct interviews with patients and their family members to obtain information about the history of the health staof

patients (Pakenham-Walsh & Bukachi 2009). The view is supported by Bryant (2004), Musoke (2000) and Gorman (1995). The findings of the current study indicated that FHCPs in Nakuru District gathered patient information from EPs and family members as a routine professional task, without a particular focus on the provision of geriatric services. The findings also indicate that FHCPs had to provide geriatric services in the course of their work, though they were not gerontologists.

5.2.3.2 Information about medication

All the professional health-care providers indicated that they needed information about geriatric care to help them to understand the use of specific medications before they could safely prescribe them to treat the EPs, some of whom were particularly vulnerable because they suffered from multiple illnesses. FHCPs reported that due to lack of locally available literature for geriatric care, they read pharmaceutical notes, relied on prior experience and consulted colleagues to be more confident when prescribing medication to the elderly. They also indicated that they knew that EPs and ICPs expected them to be able to provide satisfactory answers to questions they might be asked about health conditions and medications, and that these questions would be asked directly or through their ICPs. FHCPs also reported that some elderly as well as their ICPs would be keen to know the duration of use of particular medications as well as whether their use would lead to complete recovery.

The findings showed that FHCPs needed up-to-date information about medication suitable for the elderly and that the elderly as well as their ICPs in this development context were not passive recipients of health-care services. Rather, they wanted to make decisions collectively about the proposed medications prescribed by FHCPs. Reciprocally, the FHCPs demonstrated an awareness of the collective needs of the elderly and their ICPs as well as their sensitivity. This could be seen in their efforts to read about medications, to consult with colleagues and to search for information about geriatrics.

Research has shown that professional health-care providers usually conduct interviews with patients and their family members to obtain information about the history of the health status of patients (Pakenham-Walsh & Bukachi 2009; Nilsson & Pilhammar 2009). FHCPs need reliable information to help them before they administer treatment to patients (Bryant 2004; Musoke 2000; Gorman 1995). Many FHCPs read pharmaceutical reference manuals or use

the Internet to get information about specific medicines. Doctors also sometimes familiarized themselves with information about CAM and discussed its use with elderly patients (AARP 2007). However this was not the case in this instance because FHCPs were not interested in information about CAM.

5.2.3.3 Information about nutrition

All the FHCPs reported that they looked for information about different dietary regimes appropriate to the varied health conditions of the elderly in order to help them to provide advice about nutrition to their patients as well as their ICPs. One formal health-care provider stated:

“Proper nutrition is like medicine to the body. EPs need diet that can help to improve their ability to function. We advise the elderly and ICPs about diet for various health conditions of the aged but leave it to families to implement.”

Most of the FHCPs (14 out of 16) reported that sometimes they referred elderly patients along with their ICPs to nutritionists in the hospital and the health centre. The two nutritionists interviewed in this study reported that they looked for information about locally available foods and advised EPs to use these more affordable foods. The nutritionists observed that most elderly patients and some of their ICPs, had difficulty understanding written information about nutrition due to illiteracy and a lack of training in nutrition. The two nutritionists would therefore explain written information about nutrition to elderly patients and their ICPs, and would give them lists of recommended locally available foods along with instructions on how to prepare them. One of the nutritionists at the PGH stated:

“I write down in Kiswahili names of locally available foods for common chronic ailments such as diabetes, arthritis, high blood pressure and the like for diet for the aged. I also seek help from colleagues for local names of the same foods to make it possible for me to advise the aged about diet.”

The findings of the current study showed that FHCPs served as the principle intermediaries for the elderly and their ICPs in helping them to understand written information about nutrition. It also showed that the FHCPs needed information to help them to provide advice.

As intermediaries, they endeavoured to bridge the gap in information about nutrition among the elderly and their ICPs.

5.2.3.4 Approaches to counselling

Only three among the 16 FHCPs mentioned a need for information or more skills to assist them as they helped the elderly accept changes in their state of health and accept related courses of treatment. They reported that it could be a challenge to deal with EPs who might refuse to follow medical advice and instead continue with former habits or lifestyles, even when this was detrimental to their health. The FHCPs felt that they needed time to develop strategies for convincing the elderly to modify habits or styles of life when it would be conducive to a better state of health. One formal health-care provider commented:

“Some of the EPs respond fast and positively to advice given to them to change their lifestyles, but others do not. For example, I have found that some elderly men are more difficult and slower than ladies in implementing instructions about changing lifestyles. We often notice faster and positive changes health for ladies than men. We continue talking to EPs when they come to hospital but leave it to individuals and their families to ensure that instructions are followed.”

The comment shows that FHCPs needed to spend a lot of time convincing some of the elderly to modify their way of life in order to be healthier.

Two (2 out of 16) of the FHCPs interviewed reported that they engaged colleagues of the same ethnic background to the elderly person to attempt to convince the elderly person to accept advice about how to lead healthier lives. The findings showed that EPs trusted and identified with the professional health-care providers of the same ethnic background and this created an atmosphere in which information about health-care could be easily shared. The findings of the current study suggest that relationships of mutual trust enhance the ability to accept new information about health-care. In addition, the findings showed that if FHCPs used language that was easy to understand, communication was facilitated and it was easier for the elderly and their ICPs to accept new information about health-care.

Interestingly, EPs did not express a need for counselling services even though these were likely to be helpful to them. Instead, they preferred to spend time talking with their friends and with younger members of their families about their past experiences in the interest of preparing the younger people for the future. This showed that the elderly preferred familiar information shared with acquaintances to whom they could relate. The findings showed that EPs did not easily accept new information provided by someone from a different ethnic background. This indicated that FHCPs could benefit by collaborating with people the elderly easily identified with and trusted, given that identification and trust were critical in persuading the elderly to accept and use new information about health-care. The findings relate equally to the provision of information to the home-based elderly.

The proportion of professional health-care providers needing information about counselling the elderly was low in comparison to their need for information in other aspects of geriatric services. However, a need for basic guidelines for counselling EPs was apparent.

5.2.3.5 Information about professional growth

All the FHCPs reported that they needed information for their own individual professional growth and that they accessed this kind of information by attending workshops, seminars, and training courses that would increase their professional qualifications. They were convinced that new knowledge acquired from programmes of continuing medical education (CME) generally improved their capacities to provide services to EPs and other clients. This showed that CME itself might be used as an avenue through which to identify the information needs related to geriatrics of FHCPs. The findings showed that formal health-care providers do not really require the provision of an information service to the same level as EPs and ICPs. FHCPs require an information service to help them to advance professionally and to provide geriatric care whereas the EPs and ICPs require a service for them to access simplified health information to help them to provide care in a home-based environment.

FHCPs benefit from CME to update their knowledge to be able to grow professionally (Pakenham-Walsh & Bukachi 2009; Gorman 1995). However, the findings of the present study showed that CME did not help to improve geriatric-care skills of the FHCPs as they tried to care for a steadily growing elderly population. Such a shortfall needs to be addressed.

Research should help to highlight the needs of professional health-care providers in regard to caring for the growing number of EPs in Kenya.

5.3 OVERVIEW OF THE FINDINGS

The findings of the current study showed that information needs of the three groups of respondents had points of similarities as well as differences. All the groups of respondents needed information that would help them to understand how to use medication correctly and to ensure good nutrition for home-based EPs. However, the findings further showed that FHCPs needed information to help them to provide professional services as they prescribed appropriate medicine and diet for EPs and ICPs to use at home. EPs and ICPs needed information to help them to follow advice from FHCPs and instructions about use of medicine and diet in health-care. The findings showed a need for FHCPs to simplify medical terms used in information for health-care to help EPs and ICPs to follow instructions about use of medicine and diet.

The findings also show that EPs and ICPs had need for information for CAM, spiritual and emotional support and financial aid. Factors such as lack of information from FHCPs about CAM services, lack of financial support for EPs, and spiritual programmes targeting EPs seemed to contribute to information needs among EPs and ICPs to understand the use of CAM treatment, and to seek financial and spiritual support for health-care. The findings showed that the interaction between the FHCPs and the elderly was restricted to discussion about conventional medications. As a result, FHCPs never deliberately shared information about the other critical needs identified in this study as being essential components of the good health of EPs, the way ICPs did. In addition, the findings showed that the information needs of EPs influenced the information needs of ICPs in health-care. The findings suggest that it is important for systems that provide information for health-care to understand how the needs of EPs in a development context trigger needs among ICPs.

The findings also show that there were diversified information needs among the groups of respondents. For example, the information needs of EPs extended to physical fitness and exercise, clothing and geriatric services. The needs for ICPs and FHCPs extended to advising or counselling EPs. On their own, FHCPs also needed information to help them to gain better understanding of geriatric care. The findings about information needs in the health-care of

home-based EPs in Nakuru District revealed general as well as group-specific needs for information about health-care. These findings confirm theories of information-seeking behaviour that show that users of information have varied information needs or “gaps” which they need to identify before they look for information to fill the gaps (Wilson 1999:839-849; 1996; Dervin 1992). The findings of the current study suggest that it is important for systems of health-care in development contexts to understand the common and groups specific needs to be able to provide information that meets diversified needs of users.

Research has shown that EPs need health-care, food, financial support, security and protection, social recognition and housing (KNCHR 2009). The findings of the current study draw attention to the additional need for information about health-care of the home based elderly.

The findings of the current study further revealed that when providing information about health-care of the elderly in a development context, other needs distinct from but related to health-care also needed to be addressed. The study showed that different situations of health-care contributed to common and varied needs for information among EPs, ICPs and FHCPs in Nakuru District. The implication was that the groups of respondents usually identified their needs before they started looking for information to help them to fill “gaps” or respond to specific health-care challenges. The EPs themselves and their ICPs expressed more needs for information than the FHCPs. Some of the needs were directly linked to health-care while others related to challenges encountered and responsibilities assumed in the course of providing health-care services.

Studies show that health emerged as an important topic among the needs for information expressed by EPs represented in a number of Library and Information Science (LIS) studies (Ericksson-Backa 2008; Morey 2007; Courtright 2005; Barrett 2000). These studies addressed health information needs to some extent. The profiles of respondents presented in the current study serve to enhance our understanding of the information needs discussed in the LIS literature and to demonstrate further the diverse range of health-information needs among EPs, ICPs and FHCPs in a development context.

The contribution of the findings in this chapter to the literature on information-seeking behaviour lies in its demonstration of these diverse needs on the part of both the EPs and their

care providers. The findings also demonstrate that the information that EPs along with their FHCPs and ICPs needed extends well beyond a need for information about medication to a much greater need for information encompassing the social, spiritual, physical and financial dimensions of geriatric care. These findings challenge any tendency to consider the EPs as a homogeneous group and show that there is a need to address issues of both commonality and diversity when providing for the home-based elderly, including their needs for information.

5.4 SUMMARY AND CONCLUSION

The findings about the information needs in health-care of home-based EPs in Nakuru District of Kenya have been presented in this chapter. The findings contribute to formulating an answer to the first initial question of the study, as shown in the introduction of this chapter.

The findings revealed that EPs need information to understand their health conditions and to care for themselves, and that ICPs and FHCPs also need information to help them to understand the health conditions of home-based EPs so as to be able to provide them with health-care services. The findings also revealed that these needs are influenced by other factors such as the need for financial resources and for spiritual and emotional support. The interaction between FHCPs and home based EPs and their ICPs indicated that the formal health-care provided inadequate support with regard to providing information on critical aspects of the health-care needs of these EPs. The next chapter presents findings about sources of information that EPs, ICPs and FHCPs in Nakuru District used in health-care.

CHAPTER SIX

SOURCES AND CHANNELS OF COMMUNICATION USED FOR INFORMATION ABOUT HEALTH-CARE

6.1 INTRODUCTION

The previous chapter presented findings on the information needs for health-care of EPs, ICPs and FHCPs in Nakuru District of Kenya. The findings showed that the three groups of respondents had diversified needs for information about the health-care of the EPs. The findings also indicated that each group of respondents used different sources and channels of communication to access information for health-care of EPs. This chapter presents findings about the sources and channels of communication used by the respondents and how they access information for health-care of EPs, showing reasons for preferences and the variations among the three groups. The findings in this chapter help to answer the second question of the study: *What kind of sources do EPs, ICPs and FHCPs in Nakuru District use to get information for health-care?* The sources used by respondents are categorized under formal and informal sources of information and channels of communication and show the preferences for each group. The analysis includes data on the type of information obtained from the formal and informal sources and channels of communication used by the EPs, ICPs and FHCPs.

6.2 FORMAL SOURCES OF INFORMATION

Formal sources of information refer to information published and distributed by statutory or established organisations or agencies (Barrett 2000). Text books, journal articles, reprints of previously published works, handbooks, technical reports, conference proceedings or papers, databases, newsletters and publications from institutions are all formal sources of information. For purposes of this study, the formal sources under discussion provide information appropriate for health-care of EPs.

EPs, ICPs and FHCPs indicated that they got information from books, with FHCPs reporting that they also used journals to get information for health-care of EPs. This section presents and discusses findings about the use of formal sources of information by the three groups of

respondents of this study. Channels of communication that EPs, ICPs and FHCPs used to access information for health-care of EPs are discussed in section 6.4.

6.2.1 Elderly people (EPs)

The findings showed that some EPs used books as formal sources of information for health-care. Some of the EPs used medical text books and others used books from CAM service providers to get information about their health-care.

Books are viewed as traditional and reliable sources of information for people and are extremely important in many forms of education for health-care. In health-care, the kinds of books may range from basic texts drawn up to provide simple instructions on health-care tasks to highly complex textbooks for students preparing to be health-care professionals.

Almost half of the EPs, (8 out of 18) from Nakuru Municipality with formal education reported that they read books and got information about medication, nutrition and general health-care about old age. EPs reported that books had authentic information which they believed was safe to use for health-care. One respondent (1 out of 18) reported that he read medical books because he had trained as a health-care professional. Training in health-care enabled some EPs to use books that presented information in medical terms. Two respondents (2 out of 18) indicated that their background in chemistry helped them to read basic medical texts. Exposure to science subjects that used medical-related terms and the level of education helped some EPs to use books as sources of information about health-care. The number of EPs that read medical texts was small. This suggests that most EPs could probably benefit from information in medical texts if it is simplified and presented to them in formats that they can handle.

Five EPs (5 out of 18) reported that they read books published by CAM services and that this information was easy for them to understand because it was written in everyday English. Medical terms were simplified in these books and this helped EPs without medical training to understand information about health-care. The EPs reported that they got information about nutrition, the use of herbal medicine and health-care of the elderly from CAM books. EPs also observed that the use of illustrations in these books helped them to follow explanations of disease conditions and instructions for natural treatments for ailments from which they

suffered. The respondents added that the information accessed from these books about CAM medication helped them to carry out self health-care, particularly in nutrition, and also provided them with information about foods and herbs for health-care. Literate EPs seemed to trust information published for health-care because they could read and interpret this information on their own. CAM publications also communicated health-care information in lay terms using every day language and enhanced health information literacy among some of the EPs. The EPs also reported that CAM books contained information which was helpful in the everyday health-care of other members of their families. Thus CAM books had the additional advantage of providing information for the health-care of entire families. The findings show that most EPs prefer information for health-care presented in lay terms because they are able to understand and to benefit from it.

The findings showed that EPs from the rural site did not read books about health-care as most of them were illiterate and also, even if they could read, they reported that books were too expensive to buy. Illiteracy, lack of training and lack of financial resources made it difficult for some of the EPs to benefit from information presented in conventional medical publications or CAM books. It seemed that EPs are in need of geriatric information that should be translated and presented in formats that they can handle and a language that they can understand. CAM services seemed to provide this service by publishing books that some EPs used as sources of information for their health-care.

The findings of this study showed that the number of EPs who read books for health-care (8 out of 18) was low, indicating that books were an inaccessible source of information about health-care for EPs. Medical texts contain excessively detailed information that is difficult for most lay people to understand. Books are also expensive. Some of the EPs were illiterate while most of them lacked literacy of medical information. Therefore it seems that repackaging of health-care information could enhance its use among EPs.

Research findings show that lack of medical knowledge and personal factors such as illiteracy and poor eyesight made it difficult for most EPs to use books as sources of information about health-care (Morey 2007: 5 – 6; Barrett 2000). The findings of the current study show that the level of education, training as a health-care professional, financial means, and ready access to books (greater among the urban respondents than the rural) contributed to facilitating the use of books from CAM among EPs from the urban site. It should be kept in

mind that some EPs (the majority of them from the rural site) are illiterate and over the time, they had developed their own approaches of accessing information orally.

6.2.2 Informal care providers (ICPs)

Six ICPs were interviewed in the current study. The findings showed that all the ICPs used books as formal sources of information. ICPs reported that they used books because they trusted that the information contained in books was authentic since it was written by professionals in health-care. Knowledge of authority of information providers influences information seekers to use sources like books. Books provided medical, nutritional and general health-care information. The discussion below shows the ways in which ICPs used books as sources of information in geriatric care.

Two-thirds of the ICPs, all from the urban site, indicated that they read books about health-care. Two of them were female and two were male. A female ICP that worked as a nurse before her retirement reported that she preferred to consult her books and notes for health-care since she had been a student. Training in health-care and ease of availability of personal collections helped some ICPs to interpret information from medical literature. Training also contributed to awareness of sources of information that users can trust to provide them with authoritative information to use in geriatric care.

Other ICPs (3 out of 6 - two males as well as one female teacher) indicated that they liked to read books about CAM because the information was written in simplified English and they all had access to CAM books. Most ICPs could not read books that used medical terms, preferring to read books that used lay terms in presenting information for health-care. Two ICPs (2 out of 6), both women from the rural site reported that they did not read books because they did not know about books in lay terms such as the ones published by CAM service providers. They also could not afford to buy books. Lack of awareness about availability of books and financial constraints hindered ICPs from the rural site to use books as sources of information for health-care of EPs. The findings showed that factors within the environment in which ICPs lived contributed to their awareness, or lack of it about books that they could use as sources of information in health-care of the EPs.

The group of six ICPs included only one who had professional health-care training and was able to understand medical terminology while the remaining five were lay people who required relatively simple, summarised health-care information in a language and at a level that they could understand. The findings also show that the information literacy levels of ICPs varied because of education and training, and awareness of the type of books available for them to use in health-care of EPs. Studies have shown that ICPs consult books for specific types of information about health-care (Barrett 2000) and that, in most cases, ICPs expect health-care professionals to provide them with up-to-date information rather than finding it through their own readings (Cooper & Urquhart 2005: 114; Odhiambo, Harrison & Hepworth 2003: 19-29).

The findings of the current study show that most ICPs needed help to understand medical terms in books. The findings also show that the ICPs in rural areas had very limited access to books about health-care, suggesting that they could benefit from repackaged and simplified information about health-care.

6.2.3 Formal health-care providers (FHCPs)

FHCPs indicated that they used medical books and journals as sources of formal information. They preferred the latter as they were up-to-date and accurate, and because they could be shared among the professional staff. Table 6.1 is a summary of the formal sources that FHCPs used.

Table 6.1: Formal sources of information for formal health-care providers

Source	Type of information	Reasons for preference
Books	<ul style="list-style-type: none"> • Medical • Nutritional • General health-care 	<ul style="list-style-type: none"> • Trust books because they are written by professionals in health-care • Books provide authoritative information • It is possible to share books with colleagues
Journals	<ul style="list-style-type: none"> • Medical • Nutritional 	<ul style="list-style-type: none"> • Provide most current research findings about disease treatment. • Information is most current

Table 6.1 shows that FHCPs used books and journals to get information about medicine, nutrition and general health-care to help them in the care and treatment of EPs. FHCPs also use the sources because they provided authentic information that was trusted. The discussion

below shows the ways in which the FHCPs used books and journals as sources of information for health-care of EPs.

6.2.3.1 Books used by formal health-care providers (FHCPs)

All of the FHCPs reported that they read medical books to refresh their knowledge about medication and related procedures in health-care service and said that they relied mainly on personal collections of books, some of which included books from their college days. Training as professional health-care providers equips FHCPs with the competency to consult medical texts to obtain suitable information for health-care of EPs. Books were trusted sources of information for health-care among FHCPs because they were written by professionals in health-care. The FHCPs were aware that they also need to read more current books but argued that the basic disease-related facts remained constant though procedures of treatment and medication might change. However, they added that medical books were too expensive for them to buy. Doctors and clinicians interviewed in the current study indicated that they bought books to help them to get information to apply in practice. All FHCPs reported that they rarely used books from the health libraries in their institutions because their work schedules were too demanding and they did not have time to visit the libraries which often contained old, out-of-date publications. Lack of time and up-to-date books in institutional health libraries were barriers to FHCPs to access information for geriatric care. The findings imply that FHCPs needed sources of information that were current and easy to access. Furthermore, the health centre in Rongai Division, the rural site in the current study, did not have a library for FHCPs to use. Unavailability of a health library made it difficult for FHCPs from the rural site to use books as sources of information. The overall condition of books and usefulness of health libraries (in Nakuru District) was captured in a conversation between a respondent and a colleague who walked into the room during an interview session:

Staff A: Are there new books in that library? Has the library improved or still the same as it was during our college days?

Staff B: I have not been there since we left college. But I have heard that the place has minimal changes, but it is still the same with old books.

This conversation revealed the perception of some FHCPs about the quality of books in the institutional library, indicating how it gave limited access to current medical publications. Currency of information sources and perception towards them contribute to use or non-use of sources. The findings imply that regulations governing membership and provision of services to external users in other health libraries within the Municipality might have contributed to the discouragement of staff to borrow books from the libraries. Some of the libraries charged external users as much as Kenyan shillings 1,000 (US\$ 15) and 5,000 (US\$ 75.76) for registration and annual subscription fees respectively. Such high fees were prohibitive for FHCPs, causing them to rely on their personal collection of books or on borrowed books from colleagues. The findings showed that FHCPs did not use institutional libraries because of lack of time and more current resources. However, professionals like FHCPs may also prefer to consult sources that they are familiar with because they trust information from familiar sources. The continued use of familiar (sometimes outdated) sources of information among FHCPs implies dependence on sources that could prevent them from using available information that was more current. The perception of FHCPs towards collections in the institutional libraries, and the cost of paying for additional services for information also contributed to use of outdated books among some FHCPs. Information seekers (in a professional context) prefer to get sources of information free or at minimum costs. It is possible that FHCPs expect such services to be part of the infrastructure they need to perform satisfactory services to their clients.

Research shows that in practice, FHCPs often refer to text books to confirm medical facts about illness and treatment (Davies 2007: 87; Bryant 2004: 90; Thompson 1997:188). In the current study, it was also found that FHCPs working at higher professional levels used more up-to-date books to access information for geriatric care than their colleagues working at lower levels. Ease of access, economic ability, familiarity with sources, user attitudes towards collections in health libraries, availability of dated personal health book collections, and financial costs involved in accessing services in other libraries influence the choice of books that FHCPs used to access information for health-care of EPs.

6.2.3.2 Journals

Responses showed that among the FHCPs, only the doctors (5 out of 16) regularly used medical journals to which they subscribed, including both hard copy and electronic formats.

The doctors reported that they as well as dentists were members of the Kenya Medical Association (KMA) and had access to the KMA journal that was distributed to members. Membership to a professional association or a community of practice is a channel through which FHCPs access professional journals published locally. The clinicians (4 out of 16), the nurses (5 out of 16) and the nutritionists (2 out of 16) interviewed in this study reported that they sometimes accessed KMA journals through doctors. Individuals and groups that carry out the same type of duties or share common characteristics (work roles, beliefs, education etc) are likely to develop social networks that make it easier for them to share sources of information. Professional tasks and networks encouraged the sharing of journals among doctors, nurses and clinicians in PGH in Nakuru District. It seemed that most professionals in this group establish networks that they use to interact with colleagues in the same area of practice or across boundaries within their discipline. However, as already discussed, none of the doctors subscribed to journals about geriatrics because they trusted that the health-care information that they had was sufficient for treatment of EPs. FHCPs in Nakuru District developed their own ways of using information that they were familiar with to provide geriatric care to EPs.

The findings of the current study showed that doctors had opportunities to subscribe to journals and share information services with their lower-ranking colleagues and could therefore contribute to the sharing of up-to-date information about geriatric care among FHCPs. The findings further showed that professional tasks such as issuing prescriptions for medicine and advice about nutrition were the main reasons for use of formal sources of information for health-care among FHCPs. Ease of access, perception of users towards the sources, the cost of sources, membership to a professional association, and networking also contributed to use of formal sources among FHCPs.

However, the findings showed that, overall, the FHCPs in Nakuru District had little access to geriatric information available in journals and had little awareness or interest in accessing free electronic journals that publish information about geriatric care. Findings from other studies also have shown that doctors subscribed to their own journals which they needed for their areas of medical specialization and in their teaching (Davies 2007:87-88; Ajuwon 2006: 1-15; Podichetty et al 2006:274-279; Bryant 2004:89-90; Thompson 1997:188-189). FHCPs would use more complex forms of information because of training and professional roles and tasks that they had in order to attend to patients.

As has already been stated, the use of formal sources of information may be associated with the level of education, training, financial abilities of information seekers and availability of readily accessible sources. FHCPs are primarily trained and literate in information for health-care more than EPs and ICPs. It is natural for FHCPs to use medical books and journals as sources of information for health-care. Some EPs and ICPs used medical books because they understood medical terms. EPs and ICPs that used CAM books were influenced by the simplified information that was presented in a level of language that they could understand. Overall, EPs, ICPs and FHCPs varied in their use of books as formal sources of information. The findings showed that FHCPs primarily used journals as sources of information because they understood the subject terminology used in such publications. The findings also suggest that CAM practitioners simplify information for health-care and make it possible for the lay public to use it.

6.3 INFORMAL SOURCES OF INFORMATION

Informal sources of information include undocumented and unpublished forms of information that may be passed from one person to another directly by word of mouth rather than through formal publications (Anwar, Al-Ansari & Abdullah 2004:230-231). Examples of informal sources of information are, but not limited to family, friends, neighbours, colleagues, private correspondence between individuals or groups, and discussion lists of people with common interests. EPs, ICPs and FHCPs reported that they accepted information about health-care shared with them by family and relatives; friends and neighbours and also drew upon prior knowledge and their own personal experiences. In this section, the informal sources for health used by each of the three groups of respondents in the study are discussed.

6.3.1 Informal sources of information used by elderly people (EPs)

The EPs reported that they obtained information about health-care from family and relatives, friends and neighbours. They also drew on their past experiences in health-care and sometimes from professional tasks that they performed. Table 6.2 summarizes the informal sources of information used by the EPs and shows the type of information that the EPs got from each source. The table also shows the reasons for which EPs chose to use each source.

Table 6.2: Informal sources of information that elderly people used in health-care

Source	Type of information	Reasons for preference
Family members	<ul style="list-style-type: none"> • Advice about illness • Shared personal experiences about illness • Nutritional • Information about new health-care facilities • Emotional support and • Suggestions for use of CAM services 	<ul style="list-style-type: none"> • Closest and easily accessible any time • Trust family members to share useful information for health-care • Easy to interact with family members at one-on-one level and it is possible to hold longer discussions with them • No financial costs are incurred to access information from family members and relatives
Friends and neighbours	<ul style="list-style-type: none"> • Advice about management of illness • Shared personal experiences about illness • Nutritional • New health-care facilities • Emotional support • Suggestions for use of CAM services 	<ul style="list-style-type: none"> • The sources are close and easily accessible • Sources are trusted to provide useful information for health-care • Meetings with sources are face-to-face and good for discussions • No financial costs incurred to access information from friends and neighbours
Experience	<ul style="list-style-type: none"> • Medical • Nutritional • Physical fitness 	<ul style="list-style-type: none"> • Information is internalized or personalized and easy to access • Familiar information that is understood with ease • Information drawn from personal experience can be trusted because it has been used before and results are known • No financial costs incurred to access information
Previous professional responsibilities	<ul style="list-style-type: none"> • Nutritional • Physical fitness 	<ul style="list-style-type: none"> • Information is internalized/kept in personal memory and easily accessible • No financial costs are incurred to access information

Table 6.2 shows that EPs used immediate members of their families, friends, neighbours and their past experience as sources of information for their health-care. Informal sources that EPs used provided information that helped them to use medicine, and appropriate diet for their health-care. The sources also provided information to help the EPs to meet their spiritual and emotional needs. EPs preferred these informal sources because they were the closest to them and could be easily reached. EPs also trusted these sources to provide information that could help them in health-care. The table also shows that the sources were oral in nature, making it possible for EPs to make sense of information without experiencing the constraints of interpreting written texts. The next sections discuss the ways in which EPs used informal sources to access information for their health-care.

6.3.1.1 Family members

All EPs indicated that they discussed their health conditions with immediate members of their families and that they accessed information about health-care in two ways. Firstly, members of a family form the closest network that EPs find easy access to information for health-care. First of all, EPs would express a health concern to their immediate family members and relatives who would then share whatever information they might have or would refer them to other people within the extended family, or to friends or staff at professional health-care facilities. The findings imply that closeness of sources encourages information seekers to use them because they are accessible within the shortest time.

Secondly, family members and relatives would voluntarily share information they gathered about a specific health condition of EPs in their families. Family members acted as intermediaries for EPs by sharing information that they encountered about health conditions that EPs suffered from. EPs would trust the source of information because it was provided by a close relative. Trust in a source contributes to use of information among EPs (Eriksson-Backa 2008; Wicks 2004; Barrett 2000). The findings of the current study showed that within the intimate environment of the family, EPs did not feel intimidated to share openly their concerns about specific health conditions. Interaction was reciprocal and dynamic, with both the EPs and their close relatives providing and receiving informal information about geriatric health-care. In fact, the extended family served as a sounding board for EPs in the process of accessing informal information about geriatric health-care.

Studies have shown that EPs consult family members to obtain information on a wide range of issues, including health-care (Wicks 2004:10; Rowe 2004; Barrett 2000). However, the findings of the current study demonstrate that information provided by family and relatives do not always have adequate information to meeting geriatric health-care needs of the elderly. Family and relatives often seemed in need of more up-to-date information and a more in-depth understanding of health conditions of EPs if they were to provide really useful informal information for the latter's health-care. However, because of the particularly close and trusting environment provided by an extended family, EPs sought information about health-care within this sphere. Trust in sources was important for EPs to be able to access information. The findings showed that EPs trusted information that they accessed from

people that they knew, rather than impersonal documents which as information users, EPs could not interact with.

6.3.1.2 Friends and neighbours

EPs also indicated that friends and neighbours informally shared with them information about health-care and alternative facilities for treatment. Friends and neighbours act as a larger social world or network that provides EPs with information for health-care. Such information was shared, for example, in cases where neighbours or friends had heard of, or have been to a different health-care facility and were convinced that the care in the facility would benefit EPs. Friends and neighbours also told EPs about types of food which could contribute to the improvement of their health. Friends and neighbours acted as intermediaries in accessing information for health-care of EPs in Nakuru District.

EPs also reported that they endeavoured to establish one or two friendships with FHCPs who lived nearby so as to better access information about health-care, indicating that the EPs tried to gain access informally to health-care information from FHCPs. EPs used friendship or familiarity with some FHCPs to cross boundaries and access information to help them in geriatric care. Research has shown that EPs turn to members of their families, friends and neighbours as sources of information because they have easy access to these people (Rowe 2004; Wicks 2004:1-26; Barrett 2000). The findings of the current study show that family members, friends and neighbours repackage information for health-care into formats and languages that EPs could understand.

6.3.1.3 Past experiences

Almost half of the EPs (8 out of 18) reported that they could tell from symptoms such as headaches, sweating, and physical fatigue that they were experiencing the recurrence and possible augmentation of a chronic ailment such as high blood pressure or diabetes. Familiarity with their own health conditions act as a reservoir as well as a trigger of internalized or personalized information that helped the EPs to take the next course of action about their health-care. Such actions included buying medication to treat a health condition, as advised by FHCPs or, if it was necessary, to go to a health-care facility for professional care. EPs also said that they would inform ICPs and family members about the symptoms if they persisted.

The researcher learnt that the EPs did not keep written records of their prior health experiences but instead would internalize regularly occurring experiences and keep these in mind to monitor changes in their health. This applied also to the actions they would take to deal with symptoms. They tried to remember as much as they could to transfer the recollections to future occurrences. This internalization of past experiences and symptoms of a chronic health condition helped the EPs to conduct self-care. Past experiences contribute towards people doing things in set ways. Such an approach could however hinder their willingness to access or accept new information for their health-care. Self-care based on past experiences among EPs can prevent them from benefitting from useful advice. It seemed that EPs needed to be encouraged to share their past experiences with FHCPs that could use their professional knowledge to advise EPs about appropriate ways of using information for self-care.

6.3.1.4 Previous professional responsibilities

Two EPs, (2 out of 18), one from Nakuru Municipality and the other from the rural site indicated that they used knowledge gained in their former jobs or assignments to help them attend to their health. Professional knowledge and skills were transferred and used in informal context to respond to health conditions of some EPs. In the first instance, the respondent was a retired biology and chemistry secondary-school teacher who indicated that he would occasionally use his knowledge of the two subjects in self-care because he was able to understand the chemical composition of medicine and the ways in which it worked in the human body. The approach may be useful but can also be a barrier to acceptance of appropriate information for health-care.

In the second case, the respondent was an eighty-seven year old gentleman who reported that he rode a bicycle every day (except on Sundays when he walked to church) to sell newspapers at a market about three kilometres away from his home. The second respondent said:

“I trained as a policeman during the colonial days. We used to wake up early in the morning to run and do other exercises to keep us fit. I decided to use the knowledge I learnt from my working life as a policeman to keep myself physically fit because this

would help me to be healthy to carry out my own businesses. I am unable to wake up as early as we did in the police force to exercise but riding my bicycle daily keeps me fit.”

The elderly respondent applied his experience (or understanding the value of being fit) of the rigorous training and discipline required of members of the police service to his own self-care by walking and riding a bicycle. Members of his family confirmed that he would deliberately decline to use public transport during the week out of a preference for walking or riding his bicycle. Thus, his experience from his work in the police force was remembered and effectively applied to his own programme of exercising for self-care.

Generally, the findings of the current study showed that EPs used informal sources to get information for health-care because of the trust that they had in the sources and the closeness to the source. The sources were also easily available and provided information orally and without costs. The findings suggest that EPs prefer to get information from people and systems which they can trust, that are easy to access and as much as possible, sources that provide information for free. The findings of the current study partly disagree with the findings of Escamilla (2006:1-2) that showed that EPs seeking medical information relied on direct communication with their physicians as their primary source of health information. EPs in the current study first turned to informal sources of information in their immediate surroundings (family and friends) before turning to formal health service providers for professional information. The findings suggest that EPs have a process of searching for information for their health-care.

The findings of the current study imply that health information services for EPs could be designed to target informal sources such as family members, neighbours and friends of EPs and make it possible for them to access information to share with EPs. The ease of access, closeness to family members, friends and neighbours, free provision of information and the oral nature of sharing information make it convenient for EPs to use informal sources. Family and friends can provide useful information for health-care of EPs. However, professional information and advice from FHCPs, translated into lay terms, are also important to fill in gaps where information from lay people is inadequate to help EPs in health-care.

6.3.2 Informal care providers (ICPs)

The findings showed that ICPs drew informal information about health-care from family members, friends and neighbours and their past experiences to help them to provide health-care for the EPs. Table 6.3 provides a summary of the informal sources of information that ICPs used.

Table 6.3: Informal sources of information for informal care providers

Source	Type of information	Reasons for preference
Family members	<ul style="list-style-type: none"> • Advice about management of illness • Shared personal experiences about health condition • Nutritional • About availability of new health-care facilities • Emotional support • About availability of CAM services 	<ul style="list-style-type: none"> • Sources are closest and easily accessible any time • Sources are trusted because they are part of the family • Meetings are face-to-face and good for long discussions • No financial costs are incurred
Friends and neighbours	<ul style="list-style-type: none"> • Advice about illness • Shared personal experiences • Nutritional • New health-care facilities • Emotional support • Suggestions for CAM 	<ul style="list-style-type: none"> • Sources are closest and easily accessible any time • Trusted because they are known to ICPs and their families • No financial costs are incurred
Experience	<ul style="list-style-type: none"> • Medical • Nutritional • Physical fitness 	<ul style="list-style-type: none"> • Internalised information and easy to access • Information is familiar and can be trusted • No financial costs are incurred

Table 6.3 shows that ICPs used family members, friends, neighbours and their experience in health-care to get advice, nutritional and medical information, emotional support, and information about new health-care facilities among other types of information, to enable them to manage illnesses among EPs. Table 6.3 also shows that trust in the sources, ease of accessibility, familiarity with sources and provision of information without costs influenced the choice of informal sources that ICPs used. The next section discusses the ways in which ICPs used informal sources.

6.3.2.1 Family members

All ICPs indicated that they obtained information for health-care of EPs from members of the family. Family members were a social network which EPs could access information from with ease. ICPs also said that they sometimes shared concerns about the health conditions of the EPs with their relatives. Family members and other relatives constitute important informal sources of information for ICPs because of their closeness and trust in each other. It was found that the family members regarded this sharing of information with ICPs as a duty towards caring of EPs. One respondent said:

“I call my uncle from..(a brother of one elderly respondent who lived in a different town) to talk to him on phone about going to hospital when he is reluctant. I always feel relieved after the talk between them because dad softens his hard stand and agrees to go to hospital.”

The comment shows that an atmosphere of mutual trust facilitated the flow of information between ICPs and family members. Furthermore, the ICPs also reported that sometimes they discussed information with other relatives before actually using it to care for the EPs. The findings indicate that family members are valuable sources of informal information for ICPs that are involved in geriatric health-care. The findings also suggest that specific health conditions of the aged need to be understood within the large family if ICPs are to access appropriate information from family members to share with the EPs. The findings of the current study are in line with findings of earlier studies which showed that family members are informal sources of information in health-care situations in a development context (Bii & Otiike 2003:155-174; Kaane 1997:577- 582).

6.3.2.2 Friends and neighbours

All the ICPs reported that they also gathered information from their friends and neighbours, in particular those that experienced situations similar to those that the ICPs were dealing with. Experience in geriatric care helped ICPs to share information with each other. ICPs indicated that they trusted information from friends and neighbours because they were known to their families. Familiarity with a source influences the preferences of information seekers in choosing sources. The findings indicate that ICPs were unlikely to accept information

from informal sources that they were unfamiliar with. ICPs also preferred to access information from friends and neighbours because they were close and provided information freely. All ICPs in the current study indicated that their incomes were low, suggesting that ICPs prefer information that is close to them and provided without costs. The findings seemed to suggest that social networks play an important role and help ICPs to access information for health-care of EPs that they look after.

Research has shown that ICPs seek information and other forms of help from their friends and neighbours because they are closest to them (Frase 2004; Mooka 2004). Findings of the current study further suggest that friends and neighbours need to understand the health condition of EPs so as to be able to share appropriate information with ICPs.

6.3.2.3 Experience

All ICPs reported that they looked to their past experience in geriatric health for knowledge as they provided care services for the aged. ICPs internalized the knowledge that they gathered through experience of caring for EPs and used it in recurring or new and similar health conditions of EPs. The care providers reported that past experience helped them to tell, for example, when an EP was under more pain than usual or was in an irritable mood. Past experience also helped them to determine when it was necessary to seek further information from other family members or FHCPs about the health condition of an aged person. One respondent stated:

“I am now familiar with my father’s moods. Sometimes Dad gradually stops chatting and responding to questions in a conversation. That is a sign that he is tired or uneasy with the company around him. Sometimes he wants to stay indoors or to be alone. If this happens, I encourage him to rest in his bedroom and use diplomacy to keep people away from him.”

The above statement implies that experience in performing tasks in health-care helped ICPs to understand changes in health conditions of the EPs that they looked after. Such experiences in geriatric health-care help ICPs to develop a reservoir of personal or tacit knowledge to draw on when responding to new situations in the health-care of the EPs. However, an excessive dependence on past experience by ICPs can be problematic as this can firstly create a false sense of security and lead the ICPs to think that they do not need

professional advice when, in fact, they actually do. Secondly, dependence on experience can be a hindrance to learning or accepting new information because people get used to dealing with health-care using the ways that they are familiar with.

The findings of the current study showed that ICPs used inter-personal networks comprised of family, friends, and neighbours, and their own experiences in health-care as informal sources of information for health-care of EPs. Ease of access, provision of free information and trustworthiness (accuracy and reliability) of a source influence the use of informal sources among ICPs. It is also possible that the oral nature in which family, friends and neighbours shared information without charging it as a service was a fast method for ICPs to access information and this encouraged them to use the sources to get information to use in health-care of EPs.

6.3.3 Formal health-care providers (FHCPs)

FHCPs need sources (both formal and informal) that contain information to help them to treat illnesses that EPs suffer from. FHCPs in the current study indicated that they referred to geriatric health-care information obtained from the EPs and their families and friends, and knowledge that they (FHCPs) acquired through experience of working. Table 6.4 is a summary of the informal sources that FHCPs used in health-care of the EPs.

Table 6.4: Informal sources of information used by formal health-care providers

Source	Type of information	Reasons for preference of source
Elderly people, their families and friends	<ul style="list-style-type: none"> • History of illness of EPs • About the diet used by EPs • About previous conventional treatment used by EPs 	<ul style="list-style-type: none"> • Sources are trusted because they have first hand information • Information enables FCPs to diagnose illnesses that EPs suffer from
Experience in health-care	<ul style="list-style-type: none"> • Medical • Nutritional 	<ul style="list-style-type: none"> • Trusted information because it has been used for a long time results were known • Internalized information that is easy to access • No costs are incurred to access information

Table 6.4 shows that EPs, their families and friends provide the required patient information to help FHCPs to make informed decisions and to advise their patients on particular health problems. FHCPs obtained from EPs and their families information about history of health condition, diet of EPs and information about conventional treatment that EPs used before seeking treatment from formal health-care services. Personal experiences of FHCPs in health-care enabled them to recall information about medication and nutrition to help new cases of EPs seeking treatment. The next sections discuss the ways in which the FCPs used the informal sources to access geriatric information and the reasons for preference of the sources.

6.3.3.1 Elderly people, their families and friends

The FHCPs indicated that the EPs and their family members provided information about health conditions of EPs, the kind of diet that EPs used and the type of conventional treatment that EPs used. EPs, their families and friends were the first contact for FHCPs to obtain information to help them to gain insight into the actual health conditions of EPs. All FHCPs stated that they accessed patient information directly from the EPs and family members and friends who accompanied the EPs to hospital because they trusted them to provide accurate reports about the health conditions of EPs. Trust in patient information that EPs, their families and friends provided partly helped FHCPs to diagnose the illnesses that EPs suffered from and to prescribe appropriate treatment. The findings showed that FHCPs need accurate personal information from their clients; in this case the EPs, so that they are able to share with them (EPs) appropriate information to solve health-care problems. FHCPs in turn, use the opportunity presented for information sharing to reciprocate and to share geriatric health-care information themselves with the EPs and their families and friends.

Research showed that FHCPs often interview patients and/or people who accompany patients to hospital to obtain data about clients (Pakenham-Walsh & Bukachi 2009; Gorman 1995). However this source of information is often overlooked in studies because such data is usually available in patients' records (Thompson 1997:187). Studies also have shown that FHCPs for EPs often seek information from family members, including ICPs (Wicks 2004: 1-26; Frase 2004:1-11; Barrett 2000). The findings of the current study are in line with findings of earlier research and further showed that interviews that FHCPs conducted with EPs, family and friends were the basis for FHCPs to make diagnosis of illnesses and to share information for geriatric care in a development context. The findings showed that FHCPs use a human or

informal source as the first contact for information in a real health-care situation. This suggests that people who accompany EPs to health-care facilities need accurate information to share with FHCPs about health conditions of EPs.

6.3.3.2 Experience and prior knowledge

All FHCPs reported that they used knowledge and experience they had acquired over the years of work as professionals caring for new and old types of ailments that occur among EPs. FHCPs internalized information that they used in the care of EPs, turning it into knowledge that they could use in new cases of geriatric care. The findings suggest that the longer FHCPs treated EPs, the more experience they got hence knowledge or information to share about geriatric care. The findings also imply that older FHCPs that had more experience in geriatric care were appropriate sources of information for their colleagues who were new in the profession and provided health-care, particularly for EPs. FHCPs expressed confidence that they could, based on prior experience, prescribe medication and give advice to new cases of EPs experiencing health-care challenges such as arthritis, blood pressure and diabetes, among others. They also based their referrals to specialists in public or private health-care facilities on their prior knowledge. FHCPs preferred to use information from past experiences of treating EPs because they had used the information before and were encouraged by results of previous cases. Positive results that FHCPs witness after using information that they used before contributes to confidence among FHCPs to use the same information. However, using the same information repeatedly can also be a barrier to seeking more current information.

Bryant (2004:88) and Thompson (1997:188-189) found that FHCPs who had worked with patients for a long time express confidence in diagnosing illnesses and prescribing medication because they were familiar with most treatment procedures. The findings of the current study showed that experience in health conditions of the aged contributed to information on geriatric care among FHCPs in a development context.

The findings so far show that EPs, ICPs and FHCPs preferred to use family, friends and neighbours, and their personal experience in health-care as informal sources of information. Family members, relatives and friends are close to EPs and understand their health conditions and can be trusted to provide and share trustworthy information about health conditions of the

EPs. Trust in a source of information is important for information seekers because it enhances their acceptance and use of information. The assumption that a source is knowledgeable or will provide the correct information is a basis for trust.

However, the findings showed that the experiences which EPs and ICPs, and FHCPs used as sources of information varied. EPs and ICPs were users of lay information and relied on information used in a less professional context or experience. FHCPs, the professionals in the current study, most probably developed the ability to know when to select the type of information that they needed to accomplish particular tasks in the health-care of EPs. FHCPs also relied on information that they had used in a professional context. All respondents preferred information that they had used before because they used less time and they did not incur financial costs to retrieve the information from their memories. The findings imply that EPs, ICPs and FHCPs need sources of information that can be accessed easily and that are free of cost.

The findings so far help us to understand the type of formal and informal sources of information that EPs, ICPs and FHCPs in Nakuru District used in geriatric health-care. The findings show that the three groups of respondents varied in their use of formal and informal sources of information. For example, only a few EPs and ICPs used conventional medical books because they had training in health-care and were able to interpret the information. Other EPs and ICPs preferred CAM books because they had simplified health-care information. Some EPs were illiterate and preferred to use informal sources that presented information orally. FHCPs were literate and preferred to use books and journals because they provided information to help them to carry out professional tasks. The variation among respondents in use of formal sources of information indicate that the professional and lay groups of users could experience restrictions when they share or transfer information for health-care. Some EPs and ICPs may be influenced by information gathered from CAM sources while FHCPs may be influenced by information that they access from conventional literature for health-care.

The findings also showed that family members, friends, neighbours and past experience in providing health-care services are important informal sources of information. The groups of respondents also varied in the ways in which they used family members, friends, neighbours and colleagues as informal sources for information in the health-care of EPs. As lay people,

EPs and ICPs seemed to use informal sources as family members, friends and neighbours to share medical, nutritional and general health-care information. Closeness to informal sources, trustworthiness of a source, sharing of information orally and provision of information without costs made it easy for EPs and ICPs to choose the informal sources to use before turning to others. FHCPs used informal sources such as colleagues, EPs and members of their families and friends to get patient information to help them to provide the right treatment and advice to EPs. FHCPs recognize that people that are close to EPs could provide insightful information to help them to make the right diagnosis and prescription for health conditions of the elderly. The findings showed that professional and lay users of information cross boundaries in order to share information that can help each group. Analysis of data for the current study also showed that the three groups of respondents used diversified channels of communication to access information for geriatric care. The next section discusses the channels of communication through which the respondents obtained information about health-care.

6.4 CHANNELS OF COMMUNICATION

A channel of communication is the physical means, method or a medium used to send a message (Adler & Elmhurst 2005: G-1). Channels may be written (newspapers, magazines, the Internet, letters, etc.) or they can be oral (speeches, television, radio, telephone, etc.). The findings of this study showed that EPs, ICPs and FHCPs used the television, radio, newspapers and magazines, the telephone or cell phone and professional health-care services or facilities as channels of receiving information for geriatric care. Some of the respondents also used CAM, women groups, religious meetings, agricultural shows and the Internet to receive information for geriatric care. The sections below discuss ways in which groups of respondents used different channels of communication to access information for health-care of EPs in Nakuru District.

6.4.1 Elderly people (EPs)

The EPs reported that they used channels of communication such as professional health-care services or facilities, television, radio, newspapers and magazines, and cell phones. These channels exposed EPs to geriatric information for their health-care. The findings also showed that EPs used CAM service, women groups, religious organizations and agricultural shows to

access information for health-care. Table 6.5 is a summary of the channels of communication the EPs used to access information for health-care.

Table 6.5: Channels of communication used by elderly people

Channel	Type of Information	Reasons for Preference
Professional health-care services or facilities	<ul style="list-style-type: none"> • Medical • Nutritional • General advice about health 	<ul style="list-style-type: none"> • The staff are trained in health-care and trusted to provide the right information • Costs in government health-care facilities are subsidized
Television	<ul style="list-style-type: none"> • Nutritional • Information for general health management • General advice about use of medicine • Advice about prevention of diseases 	<ul style="list-style-type: none"> • Television is available at home • Information is presented in audio and visual formats
Radio	<ul style="list-style-type: none"> • Nutritional • Health advice about specific diseases • Advice about general use of medicines • Advice about prevention of diseases 	<ul style="list-style-type: none"> • The radio is affordable and available in most homes • Information is easy to follow because it is shared orally • Most programmes of health-care present information using Kiswahili or indigenous languages that are easy to follow
Newspapers and magazines	<ul style="list-style-type: none"> • Nutritional • General advice about use of medicines • Information for general management of health 	<ul style="list-style-type: none"> • Information has more details about causes of conditions of health and the ways to manage them • Possible to share articles about health-care • Possible to preserve articles with information for health-care for later use
Telephone/ Cell phone	<ul style="list-style-type: none"> • Medical • Nutritional • Advice for management of specific health conditio 	<ul style="list-style-type: none"> • Telephone and cell phone are a faster means of communicating • Cell phone is accessible from any place • Useful in emergency health-care situations • Possible to send short text messages in any language from a cell phone
CAM Services	<ul style="list-style-type: none"> • Medical • Nutritional 	<ul style="list-style-type: none"> • The service is easily available in the community • Costs of the service are affordable and negotiable • Possible to pay for the service in instalments • Most of the service providers are trusted because they are members of the local community • CAM treatment is free of adverse side effects • Staff that work in CAM services are friendly to EPs • CAM services provide leaflets with simplified and summarized information about management for conditions of health-care
Women groups	<ul style="list-style-type: none"> • Nutritional • About availability of herbal/CAM treatment • Emotional support • Financial support 	<ul style="list-style-type: none"> • Women groups are easily accessible because they are formed within the local community • Possible to meet FHCPs and access information for health-care through women groups • Members trust each other hence sharing of information at the forums • No costs are incurred to access information • Information is easy to follow because it is shared orally in indigenous languages or Kiswahili
Religious meetings	<ul style="list-style-type: none"> • About free treatment available in medical camps • Information for spiritual and emotional support 	<ul style="list-style-type: none"> • Religious leaders are trusted because of their position in society • Information is provided freely
Agricultural shows	<ul style="list-style-type: none"> • Nutritional • Advice for management of health conditions 	<ul style="list-style-type: none"> • Information is easy to follow because it is shared orally • Exhibitors use Kiswahili language to share information • Exhibitors distribute leaflets with summarized information about nutrition

Table 6.5 shows that EPs used a variety of channels of communication to access information for medical and nutritional care, advice about management of health conditions, among others. The table also shows that EPs preferred to use the channels because they were easy to access, they provided information orally and were free of charge. The channels were trustworthy and also used languages that EPs could easily understand.

6.4.1.1 Professional health-care services or facilities

All EPs indicated that they preferred to get information from FHCPs who worked in government hospitals or health centres that they believed (and trusted) were knowledgeable about health-care. Professional qualifications of FHCPs encouraged EPs to use FHCPs as channels of accessing information for geriatric care. The cost of health-care services in public hospitals was subsidized and this made it possible for EPs to consult FHCPs. Cost considerations also influenced EPs' choice of health-care services. In addition, despite the concerns raised about the attitude of FHCPs in government health facilities towards EPs, the latter felt that these providers were better qualified to provide professional health services and information. Trust or confidence in the provider of a service is a factor contributing to the use of health-care facilities as channels for accessing information about health-care of EPs. EPs trusted FHCPs and were convinced that the information that they shared with them was authoritative.

All EPs reported that FHCPs advised them about use of prescribed medication, good nutrition and their general health-care and that they told them about physical exercises for EPs. However, the FHCPs did not emphasise the importance of this. Two-thirds of the EPs (12 out of 18) expressed concern about lack of consistency in care from FHCPs in government hospitals. The respondents said that the system of work shifts in hospitals made it difficult sometimes for EPs who were patients to see the same provider to discuss specific health-care issues. Consistency of FHCPs enhanced access and use of information for geriatric care among EPs. EPs preferred to deal with FHCPs they already knew and who had knowledge of their health conditions. The findings suggest that change of FHCPs contributes to a barrier in access and use of information for health-care among EPs.

Almost all of the EPs, (17 out of 18) reported that they used private hospitals and clinics only for emergencies, partly because of the cost in these facilities. Only one EP reported that he

could use both the public and private health-care facilities as his health insurance covered this. The cost of services in professional health-care facilities determined the choice of hospitals and health-care centres that EPs used. The findings show that cost of services can hinder EPs from using some health-care facilities as channels of accessing information. Sometimes, family members would make the decision to use private health-care facilities on behalf of EPs. Most of the EPs reported that they used private clinics for treatment, particularly the ones belonging to individuals in an estate or a village, because the staff in the facilities understood the financial challenges that EPs in the community experienced. Familiarity with economic abilities of EPs enabled FHCPs in private health clinics to share information for health-care with EPs and treat them on credit. The private-clinic owners knew most of the families in their communities and were willing to discuss the health-care challenges of the clients and to treat them on credit. EPs reported that staff in private clinics would spend more time discussing health issues with them than their counterparts in public health facilities. The willingness of staff in private health-care facilities to treat EPs on credit, to spend more time discussing health conditions with them, and ease of availability of the facilities made it an attractive and possible option for some EPs to use the private facilities as channels of information for health-care. One elderly respondent observed:

“It is true that private hospitals and clinics are expensive. But the staff listen to me when I go there, and patiently explain issues about health conditions that I experience.”

The comment showed that EPs prefer FHCPs that listen to them as they share information for as long as it takes them to share their experiences. It should be kept in mind that because of high costs, the number of clients using private clinics was clearly lower than the number who went to government health-care facilities. Due to the lower number of patients, staff in private health-care facilities had more time to spend discussing health issues with all of their clients, particularly the EPs, than the staff that worked with large numbers of patients in government hospitals. Generally, EP respondents went to specific health-care facilities for consultation or treatment and obtained information on geriatric care.

Research findings show that EPs turn to FHCPs for medical information and advice because they trust FHCPs to share with them appropriate information (Cooper & Urquhart 2005:107-116; Pettigrew 2000:62-73). The findings of the current study go further to show that

although EPs use public health-care facilities, they are favourably influenced in their decision to use private health-care facilities as channels of information if they are familiar with the staff with whom there is a relationship of mutual trust and confidence and if the facility allows them credit.

6.4.1.2 Television

Almost half of the EPs, (7 out of 18) reported using television regularly to listen to news and sometimes to watch programmes about health-care. Five of them were from the urban site and two from the rural. Availability of television in homes made it possible for EPs to learn about health-care programmes presented on the channel.

The respondents indicated that they gathered some information about health-care from reports from the Ministries of Public Health and Medical Services, which was reported as news about research findings in health. The EPs that watched television also said they watched a Christian channel, *Family Television* because it had a popular programme, *Doctors on Call*, aired every Sunday afternoon, on which a team of doctors discussed health issues. Presentation of health programmes by FHCPs influences lay users of information like EPs to use television as a channel of communication for accessing information for health-care. EPs that watched *Doctors on Call* reported that the programme was educational and interactive, allowing viewers to call in to ask questions about the different health-care topics presented during the programme and that the information obtained from the programmes sometimes was useful to them in their own health-care. However, they said that discussions in most of the sessions of the programme that they watched dealt with issues of health-care for different ailments or general health-care. Programmes of health-care presented through television were not specifically focused on health conditions of EPs, and seemed to provide them with little information for geriatric care. EPs also reported that they sometimes missed the programmes because they did not have enough time to watch them.

Most of the EPs from the rural site reported they did not have television sets in their homes and that they also lacked electricity. Lacking television and infrastructure like electricity restricted EPs of the rural site from accessing information for health-care through the television. Only two EPs from the rural site reported that they owned television sets and they both reported that they used rechargeable batteries to run their television sets because they

could not afford to pay for connection of electricity to their houses. The cost of electricity further restricted the use of television as a channel for accessing information for health-care among EPs from the rural site. The two EPs said that they switched off television sets sometimes to save battery power so that they could watch their favourite programmes later on. Considering the observations of respondents, it seems that television was a less reliable channel for accessing information for health-care in a development context.

Studies have shown that the EPs like to watch television programmes because this channel of communication is both audio and visual, and serves also as a form of interactive entertainment (Wicks 2004; Barrett 2000). However, the findings of the current study show that television is limited as a channel of communication of information about health-care for the EPs in the rural site though more effective among the EPs from the urban site. Also, it was found that the programmes on health-care were geared to a general audience and not specifically focused on the concerns of the EPs. It was often only by chance that the television programmes addressed issues of geriatric care.

6.4.1.3 Radio

The findings of the current study showed that all EPs used the radio to access news and other forms of information. The analysis revealed that there were variations in the use of the radio as a channel for communicating information about health-care. However, most of the EPs from the urban site (eight out of ten) indicated that they did not gather information for health-care from radio programmes because they preferred television as already pointed out in section 6.4.1.2. Nonetheless, they said they found the radio, particularly the battery-operated ones handy in times of power failure at which time they would listen to programmes on the community radio stations.

Only two EPs (from the urban site) said that they listened regularly to programmes about health-care on community radio stations because they could follow and remember most of the information presented. The use of indigenous languages to present programmes of health-care encouraged a few EPs from the urban site to use radio as a channel of accessing information for geriatric care. The sentiments of the respondents who used the community radio stations were captured in the words of one elderly woman:

“I like listening to the radio in Dholuo (one of the local languages of Kenya) because I follow discussions about diseases and treatment easily. I remember most of the information because the presenter uses mother tongue.”

Her sentiments suggest that the language used to present programmes about health-care on the radio was important and served to motivate some of the EPs to listen to programmes about health-care.

All eight EPs from the rural site indicated that they also listened to information about health-care on radio programmes that were presented in their native languages. The rural EPs would turn to radio programmes as a source of information about health-care if indigenous languages were used. Local languages are an important tool of communicating information for health-care to some EPs because they are able to follow discussions. It appears that media that provides health information in foreign languages is not a source of information to EPs that do not understand such languages. The respondents also said that they were able to purchase radios because they were inexpensive and could be operated on dry cells available at the nearest local market or from village kiosks. The costs of radio and availability batteries within the reach of EPs, and use of local languages made the radio a popular channel through which rural EPs accessed information for health-care.

Four male EPs from the rural site said that they had pocket-size radios which they carried around with them to farms and at social gatherings so as to be able to listen to news and to health-care programmes. The remaining four women EPs (from the rural site) said they preferred to listen to radio programmes as they worked around their houses. Portability of the radio made it a popular channel of accessing information among the EPs in the rural site, enabling them to listen to the news and to programmes about health-care and other topics from different locations. It was also found that radio was especially popular among the EPs who were illiterate. Affordable radios were available in a variety of sizes and models, making it possible for all the EPs respondents to own one and to thereby listen to the news and to other programmes, including those about health-care. However, the respondents commented that programmes of health-care presented on radio did not often discuss conditions of EPs. The findings showed that it was not easy for EPs to access information about geriatric care from radio programmes. This challenge is discussed in Chapter Eight, among other factors that influence access and use of information in health-care of EPs.

The findings of the current study are in agreement with other studies that show that radio is a popular channel of communication of information about health-care in the rural communities of Kenya (Kaane 1995:124-130; Bii & Otike 2003:155-174). The findings of the current study further show that radio was a popular channel of accessing information for health-care among EPs from the rural site because of ease of use of indigenous languages to present programmes of health-care and availability of dry cells to help operate radios due to lack of electricity. However, the programmes were not focussed on health-care issues, making it difficult for EPs to access information specifically for geriatric care.

6.4.1.4 Newspapers and magazines

Seven of the EPs, all male, literate, English-speaking and on pensions, reported that they obtained some information about health-care by reading newspapers. Six of them were from the urban site and one was from the rural site. Literacy in English language and financial abilities made it possible for some EPs to access information for health-care from newspapers. The findings showed that newspapers were less popular channels of communicating information about health-care among the women respondents, suggesting that female EPs were less likely to access information about health-care disseminated through newspapers. EPs that used newspapers indicated that sometimes they bought newspapers or borrowed them from friends and neighbours whom they knew read them regularly. The cost of accessing information determines whether or not lay people will decide to use it. EPs living in the urban site seemed to be exposed to printed information about health-care because some of them were able to buy or borrow newspapers from which sometimes they found articles about health.

EPs who read newspapers indicated a preference for mid-week and weekend issues because these included more feature articles and sometimes a column or a pull-out magazine about health-care. The EPs said that the information gathered from newspapers was about general matters of health-care, saying that if they came across information relevant to their own geriatric health-care, it was by chance. Newspapers are not reliant channels for communication of geriatric information because they are expensive to buy. At the same time, they irregularly publish articles about health-care. This contributes to limited access to geriatric information among EPs.

Only one among the eight respondents (a retired teacher) from the rural site indicated that sometimes he read the two main newspapers, the *Daily Nation* and the *The Standard*, citing cost of newspapers as a challenge to access them regularly. The cost of newspapers and irregular publication of articles for health-care of the elderly made it difficult for EPs to access information for geriatric care. Overall, the findings of this study showed that most of the rural EPs did not use newspapers as channels of accessing information about health-care because they were too expensive or unavailable and that a high rate of illiteracy was also a barrier to their use in the rural site.

The Daily Nation and *The Standard* were popular newspapers among the EPs who purchased or otherwise obtained access to daily newspapers. Two EPs (from the urban site) reported photocopying articles of interest about health-care from the two daily newspapers in order to keep them for future use or to share the information among their friends. Only a few EPs were able to use reprographic services to preserve information for later use. The findings showed that the encounter of EPs with information about health-care in the newspapers was by chance rather than intentional and that their primary objective in purchasing or borrowing newspapers was to read the news. The findings affirm the theory of information encountering which argues that some information seekers may be searching for one kind of information but in the process, they find another kind of useful information (Erdelez 2005).

The number of EPs that used newspapers as a channel of accessing information for health-care was less than half of the total number of EP respondents in the current study and most of them were in the urban site. The findings suggest that newspapers were not an appropriate or reliable channel for communicating information for health-care of EPs because of costs, illiteracy among EPs particularly from the rural site, low use of the dailies among women EPs, and lack specific information about geriatric care.

The current study concludes that newspapers are still a very limited channel of communication of information about health-care for the EPs, especially women and the rural EPs, in the Nakuru District of Kenya. Other studies have also shown that newspapers are unpopular channels of accessing information about health-care among EPs because they are expensive, have a business focus, are sometimes too brief in their coverage and are inaccessible for the illiterate (Morey 2007: 1-12; Barrett 2000).

6.4.1.5 Telephone

More than half of the EPs (10 out of 18, seven from the urban site and three from the rural site) reported that they owned cell phones and used them to communicate with and seek advice from FHCPs when they experienced unforeseen health problems at home. Thus, cell phones made it possible for the EPs and their FHCPs to share information about health-care in times of emergencies. The remainder, who did not own a cell phone (three from the urban site and five from the rural site) said that they would use the cell phone of a family member when necessary and that they kept lists of cell-phone numbers of neighbours and FHCPs who lived in the community. This shows an interesting innovative behaviour of people in a developing context who cannot always afford the luxury of the latest information communication technologies. The EPs would then refer to the lists and request the nearest person with a cell phone to contact a relative or FHCPs when they had a problem with their health or during an emergency. Access to a cell phone within the family or community enhanced sharing of information for health-care among EPs, family members and FHCPs.

The rural EPs commented that it was expensive to charge their cell phones because they did not have electricity in their homes, making it necessary for them to go to the market centre and pay a minimum cost of 20 shillings (USD 0.27) to charge the batteries. Unavailability of infrastructure such as electricity was a barrier to EPs from the rural site to use the cell phone to share information about health-care. The EPs from the rural site indicated that sometimes friends who owned shops in the market centre would provide the service for them free-of-charge. In order to save energy, the rural respondents said that they switched off their phones at night. Also, in some rural areas there was poor network connectivity that hindered communication. Although the cell phone is a convenient channel of communication for the world at large, it was expensive, particularly for the rural EPs, to use the cell phone to access information about geriatric health-care.

The analysis shows that most of the EPs used the cell phone to communicate about the condition of their health and to access information about health-care with FHCPs and family members. However, this usage was low among the rural EPs largely because the use of a cell phone is very expensive and most EPs in the rural area did not have access to electricity in their homes. The telephone is a fast means of communication among the current information communication technologies. The invention of the cell phone has revolutionized

communication using the phone, making it possible for people to share information at any time and from any place in the world (Williams & Sawyer 2001).

6.4.1.6 Complementary and alternative medical (CAM) services

CAM services have already been discussed in Chapter Five. CAM services are known in Kenya by names such as African, local, traditional, herbal, traditional medicine or natural health-care. Some of the EPs indicated that they used CAM services to get information for their health-care.

The researcher learnt that a variety of CAM clinics are available in Nakuru District with some of the clinics housed in buildings with a small number of staff, while others operate as a one-man business alongside streets or near bus stops, markets and public parks, usually crowded with people. Some CAM services in Nakuru Municipality advertise their locations and the dates when their clinics are open through the media while most of the CAM services in the rural area are provided by traditional medicine practitioners.

Half of the EPs (9 out of 18 respondents) reported that they used CAM services and that they would present diagnostic reports from professional health-care facilities when seeking information and medication from CAM services. EPs transferred information for health-care from conventional health facilities to CAM services. During the investigation, it became apparent that some EPs tend to take diagnostic reports and prescription issued by FHCPs to CAM services. It also became apparent that some CAM staff encouraged EPs to bring them their diagnostic reports in order to administer appropriate CAM treatment. It seems that some CAM staff indirectly accessed through EPs information from FHCPs to help them to prescribe treatment for EPs.

EPs reported that CAM staff would hold longer discussions with them to explain how to use products and about the findings to expect. The respondents estimated that they would spend from 20 to 40 minutes discussing their health challenges with CAM staff before being given treatment. Allowing more time for consultation was important for EPs because it was an aspect of the commitment of CAM staff to listen and to share information with them. One respondent stated:

“The people who give herbal treatment listen to me for a long time. This does not happen in public hospitals. Nurses in public hospital are always in hurry to take the next patient and dismiss EPs before they finish talking about their health problems.”

The observation suggested that EPs want health-care providers that listen to them carefully, giving them enough time and personal attention to share information about their health conditions exhaustively. The findings showed that the inadvertent sharing of information between FHCPs and CAM health-care providers, through the EPs transferring official records to CAM providers, allowed the EPs to benefit from conventional health-care and CAM facilities as channels of communicating information about their health-care.

The EPs reported that they obtained from CAM services information about nutrition, medication, physical exercise and, sometimes, spiritual support. CAM services created a more conducive atmosphere in which the EPs felt more at ease to share their information needs and access information for health-care. The literate EPs that used CAM services reported that CAM staff gave them attractive leaflets summarizing ways in which to manage specific diseases and other forms of ailments. Repackaged health-care information from CAM was well suited for the EPs to use in health-care. Illiterate EPs reported that they relied on ICPs and family members to interpret information for them. Thus, the provision of simplified and repackaged information motivated the EPs to use CAM as a source of information about health-care.

The EPs also reported that CAM services were easily available, and that it took very little time to reach the service providers to obtain information about health-care. Ease of access to health-care information providers is important for EPs that need information to use. In the rural areas, CAM services could be found in the homes of neighbours who were providers to the surrounding community. EPs from Nakuru Municipality indicated that it was easy for them to get information from CAM services because they lived close and knew individuals and places that provided the service. Proximity and familiarity with a channel of communication increases accessibility to information. The EPs also said that they had used herbal medicine since childhood and believed that sometimes it worked better than conventional medicine. Belief in health-care service plays a role in the choice of the type of remedy one uses in health-care. An elderly woman stated:

“Herbal medicine has been with us since the times of our fathers. It is more effective in the treatment of some ailments which European (meaning conventional) medicine cannot cure.”

The comment shows that beliefs and cultural practices influence some EPs in their decision to use CAM as a channel for accessing information for health-care because it is readily available. The findings also showed that sometimes information users are biased towards choosing familiar sources of information because of beliefs. Secondly, CAM staff that are willing to devote a lot of time to listen, and share information are appropriate encouragement for EPs to use CAM as a channel of accessing information for geriatric care. The personnel that work with a channel of communication are important in enhancing the use of the channel among seekers of information for health-care.

EPs from the rural area indicated that they could pay for CAM services in the villages at their own convenience, sometimes on an instalment basis, and at a cost negotiated with the service providers. The mode of payment was another incentive for the EPs to use CAM as a channel of accessing information for health-care.

Studies have shown that the EPs discuss the use of CAM services with doctors before they start treatment because they believe that the services are less harmful to their health (AARP 2007; Easom & Quinn 2006). However, the findings of the current study show that EPs in Nakuru District deliberately used CAM as a channel of accessing information for geriatric care without sharing their plans with FHCPs, leading to a transfer of information from conventional to CAM services. The findings also showed that staff that work in CAM services contribute to information transfer when they advise EPs to seek diagnosis of conditions of health. The findings of the current study also showed that factors such as a friendly environment, the relatively low cost of the service, ease of access and cultural acceptability of herbal medicine, along with the possibility to pay for treatment by instalments influenced EPs to use CAM as a channel of accessing information for geriatric care. The number of EPs that used CAM in the current study suggests that alternative health-care services are a fairly popular channel of accessing information for health-care among EPs, particularly those from the rural site.

6.4.1.7 Women groups

Some EPs indicated that they accessed information for health-care from women groups in their communities. Women groups are constituted at the micro-level in village and residential areas and have the primary aim of supporting one another through remunerative activities. Membership in the groups is open to adult women from a range of social classes who live in the same area. The groups usually hold their meetings once a month on a Saturday or a Sunday afternoon in the home of one of the members, rotating the meeting place among homes of the members.

Most of the women EPs (5 out of 7) reported that they obtained information about health-care from members of women groups and that the members shared information about general health-care at the meetings. Membership to informal groups that meet regularly provides opportunities for individuals to access information. The findings also show that gender bias influences individuals in choosing channels of communication. Only women attended these meetings, making men unable to benefit directly from information disseminated at such forums. The primary aim of holding meetings was to contribute and share money for their remunerative activities. The chair lady of one group stated:

“We meet to contribute and share money to help women in their economic activities. But we also share information about issues such as health, education, investment and others that generally affect women. Good health for our families is an issue that we often talk about.”

The observation from this respondent suggests that social networks serve as channels of accessing information for a variety of issues. The women indicated that they discussed recipes for the preparation of various meals using locally available foodstuffs and some of the herbal medicines for the treatment of different health conditions. The women said that the groups also provided emotional support to members who experienced grief in one way or the other. An elderly woman leader of one of the groups reported, that with the support of her group, she was able to invite speakers from the community and surrounding areas representing different professions to talk to the members about topics of interest, with health-care being one of the popular topics. Meetings of women groups served as a social network for sharing information on various aspects for health-care. The male EPs reported that all

information shared during meetings of women groups, except transactions about money, was conveyed orally and stored only in their memories. The oral nature of sharing information during meetings was convenient for EPs to gather information for health-care. The respondents also observed that friendships that developed among members served to facilitate the sharing of information about health-care. Social networks organised along gender lines form a rich ground or channel for communicating information for health-care in some communities in a development context. In contrast, none of the male respondents in this study belonged to corresponding “men’s groups” as these did not exist at the time of the current study. The men were all aware of the women groups and indicated that their spouses were members of at least one woman’s group. The findings indicate that male EPs indirectly benefit from health-care information shared during meetings of women groups through their spouses.

Bii and Otike (2003) and Kaane (1997; 1995) found that women’s groups were used to disseminate information about health-care in rural communities and the findings of the current study confirm the prior findings within a development context.

6.4.1.8 Religious meetings

Some EPs reported that leaders of religious meetings informed congregations about medical camps organised to provide free treatment to members of local communities. Religious meetings alerted their congregations about free health-care services available in the community. Announcements made during meetings of religious organizations can inform EPs about the availability of free treatment of diseases. Organisations such as the Lions or the Rotary Club, banks, mobile phone service providers, pharmaceutical firms and other state and private corporations would work with public and private hospitals and other health organisations to identify a health need in an area to offer free treatment to residents of the area and people from neighbouring locations. For example, The Lions Club occasionally organizes free medical camps in different parts of Nakuru District for people with problems with eyes, nose and throat and other conditions of health. The free medical camps are widely publicized in public places and at social gatherings including religious meetings. FHCPs who volunteer to provide services participate in the medical camps and attend to EPs who seek treatment. Religious organisations are not appropriate channels for accessing information for geriatric care because they do not share the actual information about health-care.

Less than a quarter of the EPs (3 out of 18) reported that they obtained information about free health-care services at religious meetings. However, they reported that they received emotional and spiritual support through the prayers, teachings and sermons given at religious meetings. The potential of religious organizations for disseminating information about the health-care services of other organizations and also reaching out to EPs to provide emotional and spiritual support is tremendous. However, religious meetings are not ideal environments in which EPs can access and learn new ways to use information about their health-care because their focus is more on spiritual than physical issues of their members. The findings do emphasize the potential of religious meetings to introduce EPs to health-care programmes provided by other organizations and thus have the potential to become a meaningful channel of geriatric health-care information.

Easom and Quinn (2006:37-42) found that some EPs in the United States of America have found that by turning to prayer they can experience a high level of emotional and spiritual health and find relief from the pain of ailments from which they suffer that might otherwise lead to depression. This is confirmed by the findings of the current study which has shown that religious meetings also help congregations achieve heightened emotional and spiritual health and that FHCPs collaborate with religious organizations to disseminate information about public and sometimes free health-care services for the EPs.

6.4.1.9 Agricultural shows

One elderly person indicated that he accessed information for health-care from agricultural shows held in Nakuru Municipality. The Agriculture Society of Kenya (ASK) holds a show at the Nakuru Show Ground once every year at which government and private sector entrepreneurs exhibit their products. Members of the general public usually must pay a daily fee to view the agricultural and educational products, entertainment, machinery and other displays available during the ASK show.

Only one elderly respondent from Nakuru Municipality reported that he gathered information about food and nutrition from the different exhibitors of farm products at the show, saying that he moved from one stall to another to listen to different explanations about the use of the products and would sometimes receive leaflets from some of the exhibitors with information

about the products. The cost of accessing a source determines the type of information seekers that can use it. Discussions with the EPs showed that they were aware that they could get information about nutrition at the ASK show but that, due to limited financial resources, it was difficult for most of them to attend ASK shows because of the daily fee. The cost of attending ASK shows prevented majority of EPs in Nakuru District from using it as a channel to access information for their health-care. The findings indicate a need for health-care information from ASK shows to be repackaged and given to EPs without charging them.

The findings also showed the inconvenience of the EPs trying to access information about health-care at agricultural shows due to the long distances to travel, the cost of accessing the show grounds and the noisy and crowded environment. Also, ASK shows are held annually in Nakuru Municipality, making it impossible for the EPs to consult exhibitors for follow-up information after a show session ends. Factors such as distance, the cost of attending the ASK shows and holding the show only once a year, make the ASK shows an ineffective channel to distribute information for geriatric care.

6.4.1.10 The Internet

Information communication technologies (ICTs) are widely regarded as being the fastest means of communication, providing the quickest access to information. Among them, the Internet is popular because it provides information on a vast array of topics, including health-care. However, upon analysing the data of the current study, it was found that, due to a lack of information technology skills, none of the EPs used the Internet, though five EPs with career experiences (two teachers, one agricultural officer, two administrators), four from the urban site and one from the rural said that they were aware of the Internet and that they wished to acquire the necessary skills to enable them to use it. The findings suggest that some EPs could learn to use the Internet to access information for health-care.

Though the EPs endeavoured to use a variety of the available channels of communication for their health-care, low income and skill levels made it difficult for most of the EPs to use all the available channels of communication, with the challenges even greater in the rural site. The findings also showed that the Internet was the least popular channel used by EPs in Nakuru District to access information for health-care because they lacked both access to the new technology and the skills to help them to use the Internet. The level of education, old

age, a fear of the new technology and lack of opportunities to train in the use of the new information technology were barriers to most EPs in Nakuru District in access to geriatric information via the Internet. The findings showed that most EPs preferred channels of communication that used Kiswahili or indigenous languages that EPs understood better than foreign languages such as English. However, the findings showed that EPs accessed information for their health-care through the channels by chance because the channels were not focused on providing information for geriatric care.

6.4.2 Informal care providers (ICPs)

The findings showed that ICPs used professional health-care services or facilities, television, radio, newspapers and magazines, the Internet, telephone or cell phone and religious organizations as channels of communication to access and share information about the health-care of EPs that they took care of. Only women ICPs used women groups as a channel for information to help them in the care of EPs. Table 6.6 is a summary of the channels of communication that ICPs used.

Table 6.6 shows that ICPs accessed information for medical, nutritional and health management issues from varied channels of communication. The reasons for use of different channels included ease of accessibility, trust in the type of channel, access to information without paying, among others. The next section discusses the ways in which ICPs used each type of channel to find information to help them to care for EPs.

Table 6.6: Channels of communication used by informal care providers

Channel	Type of information	Reasons for preference
Professional health-care services or facilities	<ul style="list-style-type: none"> • Medical • Nutritional 	<ul style="list-style-type: none"> • Information is trusted because it is provided by professionals in health-care • There are no charges for information from health-care providers in government hospitals
Television	<ul style="list-style-type: none"> • Nutritional • Health management • Use of medicines • Prevention 	<ul style="list-style-type: none"> • Information is audio and visual • Television is available at home
Radio	<ul style="list-style-type: none"> • Nutritional • Health advice about specific diseases • General information about use of medicines • Prevention of diseases • Management of health conditions 	<ul style="list-style-type: none"> • Information is presented in oral format and does not require reading • Radios are portable because they are available in small sizes • Some radio stations use local languages to present information about health-care
Newspapers	<ul style="list-style-type: none"> • Nutritional • General use of medicines • Information for general health management 	<ul style="list-style-type: none"> • Information has more details about health conditions, management and treatment • Possible to share articles with information for health-care
Magazines	<ul style="list-style-type: none"> • Nutritional • General information about use of medicines • Information for general health management 	<ul style="list-style-type: none"> • The information is more detailed and good for use • Possible to share information with other people
Internet	<ul style="list-style-type: none"> • Information about ailments that EPs suffer from • Information about management of health conditions of EPs 	<ul style="list-style-type: none"> • The Internet has a lot of information for one to use • The Internet has more current information about health conditions and treatment • The Internet delivers information fast • One can access information from anywhere
Telephone/Cell phone	<ul style="list-style-type: none"> • Prescriptions from FHCPs for medicine to use in emergency situations • Advice from FHCPs, family members and friends about management of health conditions of EPs 	<ul style="list-style-type: none"> • Cell phone enables one to contact FHCPs or family members for information for health-care from anywhere • The cell phone is useful in emergency health-care situations • Possible for one to send short text messages in any language and get a response immediately
Women groups	<ul style="list-style-type: none"> • Nutritional • About availability of herbal/CAM treatment. • Emotional support • Financial support 	<ul style="list-style-type: none"> • Women groups are easily accessible because they are formed within the local community • Possible to meet FHCPs and access information for health-care through women groups • Members trust each other hence sharing of information at the forums • No costs are incurred to access information • Information is easy to follow because it is shared orally in indigenous languages or Kiswahili
Religious organizations	<ul style="list-style-type: none"> • Information about free treatment available in the local area • Information for spiritual needs 	<ul style="list-style-type: none"> • Religious leaders are trusted members of society

6.4.2.1 Professional health-care services or facilities

All ICPs reported that they sought information from FHCPs when they accompanied the EPs they cared for to health-care facilities. Taking EPs to health-care service providers exposed ICPs to FHCPs as channels of information. ICPs indicated that they trusted information from FHCPs because they were trained in health-care. Knowledge that FHCPs were professionals enhanced the trust of ICPs to use professional health-care services as channels of communicating information to help them in the care of EPs. The findings suggest that information seekers trust information that is provided by professionals in specific areas of knowledge and practice.

The ICPs indicated that they carefully listened to instructions about how to use medication and about nutrition and general health-care given by professional health-care providers and that they discussed the ailments and the health of the EPs they cared for with the FHCPs when it was possible. The ICPs thus were able to access information from FHCPs by listening to conversations between the FHCPs and EPs and also by speaking directly with the professional health-care providers. Participation of ICPs in some of the discussions between FHCPs and EPs seemed to enhance health information literacy about geriatric care among ICPs. The ICPs indicated that they also contacted FHCPs who lived nearby in the community for information about the health-care of the EPs at times other than those of hospital visits, showing that they needed to interact regularly with FHCPs in order to obtain information about health-care for the EPs. Ease of access of FHCPs to members of their communities made it possible for ICPs to access information from them. The findings show that interaction between professionals, in this case FHCPs, and lay people, in this case ICPs, encourages the latter to cross boundaries in search of information to help them to respond to challenges.

ICPs also indicated that they preferred to consult FHCPs in public health facilities where the information was free. ICPs need cost-effective channels of accessing information because most of them were low income earners. The ICPs reported that they also looked for information from friends who operated private clinics as FHCPs. The ICPs said they hesitated to approach FHCPs who work in major private health-care facilities during official hours for fear of being charged a consultation fee. Rather, they took initiatives to contact approachable FHCPs from such facilities outside official working hours, in particular when they were back in the estates or villages. ICPs took advantage of familiar and informal environments to

access information from FHCPs. The findings show that informal settings that people are familiar with, are rich grounds for sharing information.

The findings of the current study show that ICPs sought information from FHCPs for one main reason: to help them to look after the EPs. The findings also show that because of the responsibilities of caring for EPs, ICPs sought information from FHCPs working in both public and private hospitals and that they also initiated ways to help them to benefit from information from private health facilities. The findings of the current study show that because of the training of staff in health-care, professional health-care services or facilities are popular channels of communicating information for health-care to help ICPs to take care of EPs. Studies show that FHCPs are important sources of information for ICPs and the EPs (Hepworth 2007; Cooper & Urquhart 2005:110-111; Odhiambo, Harrison, & Hepworth, 2003).

6.4.2.2 Television

Two-thirds of the ICPs (4 out of 6), all from the urban site, reported that they watched television for the news and for programmes about health-care. The remaining third, two ICPs from the rural site, said that they could not watch television because they did not have television sets in their homes. ICPs from the rural site did, however, express interest in being able to watch programmes about health-care if they had television sets.

ICPs that had television sets reported that they watched, for example, *Doctors on Call* programme presented on the *Family Television* channel. Levels of education enabled some ICPs to watch programmes of health-care presented in English on television. Like the EPs themselves, the ICPs were concerned about the brevity of health-care information presented on television; the limited amount of time allocated to the programmes, and the use of medical terms that were difficult to understand. In addition, the findings showed that health programmes on television were not focused on geriatric health-care and provided limited information to help ICPs.

The findings indicate that television was a popular channel of communication for health-care information for ICPs from the urban site because they had television sets in their homes and most of them were able to understand English language. The use of professionals to present

health-care programmes also encouraged ICPs in the urban site to use television as a channel for accessing information for health-care of EPs that they took care of. ICPs from the urban site also preferred television because of the audio-visual format in which the information was shared. Watching some of the demonstrations about health-care management helps information seekers to learn about appropriate ways in which to use information in health-care. As already observed, the calling in session in *Doctors on Call* health programme helped ICPs to learn more about the specific and general health conditions that professionals discussed through the programmes, and to use some of the information for health-care of EPs.

However, the data from the ICPs from the rural site showed that television was not an effective channel of communication because of the poor rural infrastructure (lack of electricity) and partly because the people did not have television sets in their homes due to limited financial resources among most families in the rural area. The findings suggest that ICPs from the rural site would need channels of communication that are easy to use in the rural setting.

6.4.2.3 Radio

ICPs reported that they listened to the news and other types of programmes on the radio, including programmes with information about health-care. Two thirds of the ICPS (4 out of 6) and all from the Municipality, reported that they had radios but preferred listening to news and other programmes on the television because of the audio-visual nature of the television. Radio was an unpopular channel for communicating information for health-care among ICPs from the urban site. The findings showed that ICPs from the urban site did not listen to the radio regularly and failed to access information from health-care programmes presented through the radio. Like the EPs from the urban site, the ICPs reported that the radio was handy in times of power failure, to listen to funeral announcements and for listening to programmes of their choice presented on community radio stations.

The two ICPs from the rural site reported that they listened to programmes about health-care presented on the *Kenya Broadcasting Co-operation (KBC)*, the national station which used both English and Kiswahili languages, and on community radio stations. Community radio stations such as *Mulembe FM*, *Kameme FM*, *KASS FM*, among others used indigenous languages. The Ministries of Health presented programmes about general health-care on the

national station while the community radio stations presented health-care programmes from the Ministries of Health and CAM. Programmes about CAM services seemed to dominate health-care sessions on community radio stations. The use of local languages on community stations made the radio a popular and convenient channel for accessing information about health-care for EPs among ICPs in rural communities. However, some of the indigenous communities in the country had not yet established radio stations and so required other channels of communication for them to access information for health-care.

Other studies have shown that radio is a popular channel for communicating health-care information in rural communities in Kenya (Bii & Otike 2003:155-174; Kaane 1995:124-130). The present study also found that radio was a popular channel for communicating information about geriatric care among ICPs from the rural area because of the growing number of community radio stations presenting programmes in indigenous languages, and ease of availability of the radio. ICPs from the urban site made less use of the radio because they were able to access information for health-care through programmes presented on television.

6.4.2.4 Newspapers and magazines

Only the two male ICPs from the urban site reported that they read newspapers occasionally to get news and sometimes came across articles about health-care by chance. Both of them said that newspapers were very expensive and that they could not afford to buy them often, leading them to borrow the papers from friends and neighbours who bought them regularly.

Parents Magazine and *Eve*, two magazines published monthly, were popular among the female ICPs. All the four female ICPs reported that they read the two magazines occasionally. The magazines published articles about interpersonal relationships, high achievers and heroes and heroines, entertainment, cooking, knitting and general family issues. The contents in the magazines focused on issues that interest women, showing that the channel was biased towards one gender and influenced readership among ICPs. Male ICPs missed health-care information that was presented in the two magazines because they did not seem to read them. ICPs that read the magazines indicated that sometimes the publications included articles about individuals suffering from certain ailments and explained why and how various types of treatment were used, and about the manner in which these individuals

had conducted themselves when they experienced problems with their health. All the women ICPs said that they got encouragement from the stories in the magazines about high-achievers and about people who had gone through challenging health situations. They also said that they learnt about new types of treatment of diseases. The magazines also provided useful information in special featured columns about popular local recipes that were healthy and nutritious. ICPs accessed information for health-care from the magazines by chance because the publications were not focused on providing information for geriatric care.

The respondents indicated that they did not have the financial means to buy monthly issues of the magazines. This reality was captured in the words of one ICP:

“I read a newspaper or magazine once in a month from a friend at the market centre or a visitor like you (referring to the researcher) if he comes with one.”

The respondent and her family lived about one and a half kilometres from a market centre where newspapers were sold. Her comment implied that besides the economic challenges that rural respondents experienced in purchasing dailies, the magazines were not easily accessible in the interior parts of the rural areas.

The findings showed that male ICPs preferred to use newspapers because they were easily available in the urban site. However, female ICPs seemed to prefer to use magazines because the latter presented more articles about family and health. The findings also showed that the ICPs were sometimes unable to use newspapers and magazines as channels for accessing information for health-care because of the financial constraints and difficulties of procuring them.

6.4.2.5 The Internet

Only the two male ICPs from the urban site, reported that they used the Internet from commercial cyber cafes to get information about health conditions from which their parents suffered. They reported that they used the *Google* search engine to look for pertinent health-care information but were not aware of websites providing geriatric information. People with fewer skills to use the new technology find it difficult to exploit the potential of the Internet to benefit from the vast information to meet their needs. ICPs that used the Internet were

unaware of other search engines and websites that provide information for geriatric care, therefore could not benefit from specialized information to help them in the care of the EPs.

The findings showed that none of the women ICPs used the Internet. The women ICPs (two young women from the rural and two older women from the urban site) reported that a lack of skills, lack of cyber cafes (for the rural respondents), the cost of learning to use the new technology and family chores made it difficult for them to use the Internet to access information. Two older women ICPs from the urban site indicated that they were too old to learn skills for use of the new technology, with one indicating that her son helped her to get information from the Internet when she needed it. Attitude, old age and the knowledge of someone that can offer assistance in searching for information using the new technology contributed to reluctance to learn ways of accessing information from the Internet among some ICPs. The analysis showed that most of the female ICPs had less exposure to the use of new technology than the men ICPs, and missed information for geriatric care available through the Internet. The findings seemed to show that ICPs did not really benefit from geriatric information available on the Internet because they lacked training and ability to use the Internet effectively. More research may help to shade light on the use of Internet among ICPs, particularly women ICPs in a development context. However, the availability of Internet facilities in the urban site made it possible for some ICPs in the urban site to use it to search for information about health-care.

Studies showed that ICPs who were able to use the new technology found information that helped them in health-care of the EPs they cared for (Magnusson & Hanson 2003; Magnusson et al 1998). The present study found that most ICPs in Nakuru District were unable to use the Internet and missed appropriate information for geriatric care. The findings showed that only male ICPs from the urban used the Internet to access information for health-care when compared to women ICPs from both the urban and rural sites. Generally, there was minimal use of the Internet as a channel of accessing information for health-care among ICPs in the current study. The findings reveal that most ICPs in a development context needed help to learn how to use the Internet. Therefore, it seems that the Internet is not an effective channel to access information for geriatric care in a development context such as Nakuru District.

6.4.2.6 Telephone

All of the ICPs reported that they owned cell phones which they used for personal communication, and to seek advice from FHCPs when they could not go to health-care facilities. Ownership of a channel of communication increases the chances of accessing and sharing information. The ICPs also observed that it was difficult for them to use cell phones for long to access information from FHCPs and family members because of costs of communication. Costs involved in maintaining cell phones were a barrier to ICPs accessing information for health-care of EPs. This factor and other challenges are discussed in Chapter Eight of this study. The findings show that like other electronic media, the cell phone was a popular but expensive channel for ICPs to use as a channel of communication to access detailed information about health-care of EPs.

6.4.2.7 Complementary and alternative medicine (CAM)

Five out of six of the ICPs reported that they got information from people that provided CAM while only one ICP indicated that she did not refer to CAM (for the health-care of her spouse) because of her professional training as a nurse. This showed that levels of training and backgrounds influence the choice of a channel of communication to use to access information for health-care among ICPs.

ICPs who used CAM services indicated that sometimes they accompanied EPs to CAM services and participated in discussions between the practitioners and the EPs. Participation in health-care discussions made it possible for ICPs to access information from CAM. However, ICPs indicated that EPs sometimes sought health-care services of CAM providers without discussing this with them. The ICPs followed up with CAM service providers, where possible, to confirm the appropriateness of health information and treatment prescribed for the EPs that they took care of. The concealed behaviour of EPs that sought treatment from CAM triggered information needs among ICPs to seek clarification from CAM service providers about information that was provided to EPs. The process of making follow-up trips exposed ICPs to health-care information from CAM services. ICPs reported that they were reluctant to discuss the use of CAM for the EPs that they cared for with FHCPs because the latter did not approve of herbal treatment. ICPs took advantage of the lack of communication between FHCPs and CAM health-service providers to access information from the latter.

The information behaviour of EPs regarding the use of CAM services contributed to use of the same service as a channel of accessing information among ICPs. The findings of the current study also show that EPs and their ICPs maintain a silent understanding and do not discuss with FHCPs about using CAM services as a channel of accessing information for health-care.

Interestingly, EPs and ICPs who used CAM for information about health-care indicated that they would go back to professional health-care services if they found CAM too slow or not producing the expected results. Information seekers sometimes move back and forth looking for information from sources and channels that are available to them. It was clear from the findings of the current study that EPs and ICPs wanted to benefit from services and information found in both systems of health-care. However, the ICPs and the EPs were both restrained in openly seeking health-care information from CAM services due to lack of formal communication between FHCPs and CAM practitioners. The findings also showed that ICPs use the same kind of formal sources of information about geriatric health-care as the EPs themselves and that the very close relationship between the two, in which information flowed unhindered also influenced the choice of formal sources of information about health-care used by both.

6.4.2.8 Women groups

All of the four women ICPs (two from the urban and two from the rural site) reported that they obtained information about nutrition at meetings of women groups. They indicated that they gathered information about the medicinal value of traditional foods and herbs from friends attending the same meetings. (These meetings were discussed previously in 6.4.1.7).

The current study has shown that the majority of ICPs are female and that, consequently, they can use women groups as a valuable channel of accessing information for health-care. The findings are also in line with findings of earlier studies that showed that women groups are used to disseminate information about health-care, though only the women ICPs have direct access to this channel of communicating information (Bii & Otike 2003; Kaane 2007; 2005). The findings of the current study further show that group gatherings enable individuals to learn new approaches on specific subjects because people are able to access and exchange information when they take part in group activities.

6.4.2.9 Religious meetings

All ICPs reported that they obtained information about public medical camps from announcements made during religious meetings and that they seized such opportunities to take the EPs to the camps to be treated for various ailments such as those relating to the ears, nose and throat (ENT); eyes and to also benefit from medical checkups. The findings showed that information about the health-care of the EPs was not actually provided at these meetings though the general public would be informed at religious meetings about free health-care services offered by FHCPs. Religious meetings served as a notice board to inform ICPs about free treatment available to the public through medical camps.

The findings show that because of closeness and working together, ICPs used the same type of channels of communication as the EPs that they care for to access information about health-care. Only a few ICPs from the urban site were able to use the Internet as a channel to access information for geriatric care. Most ICPs, particularly from the rural site lacked skills to help them to use the new technology as a means of accessing vast information for health-care available through the World Wide Web (WWW). Factors such as ease of availability of channels of communication, costs of accessing information through the channels, trust in the presenter of health-care programmes, and use of indigenous languages to present information for health-care influenced ICPs to use the channels. Natural settings such as women groups were also convenient channels that encouraged ICPs to access information for health-care of EPs.

6.4.3 Formal health-care providers (FHCPs)

All FHCPs indicated that they were cautious about using information accessed through popular channels of communication. They indicated that they accessed information for health-care from professional colleagues, and health-care programmes presented on television. Some of the FHCPs also indicated that they used the Internet and the telephone to access information to help them in health-care of EPs. Table 6.7 is a summary of the channels of communication that FHCPs used to get information for health-care of EPs.

Table 6.7: Channels of communication used by formal health-care providers

Channel	Type of information	Preference
Professional colleagues	<ul style="list-style-type: none"> • Medical • Nutritional 	<ul style="list-style-type: none"> • FHCPs trust professional colleagues to share the right information for health-care • Colleagues were easily accessible
Television	<ul style="list-style-type: none"> • Nutritional • Health management • Use of medicines • Prevention of diseases 	<ul style="list-style-type: none"> • If the programme was presented by professional health-care providers • Television is audio and visual and had the advantage of viewers asking questions for clarification • Television is accessible at home and hospital
Internet	<ul style="list-style-type: none"> • About specific diseases and how to manage them • Information to help FHCPs to prescribe medicine for EPs • Research reports 	<ul style="list-style-type: none"> • More current information about specific health conditions • Fast delivery of information to help FHCPs to provide health-care services
Telephone/Cell phone	<ul style="list-style-type: none"> • Medical • Nutritional 	<ul style="list-style-type: none"> • Accessible from any place • Useful in emergency health-care situations • Possible to send short text messages in any language

Table 6.7 shows that FHCPs used channels that were close and easy to access. FHCPs also seemed to prefer channels that provided them with authoritative information to use for health-care of EPs.

6.4.3.1 Professional colleagues

Health-care work is basically team-work among FHCPs since they support each other. All FHCPs reported that they consulted with colleagues about difficult geriatric cases for which they felt that they needed advice regarding appropriate treatment procedures. The assumption that professional colleagues are knowledgeable about illnesses and medication was a basic reason for FHCPs to trust them to share the right information for geriatric care. Since the issues that FHCPs raised were largely of a medical nature, FHCPs found it easier to reach colleagues at short notice to discuss such issues with them. Ease of accessibility of professional colleagues enhanced sharing of information with FHCPs that treated the EPs.

The findings of the current study showed that FHCPs collaborated with colleagues or worked as a group to provide information to use in treating EPs. The lack of geriatric sources or availability of fragmented information among FHCPs, and lack of expertise in geriatric care triggered collaborative information behaviour among FHCPs. The findings of the current study are in line with observation of Kuhlthau (1991:368-69) that people can work together to identify a need, seek and find information, make sense of the found information and share it to respond to a situation.

The FHCPs also reported that the collection of resources in libraries in public hospitals and health centres concentrated on general medical practices with very few collections focused on gerontology. Lack of appropriate library collections about health-care of EPs also led FHCPs to consult instead with colleagues about patients and to obtain information in this way to help them provide geriatric services. Accuracy of information required to complete tasks in health-care of EPs was important for practising FHCPs to help them to prescribe the correct treatment for EPs. The findings revealed that such information sharing among fellow professional health-care providers was popular and effective among FHCPs.

The findings of the current study support the principles suggested in research that show that members of a community of practice interact and learn together by participating in activities such as discussions, helping each other, sharing experiences, and using best practices and approaches to solve challenges (Davies 2005:104-105; Davenport & Hall 2002:180-183; Wenger 2001). FHCPs consult each other regularly to access information to help them in the health-care of EPs, and thus form their own communities of practice through which needed professional information is shared. Within these communities, FHCPs could find more knowledgeable colleagues with whom to consult to find the needed information and guidance. The findings of the current study are also consistent with earlier findings that, in everyday work, FHCPs consult with one another so as to get different opinions regarding the best clinical procedures to follow with clients (Nilsson & Pilhammar 2009:9; Couper & Urquhart 2005:107-160; Bryant 2004:90; Pettigrew 2000:47-85).

6.4.3.2 Television

All FHCPs indicated that sometimes they watched *Doctors on Call*, a family television programme conducted by medical professionals. Professionals prefer to use forums that address issues of their concern. Use of professionals in health-care to present health-care programmes influenced FHCPs to access information from the television.

FHCPs also reported that sometimes they learned from television about new drugs, announcements about disease outbreaks from the Ministry of Public Health and ongoing medical research, but as already stated, they could not rely on health information presented through the popular media only. They were also reluctant to recommend such popular information about health-care to patients, in particular the EPs that needed more specialized geriatric health-care. The findings indicated that television was not a popular or reliable channel of accessing information for geriatric care among FHCPs, largely because of the influence of their professional training. Professionals are task-oriented and often have distinct channels for sharing information, although this may depend on the purpose for which they need information.

6.4.3.3 The Internet

Six of the FHCPs (6 out of 16, four doctors, one nurse and one clinician) reported that they used the Internet to access information to help them to provide health-care services for all their patients who included EPs. FHCPs did not use the Internet specifically for geriatric care. Five of the FHCPs that used the Internet were from the PGH in Nakuru Municipality, and the one clinician was from a health centre in the rural site. Use of Internet was low among FHCPs, particularly among the ones from the rural site. Majority of FHCPs from the rural site did not make use of the Internet to access information and missed current information for geriatric care. The doctors and clinicians that used the Internet had installed it in their private clinics or at home to enable them access foreign e-journals and libraries of their own choosing to access current research findings in their areas of speciality, for teaching and private studies. MEDLINE/Pub Med was a popular database among the FHCPs. However, none of them reported accessing geriatric health-care information from sites like AgeLine, HelpAge International, HelpAge Kenya or other websites devoted to sharing of geriatric health-care information. FHCPs accessed information to help them in geriatric care by chance

since their aim in using the Internet was to search for information to help them in different health-care activities. The comment below, from one doctor, summarizes the reasons why doctors connected Internet in their private offices and at home.

“I have learnt that I will not get information for health-care of my patients who include aged people from the libraries around here. Health information in some of the libraries is not given to consumers in good time. A busy doctor or nurse wants information at his desk; but libraries here wait for clients to go for information. Libraries should use the approach that pharmaceutical companies employ to inform the public about new drugs. They should go to their clients using the new technology and tell them about any information they have about the health-care of the person including EPs. I chose to install Internet to enable me serve my private patients and use the same knowledge in the government hospital where I work.”

The nurse and clinician who reported that they actively used the Internet said that they had learnt to use it on their own. The nurse reported that she accessed information through commercial cyber cafes and stored it using electronic devices so that she could retrieve it later. Apart from the clinician, the rest of the FHCPs from the rural area reported that they never used the Internet. It was clear that the Internet was an ineffective channel of communicating health information to FHCPs that worked in rural site because of lack of infrastructure such as electricity and cyber cafes in the area, and also lack of skills to use the new technology among most of the respondents.

The findings of this study are in agreement with findings from an earlier study that showed that FHCPs from some institutions in developing countries worked out their own ways for using the Internet (Ajuwon 2006:1-15). However, the findings of the current study showed that most FHCPs in Nakuru District did not use the Internet to access information for geriatric care of EPs because of lack of skills to help them to use the new technology; poor infrastructure in some areas; and individual preferences for information when the Internet was used. More research may be useful to shed light on this issue.

6.4.3.4 Telephone/cell phone

All FHCPs said that they used the telephone to contact colleagues to request for information about health-care issues, including those concerning EPs and would use intercoms if the colleagues were within the hospital premises because it was less expensive than using a cell phone. They reported that consultations with colleagues were brief when they used their cell phones because of costs. Costs of using cell phones were a barrier in sharing of health-care information among FHCPs. FHCPs indicated that they were reluctant to use public telephones available within hospital compounds because they felt that it was time consuming to walk to the public landline or cell phone booths and also because these were too open for discussions of confidential health-care issues. Environment is important for people that want to share information. Public telephone booths do not provide an appropriate environment for FHCPs to share information about health conditions of EPs. The findings showed that FHCPs prefer privacy to share information about health-care with colleagues or clients. FHCPs used the telephone to seek information about specific use of drugs from their colleagues, and would sometimes ask them to examine EPs and provide a second opinion about a diagnosis. FHCPs also called their colleagues using phones to find out about the availability of other professional health-care services. The findings show that the telephone and cell phone were faster and popular channels of confirming existing knowledge on a topic. However, the cell phone was an expensive channel for FHCPs to use.

Findings of the current study show that FHCPs carefully consider the channels that they can use to access information to help them in health-care of the EPs. Professionals have well established social networks and channels which they use to interact and share information for their work. FHCPs in Nakuru District used channels that provide authentic information to help them to provide health-care services to EPs. The findings support the concept of Communities of Practice (Wenger 2001) and show that FHCPs were influenced by their professional training and experience in their assessment of the reliability of information obtained through popular channels of communication.

The findings of the current study showed that the channels of communicating information for health-care purposes were available but not convenient for all groups of respondents. For example, television was convenient for respondents from the urban setting while most of the respondents from the rural site depended on radio, preferring the community to national radio

stations for accessing information to help them in health-care of EPs. Therefore, factors such as age, financial resources, urban or rural environment and language abilities of users need to be considered in making information about health-care of the EPs available through channels of communication. These and related factors are discussed in Chapter Eight of this study.

6.5 OVERVIEW OF THE FINDINGS

The findings of the current study showed that EPs, ICPs and FHCPs varied in use of sources and channels of communication to help them access information for health-care of EPs. FHCPs used sources and channels of communication that provided authoritative information on professional health-care tasks while ICPs and the EPs used sources and channels of communication to obtain information to help them. The EPs and their ICPs would use the same type of sources and channels of communication because they were lay users of information for health-care. The findings of this study also show that EPs, ICPs and FHCPs use networks such as social gatherings, colleagues, and family members to obtain and share information for geriatric care. The findings confirm the theory of information grounds which argues that information grounds occur anywhere, anytime, in varied and sometimes unexpected places (Pettigrew 2000). The findings of the current study show that information grounds occurred within the family or in homes of EPs, social gatherings such as religious and women group meetings, for EPs and ICPs.

The findings of the present study also showed that all EPs and some of the ICPs lacked IT skills to enable them to access information on the Internet. Almost half of the EPs were illiterate and needed help to access written information. Most of the EPs and ICPs also needed help to understand information presented in medical terms. The findings implied that most EPs and ICPs are unlikely to search for information from formal sources and channels of communication that use medical terminologies. The findings of the study showed that most EPs and ICPs rely on informal sources such as family members, friends, and neighbours that they could understand, and channels of communication such as television, radio and women groups that they could afford to access at minimal cost or free. Some FHCPs from the urban site used the Internet but did not seem to have skills to help them to search for geriatric information. Most FHCPs needed skills to help them to use the new technology and information for geriatric care.

Respondents from the rural areas seemed to be more disadvantaged than respondents from the urban site in using formal sources and the channels of communication to access information for health-care because of lack of electricity; unawareness about availability of sources, financial constraints and illiteracy in the rural area. The findings indicate that environment is an important influence on the ability of people to access information for their needs. The findings also showed that provision of library and information services for health-care of people that live in a development context can no longer be based on the assumption that people will go to information services. Instead, library and information services targeting particularly the EPs and ICPs should be designed to meet the users within environments such as the community where they live and in health-care facilities, with repackaged information in languages and formats which they can understand. More research might be meaningful for this aspect.

Other studies on EPs and care providers show that family members, friends and neighbours serve as informal sources of social support systems and information for health-care of EPs (Clark & Leipert 2007:13-26; Dunbrack 2005: 1-20; Frase 2004: 1-11; Odhiambo, Harrison & Hepworth 2003: 19-29; Barrett 2000). The findings of the present study showed that family, friends and neighbours serve as the prime sources of informal information in the absence of more formal sources of information for EPs and ICPs in a development context. The findings further show that additional and more professional information was necessary to confirm or supplement information provided by informal sources such as family, friends and neighbours, and channels such as radio, television, newspapers and the like. The findings also showed that although individuals and communities currently have access to more information about their health-care because of the new technology, there are inequalities in availability of sources and channels for sharing information for geriatric care for EPs, their ICPs and FHCPs living in development context like Nakuru District. In particular, EPs, ICPs and FHCPs from the rural sites in development contexts are less likely to have access and to benefit from advances in the use of technology to share information for health-care.

6.6 SUMMARY AND CONCLUSION

This chapter presented findings about sources of information used in geriatric health-care. The findings showed that the EPs, ICPs and FHCPs used a variety of formal and informal sources of information, and channels of communication to access information for geriatric

care. The data further showed that the choice of the type of sources the EPs, ICPs and FHCPs used was influenced by their respective health-care roles and responsibilities as well as by their professional knowledge and experience. Preferences were also determined by factors such as cost, ease of accessibility, availability of actual sources and channels of communication, time, trustworthiness of a source or channel of communication, skill levels, and personal attributes such as level of education and requisite language and information technology skills that permitted respondents to access information to help them in geriatric care. The findings showed that specific conditions in Nakuru District determined the usefulness of the different sources and channels of communication that EPs, ICPs and FHCPs used to access information for geriatric care.

The findings also showed that trust in a source was associated with access of information. For example, EPs seemed to trust the competence of FHCPs, ICPs, and members of their families, friends and neighbours to provide information that would help them in health-care. It also seemed that EPs and ICPs were in need of geriatric information, which should be translated into lay terms for their purposes, and they trusted CAM services to be useful in the provision of this information in lay terms.

Overall, the findings of the current study show that there is a dynamic system or sub-system involving use of sources and channels of communication to access and transfer information for geriatric care by the EPs, ICPs and FHCPs in a development context like Nakuru District. The FHCPs consistently collaborated among themselves and relied on authoritative sources of health-care information because they are practitioners or a community of practice where members engage in joint activities and discussions to help each other. FHCPs naturally fall back on the familiar ways of accessing and providing health-care information to EPs and ICPs without considering that the latter might lack background and literacy skills to help them to understand causes of conditions of their health, and how to use information effectively. This could cause a mismatch and restriction in information transfer from FHCPs to EPs and ICPs, and its subsequent use.

The EPs and their ICPs wavered between formal and informal sources and channels of communication to get information to help them in health-care. It seems that in the absence of factual information that can eliminate uncertainty, the formal sources of information that EPs and ICPs used provided trustworthy information to help them in health-care. EPs and ICPs

were aware that there was lack of formal communication between FHCPs and CAM service providers, and took advantage of the situation to use information from conventional health-care facilities to access geriatric information from CAM. In the process of moving back and forth as they looked for information, EPs and ICPs transferred information from conventional health-care services to CAM, and deliberately concealed from FHCPs the use of CAM services and information, revealing concealed information use behaviour (CIUB) of EPs and their ICPs.

The findings showed that there were variations in preference for sources and channels of communicating information about health-care among respondents living in the same development context. The findings suggest that providers of information for geriatric care should consider factors that influence individuals and different groups to use sources and channels of communication to share information for health-care of EPs in a development context. The next chapter discusses ways in which EPs, ICPs and FHCPs used information for health-care of the EPs.

CHAPTER SEVEN

THE USE OF INFORMATION IN GERIATRIC HEALTH-CARE

7.1 INTRODUCTION

Chapter Six discussed findings about the use of different sources and channels of information in geriatric health-care. This chapter presents findings from the EPs, ICPs and FHCPs in Nakuru District about the different ways in which they used information in health-care. The findings in this chapter also show the contributions of information in health-care and help to respond to the third question of the study: *How do the EPs, ICPs and FHCPs use geriatric health-care information?* The chapter shows ways in which each group of respondents (EPs, ICPs and FHCPs) used information in health-care; an overview and summary of the findings

7.2 SPECIFIC USES OF INFORMATION

A person may be considered literate in health information if he is able to understand and use information to make informed decisions in health-care. The current study considers the use of information as those specific actions or activities that EPs, ICPs and FHCPs undertook after accessing information to help them in health-care of EPs.

The analysis showed that EPs, ICPs and FHCPs used information for five key purposes: decision making; for sharing with colleagues, family members and friends; as a basis for counselling or giving advice; for self-care at; and in seeking information about CAM treatment. Figure 7.1 generally shows the diverse ways in which the three groups of respondents used information in geriatric health-care.

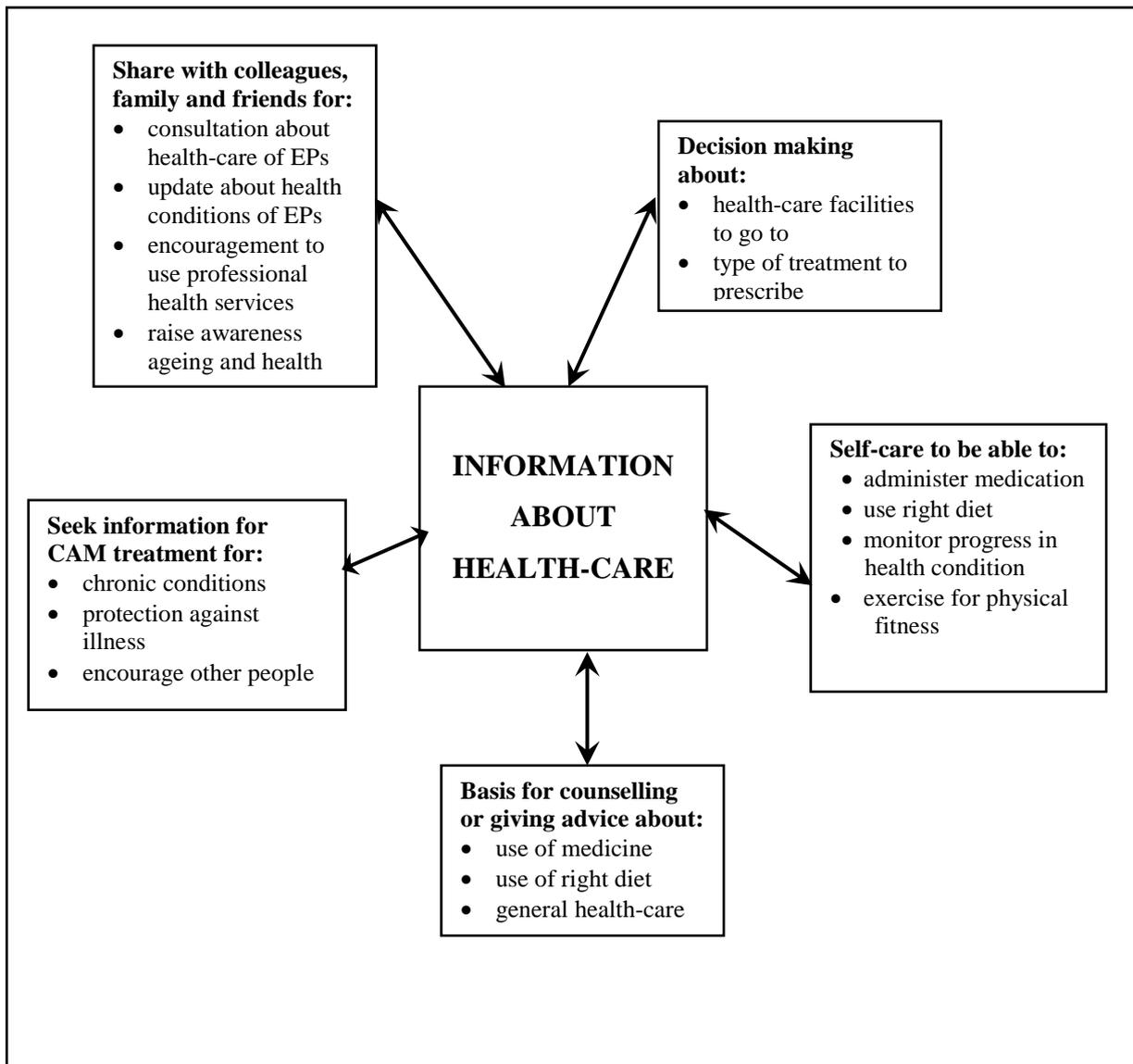


Fig. 7.1: Information use in health-care of EPs

Figure 7.1 shows that information is at the centre of all tasks of health-care of EPs. The arrows indicate that EPs, ICPs and FHCPs depend on reliable information so as to carry out their various roles and tasks in providing health-care services to EPs in Nakuru District. The specific use of information by respective groups is discussed in sections 7.2.1, 7.2.2 and 7.2.3.

EPs, ICPs and FHCPs also indicated that they experienced specific changes or contributions when they used information appropriately in health-care of EPs. These included the ability to take informed decisions in health-care; improved health conditions of EPs; acquisition of new knowledge about geriatric care, and reduced costs of health-care of EPs. Appropriate use of

information by both groups of care workers also helped to raise awareness about good health-care and to improve confidence among ICPs to administer medication. Figure 7.2 is a summary of the contributions that respondents noted after using information in health-care of EPs.

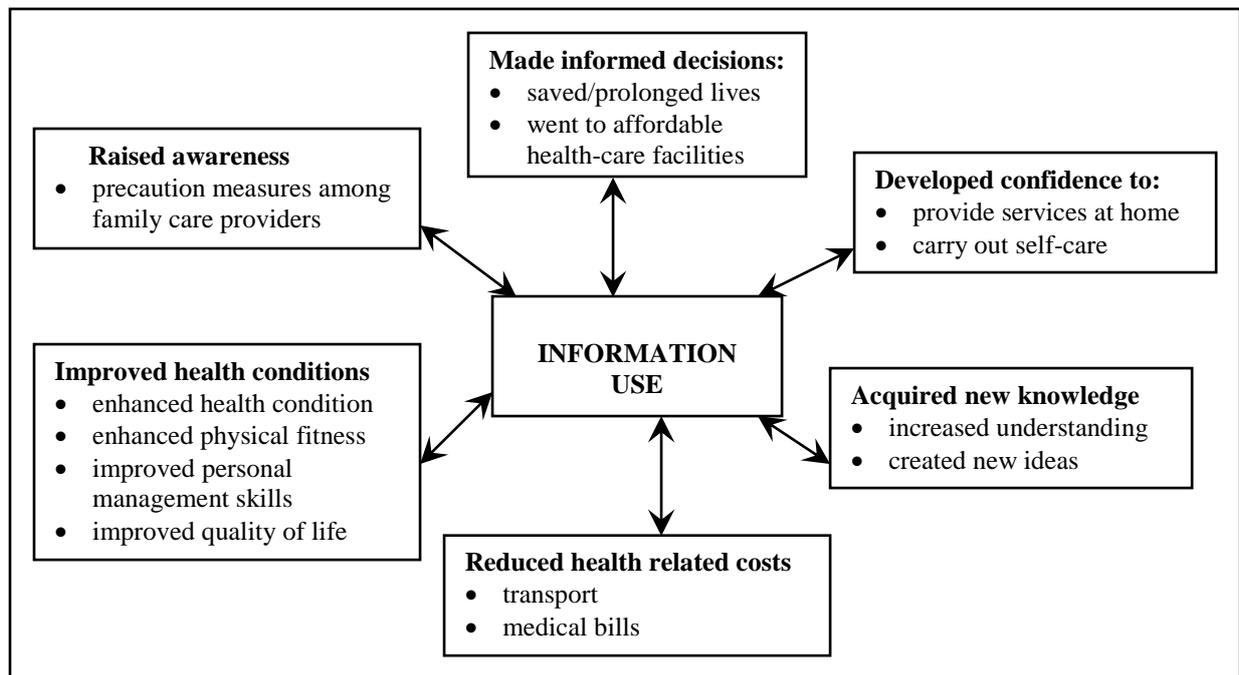


Fig. 7.2 Contributions of information use in geriatric health-care

Figure 7.2 shows that use of information made specific contributions in health-care of EPs generally, and in the ways in which EPs, ICPs and FHCPs provided services to EPs. These contributions are also discussed in sections 7.2.1, 7.2.2 and 7.2.3 below.

7.2.1 Elderly people (EPs)

The findings showed that the EPs used information in four main ways: to make decisions about health-care services; share information regarding their health status with other people; manage conditions of their health at home, and to seek information about treatment by CAM services. These various uses of information by the EPs are summarized in Table 7.1.

Table 7.1 Use of information in health-care by elderly people

Type of use	Specific actions taken	Effects of information in health-care
Decision making	<ul style="list-style-type: none"> • EPs changed from one health-care facility to another • EPs decided on suitable ways of managing their health conditions • EPs informed ICPs, family and friends about the desire to change from one health facility or system to another 	<ul style="list-style-type: none"> • EPs accessed new and affordable health-care facilities • EPs learnt new ideas about managing their health at home • EPs noted improvement in conditions of their health • EPs were able to choose affordable health-care facilities • EPs noted reduced costs in health-care
Sharing information with ICPs, family and friends.	<ul style="list-style-type: none"> • EPs informed family and friends about progress in health conditions • EPs encouraged their friends to seek professional health-care services 	<ul style="list-style-type: none"> • EPs influenced some of their friends to seek treatment from FHCPs • EPs experienced emotional satisfaction
Providing home-based health-care	<ul style="list-style-type: none"> • EPs read information to be able to follow medication schedules • EPs used recommended diet 	<ul style="list-style-type: none"> • EPs noticed reduced costs in health-care • EPs gained confidence to manage conditions of their health at home
Seeking information for CAM treatment.	<ul style="list-style-type: none"> • EPs shared diagnostic reports from FHCPs with staff in CAM • Some EPs moved between conventional and CAM health-care facilities 	<ul style="list-style-type: none"> • EPs noticed reduced costs in health-care • EPs noticed improvement in health-care

Table 7.1 shows that information helped EPs to take actions such as changing from one health-care facility to another, choosing to use a health facility that was affordable to EPs, updating family and friends about health conditions and the desire to change to new health facilities, and following medication and nutritional schedules. The actions that EPs took based on information resulted in experiences such as improvement in conditions of their health of EPs, reduced costs of health-care; emotional satisfaction among EPs, and change of attitude among some friends of EPs as they sought professional health-care services. The next section discusses the findings about use of information in health-care by EPs.

7.2.1.1 Decision making

According to the findings, the majority of the EPs (14 out of 18) indicated that they used knowledge about their health conditions; personal experiences or advice from other people about treatment available in specific health-care facilities to make decisions to change from one hospital or clinic to a new one. Information helped most of the EPs to select (that is, to make informed decisions) about the most suitable health-care facilities to use from among the variety that was available. The rest of the EPs (4 out of 18) indicated that they chose not to change their professional health-care facility based on information they obtained, though they did use information to decide when to go for medical treatment and to manage their home-based health-care. The findings indicate that the cumulative experiences of the EPs in accessing health-care services were added to existing knowledge and enlarged their personal knowledge base to evaluate the quality of service and guided their choice of health-care facilities.

The EPs reported that they alerted family members, friends and their ICPs (when they had one) about a possible decision to change from one health-care facility to another before they would actually make a final decision to continue to use one or to transfer to another. Information helped EPs to contribute to decisions by family members about health-care facilities that were appropriate for EPs to use. It was clear that EPs valued the opinions of people they were close to and that if they had the support of these people, the EPs would feel that they were making the right decisions. When deciding whether to continue receiving professional health-care treatment from a particular facility, the EPs reported that they considered factors such as: the perceived seriousness of the ailment; whether the health-care facility was used regularly by other EPs that they knew of, and the affordability of the health-care services. Information that EPs received about new health-care facilities helped them to compare the appropriateness of the services against their financial constraints to pay for the cost of the services. The EPs indicated that they preferred to receive health-care in professional facilities that they were familiar with. The findings showed that information about these facilities helped them to confidently make choices quickly and acted as signposts guiding their decision-making process. Information gathered collectively within the community influenced the choices that EPs made to use health-care facilities. EPs reported that they experienced improvement in conditions of their health, reduced costs of health-care, and enhanced abilities to take appropriate actions in times of emergencies when they used

information. Appropriate and timely use of information helped EPs to make decisions that enhanced their quality of life.

The findings of this study showed that information that EPs gathered from FHCPs, family, friends and well wishers in the community influenced their choices on the use health-care facilities. An earlier study has shown that EPs use information from FHCPs to make decisions about health-care services, for example going for surgery (Schwartz, Woloshin & Birkmeyer 2005:1-7). The findings of the present study suggest that family and friends of EPs need up-to-date information about health-care services available in their communities in order to share with EPs information that would help them to make appropriate decisions about use of health-care facilities.

7.2.1.2 Sharing information

All EPs indicated that they shared information with family members, friends and neighbours. Sharing of information with other people contributes to transfer of information from one user to another. However, from the findings, it became apparent that EPs do not share all information with their family and friends. For example information regarding health-care facilities might be shared with members of their families and communities coincidentally, but information regarding health conditions is sometimes viewed as very personal and will not be shared. Some EPs (6 out of 18) indicated that they could not share all information about their health-care with other people. The current study did not explore the specific criteria used by six of the 18 respondents when they would decide with whom to share or not to share information, but there was clear evidence that some of the EPs consider issues of privacy and confidentiality prior to divulging information about their health-care with outsiders. The findings show that some EPs retained health-care information which they considered personal.

The EPs also indicated that they experienced relief when they shared information about conditions of their health with other people. One respondent said:

“I feel relieved when I tell my family and friends some of the challenges about my health-care. I feel that I involve them in efforts towards provision of health for me because they understand my state, encourage and assist me as much as they can.”

The comment by the respondent showed that sharing of information about one's condition of health with other people is therapeutic or provides emotional relief to some people that experience poor health. Another respondent explained that he shared health information that he had and deliberately talked about the progress of his own health with other EPs in order to encourage them to seek more professional health-care services. Sharing of information also helps to raise awareness about a particular situation or condition. Some EPs shared information about their own health conditions in order to raise awareness among other EPs about the importance of using professional health-care services. The respondent reported that after sharing information about health-care with two of his friends, the latter went for treatment from the same hospital where the respondent was also getting treatment. He indicated that the two friends initially used CAM treatment and expressed fear hospitalization, particularly where surgery was involved. Success stories about use of information in health-care encourage people to seek information and services to help them to deal with their own health conditions.

Thus, the findings have shown that EPs coincidentally transfer information from health-care facilities to their own community through sharing of their experiences in health-care. The findings of the current study are in line with the principle of people finding information and sharing it with others whom they perceive could benefit from the same information (Rioux 2004; 2000). The findings of the current study further show that positive results experienced after using health-care information encouraged EPs to share their experiences in order to update family members and encourage other EPs to seek professional health-care services. Families and other people in the community were appropriate grounds for EPs to share information about their experiences in health-care, and coincidentally transfer information from health-care facilities to the community.

7.2.1.3 Providing home-based health-care

It was found that all eighteen EPs used information to carry out home-based health-care. Some EPs (10 out of 18) indicated that the instructions from FHCPs helped them to follow medication schedules and to follow recommended diet. Lay people proved to use technical information when professionals help to simplify it in languages and formats that they can handle. Half of the EPs (9 out of 18) indicated that information from CAM services helped them to perform self-care at home. EPs that obtained literature from CAM services such as

text books, pamphlets and leaflets said that they referred regularly to these materials and used the information in their own home-based health-care. Staff of CAM services simplified information, making it easier for EPs to follow. Two EPs interviewed in this study made the following comments:

1st respondent: *“Sometimes I am able to treat myself at home by following instructions in a book from CAM services to make concoctions that can treat ailments such as a cold, blood pressure and headache. I go to hospital if the symptoms persist.”*

2nd respondent: *“I use information from CAM to make a particular drink from herbs to treat common colds for myself and members of family. But you know young people – sometimes they take the drink and sometimes they prefer to take medicine from the hospital.”*

The comments above showed that some EPs used information from CAM to carry out self-care at home and to introduce some of their family members to the same information and products. The findings also showed that some EPs depend heavily on CAM services for information for their health-care, suggesting that the practice could be a barrier for EPs to accept health-care information from FHCPs.

However, all EPs reported that using information to take care of themselves at home helped them to reduce costs such as transport to hospitals and purchase of drugs for health-care. As discussed in Chapter Five, some of the EPs indicated that they needed information about institutions that provided financial assistance or subsidized medicines for EPs. The elderly who followed instructions from FHCPs improved the conditions of their health, made fewer trips to professional health facilities and were able to spend less money on medication. The findings showed that information could reduce health-care costs provided it is used wisely.

Illiterate EPs (8 out of 18) said that family members helped them to use printed information about health-care at home. Illiteracy made it difficult for some EPs to access information in print format for health-care on their own, suggesting that illiteracy is a barrier to use of information among some EPs. The findings showed that some EPs needed help in using information in a home environment. The findings indicated that family members and friends

helping the EPs at home also needed to interpret information about geriatric health-care to be able to help EPs to use information in home-based environments. Almost half of the EPs (8 out of 18) reported that using information introduced them to new ideas that enabled them to better understand ways in which to manage some of the challenges they experienced with their health . One respondent from the rural site said:

“I don’t always have to run to a doctor as before. Now, I am able to tell when my health is going down and what I need to do before I go to hospital.”

The comment above indicates that using information assisted some EPs to acquire new knowledge or ideas which helped them to cope with their conditions independently, at least for a while provided the condition did not deteriorate. This shows that proper use of information can simplify efforts and make sure that health-care is maintained at home for as long as it is possible.

Other studies also showed that information helps some EPs to manage their own health-care and to be self-reliant for a limited period of time (Shapiro 2007:1-4; Easom & Quinn 2006: 40; Hanson & Clarke 2000:129-137). The findings of the current study suggest that although use of information at home helped EPs to reduce costs and to manage their health conditions, there was also the risk that some of the EPs would use the same information over and over again without confirming as to whether the information was still relevant to their specific health condition. Further research may be necessary to confirm the length of period that EPs apply their knowledge to manage certain health condition based on their understanding of the condition.

7.2.1.4 Seeking of information about CAM treatment

Half of the EPs (9 out of 18) reported that sometimes they used diagnostic reports and advice from FHCPs to seek information about alternative treatment from CAM. Information from FHCPs indirectly helped the EPs to access the less expensive CAM treatment of their choice. EPs that went for CAM treatment said that reports from FHCPs were informative and helpful in carrying out in-depth diagnoses in CAM facilities where extensive equipment for diagnosing ailments was lacking.

EPs that used information from conventional and CAM health-care services confirmed that they used CAM secretly because they did not want the FHCPs to know that they intended to use the diagnostic reports and prescriptions for medication elsewhere. Lack of interaction or formal communication between conventional and CAM service providers indirectly contributed to this type of behaviour of EPs where information in medical reports from conventional health-care facilities are rerouted to CAM service providers. It seems that some EPs took advantage of the gap in communication between FHCPs and CAM staff to benefit from both systems.

According to the EPs, the FHCPs showed little interest in CAM-related services. Some of the FHCPs who participated in the interviews indicated to the researcher that CAM treatment was not professionally recognized and for that reason, they could not recommend CAM to their clients and in particular, their elderly patients whose multiple health challenges and needs for specialized care were especially pronounced. However, the FHCPs indicated that they could not control how health-care information was used once it was in the hands of their clients. The EPs seemed to be aware of the negative attitude of FHCPs towards CAM treatment. Furthermore, the EPs took advantage of the barrier towards sharing information for health-care between the FHCPs and CAM health-care providers and freely transferred information from the FHCPs to CAM providers.

As the EPs sometimes decided to change from professional health-care facilities to CAM treatment without consulting with FHCPs, the need of the EPs to be able to access and effectively use health-care information on CAM was apparent. The current study was not specifically focused on CAM treatment so did not examine in detail the information behaviour of EPs that used CAM services. Nonetheless, it was found that the EPs returned to conventional health-care facilities when they found CAM treatment inadequate. However, they did not transfer information from CAM to FHCPs. From the findings, it seemed that EPs could not use information from CAM to seek treatment from conventional health-care facilities because they were aware that FHCPs perceived CAM as a less authoritative health-care service. It was also found that staff from some CAM services obtained professional health-care information from their elderly patients. EPs also said that they did not simultaneously use information from conventional and CAM services to attend to conditions of their health-care. There is evidence that EPs that moved between the two services of health-care often had access to two different kinds of information about health-care to choose

from as they found it convenient. This type of practice can make it difficult for some EPs to be certain about the right information to use for their health-care.

The findings of the current study differ from the findings of another study which showed that EPs discussed with doctors in conventional health-care services their intentions to seek CAM treatment (AARP 2007:1-16). In fact, the current study revealed that some EPs used information from conventional health-care facilities to help them to seek treatment from CAM without informing their FHCPs of their intentions to use information to seek CAM treatment. This secretive information behaviour of EPs could be attributed to the lack of collaboration between the two types of health-care systems, causing EPs to feel a need to hide from FHCPs their interest in alternative forms of treatment.

The findings of the current study showed that the EPs used information in a variety of ways for their own benefit and to convince their friends and members of their families to use information and professional health-care services, making EPs both recipients and disseminators of this information. The findings support the principle of information sharing showing that the practice is an aspect of information use (Rioux 2004; 2000). This study also found that some EPs “guarded” some of the ways in which they used information in their health-care as they deliberately concealed their intention to use information from FHCPs to seek CAM treatment. The findings showed that some EPs demonstrated open or manifested information seeking and use behaviour while others demonstrated concealed information behaviour. Open behaviour is seen when EPs use information to take actions, for example, to share information with family and friends, and to follow medication schedules. However, the concealing of their intentions to use information in alternative health-care services revealed a hidden behaviour in which EPs suppressed or guarded their plans from FHCPs to seek information for treatment in CAM health-care. The next section discusses ways in which ICPs used information in health-care of EPs in Nakuru District.

7.2.2 Informal care providers (ICPs)

The findings showed that informal care providers (ICPs) used information to make decisions; to provide home health-care, and to seek information for CAM treatment for conditions of health-care of EPs. Table 7.2 depicts ways in which ICPs used information in health-care of EPs.

Table 7.2: Use of information in health-care by informal care providers

Type of Use	Specific actions taken	Effects of information in health-care
Decision making	<ul style="list-style-type: none"> • ICPs helped EPs to choose health-care facilities • ICPs would also choose health-care facilities for EPs independently 	<ul style="list-style-type: none"> • Improvement in health conditions of EPs • Gained a better understanding of issues about geriatric care • Made appropriate decisions in health-care of EPs
Sharing information with ICPs, EPs, family and friends	<ul style="list-style-type: none"> • ICPs informed family and friends about progress in health conditions of EPs • ICPs shared information for health-care of EPs with friends • ICPs used information to prepare EPs psychologically about changes in conditions of health 	<ul style="list-style-type: none"> • EPs accepted changes in conditions of their health • Family members were updated about conditions of EPs • ICPs experienced emotional satisfaction • ICPs acquired new knowledge about geriatric care
Providing home health-care to EPs	<ul style="list-style-type: none"> • Used information to administer medication and diet to EPs 	<ul style="list-style-type: none"> • ICPs developed confidence to care for EPs at home • Costs of health-care were reduced • Raised awareness among ICPs regarding healthy lifestyles and ageing
Seeking information about CAM treatment for EPs	<ul style="list-style-type: none"> • ICPs availed to staff in CAM diagnostic reports from FHCPs • ICPs collaborated with EPs to get alternative treatment 	<ul style="list-style-type: none"> • ICPs noticed improvement in health conditions of EPs

Table 7.2 shows that ICPs used information to choose health-care facilities and to help EPs to make appropriate decisions in health-care. Use of information also helped ICPs to administer appropriate medication and to ensure an appropriate diet for EPs, to prepare EPs psychologically to accept changes in conditions of their health and to seek information for CAM treatment. The table also shows that use of information helped ICPs to save on costs of health-care and that ICPs noticed improvement in health conditions of EPs. The sections below show the different ways in which ICPs in Nakuru District used information in health-care of EPs.

7.2.2.1 Decision making

All ICPs reported that information that they obtained from FHCPs helped them to make decisions regarding provision of health-care for EPs. For example, they used information to guide EPs to choose among available health-care services. Information helped ICPs to indirectly influence the choice of health-care facilities among the EPs. They also indicated that they sometimes made decisions about which geriatric health-care facility was preferable with minimal consultations with EPs, showing that information also helped ICPs to make decisions independent of input from the EPs.

Most ICPs (4 out of 6) indicated that they noticed improvement in health conditions of EPs that they looked after as they continued to use information. Proper use of information in health-care by ICPs enhances the quality of life of the EPs. The remaining ICPs (2 out of 6) reported that progress in health conditions of the EPs that they cared for was slow despite following instructions from FHCPs. Information alone is not a panacea or a solution to improvement of health conditions of EPs. The observations by two ICPs raise the question of the appropriate time when individuals and groups should start using information in geriatric health-care. (As already reported, one of the two EP respondents passed on a few months after an interview).

During the interviews, all ICPs reported that their knowledge of geriatric health-care increased more during actual care-giving than beforehand or as they used information to make decisions about health-care of EPs. One respondent said:

“I have learnt that caring for an elderly person is more than just giving them medicine from the doctor; washing their clothes; cleaning house and cooking for them. There are issues like dealing with different types of ailments and doing things the way an elderly person prefers. There are just many things for which a care provider at home has to make decisions – sometimes it is like taking care of a young one because one learns on the job and has to make decisions from time to time.”

The comment above shows that information helped ICPs to make better decisions and helped them to acquire a better understanding of geriatric care.

The findings of the current study showed that information adds to the insight of ICPs and also serves as a basis for their decision making. The findings also suggest that information contributes to the improved health conditions of the EPs and helps ICPs to gain a better understanding of the issues of geriatric care if it is accessed in time and used appropriately. Some studies showed that ICPs are “unofficial geriatric managers” of EPs and may need information to help them to make decisions to respond to varied issues in health-care of EPs (Bookman & Harrington 2007: 1025; EUROFAMCARE 2006: 3-14; Odhiambo, Harrison & Hepworth 2003). The findings of the current study showed that ICPs in Nakuru District need up-to-date information to inform their decisions in health-care of EPs.

7.2.2.2 Sharing with other people

All ICPs reported that they shared information about the health conditions of the EPs with other people involved in the health-care of the elderly including EPs themselves, other ICPs, members of their families, and with FHCPs. Thus, ICPs networked between different groups and acted as links in the chain of information exchange between the various parties involved in geriatric health-care.

ICPs reported that they shared information with EPs in order to prepare them psychologically to deal with changes to their health. ICPs used information to help EPs to accept the changes that they experienced in their bodies and the subsequent need for health-care. For example, one respondent reported:

“Sometimes my father is reluctant to accept admission in hospital, citing issues like high cost of treatment for in-patients, unfriendly attitudes from FHCPs and insists that he will do better if he receives care at home. He prefers to be treated as an out-patient. I share with him information about new developments in the condition of his health and the need for him to be admitted for a few days for FHCPs to observe his health closely. Sometimes we tell one of his closest friends or a relative he respects about new developments in dad’s health and ask him to convince dad to accept treatment as an in-patient. The approach often works well for all of us – Dad, family and his friends.”

The comment shows that sharing information about health-care with EPs helped ICPs to defuse the fears of EPs so that they can come to terms with changing conditions in their

health and agree to accept appropriate services for health-care. The ICPs reported that sometimes it took time to convince EPs to accept changes in conditions of their health. Persistence among ICPs to involve other members of the family and community to share information with EPs helped to improve attitudes of the latter about changes in their health-care.

All ICPs reported that they also shared information for health-care of EPs with immediate family members and updated them about changes in the health condition of EPs they cared for. They indicated that some family members would respond positively to requests from ICPs after being given up-to-date information about the health conditions of EPs being cared for. Appropriate information clearly helps the ICPs to engage the emotional and material support of family members in geriatric health-care. ICPs indicated that sharing information within the family brought them both emotional and other relief from some of the issues that burdened them.

Majority of ICPs (4 out of 6) indicated that they shared information for health-care of EPs with other ICPs caring for parents with similar health conditions. Common health conditions of EPs contributed to sharing of information among some ICPs. The practice is useful because it helps some ICPs to get new ideas and knowledge to help them in the health-care of EPs. However the practice can be a barrier to ICPs accepting information for health-care of EPs directly from professional health-care providers. ICPs indicated that they discussed new information with other ICPs to add to its value and credibility, and to provide emotional support. For this reason, ICPs updated one another about the progress of the EPs under their care. It was interesting to find that they cautioned other ICPs to seek the approval of FHCPs before using any new information.

The study shows that ICPs seek to get information about geriatric health-care as well as distribute information about it. The groups of EPs, family and ICPs with whom ICPs interact were a social network which enhanced sharing of information for health-care of EPs in Nakuru District. The findings of the current study showed that sharing of information for health-care enhanced geriatric care in a home-based environment. The findings about sharing of information by ICPs in Nakuru District support the model of Information Acquiring -and – Sharing which shows that when people find information, they share with others whom they think are in need of similar information (Rioux 2004; 2002). However, it was clear that ICPs

in Nakuru District had a need for up-to-date information in order to become more effective as they shared information with other people involved in geriatric care.

7.2.2.3 Providing home-based health-care to elderly people (EPs)

All ICPs reported that they used information obtained from FHCPs to be able to administer medicines and provide appropriate diets for EPs at home. Information helped ICPs to carry out tasks that were usually carried out by FHCPs in a home environment. All ICPs indicated that instructions from FHCPs increased their confidence in caring for the EPs that they looked after. One respondent reported:

“I was scared when I first learnt that the health condition of my father needed special attention. I was scared the more when I realised that I would be injecting him. But instructions from nurses, doctors and hands-on practice in their presence when father was still in hospital helped me to be confident that I could manage the situation at home.”

This observation of ICPs shows that FHCPs and individual efforts to use information regularly are instrumental in instilling confidence among ICPs to care for EPs at home. The findings suggest that ICPs need to work closely with FHCPs to get the support and guidance that can benefit them with regard to use of information effectively in geriatric health-care situations at home.

Most ICPs (4 out of 6) reported that they cannot afford to spend a lot of money, for example, on transport and drugs recommended by FHCPs about diet of EPs. Information helped ICPs to avoid costs, for example transport to hospitals and purchase of drugs for health-care of EPs. As discussed in Chapter Five, all ICPs in the current study indicated that they needed information about institutions that provided financial assistance or subsidized medicines for EPs. The findings of the current study showed that appropriate use of information indirectly helped ICPs to reduce some of the expenditure in health-care of EPs. The findings showed that information is cost effective in health-care of EPs provided ICPs use it wisely.

Some ICPs (4 out of 6, all of them women) also reported that the instructions they received from FHCPs to provide health-care to EPs at home raised awareness in them, for example

about issues such as use of diet for good health and the effects of sedentary lifestyles on health as one ages. ICPs also reported that the health conditions of their parents and spouses made them conscious about use of sugar, salt and a popular vegetable spice known as Royco in meals for their families. The two male ICPs indicated that they were aware of the kind of diet their parents needed but that they left all that to the people that prepared meals for the EPs. The findings showed that women ICPs were more conscious than the male ICPs about using information to provide the appropriate diet to enhance health conditions of EPs. One respondent said:

“I have begun to apply some of the information I use for my parent’s diet to my own health as I realise that I am approaching my fifties. For, example, I use more traditional vegetables than red meat and encourage my children to do the same.”

The observation shows that some ICPs benefit from the same information that they apply when they take care of EPs. Use of information to solve challenges of health-care for EPs was an early indication to some ICPs to take care of their own health. The findings show that ICPs gain experience and benefit from information as they learn by doing. The experiences of ICPs that participated in this study show that many would-be-ICPs miss the opportunity to get information about ageing and health-care. Lessons can be learned from these findings about use of information in health-care of EPs in a development context.

Studies show that most ICPs assume responsibilities of care of EPs without preparation and often experience difficulties, for example lack of finances, and social support to help them to care for EPs at home (Akanyi, Oguninyi & Baiyewu 2002:1289-1290; Apt 1997; 1991); and that other ICPs experience stress as they provide care for EPs (Zhan 2005). The findings of the current study show that although regular use of information helped ICPs to minimize for example, costs of health-care and also enhanced their confidence to care for EPs, ICPs need the help of FHCPs to be able to use information effectively to provide home health-care for EPs.

7.2.2.4 Seeking information about CAM treatment

Majority of ICPs (5 out of 6) reported that they used information obtained from conventional health-care services to help EPs that they cared for to seek information for CAM treatment. It

has been mentioned in section 7.2.1.4 of this study that some ICPs consciously helped EPs to transfer information from conventional health-care facilities to CAM facilities. One respondent reported that she did not seek information from CAM to provide care for her spouse because she was a trained FHCP. This proves that professional training in health-care can influence the attitude of ICPs against using information from conventional health-care services to seek information for CAM treatment for EPs that they care for. The practice of transferring information from FHCPs to CAM was captured in the words of one respondent who said:

“My parents sometimes believe that conventional medication is not as effective as traditional medicine and decide that they want herbal treatment. I carry diagnostic reports and medical prescriptions from FHCPs to CAM providers to help them to understand the doctors’ views about the ailments of my parents. CAM providers may accept the diagnosis from FHCPs or have a different opinion depending on their interpretation of reports from FHCPs and the verbal description of the health conditions that my parents suffer from. But they prescribe their own herbal treatment for health conditions that my parents suffer from.”

This comment shows that some ICPs deliberately and consciously transferred information from FHCPs to help EPs that they looked after to seek information about CAM treatment. As discussed in Chapter Six, the attitudes and behaviour of ICPs towards CAM information and treatment was greatly influenced by the EPs that they cared for. The findings showed that most ICPs were lay people in terms of health-care and lacked professional insight in applying information from conventional health-care services.

The five ICPs reported that they used information from FHCPs to get information for CAM treatment because the latter was more affordable for EPs. Information from FHCPs indirectly helped ICPs to choose more affordable alternative health-care services. ICPs also reported that they noticed improvement in health conditions of EPs when they followed instructions from CAM practitioners. The use of information from FHCPs thus helped ICPs to reduce costs of health-care and to enhance health conditions of EPs.

The findings showed that ICPs used information in health-care of EPs for two main reasons: to help them to provide health-care services to EPs, and to help other people to understand health conditions of EPs and the importance of using professional health-care services. This

resulted in the transfer of information from professional health-care services to the members of the community. As ICPs transferred information for health-care, they developed social networks within which they shared information for health-care of EPs and sometimes relied on these networks as sources of information as shown in Chapter Six of this study.

The findings also showed that ICPs too benefitted in many ways from using information in health-care of EPs, both directly and indirectly in ways such as reducing costs of health-care, enhancing health conditions, getting emotional satisfaction, making informed decisions, raising their own awareness and that of the community about lifestyles and ageing, and increasing their confidence to provide care to EPs within home environments. ICPs indicated that although they benefitted from using information in health-care of EPs, they also experienced challenges. These challenges are discussed together with other factors that influenced access and use of information in health-care of EPs in Nakuru District in Chapter Eight of this study. The next section presents findings about ways in which FHCPs used information in health-care of EPs.

7.2.3 Formal health-care providers (FHCPs)

The analysis showed that FHCPs used health-care information to make decisions in health-care of EPs. They shared this information with their professional colleagues, EPs themselves and ICPs, and advised some EPs and ICPs. Table 7.3 summarizes the ways in which FHCPs used information in health-care of EPs in Nakuru District.

Table 7.3: Use of information in health-care by formal health-care providers

Type of use	Specific actions taken	Effects of information in health-care
Decision making	<ul style="list-style-type: none"> FHCPs prescribed medicines and diet for EPs FHCPs would decide to treat EPs as out or in-patients and to refer them to specialized treatment 	<ul style="list-style-type: none"> FHCPs made informed decisions FHCPs were better informed about health conditions of EPs FHCPs noticed improvement in health conditions of EPs
Sharing information with colleagues, EPs and ICPs	<ul style="list-style-type: none"> FHCPs told colleagues about new ideas for geriatric care FHCPs shared with colleagues about their experiences in geriatric care FHCPs gave instructions to EPs, ICPs and their families about use of medicine and diet for EPs 	<ul style="list-style-type: none"> Colleagues of FHCPs used information to treat EPs EPs and ICPs were able to use instructions from FHCPs to carry out home-based health-care
Advising EPs and ICPs	<ul style="list-style-type: none"> FHCPs talked to EPs and ICPs about the importance of proper use of medicine, diet and to attend regular health-care check-ups 	<ul style="list-style-type: none"> EPs attended health-care check-ups regularly ICPs brought EPs for health-care check-ups regularly EPs followed advice to change lifestyles and improved in conditions of their health

Table 7.3 shows that FHCPs used their knowledge of health to make decisions for example, about types of prescriptions for medicine and diet for EPs, whether to admit EPs or treat them as out-patients, and whether to refer them for specialized treatment. FHCPs also shared information with colleagues about their experiences in geriatric care and advised EPs and ICPs about health-care. Use of information resulted in improved health-conditions of EPs, better decision making by FHCPs, and regular attendance of health-care checkups by EPs and ICPs. Sections 7.2.3.1 to 7.2.3.3 present details about ways in which FHCPs used information in health-care of EPs in Nakuru District.

7.2.3.1 Decision making

All FHCPs reported that they drew on information obtained from the EPs and their family members, their prior knowledge of medicine and prior experience, consultations with colleagues and diagnostic reports to prescribe treatment for EPs. Professional knowledge and data about elderly patients helped FHCPs to make appropriate decisions about prescriptions

for medicine and diet for EPs. FHCPs also reported that information about the health status of EPs helped them to decide whether to treat EPs as in- or out-patients, or to refer them for more specialized care. Information helped FHCPs to make a variety and appropriate decisions about health-care of EPs.

FHCPs indicated that regular use of information to make decisions about health-care of EPs helped them to better understand the health issues of EPs. Appropriate use of information added value to the quality of decisions that FHCPs made, the services they provided and to the shaping of their opinions about geriatric health-care. FHCPs also reported that they noticed improvement in health-conditions of EPs that followed instructions about use of medicine and diets they prescribed. The decisions that FHCPs made based on accurate information served to enhance the quality of life of EPs they treated in hospital and health centres. The findings show that FHCPs need accurate geriatric health-care information to help them to make the right decisions in health-care of EPs.

The findings of the current study agree with findings of earlier research showing that FHCPs use information to make decisions about treatment for their patients (Ajuwon 2006; Musoke 2000; Apalayine & Ehikhamenor 1996).

7.2.3.2 Sharing of information

All FHCPs reported sharing information with colleagues, EPs and ICPs, and members of their families about the treatment or general health-care of the EPs. FHCPs indirectly transferred information for health-care of EPs to colleagues and lay people through means of professional consultations. They reported that they told their colleagues about experiences in treating EPs and shared with them new ideas about geriatric care. FHCPs shared information with colleagues as part of a practice among professionals, implying that members of a community of practice easily share information among themselves. FHCPs indicated that their colleagues used the information they shared to treat EPs. Colleagues of FHCPs were beneficiaries of information about health-care of EPs. The researcher learnt that FHCPs discussed treatment of EPs a great deal among themselves because their training covered little about gerontology, and subsequently, health libraries provided minimal literature on this subject. However this investigation did not examine these aspects because of its focus. There

is evidence that lack of in-depth training and literature contributed to sharing of information about geriatric care among FHCPs. More research is necessary in this area.

FHCPs also reported that they instructed the EPs, ICPs and their families about the proper use of medication, diet and management of health-care of EPs at home. FHCPs shared their knowledge with lay people to help them to manage health-care in less professional environments. In so doing, they used medical reports or notes and accumulated professional knowledge based on past experience to provide EPs and ICPs with the required information necessary for management of health conditions at home. The findings imply that FHCPs need to use simplified terms when sharing information for health-care of EPs to enable EPs and ICPs to follow and use it effectively at home. As the findings have shown that FHCPs share information to help them to make professional decisions and to share with colleagues and lay people, it is clear that in a development context, up-to-date information about geriatric health-care is needed for sharing among professional colleagues, EPs and their family members.

The findings support models and theories of information behaviour, namely Information Acquiring-and-Sharing (Rioux 2004; 2000), Communities of Practice (Wenger 2001), and Information Use Environments (Taylor 1991), which show that people acquire and share information with others in varied environments, and to accomplish tasks when they find it valuable. However, the findings of the current study suggest a need for FHCPs to put in more effort to share information with EPs and ICPs using simplified terms to help the majority of them to understand instructions about geriatric care and to be able to carry out health-care independent of FHCPs for as long as it may be necessary.

7.2.3.3 Advising elderly people (EPs) and informal care providers (ICPs)

Almost half of the FHCPs (7 out of 16) reported that they used health-care information to share with EPs and ICPs about the need for EPs to change their lifestyles. FHCPs said they would hold a special session with an individual elderly client upon the request of the family or if the client appeared to fail persistently to adhere to medication and nutritional schedules, and where possible wrote down instructions, particularly about diet for them to follow at home.

FHCPs reported that they noticed improvement in health conditions of EPs that followed their advice to change from poor habits of health-care, and that EPs and ICPs started to attend health-care clinics and have checkups regularly. Use of geriatric information by FHCPs to advise EPs and ICPs helped them to improve their use of health-care services. The concern of FHCPs regarding adherence of EPs to use of health-care services was articulated by one doctor who said:

“I have noted that some elderly people ignore pain until it gets worse. They also don’t seek or attend medical checkups until they feel a lot of pain. We advise them to go for checkups at least once in every six months, but a majority of them don’t do it.”

The comment by the doctor suggests that some EPs need regular consultations with FHCPs to help them use information for their health-care as soon as possible. In addition, the findings suggest that financial constraints could be the reason for reluctance among EPs to have regular checkups. The effect of financial constraints on access and use of information are discussed in Chapter Eight of this study

The findings showed that giving advice to clients, in this case EPs and ICPs, forms an important part of information use among FHCPs. Appropriate use of information helped FHCPs to get a better understanding of issues about geriatric care. It also helped them make decisions that contributed to improvement in health conditions of EPs, and also helped their colleagues, EPs and ICPs to provide health-care to EPs in professional and home environments, respectively. The findings suggest that FHCPs in Nakuru District need up-to-date information to help them to provide efficient geriatric services.

7.3 OVERVIEW OF THE FINDINGS

This chapter presented findings about ways in which EPs, ICPs and FHCPs used information in health-care of home-based EPs in Nakuru District. The findings revealed that the respondents used information in common and diverse ways to address issues arising in health-care of EPs.

The findings showed that all groups of respondents generally used information to make decisions that were appropriate for health-care, and also shared information with other people

involved in health-care or whom they thought needed to know about conditions of health. EPs and ICPs used information to make decisions which led some of them to change from one health-care facility to another, in particular to less expensive health-care facilities because of economic constraints of most EPs. EPs and ICPs used information to help them to make decisions that enabled them to carry out health-care at home. FHCPs used their knowledge about health and information that they obtained from EPs, ICPs and their friends to make decisions about prescription of medicines and diet for EPs, and whether to refer them to more specialized care. The findings show that information helped FHCPs to make decisions that led to provision of professional health-care services to EPs.

In terms of sharing information, EPs and ICPs shared information about health-care with family members, friends, and neighbours to update them about health conditions of the elderly and to create awareness about the importance of using professional health-care services. They also shared information with FHCPs to provide them with relevant data for making decisions about treatment of the EPs. The most notable sharing of information was the way in which some of EPs and ICPs shared information from FHCPs with CAM providers without informing the FHCPs of their intentions to use information in alternative health-care services, revealing concealed information use behaviour (CIUB) or hidden information use behaviour among some EPs and ICPs. Sharing of information by EPs and ICPs contributed to dissemination of information from FHCPs to families of EPs and other members of the community. The findings support the theory of Information Acquiring-and-Sharing (Rioux 2004; 2000) showing that all groups of respondents shared information with people that they thought needed the information to help them to provide care or to gain a better understanding about health-care of EPs.

However, the findings showed that respondents also varied in the ways in which they used information in health-care. For example, EPs further used information for self-care at home and to seek CAM treatment. ICPs further used information to provide health-care to EPs at home and to help them to seek CAM treatment. Because of closeness and dealing with a common issue, EPs and ICPs used information in similar ways, suggesting that information that is simplified and repackaged in languages and formats that EPs and ICPs can manage could help them to provide health-care at home.

FHCPs further used information to advise or counsel EPs and ICPs about the importance of practising appropriate lifestyles in health-care. FHCPs continued to use information as professionals to help EPs and ICPs to provide health-care services, while EPs and ICPs used information as lay people. The findings showed that there were variations in how people living in the same development context used information to address an issue that was common among them, in this case, health-care of EPs. Most EPs and ICPs provided health-care services as lay people, and FHCPs provided the service as professionals in health-care, contributing to different uses of information for health-care among the groups of respondents.

The groups of respondents also provided health-care in two different environments: hospital (for FHCPs) and home (EPs and ICPs), suggesting that environment also influenced the ways in which the groups used information for health-care. The findings show that information made sense and helped respondents to fill gaps that they experienced in health-care (Dervin 1992), and to address issues of health-care within their environment (Taylor 1991).

7.4 SUMMARY AND CONCLUSION

The findings of this chapter have shown the common and varied ways in which EPs, ICPs and FHCPs used information in health-care. The findings showed that EPs, ICPs and FHCPs used information to make decisions in health-care. They also shared information with colleagues, family, friends and neighbours to help them to gain understanding of issues of health-care and to provide services for EPs.

EPs used information to improve their health conditions and to resolve uncertainty. They also used information to raise awareness about the importance of using health-care services, reduce costs of health-care, choose health-care facilities, and to benefit from conventional and CAM treatment, although the latter seemed to be less effective in the long run. The findings showed that ICPs used information to help them to understand and manage health conditions of EPs, to raise awareness among fellow ICPs about the importance of using information for health-care of EPs, and to assist EPs in their decision making. FHCPs used their knowledge about health to make appropriate decisions about treatment for EPs, to help their colleagues to provide services to EPs and to advise EPs and ICPs about the need to change from poor to recommended lifestyles for health.

The findings showed that people that live in the same context and address a common issue could have common and diverse ways of using information. Overall, the three groups of respondents in the present study used information to attend to health-care tasks as professionals or as lay people, suggesting that environmental and individual factors influenced the ways in which the EPs, ICPs and FHCPs living in a development context used information for health-care. Chapter eight presents findings about factors that influenced EPs, ICPs and FHCPs in Nakuru District to access information for health-care.

CHAPTER EIGHT

FACTORS THAT INFLUENCE ACCESS OF INFORMATION FOR GERIATRIC HEALTH-CARE

8.1 INTRODUCTION

The previous chapter discussed specific situations in health-care where the EPs, and their ICPs and FHCPs used information. This chapter examines the factors that influence EPs, ICPs and FHCPs in Nakuru District to access information for geriatric health-care. The findings of this chapter help to respond to the fourth and last question of this study: *What factors influence the EPs, ICPs and FHCPs in Nakuru District to access information for health-care?*

Studies categorize factors that influence information behaviour under context or context related (Courtright 2007; Pettigrew 1999; Dervin 1997; Vakkari 1997); environmental (Wilson 1997), and personal (Hepworth 2007; Wilson 2006; Wilson 1997) factors. The categorization shows that events or situations that arise in environments of users help or hinder people from accessing and using information for their needs. The current study found that specific environmental factors such as financial resources, the atmosphere in health-care facilities, cultural traditions, and political decisions contributed to the ways in which EPs, ICPs and FHCPs accessed information for health-care. In addition the findings showed that specific personal factors (cognitive, connative and affective) also influenced the groups of respondents in diverse ways in accessing information for health-care. In order to examine these factors, this chapter which is divided into two major sections: presents findings on environmental factors (section 8.2), and findings about personal factors that influenced the three groups of respondents to access information for health-care (section 8.3).

8.2 ENVIRONMENTAL FACTORS THAT INFLUENCE ACCESS TO HEALTH-CARE INFORMATION

The EPs, and their ICPs and FHCPs were encouraged to talk about matters, conditions or circumstances that helped or inhibited them to access information about geriatric health-care..

The sub-sections below discuss ways in which environmental factors influenced EPs, ICPs and FHCPs in Nakuru District to access information.

8.2.1 Elderly people (EPs)

A comparison of the environmental factors affecting the three groups in the study show to a large extent an overlap, but all the groups are not affected in the same way. Table 8.1 below provides a summary of the different environmental factors affecting the EPs, followed by a more in depth report to show how the respondents are affected by the environmental factors.

Table 8.1: Environmental factors that influenced elderly people in accessing information

Factor	Specific issues	Influence on access of information
Financial resources	<ul style="list-style-type: none"> • Most EPs had little or no income • Financial support from relatives was insufficient and sometimes received late 	<ul style="list-style-type: none"> • Most EPs were unable to purchase information in print format • Most EPs were unable to pay for transport to health-care facilities
Atmosphere in health-care facilities	<ul style="list-style-type: none"> • EPs spent a lot of time in queues • FHCPs attended to many people, leading to time constraints • Interactions between EPs and FHCPs were brief • Some EPs encountered new FHCPs with each visit • EPs experienced indifference from FHCPs towards efforts of NGOs providing support for EPs 	<ul style="list-style-type: none"> • EPs were unable to access all the information they needed for health-care • FHCPs were unable to spend more time with EPs to share information effectively • Poor dissemination of information about alternative programmes that support EPs • Some EPs found it difficult to share information with new FHCPs
Cultural traditions	<ul style="list-style-type: none"> • Generation and gender gaps experienced between some EPs and younger people, and people of the opposite gender, respectively • Sophistication of urban life and higher levels of education helped some EPs to navigate through cultural traditions 	<ul style="list-style-type: none"> • Some EPs were reserved in the type of information they would share with younger people or people of the opposite gender • Some EPs concealed their actual problems and need of health-care information
Political decision about care of EPs	<ul style="list-style-type: none"> • The government delayed the implementation of a policy for care of EPs • EPs lacked political support for their care 	<ul style="list-style-type: none"> • EPs were unable to access all information they needed for geriatric care

8.2.1.1 *Financial resources*

Most of the EPs (17 out of 18) indicated that they had little or no discretionary income for purchasing resources such as books, magazines, and newspapers that had health-care information. Financial constraints proved to be a barrier to the majority of EPs in accessing information for their health-care. Nine EPs (from the urban area) and two EPs (from the rural site) who had retired from formal employment indicated that their monthly pensions were insufficient to allow for purchasing information to help them in health-care. Six of the EPs (from the rural site) said that they had never been employed and that they depended on family members and the sale of farm produce for their livelihood. They also reported that sometimes it was difficult for them to pay for transport to health-care facilities. Financial constraints prevented most EPs from accessing most information they needed about health-care.

Only one respondent (from the urban site) who had retired from formal employment indicated that he was able to buy at least one or two health-related texts each year to update him about health and other scientific issues. The number of EPs that had financial means to help them accessing information for health-care was negligible. In addition, findings showed that personal preference also influenced the choice of resources that they purchased for health-care information. The respondent mentioned above, said that he had also maintained his subscription to *Readers' Digest* for over twenty years. He reported that this magazine and a few books that he bought helped him to remain informed about general health-care issues. His efforts were commendable, but the findings show that an overall lack of financial resources made it difficult for most of the EPs in Nakuru District to purchase information sources in support of their health-care.

The findings of this study compare favourably with other studies on developing contexts that showed that most EPs in developing countries have little or no income at all, making it difficult for them to pay for goods and services for their health-care (KNCHR 2009:20-23; Muigana 2006:30-32; Mathangani 2005:3; Odongo 2002:3-5; Akanji, Ogunniyi & Baiyewu 2002:1289-1290; Apt 1997; 1991).

8.2.1.2 *Atmosphere in health-care facilities*

Over a third of the EPs (7 out of 18) through their experiences were of the opinion that some FHCPs in public health-care facilities were unfriendly to EPs. The manner in which some

FHCPs in public health-care facilities interact with EPs inhibits the latter from accessing the information they required for their health-care. EPs indicated that some FHCPs were abrupt and impatient towards the elderly and made it difficult for EPs to state their problems or concerns. The EPs also complained about waiting for a long time in queues to get to FHCPs, and that FHCPs spend very little time with them. The large number of patients using the public facilities contributed to brief interactions between EPs and FHCPs. This suggested that EPs could not obtain all the information that they needed for their health-care from FHCPs. This type of atmosphere left EPs with the impression that their needs for information for health-care were sometimes poorly catered for in the public health facilities. One respondent stated:

“It frustrates me sometimes when I go to the government hospital. I have to wait in a queue for a long time. And when I get to a nurse, she wants to spend very little time with me. Then I have to go to another queue for an injection or at the hospital pharmacy for drugs if they are available.”

The comment shows that allowing EPs enough time to talk about experiences of their health conditions is important as it makes them feel that their consultations with FHCPs were effective and helped them to access all the information needed for their health-care.

The EPs added that it was still more challenging when there was a change in FHCPs as it was difficult to adjust to a new professional provider. Dependency on familiar FHCPs for authoritative information was a barrier to some EPs to accepting information from new FHCPs. Although the EPs shared information with new FHCPs, the findings showed that EPs needed quick and thorough care as well as consistency and this was lacking from the FHCPs in the formal health-care facilities.

All EPs interviewed in the current study said that they were not aware of other places from which to obtain geriatric health-care information. EPs seemed to be unaware of NGOs that produce reports and other publications about care for the elderly. The findings further showed that health-care facilities did not disseminate information about NGOs that provided information or other services for the EPs, which could be interpreted as indifference on the part of FHCPs in alternative efforts to care for the EPs.

During the interviews, two (2 out of 18) of the EPs indicated that they had visited different developed countries in which the government provided health-care and other services to the EPs. They also pointed out that they had not encountered any locally available service that provided geriatric health-care information as was the case in developed countries. The observation indicates a desire among some EPs for improvement in the current health-care system to help EPs access the information that they need for health-care.

Findings of this study show that the situation in the health-care system in Nakuru District sometimes made it difficult for EPs to access all the health-care information that they needed from FHCPs. Lack of specifically designed geriatric service seemed to contribute to the poor environment, making it difficult for EPs to access all information for their health-care. Similar studies have shown that EPs who use public health-care facilities in Kenya sometimes complained about difficulties in accessing health-care services because of negative attitudes on the part of the FHCPs (Muigana 2006:30-32; Mathangani 2005:3; Wagah, Ocholla & Omalla 2000:14). Lessons can be learnt from the issues that EPs in this study raised about their experiences in using health-care facilities in Nakuru District to access information for their health-care.

8.2.1.3 Cultural traditions

A third of the EPs (6 out of 18), all from the rural site, reported that it was difficult for them to discuss some of their experiences in health with younger people and people of the opposite gender. The respondents indicated that cultural traditions prevented them from sharing information about their health that they considered private or sensitive with younger or people of the opposite gender. The EPs reported that they perceived young FHCPs as their “grandchildren” and due to cultural traditions; they could not discuss conditions of health-care relating to private parts of their bodies with these young FHCPs.

The majority of the EPs (2 from the rural site and 10 from the urban site) indicated that they were aware of cultural practices that prohibited sharing of certain information with younger people or people of the opposite gender. They reported that despite this cultural tradition, they tried to share as much information as they could to help younger people around them to thoroughly understand their health conditions so that they could assist them as much as possible. Some EPs find ways of navigating through cultural traditions in order to access

information for their health-care. However, the EPs indicated that they preferred to share their experiences in health-care with people who were closer to them in age. This suggests that EPs prefer to consult older FHCPs. The findings revealed that this factor was more prevalent in respondents from the rural site compared to those from the urban one. Greater sophistication and higher levels of education among the majority of EPs from the urban site seemed to be contributing factors that made it possible for them to share information with younger people, people of the opposite gender, as well as FHCPs.

The findings showed that the generation gap and gender differences were influencing factors resulting in some of the EPs concealing information from younger people and people of the opposite gender (including FHCPs), which hindered access to information in certain situations. The findings showed that cultural traditions related to age and gender are still issues to be considered in the communication of geriatric health-care information in Nakuru District, particularly in the rural setting. There could also be other cultural traditions that prevent exchange of information for health-care between EPs and other people. However, the findings of the current study only revealed age and gender as key factors in cultural traditions that influenced access to information for health-care among EPs.

8.2.1.4 Political support

Political support is important for implementation of a policy that can provide geriatric services, and hence information to help EPs in health-care. Half of the EPs (9 out of 18) were of the opinion that the government lacked a plan for providing health related and other social services for the aged. One respondent remarked that the government and politicians might object to implementing such policies for EPs because of the financial implications. The opinions of two respondents in this group indicated below, suggest that a lack of a governmental policy makes it difficult for EPs to access needed geriatric health-care information:

1st elderly person: *“Politicians in this country can help to raise funds for needy cases but not support implementation of a policy for care of elderly citizens.”*

2nd elderly person: *“Some of the parliamentarians are our age-mates, and others are much older than some of us. But they forget all about the welfare of elderly people as soon as they get to Parliament.”*

The comments from the two EPs showed that lack of government policy prevents EPs from accessing information to help them with their health conditions. During this investigation, it was established that Kenya had a policy for care of EPs but had not implemented it. Kenya is among the developing countries that have not implemented policies to care for the aged (KNCHR 2009; Muigana 2006:30-32; WHO 2006a & b; Mathangani 2005: 3; Waithaka, Anyona & Koori 2003:1-13). Okoth (2010:8-9) referred to the situation in Kenya as “the ticking bomb awaiting to explode”, suggesting that the lack of a policy for care of EPs in Kenya could lead to more serious issues. The findings of the current study indicated that the delay in the implementation of a policy for the care of EPs contributes to lack specific planning to provide geriatric services and information in the current health-care system.

The findings of the current study showed that although EPs could access some information for their health-care, the limited financial resources among communities, the structure of service provision in the current health-care system, cultural traditions and lack of policy for geriatric services are contributing factors that affected EPs in Nakuru District accessing information for their health-care. The effect of these factors resulted in non-use of information.

8.2.2 Informal care providers (ICPs)

Similar to the findings on EPs regarding environmental factors, all ICPs indicated that financial resources, the atmosphere in health-care facilities, and political support were the main factors that influenced the way they accessed information about geriatric health-care of EPs. Table 8.2 is a summary of the factors and the different ways in which they influenced ICPs to access information for health-care.

Table 8.2: Environmental factors that influenced informal care providers' access to information

Factor	Specific issues	Influence on access of information
Financial resources	<ul style="list-style-type: none"> • Most ICPs had little or no income • Financial support from family and money made from the sale of farm produce was insufficient for their needs 	<ul style="list-style-type: none"> • Most ICPs were unable to access information through purchase of resources
Atmosphere in health-care facilities	<ul style="list-style-type: none"> • ICPs were unhappy with the way some FHCPs treated EPs in health-care facilities • Some FHCPs ignored contributions of ICPs that accompanied EPs to health-care facilities • FHCPs lacked geriatric training, and some of them lacked effective skills for communication of information to EPs and ICPs 	<ul style="list-style-type: none"> • ICPs could not access all the information they needed for health-care of EPs • There was poor exchange of information between some ICPs and FHCPs
Political support	<ul style="list-style-type: none"> • The government delayed the implementation of a policy for care of EPs and assistance for ICPs 	<ul style="list-style-type: none"> • ICPs had difficulties in accessing information on health-care services for EPs

The table shows that the economic environment; atmosphere in health-care facilities and lack of a health-care policy for EPs prevented ICPs in Nakuru District from accessing all the information they needed for the health-care of EPs. The findings are discussed in the sub-sections below.

8.2.2.1 Financial resources

The findings of the current study show that a lack of sufficient income restricts the ICPs from accessing geriatric health-care information. All ICPs reported having a low income, and as a result, found it difficult to purchase information sources and pay for services related to the care of the EPs. The two ICPs from the rural area indicated that they relied on sale of farm produce and financial support from family members to be able to provide for information

needs in health-care of EPs. For example, ICPs indicated that they often had difficulty in paying for transport for themselves and the EPs when they were referred to the Provincial General Hospital. Insufficient income and poor or lack of financial support from relatives hindered the ICPs from the rural site from accessing information regularly from the FHCPs working in the urban site.

ICPs also reported that it was difficult for them to pay for medication, to buy special foods for EPs following a special diet and to afford to pay for sources of information to help them in health-care of EPs. Two of the ICPs from the urban site reported that they operated small businesses, in one case, a small bookshop in an estate and in another, sold charcoal and vegetables so as to be able to raise funds to help them to provide care for the EPs. Two women ICPs, also from the urban site, were still formally employed but indicated that their incomes were insufficient for them to pay for sources of information and to meet other needs in their families. The income among the ICPs was generally insufficient to meet their own needs and also purchase geriatric health-care information sources to help them in the care of EPs.

The findings of this study show that because of limited income, family financial obligations are given precedence over the purchase of health-care information products for the care of the EPs. Although the ICPs from the urban site had income-generating opportunities, unlike their counterparts from the rural area, the findings showed that all of the ICPs had a low level of income that limited their ability to care for the EPs and to access appropriate health-care information products.

8.2.2.2 Atmosphere in health-care facilities

The majority of ICPs (5 out of 6) reported that sometimes it was difficult for them to continue taking EPs to public health-care facilities because of the negative attitude by some of the FHCPs towards the EPs. The poor relationship between some FHCPs and EPs indirectly prevented EPs from accessing information from public health-care facilities. It was only the respondent who claimed that she had been trained professionally in health-care who said that she was able to navigate through the system with ease. It seems that familiarity with a health-care system makes it possible for a few ICPs to access information without feeling that the

attitude of FHCPs towards EPs prevents them from exchanging information with professional health-care providers.

The majority of the ICPs also indicated that some FHCPs did not listen attentively to the EPs and their ICPs, and that sometimes they were fast to come to their own conclusions and then made “rude” remarks about the EPs. From this, it can be deduced that an apparent lack of attentiveness in the training in geriatric care possibly contributed to poor communication between some FHCPs and ICPs about information for health-care of EPs. The ICPs further indicated that some of the FHCPs occasionally ignored their presence and contributions when talking to EPs. The feelings of ICPs were captured in the words of one respondent:

“Most nurses in government hospitals are very useful, especially if you deal with one regularly. But some of them seem to be impatient with elderly people, particularly if they are not accompanied by someone that understands the system in the hospital.”

The comment showed that ICPs shared some information with FHCPs. However, the behaviour of some of the FHCPs in public health-care facilities towards EPs and ICPs apparently created an environment that hindered the smooth exchange of information to the ICPs for their use in the health-care of the EPs. The findings also showed that ICPs need help to understand the way in which the current health-care system in public facilities works to be able to access all the information that they and EPs require for health-care.

8.2.2.3 Political support

All ICPs reported that they were unaware of a government policy for assisting in the care of EPs. The lack of a geriatric service policy indirectly hinders ICPs in accessing geriatric health-care information to help them to take care of the EPs. One respondent stated:

“The government has left everything to do with elderly people to individuals and families. I don’t think that the government plans to include people that care for their elderly parents in the budget.”

The comment suggests that a lack of service prevents the natural creation of a health-care environment conducive for the natural flow of health-care information. The findings are in

agreement with earlier reports showing that the delay to implement the proposed policy affects the care of EPs in Kenya (Kenya National Commission for Human Rights 2009; Mathangani 2005; Waithaka, Anyona & Koori 2003). Findings of this study further showed that the delay also influence ways in which ICPs could become aware of information that could help them to provide efficient support for EPs.

The findings show that interaction between FHCPs and ICPs helped the latter to access information for health-care of EPs, but insufficient income among ICPs and lack of a policy for care of EPs inhibited ICPs from accessing the variety of information that they needed to support them in health-care of EPs. The findings further showed that because of the closeness between EPs and ICPs, the difficulties that EPs sometimes experienced in public health-care facilities also made it difficult for most ICPs to access all the information they needed for health-care of EPs.

8.2.3 Formal health-care providers (FHCPs)

Although the analysis of factors showed some similarity with that of of EPs and ICPs, there were other environmental conditions that caused FHCPs to respond differently to the same factors. Table 8.3 summarizes the environmental factors that influenced FHCPs access to information for health-care of EPs.

Table 8.3: Environmental factors that influenced formal health-care providers’ access to information

Factor	Specific issues	Influence on access to information
Financial resources	<ul style="list-style-type: none"> • FHCPs had insufficient income to buy sources for geriatric health-care • Sources for geriatric care were not easily available on the local market 	<ul style="list-style-type: none"> • Most FHCPs did not have specific sources for geriatric care • Some FHCPs installed the Internet to be able to access information for geriatric care
Atmosphere in health-care facilities	<ul style="list-style-type: none"> • The number of patients using public health-care facilities was high • The current health-care system lacked specialized services for geriatric care • Some EPs expected FHCPs to provide solutions to domestic and social issues that affected them • Some EPs had physical impairments • Some EPs failed to keep appointments for check-ups 	<ul style="list-style-type: none"> • FHCPs could not spend a lot of time with every patient • FHCPs could not provide information for all issues affecting the EPs in their care • FHCPs experienced difficulties in sharing information consistently with some EPs
EPs’ cultural traditions	<ul style="list-style-type: none"> • Some EPs used metaphors to refer to health conditions • Some EPs could not freely discuss conditions of health-care with younger FHCPs or those of opposite gender 	<ul style="list-style-type: none"> • FHCPs found it difficult to follow communication from EPs and to share information with them
Political support for EPs	<ul style="list-style-type: none"> • The national health-care policy lacked specifications for health-care of EPs 	<ul style="list-style-type: none"> • FHCPs lacked specialised information sources for geriatric care • FHCPs used general guidelines and knowledge about health-care to share information with EPs and ICPs

The table shows that insufficient income prevented most FHCPs from purchasing sources of information for geriatric care. Only a few FHCPs could afford to install the Internet privately in order to access information for geriatric care at the time of the current study (Plans were underway for the government to provide Internet access to health information related resources in the PGH and health centres countrywide). The situation in health-care facilities, EPs’ cultural traditions and lack of guidelines in the current health-care policy also prevented FHCPs from accessing all the information they needed for geriatric care.

8.2.3.1 Financial resources

The high cost of imported books and lack of literature dealing with geriatric health-care published locally made it difficult for most FHCPs (10 out of 16) to access geriatric health-care information sources on their own.

About one third of the FHCPs (5 out of 16, four doctors and one clinician) who had made this observation also confirmed that they were connected to the Internet in offices where they practised privately when their commitment to the public service permitted. Using personal income to install the Internet helped some FHCPs to access information for geriatric care. The FHCPs indicated that they accessed information about cause and treatment of ailments that the EPs suffered from and used this information to treat EPs in public health-care facilities.

The rest of the FHCPs (11 out of 16) reported that they could not afford private connection of the Internet in their homes, and that they also lacked the IT skills needed to access information using the Internet. Those FHCPs that installed the Internet for private purposes indicated that they restricted themselves to a given number of hours when they used the Internet because it was costly and they had to pay for the service themselves. However, the Internet did provide an affordable means of access to health-care information for the FHCPs, in comparison to other types of information sources such as text books and journals. It thus seems that there is a need for access to information not being provided through official channels.

All FHCPs reported that their institutional library collections lacked adequate resources related to the specific health-care issues of the elderly. They observed that the cost of such health-care information sources was as high as other forms of medical literature. In addition, lack of emphasis given to geriatric studies in medical or health-care training programmes contributed to a lack of resources on geriatric health-care in health libraries in the District. In fact, it was found that there is little or no geriatric literature in health libraries for the use of FHCPs in the Nakuru District of Kenya. All FHCPs reported that they used their personal acquired professional knowledge; help from colleagues and past experiences to treat the EPs and to share health-care information with them related to the health conditions that they suffered from. The unsatisfactory state of medical libraries contributed to lack of geriatric

information to help FHCPs. The FHCPs indicated that they did not necessarily require up-to-date information to help them to treat the ailments of the EPs and were confident that they had already acquired sufficient professional knowledge to help them care for the EPs. The findings show that although FHCPs experience financial constraints, they possess professional knowledge which reduces the impact of financial constraints in access to information for health-care. Such an attitude would explain why most of the FHCPs did not really seek to purchase additional geriatric health-care information.

The analysis showed that although FHCPs were in employment, the majority of them were unable to afford additional, more up-to-date sources of information for geriatric care. Training as professional health-care providers also seemed to contribute to the confidence among some FHCPs that they had sufficient knowledge to enable them to provide health-care to EPs, making them feel that they did not need further sources of information.

8.2.3.2 Atmosphere in health-care facilities

All FHCPs pointed out that they experienced various challenges in health-care facilities. For example, they attended to large numbers of patients; some EPs expected FHCPs to provide solutions for issues that affected them in the community, and some EPs failed to keep appointments for health checkups.

All FHCPs also reported that they had to attend to a large number of patients every day and found it difficult to hold discussions with the EPs about their health condition for as long as they would like to. This observation showed that EPs needed counselling services more than the conventional consultations for which the local health-care facilities are geared. The large number of patients using health-care facilities resulted in busy schedules for FHCPs and made it difficult for them to carry out extensive consultations with EPs. The FHCPs pointed out further that some of the EPs suffered from poor hearing and loss of memory. (These factors are discussed in the next section under personal factors that influenced EPs). However, it suffices to mention here that such physical conditions made it difficult for the FHCPs to share information with some EPs.

The FHCPs also observed that some of the EPs did not keep appointments for checkups, some lost the exercise books in which the FHCPs wrote their diagnosis and prescriptions, and

some occasionally came to the professional health-care facilities in the company of different ICPs. The factors contributed to lack of consistency in exchange of information for geriatric care between EPs and ICPs, and FHCPs.

The findings of the current study revealed that factors such as a high patient load resulting in busy schedules for the FHCPs, lack of policy for geriatric care, failure of EPs to keep appointments with FHCPs, loss of personal records for health-care, and changing ICPs among some EPs characterized the environment in health-care facilities in Nakuru District. A combination of these factors hindered appropriate exchange of information between FHCPs and EPs. This suggests that there is a need for the existence of geriatric health-care services that facilitate the sharing of health-care information between FHCPs and the EPs.

8.2.3.3 Cultural traditions of elderly people (EPs)

Two FHCPs (2 out of 18) from the urban site reported that some EPs used metaphorical or euphemistic expressions to communicate what they considered private or intimate information because of their cultural traditions. Such an indirect form of communication, using expressions that the FHCPs were unfamiliar with, resulted in a negative perception of EPs and in turn affected the exchange of information between some FHCPs and EPs. For example, one respondent reported that some of the EPs from the rural area used euphemistic expressions such as “spitting saliva” to mean passing urine and would expect the FHCPs to use similar expressions when taking urine from EPs to use for medical tests or when making reference to intimate parts of the body. Also, these EPs would take offence if the FHCPs referred directly to intimate bodily functions.

The two FHCPs also indicated that some EPs were reluctant to provide details of their health conditions to FHCPs that were younger or of the opposite gender. The findings show that such EPs unintentionally prevented FHCPs from sharing with them all the information necessary for their health-care.

The findings show that the FHCPs sometimes need intermediaries when they share information with the EPs who communicate using expressions in the local language that the FHCPs are not familiar with. The findings of the current study are supported by similar studies that have shown that FHCPs find it difficult to disseminate or share health

information when conflicting or opposing cultural practices continue to surface during provision of services (Clark & Leipert 2007; Easom & Quinn 2006; Bii & Otike 2003; Kaane 1995; 1997).

8.2.3.4 Political support

Most of the FHCPs (14 out of 16) reported that the current health-care system neither emphasized nor had a separate policy for the care of EPs as it did for the care of young people as well as mothers and children. The lack of a specific governmental policy on geriatric health-care contributed to a corresponding lack of geriatric health-care information for the FHCPs to share with the EPs. The FHCPs interviewed indicated that they used guidelines for other age groups when providing geriatric health-care services.

The findings imply that political support is essential in providing for and enabling health-care programmes that provide appropriate geriatric health-care information. The findings of the current study are in a strong contrast to findings from other studies that show that there has been a lot of research on informing policy makers and government leaders about the health-care and other needs of the EPs in developed countries (Lopez, Lopez-Arrieta & Crespo 2005; Rowe 2004; Steele 1994). The findings of the present study prove to a certain extent how different conditions could be in a developing context, which in turn require considering more custom made initiatives for providing access to health-care information for the home-based elderly.

The findings of the present study showed that both common and varied factors influenced the groups of respondents' access to information for health-care. Financial constraints, the atmosphere in health-care facilities and lack of a policy for the care of EPs generally prevented most EPs, ICPs and FHCPs from accessing information for health-care of EPs. Most EPs and ICPs were unemployed and did not earn enough money from their private businesses to enable them purchase sources of information for their health-care. Although FHCPs were employed, they did not seem to have enough money to buy current sources of information to help them to provide better and more informed care on treatment of geriatric illnesses. Only a few FHCPs installed the Internet as an affordable and alternative way of accessing information to help them in health-care of EPs. The delay by the government in

implementing a policy for care of EPs made it difficult for all groups of respondents to find specific information for geriatric care within the guidelines of providing health-care.

It also seems clear that there were variations with regard to some of the environmental factors that were common to all three groups of respondents. For example, only a few EPs from the rural site and younger FHCPs from the urban site seemed to experience problems of communication because of cultural traditions relating to communicating with people of the opposite gender and young people. The subsequent use of metaphorical language did not improve the communication problem either. Whereas ICPs did not indicate cultural tradition as a factor that influenced their access to information, FHCPs did experience some cultural norms and value systems as an impediment to information exchange.

There were also variations in the way the three groups of respondents perceived the influence of common factors in their efforts to access information for health-care. It appears that a range of factors contributed to the environment which influenced the ways in which EPs, ICPs and FHCPs exchanged information in health-care facilities. For example, EPs and ICPs indicated that long queues that took time to clear, meeting new faces of FHCPs, and lack of training in geriatric care among FHCPs made it difficult for them to access most information. They also indicated that brief interactions with FHCPs, failure of FHCPs to respond to all their questions, and sometimes ignoring contributions of ICPs also made it difficult for them to access information for their health-care. EPs and ICPs perceived the environment in health-care facilities from the point of view of a user of a service. However, FHCPs perceived the large numbers of patients, poor physical conditions and failure of some EPs to attend checkups regularly, and cultural traditions practised by some EPs as some of the factors that contributed to challenges to share information in health-care facilities. FHCPs viewed the environment in health-care facilities from the perspective of service providers. The findings show that EPs, ICPs and FHCPs had different perceptions and experiences about situations that influenced them in exchanging information within the environment of health-care.

The findings imply that the health-care system in public health facilities was in itself a “context” and that EPs, ICPs and FHCPs seemed to approach it from different perspectives. The findings suggest that health-care systems should consider the common and varied factors and their influence on efforts of users to access information for health-care. The findings

agree with an earlier study showing that the physical environment, clinic activities, situation of nurses and EPs are some of the factors that affected the context in which a health-care service was delivered or received (Pettigrew 1999:802).

The analysis also showed that personal factors contributed to the ways in which respondents accessed information. The next section discusses these factors and shows how they influenced EPs, ICPs and FHCPs in Nakuru District to access information for health-care.

8.3 PERSONAL FACTORS THAT INFLUENCE ACCESS TO HEALTH-CARE INFORMATION

The findings of this study showed that personal factors (cognitive, connative and affective) also influence respondents to access information for health-care. Cognitive factors related to the ability of individuals to think, analyze and to use language, acquire skills to use the Internet, or to be trained to provide services in health-care. Connative factors were inherent characteristics of individuals, for example, ability to move and physical impairment, and affective factors had to do with emotions, and feelings such as heavy workloads and unwillingness of some EPs to disclose information about their health. The different types of personal factors are discussed in the next sections under the respective groups of respondents.

8.3.1 Elderly people (EPs)

EPs were influenced by cognitive, connative and affective factors to access information for health-care. Table 8.4 is a summary of the three types of factors that EPs talked about.

Table 8.4 Personal factors that influenced elderly peoples’ access to information for health-care

Type of factor	Influence on access to information
<p>Cognitive</p> <ul style="list-style-type: none"> • Levels of literacy skills and language capacity among EPs • Understanding and making sense of information • Levels of skills in using the Internet • Levels of training among EPs 	<ul style="list-style-type: none"> • Literate EPs independently accessed written information for health-care in English, Kiswahili and indigenous languages • Illiterate EPs needed help to access written information for health-care. • Illiterate EPs accessed information in oral formats provided it was offered in Kiswahili or indigenous languages • All EPs failed to access information by using the new technology • Most EPs depended on FHCPs to interpret medical terms used in information for health-care • A small number of EPs understood information presented using medical terms
<p>Connative</p> <ul style="list-style-type: none"> • Low mobility among some EPs • Physical impairment among some EPs 	<ul style="list-style-type: none"> • Some EPs were physically too weak to visit people and places on their own in search of information • Some EPs were unable to read on their own, could not properly hear FHCPs’ instructions and sometimes suffered from forgetfulness
<p>Affective</p> <ul style="list-style-type: none"> • Heavy workloads prevent them from allocating time for information searching activities • Unwillingness of some EPs to share private health problems • Set ideas among some EPs regarding health-care 	<ul style="list-style-type: none"> • Most EPs were busy with responsibilities of caring for themselves and their families and lacked time to search for information • Some EPs did not want to share personal health problems with outsiders, younger or people of the opposite gender • EPs accessed information for health-care by coincidence • Some EPs had set ideas about what would work for them and what could not

Table 8.4 shows that EPs that were literate accessed more readily information for health-care. A few of the EPs were able to interpret information presented using medical terms. EPs that were completely illiterate needed help to access information for health-care. The table also shows that most EPs had heavy workloads and lacked time to search for information in

print form, and that all of them lacked the skills needed to access information from the Internet. These findings are discussed in the sections below.

8.3.1.1 Cognitive factors

The most important cognitive factors that influenced information behaviour of EPs were literacy levels and language capacity, skills to use the Internet and levels of training. The factors are discussed below.

- *Literacy skills and language capacity:* Almost half of the EPs (8 out of 18) reported that they were illiterate and could not read English or Kiswahili which is their national language, or any other indigenous languages. Illiteracy was a barrier to a number of EPs in accessing information for health-care. This suggests that the EPs could only access information presented orally and in languages that they were able to understand. Illiterate EPs reported that they needed assistance to follow written health-care instructions and that they would request literate family members to accompany them to hospital to write down or take instructions from FHCPs on their behalf. Illiterate people are affected by information available in print format only. Their impairment causes them to approach people close to them to access the required information on their behalf and obviously to interpret the written text to them. The EPs indicated that the FHCPs shared information with them in Kiswahili, and sometimes in indigenous languages if the EPs and FHCPs were able to communicate using local languages. The FHCPs also wrote instructions in exercise books that the EPs carried with them and on medication packets. The EPs reported that they were afraid of forgetting instructions conveyed orally, as they were unable to read written health-care information. Some of the EPs needed help to interpret text and meaning of written health-care information.

The rest of the EPs (10 out of 18) indicated that they were literate in English, Kiswahili and their own indigenous languages and so they were able to access some information for health-care on their own.

- *Level of skills to use the Internet:* Analysis showed that all of the EPs who participated in the current study lacked basic computer literacy skills. This lack of

skills prevented them from accessing geriatric information available on the Internet on their own. The findings in Chapter Six of this study showed that lack of computer skills among some of the EPs created a need for obtaining suitable training to access digital information. The findings suggested that the EPs needed intermediaries to help them to access health-care information available on the Internet and that the literate EPs in Nakuru District need help to acquire the necessary skills so that they could independently access information on the Internet.

- *Levels of training:* The findings showed that some EPs were professionals in health-care, agriculture, teaching in primary and secondary schools, administration and police service while others had worked as office messengers before retirement. Some of the EPs did not have any professional training. As already stated in chapters five and six, only three EPs (one health-care provider, a former science teacher in secondary school and an agricultural officer) indicated that they were able to interpret information presented in medical language. The rest of the EPs, (15 out of 18) were trained in different professions, and indicated that they could access health-care information in lay terms on their own but needed help to access information written in medical jargon. The professional training among EPs determined the kind of health-care information that they could access with minimal help. The findings suggested that the majority of the EPs need oral and written information about health-care presented in lay terms.

8.3.1.2 *Connative factors*

The cognitive factors that influenced EPs were levels of mobility and physical impairments. The factors are discussed below.

- *Low mobility among some elderly people:* Two of the EPs (one woman from the urban and the other from the rural site) were unable to leave their compounds because of poor health. One of the women needed help to be able to go beyond the veranda of her house while the other could only go a few metres beyond the gate of her compound. Poor physical conditions prevented some EPs from searching for information for their health-care. Some EPs need information to be available in close proximity as much as possible. The EPs reported that family members hired taxis for them when they had to go to hospitals for treatment or checkups, and that they

obtained information about health-care from relatives and friends who visited them as well as from health programmes presented on local and indigenous radio stations. One respondent stated:

“I do not go beyond this small compound. Poor health has denied me chances to visit friends, relatives and other places where I can get information on my own.”

The comment showed that physical conditions make it impossible for some EPs to search for information. Studies have shown that use of the new technology has proved to enhance access to information and can solve the access problem of physically impaired users like EPs that suffer from low mobility or experience other physical challenges (Barrett 2000; Hanson & Clarke 2000:129-137; Magnusson et al 1998:1-7; Steele 1994). However, the current study found that there were no formal plans in Nakuru District to use the new technology to enable transfer of health-care information to EPs. A lack of digital literacy among EPs could also have negative effects on the use of IT to access information for their health-care. More research may help to shed light on this aspect of making information accessible to EPs in a development context.

- *Physical impairment among some elderly people:* A third of the EPs (6 out of 18) reported that they suffered from poor eyesight, hearing and experienced loss of memory. Physical impairment made it difficult for some EPs to read, hear and sometimes to recall information about health-care.

The findings showed that the physical limitations that some EPs experience inhibited their ability to access needed health-care information on their own. For this reason, the EPs often need intermediaries to help them to access information for their health-care.

8.3.1.3 Affective factors

Affective factors such as heavy workloads, unwillingness to share information about health-care, and set ideas about what works for health-care influenced the information behaviour of EPs.

- *Heavy workloads:* Half of the EPs (9 out of 18) reported that they did not have enough time to go out and look for information for their health-care. They indicated that besides caring for themselves, they spent most of their time carrying out family responsibilities and other commitments which made it difficult for them to get time for searching for information for health-care. Inability of EPs to manage their time inhibited them from planning to search for information. The data did not reflect responses whether the rest of the EPs had sufficient time to access information for health-care. The findings implied that some EPs accessed information for health-care by coincidence.
- *Unwillingness to share private health problems:* Findings from some EPs and ICPs also indicated that some EPs (6 out of 18) did not want to share private health problems with outsiders, younger people or people of the opposite gender. This aspect is discussed in sections 7.2.1.2 and 7.2.2.2. Unwillingness of EPs to share private information resulted in shyness and retention of information needed to help FHCPs, younger or people of the opposite gender to make decisions for health-care of EPs. The decision to withhold particular information from certain people also made it difficult for some EPs to access information from strangers and younger people of the opposite gender.
- *Set ideas about what works in health-care:* Findings from EPs and ICPs showed that some EPs had set ideas about what would work for them and what would not. Sections 7.2.1.4 and 7.2.2.4 of the current study showed that some EPs sought information about CAM treatment because they believed that it worked better than conventional medicine.

The findings showed that some of the personal factors such as education enhanced access of information among some EPs while other factors prevented EPs from accessing information for health-care. The findings suggest that EPs need information made more accessible to them because of environmental and personal factors.

8.3.2 Informal care providers (ICPs)

The main personal factors that influenced the information behaviour of ICPs were at the cognitive and affective levels. Table 8.5 provides a summary of the cognitive and affective factors that the study identified among ICPs in Nakuru District.

Table 8.5: Personal factors that influenced informal care providers' access to information for health-care

Type of factor	Influence on access to information
<p>Cognitive</p> <ul style="list-style-type: none"> • Levels of literacy and language capacity among ICPs • Understanding and making sense of information • Level of skills to use the Internet • Levels of education among ICPs • Preference to find information through social networks 	<ul style="list-style-type: none"> • All ICPs were literate and able to access written information for health-care in English language, Kiswahili and indigenous languages • Majority of ICPs were unable to access information using the Internet • Most ICPs depended on FHCPs to interpret medical terms used in information for health-care • Some ICPs were able to interpret information presented using medical terms • Most ICPs preferred to learn informally by socially interacting with others instead of consulting formal sources of information • Social networking helped ICPs to obtain information informally through searching for people's viewpoints instead of referring to printed sources
<p>Affective</p> <ul style="list-style-type: none"> • Heavy workloads 	<ul style="list-style-type: none"> • Most ICPs had heavy workloads of caring for EPs and did not have time to search for information for health-care except when they went to see FHCPs • ICPs accessed information for health-care by coincidence

Table 8.5 shows that high levels of literacy skills and ability to use the Internet enhanced access of information among some ICPs. The table also shows that ICPs had heavy workloads in providing care for EPs and that they did not have time to search for information. The findings are discussed in the sections below.

8.3.2.1 Cognitive factors

The cognitive factors that influenced ICPs were literacy skills and language capacity, skills to use the Internet, levels of education and availability of social networks. The factors are discussed below.

- *Literacy skills and language capacity:* All ICPs in the present study had a secondary level of education and were able to follow communication in English, Kiswahili and their respective indigenous languages. Generally, all the ICPs were able to access simplified information for health-care of EPs, in written and oral formats using at least three different languages. Higher levels of education and ability to understand more than one language had positive effects among ICPs on accessing information for health-care.
- *Level of skills to use the Internet:* Most of the ICPs (4 out of 6), all of them women, reported that they did not have the skills to use the Internet. Two other ICPs (2 out of 6), both of them men from the urban site indicated that they were able to access information from the Internet by using the *Google* search engine. The two male ICPs who accessed information from the Internet reported that they did so in nearby cyber cafes from which they also accessed and sent e-mails. They however said that they found it difficult to set aside time to search for geriatric health-care information on the Internet. Though the current study did not endeavour to establish the actual level of computer skills among the male ICPs, the findings showed that an awareness and exposure to the use of the Internet contributed to the acquisition of the skills that enabled some ICPs to access health-care information that was helpful to them in providing care for the EPs. The findings showed that lack of digital literacy denied women ICPs access to information in digital format. The findings also suggest that women ICPs needed help to be able to use the Internet to access information for health-care of EPs.
- *Levels of education among ICPs:* The analysis showed that ICPs in the present study were at different levels of education, hence literacy. Two ICPs (2 out of 6) were professional teachers (one for secondary and the other for primary school levels), one respondent (1 out of 6) was a professional health-care provider and could understand

medical terminology. The remaining three ICPs (3 out of 6, one man from the urban site and two women from the rural site) did not have any professional qualifications. Five of the ICPs indicated that they did not understand information written using medical terminology. Lack of subject knowledge inhibited most ICPs from accessing information written in medical terms, suggesting that the majority of ICPs needed assistance from the FHCPs to understand information about geriatric health-care that made extensive use of medical terminology. Training in provision of health-care services influenced the ways in which some ICPs accessed information to help them to care for EPs. Lack of computer literacy and skills affected ICPs in the sense that they turned to people whom they trust to provide the necessary interpretation of information instead of searching for it on their own.

- *Preference to accessing information through social networks:* Majority of ICPs (5 out of 6) indicated that they consulted family members, friends and neighbours for information about health-care of EPs. Preference for ICPs to use social networks enhanced their approach to seek viewpoints of people. Only one respondent indicated that she still consulted text books about health-care to get information to help her to take care of her spouse.

8.3.2.1 Affective factors

The factors are discussed below. There could be other affective factors but the ICPs in the current study did not express them.

- *Heavy workloads:* All of the ICPs indicated that caring for EPs along with attending to personal commitments took up most of their time and that it was difficult for them to search for geriatric health-care information for health-care for this reason. One respondent from the rural site stated:

“There are days when I don’t leave this compound because of Mum’s poor health. I find it difficult to look for information unless I call a nurse or someone comes in with new ideas about taking care of her condition.”

The comment shows that caring for EPs with poor health conditions prevented ICPs from allocating time to search for printed information. However, the ICPs were able to access information presented in oral format. One of the men ICPs also reported:

“I am unemployed but have to provide for my family and mother. I spend most of my time looking for money for food, fees for my children and to meet other needs in the family. It is difficult for me to set aside specific time to look for information but somehow, I get information to help me as I go about my daily activities.”

The observation showed that some ICPs had double family responsibilities of providing for their immediate families and their elderly parents, and did not have time to look for information.

The findings suggest that the level of education, preference for informal information sources and the ability to use the Internet were some of the personal factors that contributed positively to access to information by ICPs. However, lack of time to search for formal information, and poor understanding of basic geriatrics, inexperience in health-care, and uncertainty about policies and procedures of health-care services inhibited ICPs from accessing information to help. Other studies have shown similar results (Magnusson & Hanson 2003; Magnusson et al.1998).

8.3.3 Formal health-care providers (FHCPs)

Formal health-care providers were influenced by cognitive, connative and affective factors to access information for health-care of EPs. Table 8.6 is a summary of the factors and ways in which they influenced FHCPs.

Table 8.6: Personal factors that influenced formal health-care providers' access to information for health-care

Type of factor	Influence on access to information
<p>Cognitive</p> <ul style="list-style-type: none"> • Professional training • Understanding and making sense of information • Level of skills to use the Internet 	<ul style="list-style-type: none"> • Training in provision of health-care services helped all FHCPs to interpret information written in medical terms • Some FHCPs with skills to use the new technology were able to access information from the Internet
<p>Connative</p> <ul style="list-style-type: none"> • Cultural traditions practised by EPs 	<ul style="list-style-type: none"> • Some EPs do not reveal sensitive matters about their health-care and prevent FHCPs from assisting them properly • Cultural traditions inhibited some FHCPs from accessing all the information they needed from EPs
<p>Affective</p> <ul style="list-style-type: none"> • Heavy work schedules 	<ul style="list-style-type: none"> • FHCPs had heavy work schedules and did not have time to search for information for health-care • Most FHCPs accessed information for health-care by coincidence

Table 8.6 shows that training and skills to use the Internet helped FHCPs to access information for health-care. However, it seemed that most FHCPs had heavy work schedules and were unable to get time to regularly search for information for health-care. These personal factors are discussed below.

8.3.3.1 Cognitive factors

Training as professional health-care providers and digital literacy were the only two cognitive factors that the present study identified among FHCPs.

- *Professional training*: All FHCPs were able to understand health-care information written in medical terms. Training provided FHCPs with proficient background knowledge and skills to know how to effectively access health-care information needed to treat EPs. FHCPs reported that they consulted their colleagues if they needed deeper understanding of medical information that they had. Training left FHCPs with a wider choice of accessing information compared to EPs and ICPs.

- *Level of skills to use the Internet:* The majority of the FHCPs (10 out of 16) said that they were unable to use the Internet. Lack of digital literacy inhibited most FHCPs in Nakuru District from accessing information for health-care of EPs from the Internet. Only six (6 out of 16) FHCPs reported that they had the skills needed to access information from the Internet through self-training. The findings revealed that the majority of the FHCPs providing professional health-care services in the Nakuru District needed intermediaries to help them access information about geriatric health-care on the Internet and that they also needed training in the requisite searching skills so that they could use these new technologies on their own. The findings of the current study concur with those of an earlier study which found that a lack of training on the use of innovative information technologies made it difficult for some FHCPs in the United Kingdom to access health-care information through the Internet (Davies 2007:86).

8.3.3.2 *Connative factors*

The analysis showed that cultural traditions practised by EPs influence the ways FHCPs access information from elderly patients. In this study only one connative factor was identified among FHCPs. Although there might be other connative factors, the findings showed that some EPs were reluctant to share private health problems with outsiders and younger or people of the opposite gender. This aspect was discussed in Section 8.3.1.2. The findings of the current study also showed that some EPs had set ideas about what would work for them and what could not. The behaviour of EPs to retain information and to choose the type of information that they wanted to use prevents FHCPs from accessing information that could help them to diagnose their patients correctly or to advise them appropriately. This type of behaviour can result in a general negative perception among FHCPs of the EPs that seek treatment from health-care facilities.

8.3.3.3 *Affective factors*

The analysis showed that most FHCPs lacked time to access more current information for health-care of EPs. The majority of the FHCPs (11 out of 16) said they that they had heavy work schedules and did not have adequate time to search for health-care information. Heavy work schedules contributed to limited time for FHCPs to access information for health-care.

The findings suggest that although some of FHCPs were able to access information for health-care, tasks in their work place consumed most of their time and made it difficult for them to access information regularly. For this reason, some FHCPs would continue to use health-care information sources that they already had or that were readily accessible due to a lack of time to conduct searches for more current information. The findings also suggest that ease of access to information is an important factor in order to save time for busy FHCPs. The findings of the present study support the findings of other studies showing that heavy workloads in health-care facilities create time limitations for FHCPs to search for information (Davies 2007:86; Bryant 2004:90).

The findings revealed that training in health and having the skills to use the Internet enhanced access to information for health-care among FHCPs. However, cultural traditions practised by some EPs and heavy workloads inhibited FHCPs from accessing all information they needed to use in health-care. The findings suggest that some FHCPs in Nakuru District need training to be able to use the Internet to access information for health-care as these innovative information-sharing technologies are being used increasingly to make current information available speedily.

8.4 OVERVIEW OF THE FINDINGS

This chapter presented findings about factors that influenced EPs, ICPs and FHCPs in Nakuru District to access information for health-care. The findings revealed that environmental factors and individual factors influenced the ways in which EPs, ICPs and FHCPs accessed information for health-care.

The findings showed that EPs and ICPs are affected more or less by similar types of factors. For example, in terms of environmental factors: poverty prevents them from accessing information sources; poor information technology (IT) infrastructure prevents them from accessing digital information; and government policies on health-care of the aged prevent the creation of a convenient or affordable information environment that could enhance ease of access to information. The findings suggest that all groups of respondents needed some kind of financial support in this respect.

In terms of personal factors, it seems that EPs and ICPs are affected by similar factors. These include lack of subject knowledge (geriatrics), lack of health literacy, personal preferences for certain types of information sources, dependence on viewpoints of people they trust, perceptions of approachability of FHCPs to obtain information and advice. The findings also suggest that most EPs, ICPs and FHCPs in Nakuru District accessed information more by coincidence rather than planned searching. The findings suggest that EPs, ICPs and FHCPs in developing countries need systems that provide access to information compatible with their capacities, for example, information that is easy to access and within close proximity.

However, the information behaviour of FHCPs seems to be affected by the same environmental factors, but they respond differently due to personal competencies that they acquired and that are different from those of EPs and ICPs. For example, FHCPs are more information literate (they know how to seek information for health-care) and what to do with it. Some of them are skilled in use of IT to access information for their own purposes, and some of them have installed the Internet on their own to be able to access information for health-care. A combination of personal traits of EPs and ICPs prevented the flow of information between them and FHCPs. These factors also hinder advice and instructions that could improve the lives of the home-based EPs.

The findings show that knowledge of how the different types of factors affect access to information in a health-care system in a development context could be crucial for the design of an appropriate health-care information service. Designers of health information services need to have an understanding of the different types of factors within the environments of the three groups and ways in which they influence access to information. In this way, they (information services) will be in a better position to design a service compliant with the needs of EPs, ICPs and FHCPs in a development context.

8.5 SUMMARY AND CONCLUSION

This chapter identified environmental and personal factors and how these factors influenced the EPs, ICPs and FHCPs in a development context to access information for health-care. The findings show that there are similarities and variations among environmental and personal factors that influence respective groups in a development context to access information for

health-care. Based on the findings reported in this study, the next chapter draws conclusions and makes recommendations.

CHAPTER NINE

CONCLUSION AND RECOMMENDATIONS

9.1 INTRODUCTION

This chapter provides a summary and conclusion of the current study. The research problem, methodology and findings are all summarized to provide a basis for reflection on the contribution of the study to knowledge of information behaviour. The chapter also makes recommendations based on the findings of the study and proposes areas for future research.

9.2 RESEARCH PROBLEM

The purpose of this study was to investigate information behaviour in the health-care of home-based EPs in a development context. The empirical setting for the study was Nakuru District of Kenya. Knowledge about the information needs, sources and ways in which information was used and factors that influence access to information could be applied in the development of an information system to meet the needs of EPs, their ICPs and FHCPs. The investigation was guided by a central research question: *How is information accessed and used for the home-based health-care of the elderly people in Nakuru District of Kenya?* In the interest of making a comprehensive analysis of the central question, the researcher divided it into four major sub-questions:

- a) What kind of information is needed for the health-care of home-based EPs?
- b) What kind of sources do the EPs and their ICPs and FHCPs use to get information for health-care?
- c) How do the EPs, their ICPs and FHCPs use geriatric health-care information?
- d) What factors influence the EPs, their ICPs and FHCPs to access information for health-care?

These research questions were addressed theoretically and empirically in order to identify the underlying problem to provide appropriate information for home-based elderly. A further purpose of the study was to recommend a model for information behaviour in health-care of EPs in a development context.

9.3 THEORETICAL APPROACHES TO THE STUDY OF INFORMATION BEHAVIOUR

The researcher first addressed the question of selecting appropriate theories and models of information behaviour to contextualise core concepts pertinent to this study. Various theories and models were used to understand and highlight ways in which people identify information needs (Wilson 1997; Dervin 1992); seek information (Erdelez 2005; Fisher 2005; Leckie, Pettigrew & Sylvain 1996); use information (Rioux 2004; Wenger 2001; Taylor 1991) as well as factors that influence information behaviour (Courtright 2007; Hepworth 2007). A common element in all the theories and models is the realization that gaps in knowledge create information needs that result in searching for information to help people to respond to challenges in their lives.

The theories and models discussed in Chapter Two of the current study also provided a basis for a literature review and an empirical investigation of the aspects of information behaviour in the health-care of EPs in a development context while using Nakuru District as the study site.

9.4 METHODOLOGY

The study used qualitative methods of research with a descriptive research design because the purpose of the study was to acquire an in-depth understanding of information behaviour of the EPs and their ICPs and FHCPs in health-care. The researcher conducted face-to-face interviews with 40 respondents (18 EPs, 6 ICPs and 16 FHCPs) to obtain information to answer the central question of research and the four sub-questions. The respondents were recruited by using snowball technique where respondents recommended or nominated individuals to participate in the study. The respondents were at different age levels, represented both genders, and had diversified backgrounds in education, economic levels, profession, health-care experiences and living environments. FHCPs were also of different ages, genders, levels of health-care training and working environments. The findings obtained in this qualitative, interview-based research shed light on the sub-problems and their related questions.

9.5 FINDINGS

This section summarises the findings of each of the four main sub-questions of research that were the focus of this study.

9.5.1 Information needs in health-care of elderly people (EPs)

The first sub-question which the study addressed was the type of information needed in the health-care of the EPs in Nakuru District. The findings showed that the EPs and their ICPs and FHCPs have both common and diversified information needs related to medication, nutrition, counselling, CAM, emotional and spiritual support.

The findings showed that all groups of respondents had common needs for information about medication and nutrition. FHCPs needed information about health conditions to help them to prescribe appropriate medicine and nutrition for EPs. Most EPs and their ICPs needed simplified health-care information to help them to follow advice from FHCPs. In addition, EPs and their ICPs needed information about spiritual and emotional support, CAM treatment and financial help. These needs became apparent in specific health-care situations where the respondents carried out specific geriatric-care tasks.

The findings reflect assumptions of information needs and show that needs are embedded in the work and roles that individuals and groups of respondents as reflected in Wilson's (1997) and Dervin's (1992) models. These two models helped the researcher to understand the general concept about information needs or "gaps." However, the models do not show how information needs for a particular issue give rise to information needed for a new issue. For example, the current study showed that needs for information in geriatric health-care were intertwined with needs related to the financial, spiritual, emotional and physical well-being of EPs and the ICPs and that the information needs of the three groups of respondents revealed themselves as the respective groups performed specific tasks when providing, or using health-care services.

Bearing all these needs in mind, the current study makes the following recommendations:

- LIS professionals working in health libraries should create awareness among communities about information needs of EPs and their ICPs.

- Policy makers for health-care, social services and financial divisions of the governmental authorities should include comprehensive guidelines for the care of EPs in order to provide information and practical solutions for meeting the needs of the elderly .
- The current health-care facilities should gradually move towards providing appropriate geriatric services for EPs.
- LIS professionals that work in health libraries, in consultation and collaboration with FHCPs should regularly conduct research to identify other areas in which EPs and their ICPs and FHCPs need information for geriatric care.

9.5.2 Sources of information for geriatric health-care

The second sub-question was focused on investigating the sources of information used by the three groups of respondents in providing geriatric health-care. Models of Information Encountering (Erdelez 2005), Information Grounds (Fisher 2005), Communities of Practice (Wenger 2001) and Information Seeking of Professionals (Leckie, Pettigrew & Sylvain 1996) enabled the researcher to better understand the diverse ways in which groups of respondents used sources of information. The findings discussed in Chapter Six are evidence of how respondents used formal and informal sources and channels of communication in their quest for geriatric health-care information. An important need among EPs and their ICPs for sources that could both be trusted and that were easy to access came to light.

All FHCPs consulted authoritative sources and channels of communication in health-care to access information to help them to provide professional services to EPs and their ICPs. In contrast, EPs and their ICPs appeared to juggle a greater variety of formal and informal sources of information, including accessing information from less mainstream CAM health-care services without informing FHCPs. The models of information behaviour used in this study to understand ways in which professionals and lay people choose sources of information did not seem to address this concealed information behaviour as identified among some EPs and their ICPs.

A striking revelation is the dependence of EPs and their ICPs on family and friends as sources of information, because the latter seemed to provide simplified information for health-care. The trust that EPs have in family members and friends shows that these two lay groups are instrumental in availing and interpreting information for most of the EPs. FHCPs consulted professional colleagues because they provided information to help them to carry out their roles and tasks in health-care.

The Internet was seldom used as a source of information for geriatric health-care with only a few FHCPs and their ICPs having the necessary skills to use it. None of the EPs represented in this study could use the Internet, though some of them expressed an interest in learning how to do so.

The findings about sources of information for geriatric care lead to the following recommendations:

- FHCPs should ensure that health-care information is offered to EPs and their ICPs in the prominent local or indigenous languages.
- Health-care information should be simplified or translated into lay terms to levels where the lay public can relate to.
- FHCPs should make efforts to educate communities around them about health-care of EPs as a way of sharing information with lay people.
- LIS professionals that work in health libraries should collaborate with FHCPs to repackage geriatric information in languages and formats that EPs and their ICPs can handle. They should also disseminate the information to members of the community as a way of helping communities to access geriatric information more easily.

9.5.3 Use of information in health-care

The study focused on the third sub-question to analyze the specific ways in which EPs, their ICPs and FHCPs used information in geriatric health-care. Models of Information-Acquiring-and-Sharing (Rioux 2004), Communities of Practice (Wenger 2001) and Information Use Environments (Taylor 1991) helped the researcher to address this sub-question.

The findings revealed that the three groups of respondents had common and varied uses of information in health-care. For example, all groups used information to take informed decisions in health-care and to share with other people that also needed it. The findings also revealed that groups of respondents used information in different ways. For example, EPs and their ICPs used information obtained from FHCPs to secretly seek treatment from CAM practitioners, and to create awareness in their communities about the importance of good health-care. FHCPs in turn, used information to provide professional advice to EPs and their ICPs about appropriate health-care. The findings showed that EPs and their ICPs used information to help them to provide health-care services in home-based environments, or away from FHCPs. FHCPs used information to provide professional services. The findings showed that context (at home or in health-care facilities) is instrumental in influencing ways in which EPs and their ICPs, and FHCPs in Nakuru District used information in health-care.

The findings about information use in the present study lead to the following recommendations:

- LIS professionals who work in health libraries should liaise with FHCPs and conduct programmes of health information literacy to help EPs and their ICPs acquire skills that can help them to effectively identify their needs and use appropriate information for health-care.
- LIS professionals that work in health libraries should also conduct more research to find out ways in which EPs and their ICPs use information for specific ailments in order to design information systems that will help these two lay groups access information easily.

9.5.4 Factors that influence access to information

The fourth question of the study focused on factors that influenced EPs and their ICPs and FHCPs to access geriatric health-care information. The study used categorization of factors shown as context-related or environmental (Courtright 2007; Wilson 2006 & 1997; Pettigrew 1999) and personal (Hepworth 2007; Wilson 2006).

The findings showed that EPs and their ICPs were influenced by common and diversified factors among them to access information for health-care. For example, financial constraints,

lack of skills to use the Internet, government policies that were vague about care of EPs and support for their ICPs, and health-care facilities that were not designed for geriatric care all deprived EPs and their ICPs from exposure and access to all the information that they needed for geriatric care.

Personal factors such as lack of subject knowledge about geriatric care, lack of skills to access health-care information, dependence on viewpoints of other people that they trust, perceptions of approachability of FHCPs and preferences for certain types of information sources inhibited most EPs and their ICPs from accessing geriatric information.

The findings showed that FHCPs responded differently to factors that characterized public health-care facilities. These included, but were not limited to cultural traditions of some EPs, the atmosphere in health-care facilities characterized by a large number of patients, and the lack of specially designed geriatric services. The findings revealed that FHCPs were more information literate, and that some of them possessed the skills required to access information on the Internet in cyber cafes or installed in their homes. Existing models about factors that influence information behaviour were instrumental in understanding and deducing how environmental and personal factors influence EPs and their ICPs, and FHCPs in a development context to access information for health-care.

The findings about factors that influence EPs, and their ICPs and FHCPs lead to the recommendations below:

- The Government of Kenya should implement a comprehensive policy for care of EPs and include specific guidelines to help individuals and groups in health-care to create information for geriatric care and to make it easily accessible.
- LIS professionals that work in health libraries should help to market e-resources about geriatric care. This will help ICPs and FHCPs who are able to access information from the Internet to benefit from a wider variety of information sources available from databases of organisations such as HelpAge, AgeLine and the like.
- The findings suggest a need for LIS professionals to collaborate proactively with organisations that address concerns of EPs and raise awareness among groups of people and larger communities about geriatric health-care. LIS professionals could

use such collaborations to reach out to marginalized groups like the EPs and the ICPs in a development context and provide them with information about health-care.

- The government should locate health-care services in close proximity to local communities so as to facilitate access by EPs and their ICPs. For example the local administration (chiefs, assistant chiefs and councillors) could be empowered and assisted to liaise with the local and central governments to establish offices or centres that can address health-care and other concerns of EPs at grass root level such as the sub-location (See Chapter 4, section 4.3).
- FHCPs should encourage specific groups like EPs to clarify the trustworthiness or credibility of health information accessed from alternative sources (e.g. CAM) before using it in their own health-care or sharing with other people.
- EPs should be given subsidized or free health-care and access to information in public health-care facilities. This will help to reduce financial constraints which prevent EPs from accessing all the information that they need for health-care. (The Ministry of Health could, for example, create a health information unit or “corner” in every public health-care facility and use it for providing geriatric health-care information.)
- The government could provide financial support to ICPs caring for elderly relatives, and thus make it possible for ICPs to purchase simplified books about caring for EPs and for use of the Internet in commercial cyber cafes to access information for health-care.
- The challenges of access to information and its subsequent use in geriatric health-care should be addressed by taking an all-inclusive approach that brings together all stakeholders in health-care such as FHCPs, LIS professionals, spokespeople of EPs, governmental policy planners and other interested parties to collectively define and take action on critical issues of geriatric health-care.
- The current study recommends the establishment of a geriatric health information system that is convenient to use by EPs, their ICPs and FHCPs that live or work in both urban and rural settings.

9.6 CONTRIBUTION OF THE STUDY TO THEORY

This study has generated insights into information behaviour in the health-care of elderly people (EPs). The empirical findings have shown that there are variations among respondents

with regard to information needs, use of sources, use of information and factors that influence EPs and their ICPs as well as the FHCPs to access information. The information behaviour of FHCPs could be described as open and transparent because the analysis showed that they used authoritative sources to get information to help them to provide health-care services to EPs and their ICPs.

An important feature identified from the empirical analysis and which the researcher has reflected on and considers the key contribution of this study to theory is the concealed information use behaviour (CIUB) among some EPs and their ICPs. This behaviour has not been examined before in existing theories and models of information behaviour. The existing models focus mainly on explanations of the development of information need and corresponding search efforts to address the need. The existing models therefore cover information needs (Wilson 1997; Dervin 1992); information seeking (Erdelez 2005; Fisher 2005; Leckie, Pettigrew & Sylvain 1996); information use (Rioux 2004; Wenger 2001; Taylor 1991), and factors that influence information behaviour (Courtright 2007; Hepworth 2007).

What this study possibly adds to the information seeking models is the strategy of seekers to conceal their engagement in information exchange or straddling between sources and services. It should be borne in mind that in a disadvantaged or development context as dealt with in this investigation; people are disempowered not only by the fact that they are illiterate but by a combination of many factors present in such an environment. This concealed behaviour, is therefore more prevalent in a development context than would be the case in a developed environment. In the current study, the concealed information behaviour of some EPs and ICPs became apparent when EPs used information obtained from FHCPs to get treatment from CAM services without revealing their intentions to FHCPs. Financial constraints or poverty and the atmosphere in conventional health-care facilities were environmental factors conducive for the evolvment of such information behaviour.

The researcher intensely analysed interviews, went back to specific cases that reported this behaviour and sought to describe it fully since it had not been described in existing theories and models. The factors on both sides as discussed in Chapter eight proved to contribute to the evolving CIUB among EPs and their ICPs. This state of affairs made it difficult for the two health-care systems to share information about EPs. The lack of communication between

the two systems also complicated information provision by existing conventional health-care services. Some EPs and their ICPs therefore took the initiative to conveniently fill the gap in communication between FHCPs and CAM practitioners for personal gains.

The analysis helped the researcher to identify two levels at which the CIUB of EPs and their ICPs occurs when searching for sources to get information and during the actual use of information. The researcher observes that the CIUB that this study has isolated adds an important strand of knowledge to models such as Erdelez's model of Information Encountering (Erdelez 2005) whereby users, in our case; EPs and their ICPs, not only seek information to respond to challenges but also deliberately transfer the information from one source to another. Most of the models used in information behaviour are developed for and used in development context. This strand therefore becomes more relevant in developing and information behaviour model with a development context.

The researcher is aware that building a theoretical model cannot be based on one case study only. Therefore, it is recommended that more research should be undertaken to explore this phenomenon in other case studies in order to develop a more comprehensive model on secretive information behaviour.

9.7 CONCLUSION

This study was an investigation about information behaviour in geriatric home-based health-care. The findings showed that EPs and their ICPs and FHCPs that live in a development context have varied, but serious needs for information for geriatric care. It was found that respondents used both formal and informal sources of information and channels of communication that were easily accessible and trustworthy. The findings also showed that both environmental and personal factors enhanced or inhibited EPs and their ICPs and FHCPs to access information for health-care. The findings further showed that there were factors that contributed to concealed information behaviour among some EPs and ICPS in a development context. The findings of this study help to shed light on information behaviour that could help LIS professionals to develop a more proactive information service for geriatric services in a development context.

9.8 SUGGESTIONS FOR FURTHER RESEARCH

This study has been qualitative in nature and limited to an analysis of information behaviour in the health-care of home-based EPs in a development context. It does not claim to address all the health-care information needs of the EPs and their ICPs and FHCPs. However, the findings may be pertinent to other health-care related issues of EPs.

It might be useful to expand the research and conduct further interviews along with a questionnaire on a larger sampling of respondents to solicit further data on the information behaviour of EPs with regard to specific ailments that they suffer from.

The current study showed that all EPs and most of their ICPs and FHCPs lacked skills to help them access information from the Internet. This study recommends an investigation on how these groups of respondents, particularly EPs and their ICPs in the rural areas can be helped to use the Internet as a source of information for geriatric care. Training EPs and their ICPs to use the Internet will help them to depart from reliance on traditional sources and systems of accessing information for health-care.

The current study also showed that health libraries in Nakuru District did not have sources of information for geriatric care. This study showed that further research is necessary in LIS schools to include training on health-care information in their programmes to prepare LIS professionals that can respond to information needs of clients, particularly marginalized groups such as EPs and their ICPs in development contexts. Though such a dimension of training extends beyond the scope of this study, the researcher suggests that an investigation in a follow up study would be of great value.

More research is required to establish how best to create good relationships between conventional and CAM health-care systems to the advantage of users, such as EPs and their ICPs that consult both services under the prevailing circumstances in a development context.

There is a further need for interdisciplinary research in social and information needs in gerontology in a development context.

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APPENDIX I

INTERVIEW GUIDE FOR ELDERLY PEOPLE

1) I would like us begin our discussion today by introducing ourselves. I shall first introduce myself and explain the reason for this discussion. My names are Marie Khayesi. I live in Nakuru town and work at Egerton University. I am collecting information by talking to people about how they get information they use for health-care of elderly people in Nakuru District. I would like to get this information from my talk with you today. Please let us continue with the introduction. May I request you to let me know who you are (the respondent introduces herself or himself). May I request my interpreter to introduce herself (the interpreter introduces him/herself).

2) I would like to learn from you the kind of information you look for and think that other people around you need to use for taking care of your health in general.

3) Now, I would like us to talk about where you get this information from. We would like to know if you have places, people and anywhere else that you regularly use to get this information.

4) We would like to know about anything that you consider affects how you get this information. Tell us about those things that make it possible for you to get this information. Tell me also about those things that make it difficult for you to get information.

5) As we continue with our discussion, we would like to hear your ideas about what we have discussed today. Let us know your suggestions about any of the topics we have discussed with you today.

6) Let me conclude by thanking you very much for talking to us today. We have learnt alot from our discussion. We hope that you will allow us to talk to you again if we need you in future.

KIAMBATISHO 1

MAHOJIANO KWA WATU WAZEE

Ningependa tuanze mazungumzo yetu leo kwa kujuana. Nitasema jina langu kwanza halafu nieleze sababu ya mazungumzo yetu. Ninaitwa Marie Khayesi. Ninaishi Nakuru mjini na nina fanya kazi katika maktaba, Bewa la Laikipia, chuo kikuu cha Egerton. Pia mimi ni mwanafunzi katika chuo kikuu cha UNISA, Afrika kusini. Ninafanya utafiti kuhusu vile watu huipata habari na kuitumia kuhusiana na Kuwatunza wazee mjini Nakuru. Ningelipenda kuipata habari hii katika mazungumzo yetu ya leo. Ningelipenda kumuomba rafiki yangu akueleze jina lake. Tafadhali pia utuelezee majina yako.

MWONGOZO WA MAZUNGUMZO

- 1).
 - a) Tungelipenda utueleze vile huwa unaipata habari kwa utunzaji wa afya yako. Tafadhali Tueleze kuhusu aina ya habari ambayo unahitaji mara kwa mara kwa minajili ya kuisaidia afya yako.
 - b) Tafadhali tueleze aina ya habari ambayo unafikiri watu ambao wanakufunza, itawasaidia kukutunza.
- 2).
 - a) Sasa tuzungumze kuhusu mahala wewe huipokea habari hii. Tungelipenda utufahamisha kama kuna mahali pale ama kutoka kwa watu ama popote kwingineko ambapo wewe hupokea habari hii kwa minajili ya kukutunza.
 - b) Tueleze zaidi kuhusu kila mmoja ya watu, mahali mbali mbali na vitu ambavyo umevitaja (Dadisi kuhusu muda ufikiaji na umbali wa kila asili ya habari uliotajwa hapo juu)
- 3).
 - a) Tungelipenda utufahamisha kuhusu hoja tofauti tofauti za utunzaji wa afya ambayo huwa ukitumia kwako habari uliyoipokea. Tueleze njia zinginezo ambazo wewe hutumia habari kuhusu utunzaji wa afya yako.
 - b) Tueleze kuhusu mabadiliko maalum ambayo umeyaona katika maisha yako tangu ulipoanza kuitumia habari hii kuhusu utunzaji wa afya yako.
- 4). Tungelipenda kujua chochote ambacho unafikiri huadhiri vile unavyo ipata habari. Tueleze kuhusu vitu ambavyo unafikiri ufanya iwe vigumu kwako na wazee wengine kupata habari na kuitumia kwa kutunza afya yako.

- 5). Tungependa utuelezee maoni yako kuhusu habari ambayo unayoipata. (Mtafiti anadadisi wahojiwa kupata maoni yao kuhusu utoshelezi, umuhimu na kuridhika na aina ya habari na idadi ya habari.
- 6) Tunapoendelea na mafunzo yetu, tungelipenda kusikiliza maoni yako kuhusu mazungu ambayo tumekuwa nayo leo. Ukohuru kutoa maoni yako kuhusu chochote ambacho ungependa usikie kuhusuyale ambayo tumeyazungumzia. (Mpe mhojiwa muda wa kufikiri kuhusu mahojiano na utoe maoni, mapendekezo, uliza maswali na kadhalika)
- 7) Tungelipenda kutia tamati mahojiano haya kwa kukushukuru sana kwa kuzungumza na sisi leo. Tumejifunza mengi kutokana na mazungumzo yetu leo. Tunamatumaini kwamba utaturuhusu kuzungumza nawe tena tukikuhitaji baadaye.

APPENDIX II

INTERVIEW GUIDE FOR INFORMAL HEALTH-CARE PROVIDERS

1).I would like us begin our discussion today by introducing ourselves. I shall first introduce myself and explain the reason for this discussion. My names are Marie Khayesi. I live in Nakuru town and work at Egerton University. I am collecting information by talking to people about how they get information they use for health-care of elderly people in Nakuru District. I would like to get this information from my talk with you today. Please let us continue with the introduction. May I request you introduce yourself (the respondent introduces herself or himself), followed by the interpreter (where applicable).

2) I would like to begin our talk today with you telling us briefly how you are related to the elderly person that you take care of.

3) Please tell us briefly about the illness the elderly person suffers from. We would like you to tell us about the kind of information you look for to help you take care of the health of the elderly person.

4) Now, let us talk about where you get the information from. We would like to hear from you about the places, people and anything else that you use for getting information for your health-care. We would like to know if you have particular places, people or anything else that you often use to get the information. Tell us more about each of them.

5) Let us now talk about the things or situations that sometimes make it possible for you to get the information. We would like you to tell us also about the things or situations that sometimes make it difficult for you to get information. We would also like you to tell us what you do when you face the difficult situations that you have talked about.

6) Now, we would like you to tell us anything else you feel we should know regarding topics we have talked about today. Please, feel free to share with us anything else you would like us to know about what we have discussed today.

7. We wish to thank you very much for participating in the discussion today. We have learnt alot from you and hope that you will allow us to talk to you again in future.

KIAMBATISHO 2

MWONGOZO WA MAHOJIANO WA HUDUMA WA AFYA USIO RASMI

Ningelipenda tuanze mazungumzo yetu ya leo kwakujuana. Utanijua halafu pia ujue sabab ya mazungumzo yetu. Ninaitwa Marie Khayesi. Ninaishi Nakuru. Ninafanya kazi katika maktaba ya bara la Laikipia, chuo kikuu cha Egerton. Ninasomea digrii ya uzamifu katika chua cha UNISA, Afrika ya kusini. Tafadhali pia nikujue. Ninafanya utafiti kuhusu vile watu hupata habari ili kutunza watu wazee katika wilaya ya Nakuru. Ningelipenda kupata hii habari katika mazungumzo yetu leo.

MWONGOZO WA MAZUNGUMZO

1. Ningependa kuanza mazungumzo yetu ya leo kwa kuomba unieleze kwa ufupi uhusiano wako na Yule ambaye unamtunza.
2. Ningependa uzungumze zaidi kuhusu habari ambayo unahitaji kukusaidia kuhusu Yule mtu mzee ambaye unamtunza.
 - a) Tafadhali tueleze zaidi kuhusu habari unayo hitaji mara kwa mara ili umsaidie Yule mzee ambaye unamtunza.
 - b) Eleza habari ambayo unafikiri Yule mzee anahitaji kwa ajili ya kujitunza kiafya.
3. Sasa, tuzungumze kuhusu vile unapata habari. Ningependa kusikia kuhusu mahali wewe hupata habari, au kuhusu watu ambao hukupa habari au popote pale tafadhali tueleze zaidi kuhusu swala hili.
4. a) Hebu sasa tuzungumze kuhusu vitu au hali ambao wakati mwingine hukuwezesha kupata habari ya kutunza Yule mzee unay
 - a) Ningependa utueleze vile vitu ama hali ambazo wakati mwingine hukutatiza katika kupata habari ya kutunza ule mzee ambaye unamtunza.
 - b) Tafadhali tueleze zaidi kuhusu lile ambayo wewe hufanya pale ambapo unakumbana na hali za matatizo ambazo umezizungumzia.
5. a) Ningependa utueleze vile huwa unatumia habari baada ya kuipata. Tafadhali tueleze shughuli maalum ambamo huwa unatumia habari kuhusu utunzaji wa wazee unapoipata. Kuwa huru kuzungumzia njia nyingine yoyote ile ambayo una tumia habari hiyo.

- b) Ningependa utueleze maoni yako kuhusu habari ambayo huwa unapata (Mdadisi mhojiwa kuhusu utoshelezi, umuhimu, na usasa wa habari ambayo yeye huipata.
- c) Tafadhali tueleze zaidi kuhusu njia tofauti ambazo wewe hutumia kuhifadhi habari baada ya wewe kitumia.

7. Tafadhali kuwa huru kuzungumzia kuhusu kitu chochote kile ambacho ungelipenda nijue kuhusu yale tumeyazungumzia leo. (Mhojiwa apewe muda wa kutoa mapendekezo au mchango zaidi)

Ninakushukuru sana kwa kushiriki katika mazungumzo yetu ya leo. Nimejifunza mengkutoka kwako na nafikiria kwamba utaniruhusu kuzungumza nawe tena badaye.

APPENDIX III

INTERVIEW GUIDE FOR FORMAL HEALTH-CARE PROVIDERS

1) I would like us begin our discussion today by introducing ourselves. I shall first introduce myself and explain the reason for this discussion. My names are Marie Khayesi. I live in Nakuru town and work at Egerton University. I am collecting information by talking to people about how they get information they use for health-care of elderly people in Nakuru District. I would like to get this information from my talk with you today. Please let us continue with the introduction. May I request you to introduce yourself (the respondent introduces herself or himself).

2) I would like us to begin the discussion today with you telling us briefly about the health-care services that this hospital or clinic provides for elderly people.

3).Please, tell me about the kind of information that you need in order to provide services to elderly people in this hospital/clinic.

4) Now, let us talk about where you get the information that you use to help you provide health-care services to the elderly people who visit this hospital or clinic. I would like you to tell me more about the people, places or anything else that you use to get the information you need.

5). Please, tell us the ways in which you use information for health-care of elderly people?

6) I would like you to talk about the things that make it easy for you to get information for health-care of elderly people.

7). I would also like you to talk about things that make it difficult for you to get information for health-care of elderly people.

8) Please, you are free to make any other suggestions about the topic we have discussed today.

I wish to thank you for participating in the discussion for today. I have learnt a lot from you and hope that you will give me a chance to talk with you again on the same topic in future.

APPENDIX IV
INFORMED CONSENT FROM RESPONDENTS

I am Marie Khanyanji Khayesi. I am a student pursuing a postgraduate degree in Library and Information Science at the University of South Africa.

I am doing a research project to investigate how the elderly people and (formal and informal) care-providers access information regarding health-care of the ageing in Nakuru District. You have been selected as a respondent for this study.

The information you provide will be treated as confidential and purely for academic purposes. The names of participants will also remain anonymous.

I will be grateful if you could fill in your particulars in the space provided and sign as consent to participate in the study through a face-to-face interview. Should you have any questions or concerns in participating in this interview, kindly contact the researcher at Telephone number 0722-319195, or P.O. Box 3732, Nakuru.

AUTHORIZATION

Please strike through which is not applicable

I have read the above and understood the nature of the study.

I agree to participate/not participate in the study.

I appreciate your acceptance to participate.

Yours sincerely,

Marie K. Khayesi

Participant:

Names..... Sign.....Date.....

Contact:.....Phone.....

Interviewer:

Name.....Sign.....Date:.....

APPENDIX V
RESEARCH AUTHORIZATION LETTERS



The Ministry of Education Science and Technology (MOEST)
Jogoo House "B"
Harambee Avenue
PO Box 30040-00100
NAIROBI
Kenya

1 February 2008

TO WHOM IT MAY CONCERN

Miss MK Khayesi Student number 3440 727 8 is a bona fide registered student of the University of South Africa, Department of Information Science for the degree DLitt et Phil (Inf Science) (09377).

The approved title for the projected dissertation is:

UTILIZATION OF INFORMATION FOR HOME-BASED HEALTH CARE OF OLDER PERSON IN RELATION TO USER NEEDS: A CASE STUDY OF NAKURU DISTRICT, KENYA

The Department is satisfied that Miss Khayesi has progressed satisfactorily and that she has now reached the stage where data can be collected for the empirical investigation.

Sincerely

Dr HWJ Meyer
PROMOTER

REPUBLIC OF KENYA



MINISTRY OF SCIENCE AND TECHNOLOGY

Telephone: +254020318581
Facsimile: +254020251991
Email: scienceandtechnology.go.ke
Website: www.scienceandtechnology.go.ke

OFFICE OF THE PERMANENT SECRETARY
JOGOO HOUSE "B"
HARAMBEE AVENUE
P.O. Box 9583-00200
NAIROBI

MOST13/001/38c66/2

12th March 2008

Marie K. Khayesi
University of South Africa
NAIROBI

Dear Madam

RE: RESEARCH AUTHORIZATION

Following your application for authority to conduct research on: **Utilization of Information for Home Based Healthcare of Older Persons in Relation to User Needs: A Case Study of Nakuru District**, this is to inform you that you have been authorised to conduct the research in Nakuru District and related government offices.

You are also authorised to conduct your research in HepAge-International Office Nairobi and HelpAge-Kenya also in Nairobi for a period ending 30th April 2009.

You are advised to report to the District Commissioner, Nakuru and the other offices to which this letter has been copied before embarking on your research.

On completion, you are expected to deposit two copies of your research report to this Office.

Yours faithfully

A handwritten signature in black ink, appearing to read 'M.O. Ondieki'.

M.O. ONDIEKI
FOR: PERMANENT SECRETARY

CC

The Permanent Secretary – Ministry of Gender, Sports and Culture

The Provincial Health Officer – Nakuru

The District Commissioner, Nakuru

The Director, HelpAge - International, Nairobi Office

The Director, HelpAge- Kenya

Marie K. Khayesi,
Library Department,
Laikipia College Campus,
P. O. Box 1100 – 20300,
NYAHURURU.

Office line: 065 32361/8 Ext. 3232

Cell phone: 0722 31 91 95

Email: khayesima@yahoo.com

17th March, 2008

The District Commissioner,
Nakuru District,
P. O. Box 81 – 20100
NAKURU

Dear Sir/Madam,

RE: LETTER FOR RESEARCH

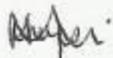
This is to inform your Office that I wish to conduct a research entitled: **ACCESS AND UTILIZATION OF INFORMATION FOR HEALTHCARE OF HOME-BASED ELDERLY PEOPLE IN NAKURU DISTRICT.**

The purpose of this writing is to ask your Office kindly to provide me with a letter to enable me conduct the research in the Municipality, Rongai and Mbogoine divisions.

Please find attached a copy of research permit from the Ministry of Education, Science and Technology (MOEST) for the same exercise.

I look forward to hearing from you.

Yours faithfully,



Marie Khanyanji Khayesi

**OFFICE OF THE PRESIDENT
PROVINCIAL ADMINISTRATION**

Telegrams: DISTRICTER" Nakuru
Telephone: Nakuru 051-2212515
When replying please quote



THE DISTRICT COMMISSIONER
P.O. BOX 81
NAKURU

Ref. No.....ED.12/10VOL.....

18th March, 2008
Date.....

The District Officers,

NAKURU MUNICIPALITY
RONGAI
MBOGOINI

RESEARCH AUTHORITY
MARIE KHANYANJI KHAYESI

The above named has been authorized to conduct research on ACCESS AND UTILIZATION OF INFORMATION FOR HEALTHCARE OF HOME-BASED ELDERLY PEOPLE IN NAKURU DISTRICT.

Please accord her the necessary assistance she may require.

A.K. MWILITSA
FOR DISTRICT COMMISSIONER
NAKURU DISTRICT

APPENDIX I

INTERVIEW GUIDE FOR ELDERLY PEOPLE

1) I would like us begin our discussion today by introducing ourselves. I shall first introduce myself and explain the reason for this discussion. My names are Marie Khayesi. I live in Nakuru town and work at Egerton University. I am collecting information by talking to people about how they get information they use for health-care of elderly people in Nakuru District. I would like to get this information from my talk with you today. Please let us continue with the introduction. May I request you to let me know who you are (the respondent introduces herself or himself). May I request my interpreter to introduce herself (the interpreter introduces him/herself).

2) I would like to learn from you the kind of information you look for and think that other people around you need to use for taking care of your health in general.

3) Now, I would like us to talk about where you get this information from. We would like to know if you have places, people and anywhere else that you regularly use to get this information.

4) We would like to know about anything that you consider affects how you get this information. Tell us about those things that make it possible for you to get this information. Tell me also about those things that make it difficult for you to get information.

5) As we continue with our discussion, we would like to hear your ideas about what we have discussed today. Let us know your suggestions about any of the topics we have discussed with you today.

6) Let me conclude by thanking you very much for talking to us today. We have learnt alot from our discussion. We hope that you will allow us to talk to you again if we need you in future.

KIAMBATISHO 1

MAHOJIANO KWA WATU WAZEE

Ningependa tuanze mazungumzo yetu leo kwa kujuana. Nitasema jina langu kwanza halafu nieleze sababu ya mazungumzo yetu. Ninaitwa Marie Khayesi. Ninaishi Nakuru mjini na nina fanya kazi katika maktaba, Bewa la Laikipia, chuo kikuu cha Egerton. Pia mimi ni mwanafunzi katika chuo kikuu cha UNISA, Afrika kusini. Ninafanya utafiti kuhusu vile watu huipata habari na kuitumia kuhusiana na Kuwatunza wazee mjini Nakuru. Ningelipenda kuipata habari hii katika mazungumzo yetu ya leo. Ningelipenda kumuomba rafiki yangu akueleze jina lake. Tafadhali pia utuelezee majina yako.

MWONGOZO WA MAZUNGUMZO

- 1).
 - a) Tungelipenda utueleze vile huwa unaipata habari kwa utunzaji wa afya yako. Tafadhali Tueleze kuhusu aina ya habari ambayo unahitaji mara kwa mara kwa minajili ya kuisaidia afya yako.
 - b) Tafadhali tueleze aina ya habari ambayo unafikiri watu ambao wanakufunza, itawasaidia kukutunza.
- 2).
 - a) Sasa tuzungumze kuhusu mahala wewe huipokea habari hii. Tungelipenda utufahamisha kama kuna mahali pale ama kutoka kwa watu ama popote kwingineko ambapo wewe hupokea habari hii kwa minajili ya kukutunza.
 - b) Tueleze zaidi kuhusu kila mmoja ya watu, mahali mbali mbali na vitu ambavyo umevitaja (Dadisi kuhusu muda ufikiaji na umbali wa kila asili ya habari uliotajwa hapo juu)
- 3).
 - a) Tungelipenda utufahamisha kuhusu hoja tofauti tofauti za utunzaji wa afya ambayo huwa ukitumia kwako habari uliyoipokea. Tueleze njia zinginezo ambazo wewe hutumia habari kuhusu utunzaji wa afya yako.
 - b) Tueleze kuhusu mabadiliko maalum ambayo umeyaona katika maisha yako tangu ulipoanza kuitumia habari hii kuhusu utunzaji wa afya yako.
- 4). Tungelipenda kujua chochote ambacho unafikiri huadhiri vile unavyo ipata habari. Tueleze kuhusu vitu ambavyo unafikiri ufanya iwe vigumu kwako na wazee wengine kupata habari na kuitumia kwa kutunza afya yako.

- 5). Tungependa utuelezee maoni yako kuhusu habari ambayo unayoipata. (Mtafiti anadadisi wahojiwa kupata maoni yao kuhusu utoshelezi, umuhimu na kuridhika na aina ya habari na idadi ya habari.
- 6) Tunapoendelea na mafunzo yetu, tungelipenda kusikiliza maoni yako kuhusu mazungu ambayo tumekuwa nayo leo. Ukohuru kutoa maoni yako kuhusu chochote ambacho ungependa usikie kuhusuyale ambayo tumeyazungumzia. (Mpe mhojiwa muda wa kufikiri kuhusu mahojiano na utoe maoni, mapendekezo, uliza maswali na kadhalika)
- 7) Tungelipenda kutia tamati mahojiano haya kwa kukushukuru sana kwa kuzungumza na sisi leo. Tumejifunza mengi kutokana na mazungumzo yetu leo. Tunamatumaini kwamba utaturuhusu kuzungumza nawe tena tukikuhitaji baadaye.

APPENDIX II

INTERVIEW GUIDE FOR INFORMAL HEALTH-CARE PROVIDERS

1).I would like us begin our discussion today by introducing ourselves. I shall first introduce myself and explain the reason for this discussion. My names are Marie Khayesi. I live in Nakuru town and work at Egerton University. I am collecting information by talking to people about how they get information they use for health-care of elderly people in Nakuru District. I would like to get this information from my talk with you today. Please let us continue with the introduction. May I request you introduce yourself (the respondent introduces herself or himself), followed by the interpreter (where applicable).

2) I would like to begin our talk today with you telling us briefly how you are related to the elderly person that you take care of.

3) Please tell us briefly about the illness the elderly person suffers from. We would like you to tell us about the kind of information you look for to help you take care of the health of the elderly person.

4) Now, let us talk about where you get the information from. We would like to hear from you about the places, people and anything else that you use for getting information for your health-care. We would like to know if you have particular places, people or anything else that you often use to get the information. Tell us more about each of them.

5) Let us now talk about the things or situations that sometimes make it possible for you to get the information. We would like you to tell us also about the things or situations that sometimes make it difficult for you to get information. We would also like you to tell us what you do when you face the difficult situations that you have talked about.

6) Now, we would like you to tell us anything else you feel we should know regarding topics we have talked about today. Please, feel free to share with us anything else you would like us to know about what we have discussed today.

7. We wish to thank you very much for participating in the discussion today. We have learnt alot from you and hope that you will allow us to talk to you again in future.

KIAMBATISHO 2

MWONGOZO WA MAHOJIANO WA HUDUMA WA AFYA USIO RASMI

Ningelipenda tuanze mazungumzo yetu ya leo kwakujuana. Utanijua halafu pia ujue sabab ya mazungumzo yetu. Ninaitwa Marie Khayesi. Ninaishi Nakuru. Ninafanya kazi katika maktaba ya bara la Laikipia, chuo kikuu cha Egerton. Ninasomea digrii ya uzamifu katika chua cha UNISA, Afrika ya kusini. Tafadhali pia nikujue. Ninafanya utafiti kuhusu vile watu hupata habari ili kutunza watu wazee katika wilaya ya Nakuru. Ningelipenda kupata hii habari katika mazungumzo yetu leo.

MWONGOZO WA MAZUNGUMZO

1. Ningependa kuanza mazungumzo yetu ya leo kwa kuomba unieleze kwa ufupi uhusiano wako na Yule ambaye unamtunza.
2. Ningependa uzungumze zaidi kuhusu habari ambayo unahitaji kukusaidia kuhusu Yule mtu mzee ambaye unamtunza.
 - a) Tafadhali tueleze zaidi kuhusu habari unayo hitaji mara kwa mara ili umsaidie Yule mzee ambaye unamtunza.
 - b) Eleza habari ambayo unafikiri Yule mzee anahitaji kwa ajili ya kujitunza kiafya.
3. Sasa, tuzungumze kuhusu vile unapata habari. Ningependa kusikia kuhusu mahali wewe hupata habari, au kuhusu watu ambao hukupa habari au popote pale tafadhali tueleze zaidi kuhusu swala hili.
4. a) Hebu sasa tuzungumze kuhusu vitu au hali ambao wakati mwingine hukuwezesha kupata habari ya kutunza Yule mzee unay
 - a) Ningependa utueleze vile vitu ama hali ambazo wakati mwingine hukutatiza katika kupata habari ya kutunza ule mzee ambaye unamtunza.
 - b) Tafadhali tueleze zaidi kuhusu lile ambayo wewe hufanya pale ambapo unakumbana na hali za matatizo ambazo umezizungumzia.
5. a) Ningependa utueleze vile huwa unatumia habari baada ya kuipata. Tafadhali tueleze shughuli maalum ambamo huwa unatumia habari kuhusu utunzaji wa wazee unapoipata. Kuwa huru kuzungumzia njia nyingine yoyote ile ambayo una tumia habari hiyo.

- b) Ningependa utueleze maoni yako kuhusu habari ambayo huwa unapata (Mdadisi mhojiwa kuhusu utoshelezi, umuhimu, na usasa wa habari ambayo yeye huipata.
- c) Tafadhali tueleze zaidi kuhusu njia tofauti ambazo wewe hutumia kuhifadhi habari baada ya wewe kitumia.

7. Tafadhali kuwa huru kuzungumzia kuhusu kitu chochote kile ambacho ungelipenda nijue kuhusu yale tumeyazungumzia leo. (Mhojiwa apewe muda wa kutoa mapendekezo au mchango zaidi)

Ninakushukuru sana kwa kushiriki katika mazungumzo yetu ya leo. Nimejifunza mengkutoka kwako na nafikiria kwamba utaniruhusu kuzungumza nawe tena badaye.

APPENDIX III

INTERVIEW GUIDE FOR FORMAL HEALTH-CARE PROVIDERS

1) I would like us begin our discussion today by introducing ourselves. I shall first introduce myself and explain the reason for this discussion. My names are Marie Khayesi. I live in Nakuru town and work at Egerton University. I am collecting information by talking to people about how they get information they use for health-care of elderly people in Nakuru District. I would like to get this information from my talk with you today. Please let us continue with the introduction. May I request you to introduce yourself (the respondent introduces herself or himself).

2) I would like us to begin the discussion today with you telling us briefly about the health-care services that this hospital or clinic provides for elderly people.

3).Please, tell me about the kind of information that you need in order to provide services to elderly people in this hospital/clinic.

4) Now, let us talk about where you get the information that you use to help you provide health-care services to the elderly people who visit this hospital or clinic. I would like you to tell me more about the people, places or anything else that you use to get the information you need.

5). Please, tell us the ways in which you use information for health-care of elderly people?

6) I would like you to talk about the things that make it easy for you to get information for health-care of elderly people.

7). I would also like you to talk about things that make it difficult for you to get information for health-care of elderly people.

8) Please, you are free to make any other suggestions about the topic we have discussed today.

I wish to thank you for participating in the discussion for today. I have learnt a lot from you and hope that you will give me a chance to talk with you again on the same topic in future.

APPENDIX IV
INFORMED CONSENT FROM RESPONDENTS

I am Marie Khanyanji Khayesi. I am a student pursuing a postgraduate degree in Library and Information Science at the University of South Africa.

I am doing a research project to investigate how the elderly people and (formal and informal) care-providers access information regarding health-care of the ageing in Nakuru District. You have been selected as a respondent for this study.

The information you provide will be treated as confidential and purely for academic purposes. The names of participants will also remain anonymous.

I will be grateful if you could fill in your particulars in the space provided and sign as consent to participate in the study through a face-to-face interview. Should you have any questions or concerns in participating in this interview, kindly contact the researcher at Telephone number 0722-319195, or P.O. Box 3732, Nakuru.

AUTHORIZATION

Please strike through which is not applicable

I have read the above and understood the nature of the study.

I agree to participate/not participate in the study.

I appreciate your acceptance to participate.

Yours sincerely,

Marie K. Khayesi

Participant:

Names..... Sign.....Date.....

Contact:.....Phone.....

Interviewer:

Name.....Sign.....Date:.....

APPENDIX V
RESEARCH AUTHORIZATION LETTERS



The Ministry of Education Science and Technology (MOEST)
Jogoo House "B"
Harambee Avenue
PO Box 30040-00100
NAIROBI
Kenya

1 February 2008

TO WHOM IT MAY CONCERN

Miss MK Khayesi Student number 3440 727 8 is a bona fide registered student of the University of South Africa, Department of Information Science for the degree DLitt et Phil (Inf Science) (09377).

The approved title for the projected dissertation is:

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Sincerely

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PROMOTER



REPUBLIC OF KENYA



MINISTRY OF SCIENCE AND TECHNOLOGY

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12th March 2008

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University of South Africa
NAIROBI

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You are advised to report to the District Commissioner, Nakuru and the other offices to which this letter has been copied before embarking on your research.

On completion, you are expected to deposit two copies of your research report to this Office.

Yours faithfully

A handwritten signature in black ink, appearing to read 'M.O. Ondieki'.

M.O. ONDIEKI
FOR: PERMANENT SECRETARY

CC

The Permanent Secretary – Ministry of Gender, Sports and Culture

The Provincial Health Officer – Nakuru

The District Commissioner, Nakuru

The Director, HelpAge - International, Nairobi Office

The Director, HelpAge- Kenya

Marie K. Khayesi,
Library Department,
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Email: khayesima@yahoo.com

17th March, 2008

The District Commissioner,
Nakuru District,
P. O. Box 81 – 20100
NAKURU

Dear Sir/Madam,

RE: LETTER FOR RESEARCH

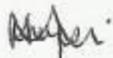
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Marie Khanyanji Khayesi

**OFFICE OF THE PRESIDENT
PROVINCIAL ADMINISTRATION**

Telegrams: DISTRICTER" Nakuru
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When replying please quote



THE DISTRICT COMMISSIONER
P.O. BOX 81
NAKURU

Ref. No.....ED.12/10VOL.....

18th March, 2008
Date.....

The District Officers,

NAKURU MUNICIPALITY
RONGAI
MBOGOINI

RESEARCH AUTHORITY
MARIE KHANYANJI KHAYESI

The above named has been authorized to conduct research on ACCESS AND UTILIZATION OF INFORMATION FOR HEALTHCARE OF HOME-BASED ELDERLY PEOPLE IN NAKURU DISTRICT.

Please accord her the necessary assistance she may require.

A.K. MWILITSA
FOR DISTRICT COMMISSIONER
NAKURU DISTRICT