IDENTIFYING CHALLENGES RELATED TO PROVIDING COMMUNITY-BASED ENVIRONMENTAL HEALTH EDUCATION AND PROMOTION PROGRAMMES

by

JACQUELINE WITTHUHN

submitted in part fulfillment of the requirements of the degree of

MASTER OF EDUCATION

in

ENVIRONMENTAL EDUCATION

at the

University of South Africa

Supervisor: Dr C S le Roux

Co-supervisor: Mr A Swart

June 2001
DECLARATION

Student number: 595-132-1

I declare that Identifying challenges related to providing community-based environmental health education and promotion programmes is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

J. Witthuhn (Mrs)  
Date  
(3-05-2001)
SUMMARY

This research study was initiated by the desire to identify the constraining and enabling factors experienced by environmental health officers (EHOs) and their management in the implementation of environmental health education and promotion programmes in the environmental health sector.

The research contextualises the issues of health promotion, the role of education in health promotion, and community-based environmental health service provision with specific reference to the role of the EHO in relation to these issues.

The foremost value of this study lies in the fact that it profiles the need for change in the delivery of community-based environmental health education and promotion programmes and identifies distinctive policy changes and skills development needs in the field of environmental health promotion which are central to improved and sustainable community-based environmental health education and promotion.

Key terms:

environmental health; health education; health; health promotion; environmental health services; environmental health promotion; community participation; sustainable development; adult education; Ottawa Charter.
ACKNOWLEDGEMENTS

• I wish to express my sincerest love and gratitude to God Almighty, for the strength, health and persistence He gave me to continue with my studies even through difficult circumstances.

• My sincerest thanks and appreciation to Dr. le Roux (my supervisor) for her time, invaluable guidance, support, patience and shared expertise throughout the completion of this dissertation.

• Most grateful thanks to my co-supervisor, André Swart from the Technikon Witwatersrand without whose contributions and continuous support this study would not have been possible.

• I would also like to express my gratitude to Dr. Bornman who also played a valuable role in my first year of studies in completing this qualification.

• I would also like to acknowledge the financial support that I have received from the National Research Foundation for which I am very grateful.

• Grateful thanks are also due to Paul Brits and Jo-anne Collinge, Directors employed by the Gauteng Department of Health, for their financial and moral support.

• To my husband, Otto, without whose support and encouragement to further my studies I would not have completed this degree.

• To my 22-month old daughter, Nicole, who without realising it, contributed by allowing me some time to work and study while she was sleeping or playing.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER 1: INTRODUCTION AND GENERAL ORIENTATION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 BACKGROUND TO THE STUDY</td>
<td>1</td>
</tr>
<tr>
<td>1.2 MOTIVATION AND SUPPORT FOR THE RESEARCH</td>
<td>5</td>
</tr>
<tr>
<td>1.3 PROBLEM FORMULATION</td>
<td>6</td>
</tr>
<tr>
<td>1.4 THE AIMS AND OBJECTIVES OF THE STUDY</td>
<td>7</td>
</tr>
<tr>
<td>1.4.1 The research aims</td>
<td>7</td>
</tr>
<tr>
<td>1.4.2 The research objectives</td>
<td>7</td>
</tr>
<tr>
<td>1.5 CONTRIBUTION OF THE RESEARCH</td>
<td>8</td>
</tr>
<tr>
<td>1.6 EDUCATIONAL RESEARCH METHODOLOGY</td>
<td>9</td>
</tr>
<tr>
<td>1.6.1 The research process</td>
<td>9</td>
</tr>
<tr>
<td>1.6.2 The research approach</td>
<td>10</td>
</tr>
<tr>
<td>1.6.3 Data collection strategies</td>
<td>10</td>
</tr>
<tr>
<td>1.6.3.1 Literature study</td>
<td>10</td>
</tr>
<tr>
<td>1.6.3.2 The focused interview</td>
<td>11</td>
</tr>
<tr>
<td>1.6.3.3 The focus group interview</td>
<td>11</td>
</tr>
<tr>
<td>1.7 DEMARCATION OF THE FIELD OF STUDY</td>
<td>12</td>
</tr>
<tr>
<td>1.7.1 Research field and research population</td>
<td>12</td>
</tr>
<tr>
<td>1.7.2 Duration</td>
<td>12</td>
</tr>
<tr>
<td>1.8 CONCEPT CLARIFICATION</td>
<td>13</td>
</tr>
<tr>
<td>1.8.1 Education</td>
<td>13</td>
</tr>
<tr>
<td>1.8.2 Environment</td>
<td>14</td>
</tr>
<tr>
<td>1.8.3 Health</td>
<td>15</td>
</tr>
<tr>
<td>1.8.4 Environmental health</td>
<td>16</td>
</tr>
<tr>
<td>1.8.5 Health promotion</td>
<td>17</td>
</tr>
<tr>
<td>1.8.6 Health education</td>
<td>18</td>
</tr>
<tr>
<td>1.8.7 Adult education</td>
<td>19</td>
</tr>
<tr>
<td>1.8.8 Community participation</td>
<td>20</td>
</tr>
<tr>
<td>1.8.9 Sustainable development</td>
<td>20</td>
</tr>
</tbody>
</table>
2.4 ENVIRONMENTAL HEALTH – A FRESH FOCUS ON HEALTH PROMOTION ACTIVITIES

2.4.1 A historical perspective of environmental health 44
2.4.2 The international scope and focus of environmental health 46
2.4.3 The scope and status of environmental health in South Africa 47

2.4.3.1 An overview of the changing role of the environmental health officer 49
2.4.3.2 An overview of the changes in the training of the environmental health officer 53

2.5 HEALTH PROMOTION AND COMMUNITY DEVELOPMENT 54

2.6 CONCLUDING REMARKS 56

CHAPTER 3 : THE RESEARCH DESIGN AND APPROACH 58

3.1 INTRODUCTION 58
3.2 THE RESEARCH APPROACH 58
3.3 RESEARCH METHODS 59
3.3.1 The focused interview 60
3.3.2 The focus group interview 61

3.4 THE RESEARCH POPULATION 62

3.5 THE RESEARCH SETTING 65

3.6 DATA COLLECTION PROCESS 67
3.6.1 Data collection during focused interviews 67
3.6.2 Data collection in the focus group interview 68
3.6.3 Data recording strategies 68
3.6.3.1 The interview timetable 71

3.7 DATA ANALYSIS 72

3.8 CONCLUDING COMMENTS 74
CHAPTER 4: SYNTHESIS AND INTERPRETATION OF THE RESEARCH FINDINGS

4.1 INTRODUCTION

4.2 WHAT DO ENVIRONMENTAL HEALTH OFFICERS AND THEIR MANAGEMENT UNDERSTAND BY THE CONCEPT ENVIRONMENTAL HEALTH PROMOTION?

4.2.1 Management's perceptions of the concept environmental health promotion

4.2.2 Environmental health officers' perceptions of the concept environmental health promotion

4.3 WHAT ARE THE ISSUES THAT ENVIRONMENTAL HEALTH OFFICERS AND THEIR MANAGEMENT IDENTIFY AS BEING DEBILITATING IN THE EXECUTION OF ENVIRONMENTAL HEALTH PROMOTION?

4.3.1 Issues identified by management as being debilitating in the implementation of environmental health promotion

4.3.2 Issues identified by environmental health officers as being debilitating in the implementation of environmental health promotion

4.4 WHAT PROMOTING FACTORS (INTERNAL AND EXTERNAL) ARE IN PLACE THAT ASSIST EHOs AND THEIR MANAGEMENT IN PERFORMING THEIR ROLE IN IMPLEMENTING ENVIRONMENTAL HEALTH PROMOTION?

4.4.1 Management's views on supportive factors that assist them in performing their role in environmental health promotion

4.4.2 Views of environmental health officers on supporting factors assisting them in their role in environmental health promotion

4.5 WHAT ACTIONS AND MEASURES DOES MANAGEMENT TAKE TO ENSURE THAT IMPLEMENTATION OF ENVIRONMENTAL HEALTH PROMOTION BY THE ENVIRONMENTAL HEALTH OFFICERS IS PART OF THEIR SCOPE OF PRACTICE?

4.6 CONCLUDING COMMENTS
CHAPTER 5 : SYNOPSIS OF THE RESEARCH, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

5.2 SYNOPSIS OF THE RESEARCH

5.3 GENERAL CONCLUSIONS

5.4 RECOMMENDATIONS TOWARDS IMPROVED AND SUSTAINABLE ENVIRONMENTAL HEALTH EDUCATION AND PROMOTION WITHIN THE ENVIRONMENTAL HEALTH SECTOR

5.5 AREAS REQUIRING FURTHER INVESTIGATION

5.6 CLOSING COMMENT

BIBLIOGRAPHY

ANNEXURE 1 : Regulations defining the scope of practice of environmental health officers

ANNEXURE 2 : Endorsement : Gauteng Health Department

ANNEXURE 3 : Endorsement : National Health Department

ANNEXURE 4 : Ottawa Charter

ANNEXURE 5 : Facsimile confirming interviews
LIST OF ABBREVIATIONS AND ACRONYMS

ABET : Adult Basic Education and Training
CLO: Community Liaison Officer
CCLO: Chief Community Liaison Officer
EHO : Environmental Health Officer
NAMDA : National Medical and Dental Association
NGO : Non – Governmental Organisation
NPPHCN : National Progressive Primary Health Care Network
PHC : Primary Health Care
RDP : Reconstruction and Development Programme
UDF : United Democratic Front
UNCED : United Nations Conference on Environment and Development
WHO : World Health Organisation

LIST OF FIGURES AND TABLES

<table>
<thead>
<tr>
<th>Figure/Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Organogram : Department of Health</td>
<td>2</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Optimal Health</td>
<td>16</td>
</tr>
<tr>
<td>Table 1</td>
<td>Participating service rendering authorities, provinces and settings</td>
<td>64</td>
</tr>
<tr>
<td>Table 2</td>
<td>Interview schedule</td>
<td>71</td>
</tr>
<tr>
<td>Table 3</td>
<td>Framework for data analysis</td>
<td>73</td>
</tr>
<tr>
<td>Table 4</td>
<td>Debilitating factors in the implementation of environmental health education and promotion</td>
<td>84</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION AND GENERAL ORIENTATION

1.1 BACKGROUND TO THE STUDY

Health promotion is presented as an answer to the question “How can Health For All – the 1978 pledge by the World Health Organisation (WHO)\(^1\) to improve global health – be achieved?” In South Africa, as well as internationally, there is a move towards placing increased emphasis on preventing illness and promoting health. Consequently, if the health sector and more specifically the government environmental health sector is to impact positively on health, it needs to become more health promoting. This study entails examining the role of the environmental health officer (EHO) at service rendering level with specific regard to environmental health education and promotion and looking at EHOs and their management’s understanding of the concept environmental health promotion. In addition, the study also explores the challenges experienced by these individuals in the implementation of environmental health education and promotion activities and programmes.

In order to contextualise the study, it is necessary to provide an organogram (see figure 1 on the next page) of the structure of the Department of Health as it was during the time of the study. This organogram has changed during the restructuring process, with effect 1 December 2000, but was relevant and appropriate during the time of the study.

\(^1\) See annexure 4 – Ottawa Charter
EXAMPLES OF LOCAL COUNCILS IN EAST RAND
+ BOKSBURG
+ BENONI
+ KEMPTON PARK / TEMBISA
+ NIGEL
+ HEIDELBERG
+ ALBERTON
+ BRAKPAN
+ Germiston

EHOs and their management involved in this study were functioning at this level, although there are also EHOs functioning at a National, Provincial and Regional level.

*Each province has its own organisational structure
Background information on the researcher role's and functions in the field of environmental health promotion is also provided to further contextualise this study.

After having been in formal education for five years, the researcher entered the employ of the Gauteng Health Department in 1991. It was not until 1996 when the researcher was assigned from the Directorate for Health Promotion and Communication as a Chief Community Liaison Officer (CCLO) at the Gauteng Health Department to act as the provincial coordinator for environmental health promotion and to review issues related to environmental health promotion, that an interest and involvement in environmental health issues and the role of the EHO started to develop.

The scope of duties of the provincial coordinator for environmental health promotion entailed working with the following structures:

- the Directorate for Environmental and Occupational Health and Safety at the Gauteng Health Department
- the Directorate for Health Promotion and Communication which employs Community Liaison Officers (CLO's), Chief Community Liaison Officers (CCLO's) and health promoters working from the five regional health offices
- the service rendering authorities (local councils) in Gauteng

Although one of the main tasks of the provincial coordinator is to ensure that health promoters receive the necessary exposure and training on environmental health issues, the researcher's involvement and interest became increasingly directed towards the EHOs (previously known as Health Inspectors who functioned primarily as law enforcers) and their particular role in environmental health education and promotion activities. Further background information on EHOs is provided in Chapter 2, but it is important for the purpose of this study to understand why the researcher became involved in their profession.
A particular duty of the provincial coordinator for environmental health promotion is to liaise with the various service rendering authorities and EHOs regarding environmental health promotion activities. Due to the changed role of the EHO from that of law-enforcer to that of health educator and health promoter, it is expected of them to be involved in health promotion activities (see Annexure 1). Apart from arranging seminars to raise awareness amongst EHOs regarding their changed role towards specifically promoting health, it became necessary to develop environmental health education and promotion programmes to ensure that EHOs become not only knowledgeable, but also develop and practice skills which underlie health education and promotion. Three such environmental health promotion programmes that were developed subsequent to the researcher's appointment are the Gauteng Pollution Training Programme, the Gauteng Informal Food Trading Training Programme and the Gauteng Integrated School Sanitation Improvement Programme.

The researcher's interest in the role of EHOs in relation to community-based health promotion therefore developed from her close involvement and working relationship with EHOs during the past three years. In addition, as a member of the provincial management team, it is also the researcher's responsibility to evaluate and assess the effectiveness of these programmes and to determine the capabilities of EHOs and support from management for health promotion within the environmental health field.

Over the past few years the role and duties of the EHO have, due to changes in regulations governing the health sector, entered into a new and challenging phase and it has consequently become necessary to review and examine the specific changes in relation to environmental health education and promotion.
1.2 MOTIVATION AND SUPPORT FOR THE RESEARCH

With greater emphasis on preventing illness and promoting health in recent years, an increasing number of organisations and practitioners have been drawn into the field of health promotion, one of them being the EHO within the government environmental health sector. Whilst this has contributed to the introduction of new ideas and innovations, it has also directed attention to, for example, the debilitating and promoting factors in the implementation of environmental health education and promotion. It follows that those debilitating factors hampering the successful implementation of environmental health education and promotion within the Environmental Health Sector should be identified and addressed and that supporting factors be recognised and strengthened.

The Directorate for Health Promotion and Communication and the Directorate for Environmental and Occupational Health and Safety at the Gauteng Health Department have endorsed this research project (see Annexure 2). The Professional Board for Environmental Health Officers also supports and recommends this research which it believes will enable them to make recommendations to the National Health Department who have also indicated their support by endorsing this research (see Annexure 3).

It is intended that the outcome of this research project should benefit the above-mentioned institutions and directorates, and that ultimately the communities themselves towards which the efforts of the EHOs are directed, should derive direct benefit. The main aim of health promotion is to improve the health and well-being of all people living in South Africa through creating a social, political, economic and physical environment in which the making and exercising of healthy lifestyle choices is simplified (South Africa 1997a:10).
In the light of the issues referred to above which will form the basis of this research project, the formulation of a research problem that will direct the research process becomes imperative.

1.3 PROBLEM FORMULATION

This research study was initiated by the desire to examine the role of the EHO at service rendering level and to establish what constitutes the constraining and enabling factors experienced by EHOs and their management in the implementation of environmental health education and promotion initiatives. Formally stated, the question directing the research is the following:

What are the constraining and enabling factors experienced by EHOs and their management in the implementation of environmental health education and promotion initiatives?

The research study aims to provide answers to the following sub-questions inherent to the above problem statement.

- What do EHOs and their management understand by the concept environmental health promotion?
- What are the issues that EHOs and their management identify as hampering them in the execution of their duties in environmental health education and promotion?
- What supporting factors (internal and external) are in place that assist EHOs and their management in environmental health education and promotion?
- How does management ensure that environmental health education and promotion is integral to the EHOs' scope of duties?
In finding answers to these questions, the researcher hopes to fulfil the obligation towards the employer for the financial support provided to investigate the issue of environmental health education and promotion so that possible policy changes can be proposed in an attempt to improve the delivery of environmental health education and promotion activities.

With these encompassing research questions in mind, the following aims and objectives of the study are identified.

1.4 THE AIMS AND OBJECTIVES OF THE STUDY

The encompassing purpose of conducting research is to find answers to questions and in the light of this, the following research aims and objectives are defined.

1.4.1 The research aims

The aim of the research is twofold:

- This research strives to establish what the EHOs and their management understand by the concept environmental health promotion.
- The study aims to identify general trends regarding the constraining and enabling factors influencing the implementation of environmental health education and promotion programmes by EHOs and their management.

1.4.2 The research objectives

The objectives, directly related to the sub-questions outlined in 1.3, which this study hopes to achieve can be stated as follows:
to clarify the theoretical conception of environmental health education and promotion through a literature review

to determine the perceptions that EHOs and their management have of the concept environmental health promotion

to gather data regarding the issues that EHOs and their management identify as being constraining in their delivery of environmental health education and promotion programmes

to assess which support and enabling factors are in place that assist EHOs and their management in performing their role in environmental health education and promotion

to determine the actions taken by management to ensure that environmental health education and promotion is carried out by the EHO

to consolidate research findings, draw conclusions and make recommendations for improving the practice of environmental health education and promotion within the Environmental Health Sector

Keeping these objectives in mind, it is important to reflect on the possible contributions of this study.

1.5 CONTRIBUTION OF THE RESEARCH

From the aims and objective set out above, it is expected that this research study will have an impact on policy development for the environmental health profession within the environmental health field at a national level. It is also envisaged that this research study will contribute towards the improvement in the rendering of environmental health services through the change in focus on the developing roles of EHOs in Gauteng and nationally (Brits 2000)(refer to 1:1.2.).
Because the study is supported and endorsed by the National and Provincial Health Department and the Professional Board for EHOs, the researcher has the necessary backing to ensure that the recommendations regarding the improvement of the implementation of environmental health education and promotion within the Environmental Health Sector that emanate from this study be considered and the necessary steps be taken to address problem areas as identified by the research.

1.6 EDUCATIONAL RESEARCH METHODOLOGY

The purpose of conducting educational research is to address questions or solve problems related to an issue in any of the various domains related to education. This is achieved through the collection and analysis of data for the purpose of description, explanation, generalisation and prediction (Anderson 1999:6).

1.6.1 The research process

Research involves the systematic collection of information to answer particular questions (Hubley 1993:210). The research process followed in this study was guided by the steps suggested by Thompson (1999:7). The purpose of adhering to a systematic process is that the validity and reliability of the research undertaken is enhanced. The steps in the research comprised:

- stating the research problem
- refining the problem statement
- collecting data
- analysing data
- relating information to the original problem
- stating conclusions and making recommendations
1.6.2 The research approach

A qualitative approach was followed by the researcher during this research study. Qualitative research methods allow researchers to gain rich insight into the local situation and people's feelings and attitudes since qualitative research focuses on people's experiences of a given or lived situation. The researcher chose this approach since it provides the opportunity to encourage respondents to express in their own words their perceptions and experiences and they have the freedom to elaborate on their thoughts related to the topic of investigation. The data is considered to be richer than that collected during the use of quantitative research, and although a shortcoming is that generalisations cannot be made for the whole population, it often provides critical insights and understanding about a particular issue (Coulson, Goldstein & Ntuli 1998:36).

The advantage of qualitative methodology in this study is that it was possible to obtain information on how EHOs and their managers think and feel and what their perceptions and experiences are in relation to environmental health education and promotion and related issues in their particular roles as EHOs and environmental health managers.

The data was collected through data collection strategies associated with qualitative research.

1.6.3 Data collection strategies

The data used in the preparation of this dissertation was obtained by utilising a variety of techniques.

1.6.3.1 Literature study

In order to do effective research it is imperative to do a literature study since all research findings through other means need to be authenticated and verified against a valid and
grounded theoretical base. In this study, the literature reviewed consisted of primary and secondary sources.

- Primary sources consulted include policy documents, legislation and regulations, government publications, newsletters, a yearbook and workshop documents.
- Secondary sources that were consulted include a wide range of books, textbooks and bulletins on the topics related to and implied by the research topic.

1.6.3.2 The focused interview

The focused interview was selected as the data collection tool for the managers of EHOs. The distinctive feature of this type of interview is that it focuses on the respondent’s subjective responses to a known situation in which the respondent has been involved and which has been analysed by the interviewer prior to the interview (Merton, Fiske & Kendall 1990:3-4). A total of nine focused interviews was conducted with management representatives from the urban, peri-urban and rural settings for health services delivery.

1.6.3.3 The focus group interview

The focus group interview was selected as a second interview data collection tool. Nine EHOs from the urban, peri-urban and rural settings for health services were selected to participate in the focus group discussion. Focus groups are unique in the sense that they are created to accomplish a specific goal through a defined purpose. The goal is to obtain information of a qualitative nature from a predetermined and limited number of people. Focus groups provide an environment in which disclosures are encouraged and nurtured and have the advantage of flexibility, high face validity, low-cost and speedy results, but it falls to the interviewer to bring focus to those disclosures through open-ended questions within a permissive environment (Krueger 1994:14,37).
1.7 DEMARCATION OF THE FIELD OF STUDY

To ensure that the study could be completed within a reasonable period of time, but at the same time to ensure that the theme was adequately covered, the following demarcations of the study were applied to the study.

1.7.1 Research field and research population

The target group selected for interviews included managers of EHOs as well as EHOs at service rendering authorities representative of urban, peri-urban and rural centres for health service delivery in Gauteng and North West Province.

Due to the fact that this is a dissertation of limited scope, the researcher did not conduct focus group interviews in all nine provinces, but ensured that the focus group and focused interviews in Gauteng were representative of the urban and peri-urban setting. To incorporate the rural setting, the focus group discussion and focused interview included North West Province representatives (EHOs and their management).

1.7.2 Duration

The period of investigation and finalisation of the dissertation took place between April 2000 and June 2001.

The following section deals with concept clarification.
1.8 CONCEPT CLARIFICATION

The following concepts cited in the topic and also those who are directly related to the topic call for clarification.

1.8.1 Education

The Concise Oxford Dictionary (1990:373) refers to the following definitions of the concept education:

... the act or process of educating or being educated ; systematic instruction
...development of character or mental powers

Hawes & Hawes (1982:73) refer to education as:

...any process, formal or informal, that helps develop the potentialities of human beings, including their knowledge, capabilities, behaviour patterns, and values.

...the developmental process provided by a school or other institution that is organized chiefly for instruction and learning.

...the total development acquired by an individual through instruction and learning.

Rowntree (1981:75) focuses on knowledge, skills and attitudes in the following definition of education:

...the process of successful learning of knowledge, skills and attitudes, where what is learned is worthwhile to the learner and usually where it is learned in such a way that the learner can express his own individuality through what he learns and can subsequently apply it, and adapt it flexibly, to situations and problems other than those he considered in learning it.
Looking at the above-mentioned definitions one can also say that education is a life-long development process of acquiring relevant and applicable knowledge, skills, values, attitudes and behaviour through both formal and informal exposure to information, ideas and experiences.

1.8.2 Environment

The Concise Oxford Dictionary (1990:392) refers to the following definitions of the concept environment

...physical surroundings and conditions esp. as affecting people's lives
...conditions or circumstances of living

Gilpen (1996:74) cites the following definitions of environment:

...a concept which includes all aspects of the surroundings of humanity, affecting individuals and social groupings.

...the combination of elements whose complex interrelationships make up the settings, the surroundings and the conditions of life of the individual and society, as they are or as they are felt.

Johnson (1991:87) defines environment as follows:

...surroundings; the physical and biological system supporting life; the place where you live; here and now.

The environment thus includes the built environment, the natural environment, and all natural resources, including air, land and water. It also includes the surroundings of the workplace. Fuggle and Rabie (1998:84) point to the fact that certain definitions of the environment relate to both natural and socio-cultural conditions and to the environment as the entire surroundings of an organism. For man this also implies the totality of his natural and culturally altered living space. Environment should therefore not be defined
narrowly as the physical and biological environment alone and account should be taken of the socio-cultural aspects as well as life-support systems. These sentiments are echoed in the definitions of environment provided in this section.

1.8.3 Health

Health means different things to different people.

Ewles and Simnet (1992:6) refer to the WHO’s definition of health as:

A state of complete physical, mental and social well-being, and not merely the absence of disease and infirmity.

The School Health Education definition as quoted by Butler (1997: 1) defines health as:

...the quality of life involving dynamic interaction and interdependence among the individual’s physical well-being, his mental and emotional reactions and the social complex in which he exists.

Butler (1997:1) also refers to health as:

...a quality of life, involving social, emotional, mental, spiritual and biological fitness on the part of the individual, which results from adaptations to the environment.

From these definitions it becomes evident that the concept health alludes to each of the dimensions of health namely physical, emotional, social, mental and spiritual. These five dimensions are interrelated. Although one or more components may be more prominent in given situations, none should be overlooked. Figure 2 depicts the shared contributions of the five dimensions of health.
1.8.4 Environmental health

The concept of *environmental health* can be clarified by examining the following definitions.

*Environmental health comprises those aspects of human health and disease that are determined by factors in the environment. The World Health Organisation includes in this the study of both the direct pathological effects of chemical physical and some biological agents, as well as the (often indirect) effects on health and well-being of the broad physical and social environment, which includes housing, urban development, land-use and transportation* (Fuggle & Rabie 1998:590).

The working document on the Transformation of Environmental Health Human Resource Development (South Africa 2000b:3) cites Bassett’s definition on *environmental health*: 

**FIGURE 2: OPTIMAL HEALTH**
(Source: Butler 1997:14)
The control of all those factors in man's physical environment which exercise or may exercise a deleterious effect on his physical development, health or survival.

The same document (South Africa 2000b:3) also cites the definition of Mukhola et al. as:

A condition of optimal physical and social wholesomeness of man’s living environment that can have a negative or positive influence on human health.

The National Department of Health (South Africa 2000a:4) defines *environmental health* and the provision of environmental health services as follows:

...a condition of physical and social wholesomeness of all human environments that are influenced by physical, chemical, biological and aesthetic factors in the external environment. The provision of environmental health services operationalises this definition and may be defined as the management of factors known to have an impact on a person's development, well-being, health and survival through interactive and community participation/involvement.

These definitions thus indicate that environmental health services envisage the provision and facilitation of a comprehensive, pro-active and needs related service, through a Primary Health Care (PHC) approach to ensure a safe, healthy and clean environment and to prevent, evaluate and eliminate sources of disease.

**1.8.5 Health Promotion**

The *Ottawa Charter for Health Promotion* (Ottawa Charter:WHO 1986) was developed and adopted in November 1986 by an international conference organised jointly by the WHO, Health and Welfare Canada and the Canadian Public Health Association as a benchmark in health promotion and defines health promotion as follows:

... the process of enabling people to increase control over, and to improve their health.

Butler (1997:157,159) cites a number of definitions of *health promotion* including that of the American Hospital Association. *Health promotion* is described and defined as:

...the process of fostering awareness, influencing attitudes and identifying alternatives so that individuals can make internal choices and change their
...the process of fostering awareness, influencing attitudes and identifying alternatives so that individuals can make internal choices and change their behavior in order to achieve the optimal level of physical and mental health and improve their physical and social environment.

...all the means by which healthy behavior may be encouraged.

...the art and science of helping people change their lifestyles to move toward a state of optimal health.

...the combination of educational and environmental supports for actions and conditions of living conducive to health.

Health promotion is therefore more than information giving and offers great scope for enhancing the quality of life of individuals and communities by empowering them to take control over their own health and lives.

1.8.6 Health education

Health education, similar to the term health, has a plethora of definitions.

Pisharoti (1975:5) refers to the 1954 WHO definition of health education:

...health education, like general education is concerned with changes in knowledge, feelings and behaviour of people. In its most usual form it concentrates on developing such health practices as are believed to bring about the best possible state of well-being.

Butler (1997:17-18) cites the following definitions of health education:

...the process of providing learning experiences for the purpose of influencing knowledge, attitudes, or conduct relating to individual, community, or world health.

...any combination of learning experiences designed to facilitate voluntary adaptations of behavior conducive to health.

...any activity with clear goals planned for the purpose of improved health-related knowledge, attitudes, or behavior.
...that continuum of learning which enables people, as individuals and as members of social structures, to voluntary make decisions, modify behaviors, and change social conditions in ways which are health enhancing.

...the process of developing and providing planned learning experiences in such a way as to supply information, change attitudes, and influence behavior.

The above-mentioned definitions indicate that the purpose of health education is to change the status of knowledge, attitudes and behaviour relating to health. However, one definition addresses the importance of social change which in tum implies a broader role for health education, namely becoming more closely connected to social, political and economic issues that influence human health.

1.8.7 Adult education

Knowles (1990:2) elaborates as follows on adult education:

...the heart of education is learning not teaching, as an individual matures, the need and capacity to be self-directing to utilize life experience in learning, to identify one's own readiness to learn, and to organize learning around life problems increases ...

According to the Department of Education, basic education is interpreted in terms of an open learning approach. The following principles of good educational practice which should inform all initiatives in Adult Basic Education and Training (ABET) are cited and include learner centredness, lifelong learning, flexibility of learning provision, the removal of barriers to access learning, recognition of prior learning and experience, provision of learner support and the maintenance of rigorous quality assurance over the design of learning material and support systems (South Africa 1997b:7).
1.8.8 Community participation

The implementation of environmental health promotion is effected through community participation and it is therefore that this concept is included.

Community participation is described as:

...a social process whereby specific groups with shared needs living in a defined geographic area actively pursue identification of their needs, take decisions and establish mechanisms to meet these needs (Rifkin et al. as cited by Dennill, King, Lock & Swanepoel 1995:57).

In the policy for the development of a District Health System in South Africa (South Africa 1995:70) community participation is defined as:

...a process where people participate individually and collectively as part of their right and duty, in the planning, implementation and control of activities for their health and related social development.

1.8.9 Sustainable development

Many definitions and descriptions have been suggested for this concept. One of the more praxis orientated definitions is found in IUCN/UNEP/WWF (1991:100) which states:

...if an activity is sustainable, for all practical purposes it can continue forever.

Dhillon & Philip (1994:122) refer to sustainable development as:

...a process of change in which the exploitation of resources, the direction of investments, the orientation of technical development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.

The need for sustainable development has been noted in many South African policy directives, including the Constitution (South Africa 1996: iii) and in all of these,
education is seen to be vital to effect change towards more sustainable societies. The underlying purpose of environmental health promotion is that it should be implemented in such a way that it leads to sustained perpetuation.

These concepts outlined above are fundamental to this study.

1.9 CHAPTER DEMARCATION

The development of the study and overview of research data is organised in the following five chapters.

In Chapter 1 the background to the study, the motivation for the research as well as the problem formulation and the aims, objectives and contribution of the study are explained and outlined. The research methodology is briefly explained and important concepts are clarified.

Chapter 2 consists of a literature review relevant to key issues implied by the topic as well as related concepts. The purpose of this chapter is to provide a firm theoretical foundation for the study by clarifying the inherent concepts dealt with in this research project. The history of health promotion, environmental health and the background to the transformation regarding the role of the EHO are addressed.

The research methodology used, the reasons for choosing these methods and the procedures followed throughout the research process are discussed in Chapter 3. Sources of data including literature on the topic that were consulted by the researcher are outlined. Consequently, this chapter provides insight into the details of data collection strategies used for this study.
Chapter 4 focuses on the analysis of the data obtained from the focused interviews, focus group discussions and other data sources. The process of data analysis includes the systematic evaluation and interpretation of interview transcripts, field notes and other materials accumulated to increase the understanding of the research topic and to enable the researcher to present what has become evident during the course of the research.

In Chapter 5 the essence of the entire research study is outlined. The conclusions drawn from the research findings discussed in Chapter 4 and consequent recommendations are stated. In conclusion, the potential of the research recommendations to stimulate further academic discourse and research are alluded to.

1.10 TECHNICAL CONSIDERATIONS

Cognisance should be taken of the following technical arrangements when reading the dissertation.

1.10.1 Cross-references

When reference is made to point 2:3.2 for example, this means that the reader will look at chapter 2 for 3.2 and if the researcher does a cross reference to 5:1.1 it means that the reader will look at chapter 5 for 1.1.

1.10.2 Annexures

The *Ottawa Charter* (WHO 1986) is seen as the foundation document for health promotion and is included as an annexure. Letters from the National and Gauteng Departments of Health which serve as endorsements of this research as well as the scope of practice of EHOs which outlines their duties are attached as annexures.
1.11 CLOSING COMMENTS

This chapter provided an orientation to the researcher’s interest in this specific study and outlined the aims and objectives of the study. The most important concepts in the field of environmental health promotion were also clarified.

In Chapter 2 the identified and other related concepts are discussed in detail to enable the reader to gain a better understanding of these concepts in the broader context of this study. The reader is introduced to health promotion and environmental health issues in South Africa and more importantly to the reasoning behind the changed role of the EHO in relation to environmental health education and promotion.
2.1 INTRODUCTION

Environmental health officers have a crucial role to play in environmental health promotion. To gain a greater understanding of the educative role that they stand to fulfil, it is necessary to contextualise the issues of health promotion and the role of education in health promotion. In addition, by reviewing the issue of community development and the delivery of environmental health services in promoting environmental health within these communities, greater clarity regarding the nature and scope of the EHOs’ duties should be forthcoming.

2.2 HEALTH – A REVIEW OF THE CONCEPT AND INHERENT ISSUES

When thinking about health promotion and more specifically environmental health education and promotion it is useful to start with a discussion of what is being promoted. The concept of health is being promoted and health is arguably the most precious gift that we as humans have.
2.2.1 The meaning of the concept 'health'

Health is defined as a state of physical, mental and social well-being and not merely the absence of disease or infirmity (see 1:1.8.3). Interpreting the concept in this way points towards a holistic understanding of health which regards a person's physical and emotional health as interrelated with the environment in which he or she lives and works. Health is regarded as something positive, an asset, rather than the absence of disease and it can be argued that healthy societies and healthy communities will foster healthy individuals and families and will enable societies and individuals to reach their full human potential (Coulson et al. 1998:1).

Butler (1997:14) views health as a positive five-dimensional entity: physical, emotional, social, mental and spiritual (see 1:1.8.3). He further argues that heredity, environment, health care services and behaviour all affect health. To attain the highest level of health possible each person needs to make decisions resulting in a lifestyle that is conducive to health. This implies the presence of positive attitudes about health and also the knowledge needed to make appropriate decisions regarding health and related issues.

It appears that people's ideas of health and being healthy are influenced for example, by knowledge, experiences, values, expectations and invariably point to any one or a combination of Butler's five-dimensional entities outlined above.

2.2.2 The major determinants of health

Fundamental to the issue of health and health promotion is the identification and acknowledgement of the major causes of disease and ill-health.

The major determinants of health which have been listed are social class, occupation, economic conditions, geographical location and gender and it is pointed out that improvement in health cannot be achieved without improvement of socio-economic conditions (Dhillon & Philip 1994:1; Ewles & Simnet 1994:10). Poverty as the basic
impediment to health, is the cause of poor living conditions and lack of education and information. To prevent disease and to promote health and well-being, structural factors such as the distribution of resources throughout societies must be addressed (Jones & Sidell 1997:276). Consequently it can be deduced that patterns of health and illness around the world are related to the economic and social development of societies.

Of late, poverty is recognised internationally as the major cause for illness and disease in the world in the late twentieth century. This is explained by the fact that in everyday life, poverty has a profound impact on a number of activities generally associated with promoting health. In developing countries where resources are scarce and poverty often endemic, infectious diseases continue to be the major causes of ill-health. Poor environmental conditions, such as the lack of potable water and proper housing, pollution and poverty encourage the spread of diseases, while at the same time reduce resistance to infection and disease. Developing countries also do not have the resources to provide for comprehensive treatment and immunisation programmes which would protect inhabitants from succumbing to disease and ill-health (Coulson et al. 1998:3).

2.3 HEALTH PROMOTION: AN OVERVIEW OF ATTEMPTS TO ENSURE AND PROMOTE HEALTH

Health promotion was conceived in the 1970s, born in the 1980s, and matured in the 1990s. Health promotion built on the work of health education in the 1960s when education was considered the driving force behind social change.

Health promotion offered a radically new concept to the development and enhancement of health (Dennill et al. 1995:78). The key insight that underlies the concept of health promotion, is that improving the health of people requires not only individual behaviour change and curative care, but also social, political and environmental changes that address the underlying causes of ill-health and promote complete individual and
collective well-being. The South African Draft Health Promotion Policy (South Africa 1997a:28) refers to health promotion as the name given to all activities which are intended to prevent disease and ill-health and to increase well-being in the community.

This view of health promotion is further elucidated by Butler (1997:171) who depicts health promotion as rooted in the concepts of holistic health, self-care and disease prevention and elaborates by saying that at its most basic level it attempts to apply creative measures to increase the likelihood that healthy people remain that way. But it also has broader implications. By identifying the behaviour that put people at risk and altering those behaviours, health promotion is applied to the individual in many settings in various ways. Modern health promotion operates in a broader sense utilising community, organisational and employer resources to impact on environmental, economic and political forces that affect individual, family and community well-being.

Health promotion therefore brings together members of a range of professions and disciplines who realise that there need to be major changes not only in the way people live, but also in the conditions in which they live (Macdonald as cited by Dennill et al. 1995:78). In effect, this progressive struggle for health and development has laid a foundation for health promotion practice based on community participation, community consultation and community control (South Africa 1997a:1). It is therefore deduced that health promotion is not only an educational action, but also a social, economic and a political action in support of health and that health promotion should empower people to exercise their rights and responsibilities in shaping environments, systems and policies that are conducive to health and well-being.

2.3.1 Preventative medicine

During the nineteenth century and the early part of the twentieth century the perception that poor housing, inadequate sanitation and unclean water were responsible for ill-health and disease began to be increasingly accepted. The public health movement had some success in ensuring that proper sanitation and food supplements were provided to poorer
communities, but as scientific medicine developed, policy makers began to place more emphasis and value on medicine than on structural and environmental measures to treat and prevent ill-health and disease. Scientific medicine was also less interested in the underlying causes of disease and funding was concentrated on the development of curative therapies and techniques. The public health model became dominated by the medical or curative model with preventative medicine taking a less important position (Coulson et al. 1998:4).

By the 1970s, the effectiveness of the medical or curative model’s therapeutic approach to health care began to be questioned. People increasingly realised that despite staggering increases in health costs, coupled with more sophisticated surgical and therapeutic techniques which could bring relief to individuals, the health of populations did not appear to improve. Around the world, planners and policy makers began to realise that scientific medicine and curative measures alone, whilst extremely effective in treating acute cases of sickness, had in fact very little to do with ensuring health (Coulson et al. 1998:5).

New direction regarding health education and promotion activities was to be sought if the state of the health of communities was to be improved.

2.3.2 Health education

Throughout the twentieth century, the issue of health education or prevention of illness, although not always a high priority for health service planners, gained attention. Health education was almost always carried out within the medical model with prevention of illness and disease (as opposed to promoting health and well-being) being the focus. Health education could consequently be categorised as:

- **Primary prevention**, which focuses on the prevention of disease and infection from occurring at all, and usually has individual behaviour change as its goal. Primary prevention is usually undertaken by providing information and education.
Secondary prevention, which is about minimising the risk to the health of an individual through early diagnosis and treatment in an attempt to reduce and limit the course of an illness and minimise its recurrence.

Tertiary prevention, which is about ensuring that hospitalised or sick patients are treated and kept free from complications as far as possible (Coulson et al. 1998:6).

Currently, health education is perceived to be central to PHC and in turn is the primary means of achieving Health for All. Health education is consequently a vital duty of any health worker, including the EHO.

According to the current trend, the purpose of health education is to assist people in acquiring appropriate behaviour in relation to their health and it can consequently be viewed as the process of influencing behaviour and producing changes in knowledge, attitudes and skills required to improve and maintain health (Dennill et al. 1995:86) (see 1:1.8.6). In this way one of the weaknesses of preventative medicine outlined previously i.e. the lack of interest in addressing the underlying causes of ill health, is counterbalanced.

According to the WHO (1988:x) the major objectives of health education are to enable people to:

- define their own problems and needs
- understand what they can do about these problems with their own resources combined with outside support
- decide on the most appropriate action to promote healthy living and community well-being

Nevertheless, even where health education activities have targeted communities, they have generally remained within the medical or curative model and have been intended to impact on individuals. An important limitation of such health education is that it ignores the economic nature of patterns of health and illness. It also assumes that individuals
have free choice about their health behaviour when in fact individual choices are circumscribed by environmental influences as well as economic interests (Coulson et al. 1998:6). It has also pointed out that knowledge alone will not be the only determining factor in decisions about behaviour (Butler 1997:168).

Consequently, while health education remains an important activity, current thinking globally is to recognise it as being of only limited value in the improvement of the health status of a nation. However, health education remains one of the most important components of health promotion and involves motivation to adapt health-promoting behaviours and helping people to make decisions about their health and acquiring confidence and skills to put their decisions into practice (Hubley 1993:17). Consequently, it is concurred with Butler (1997:16) that health education can and should play an important role in all three levels of disease prevention and in promotion of healthy living and community well-being.

Alternatives to health education *per se* were seen to emerge later during the twentieth century.

### 2.3.3 Primary health care programmes

In 1974, the Canadian Minister of Health, Marc Lalonde, published a report which is recognised by many as marking the beginning of the new public health movement. The report, *A New Perspective on the Health of Canadians*, was responsible for the Canadian government shifting the emphasis of their health policy away from treatment and cure to the prevention of disease. This report was responsible for broadening the understanding of the real focus of prevention activities and identifying four causes of disease and death (Coulson *et al.* 1998:7). These four causes were:

- inadequate health care provision
- lifestyle or behavioural factors
- environmental factors
The emphasis on environmental and lifestyle factors clearly suggested that there was a need for a public health movement which focused on the health of the individual within a community situation (Coulson et al. 1998:7).

2.3.4 International trends in health promotion

The change in the perspective of health care initiatives outlined above heralded a new era in health promotion which the WHO could not ignore.

2.3.4.1 Alma Ata Declaration

The 1978 WHO Declaration known as the Alma Ata Declaration followed the Canadian report (see 2:2.3.3), committing all member countries to the principles of Health For All by the year 2000 – the concept ‘and beyond’ was later added. This Declaration stated that an acceptable level of global health could be attained through a fuller and better use of the world’s resources to accelerate social and economic development (Coulson et al 1998:7; Dhillon & Philip 1994:2).

The Alma Ata Declaration highlighted two key areas. The first point was the need to re-orient health care away from centralised high technology hospitals towards PHC. The Declaration redefined health services to include agriculture, food, industry, education, housing and communications among other services, and regarded these as being essential for the promotion of health. This redefinition of health services highlighted the need and importance of intersectoral collaboration (Coulson et al. 1998:7). Intersectoral cooperation should be encouraged between the health sector and other key development sectors such as education, agriculture, industry etc.
The second key feature dealt with the process of the delivery of service and was responsible for embedding a number of health promotion principles in current thinking. These principles include:

- **Equity** – everyone should have equal opportunities to enjoy health, and therefore certain target groups would need to be prioritised, for example low income families, rural people, women etc.

- **Empowerment and respect** – health promotion activities should be designed to increase and enhance the control that communities have over their own lives and health, and in the process traditional values and beliefs would need to be respected

- **Participation** – communities and individuals should be involved as respected partners in the planning and implementation process of health promotion programmes

- **Intersectoral activity** – multi-disciplinary inter-agency working will be effected wherever relevant and possible

- **Emphasis on primary health care** – it should be a priority to provide appropriate services close to where people live (Coulson et al. 1998:8).

During the mid-1980s the WHO suggested an alternative view of health promotion stating that health promotion represents a mediating strategy between people and their environments, synthesising personal choice and social responsibilities in health (Butler 1997:159).

In 1987, the WHO Working Group on Concepts and Principles of Health Promotion identified four basic characteristics, upon which they believed, health promotion rests. These four principles, although reflecting a somewhat different focus, are embedded in the 1978 *Alma Ata Declaration*. The principles are:

- **enabling** people to take control over their own health as an important component of everyday life

- **requiring** the diverse cooperation of sectors beyond the health sector, reflecting the diversity of conditions that influence health
combining diverse, but complementary methods or approaches, including communication, education, legislation, fiscal measures, organisational changes, community development and local activities against health hazards

encouraging effective and concrete public participation encompassing the development of individual and collective problem-solving and decision-making skills, and involving health professionals in health education and health advocacy

When these characteristics are contemplated, it becomes evident that health promotion is clearly a social, community, governmental and personal endeavor requiring a variety of actions and activities.

2.3.4.2 The Ottawa Charter

The Health For All movement was significant in laying the groundwork for the first international conference on health promotion which took place in Ottawa in 1986. Emanating from this conference was the Ottawa Charter (see Annexure 4). This charter is recognised internationally as the basic framework for planning health promotion activities and is described as the founding document of health promotion (Coulson et al. 1998:9; Dennill et al. 1995:83).

The participants at the Ottawa Conference committed themselves to advocate a clear political commitment to health and equity in all sectors, to respond to the health gap within and between societies and to recognise health and its maintenance as a major social investment and challenge (Dhillon & Philip 1994:5). Three tools are identified as being core to effective and equitable health promotion:

- **Advocacy** – political, economic, social, cultural, environmental, behavioural and biological factors can all either promote or be harmful to health. Health promotion advocacy is about trying to create favourable conditions.

- **Enabling** – in recognition of the inequalities of health, health promotion attempts to enable people to reach and achieve their fullest health potential. People are not able
to do this unless they have control over those things that determine their health and well-being. Health promotion therefore needs to give special attention to those who are least socially and economically powerful.

➤ **Mediation** – health promotion demands co-ordinated action by a wide range of role-players over and above health personnel. These role-players include governments, non-governmental organisations (NGO’s), local authorities, industry and the media. Health promotion is concerned with mediating between different interests in society in pursuit of better health (Coulson et al. 1998:9).

The *Ottawa Charter* prioritises five action areas for health promotion and Coulson *et al.* (1998:10-14) elaborate on these actions as follows:

➤ **Build healthy public policy**

Public policy is of crucial importance if one considers the social and environmental influences it has on health. The *Ottawa Charter* also highlights legislation, fiscal measures, taxation and organisational change as areas on which healthy public policy should be focused. A key aim of promoting healthy public policy is to make healthy choices easy choices for individuals as well as for communities.

➤ **Create supportive environments**

Health promotion is concerned with the quality of life and aims to encourage healthy living and working conditions which are safe, stimulating, satisfying and enjoyable. Health promotion also aims to ensure that natural environments are protected. A balance needs to be found between economic development and conservation of the natural environment.
➢ Strengthen community action

Health promotion believes in working through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them in order to achieve better health. At the heart of this process is community empowerment and giving communities ownership and control of their activities and future i.e. to reach the point where communities will be able to sustain community health.

➢ Develop personal skills

This is the section of health promotion that is consistent with the old health education model. Health promotion supports personal and social development through information, education for health and building life skills. This will increase the options and opportunities available to people in exercising more control over their own health and lives. Information and education on health should be available in schools and in community settings.

➢ Reorient health services

Health services need to move beyond the clinical and curative services that they currently provide to adopt a philosophy and practice that is more health promoting. Action is required with regard to education and training of professionals in order to bring about a change in the attitudes of health professionals and the organisation of health services. These changes need to include an understanding of the social and environmental causes of ill-health.

From the above action areas it becomes clear that health promotion goes beyond the scope of traditional health education and implies a commitment to raising the health status of the community with a clear philosophical basis of self-empowerment.
2.3.4.3 The Jakarta Declaration

The next significant move in health promotion was the *Jakarta Declaration*. Drafted at the Fourth International Conference on Health Promotion held in Jakarta in 1997, it reasserted the importance of the five strategies outlined in the *Ottawa Charter*. This declaration reviewed the impact of health promotion and the following conclusions were drawn:

- approaches to health promotion that are multi-faceted and use a mixture of all five strategies (see 2: 2.3.4.2) are more successful than those which rely and utilise only one strategy
- the settings approach is a practical way to do health promotion
- the participation of people is crucial to effective health promotion
- good participation depends upon access to information and education (Coulson *et al.* 1998:11).

Looking to the future, the Declaration emphasised the importance of co-operation among all sectors of society, including the private sector, to address threats to health.

The Declaration went on to identify five priorities for health promotion in the twenty-first century:

- Promote social responsibility for health. Public and private decision makers are urged to promote policies and practices that encourage social responsibility regarding:
  - not harming the health of other individuals
  - protecting the environment
  - restricting trade in inherently harmful goods and substances
  - safeguarding individuals in the workplace
  - reviewing the likely effect on health as a matter of course when new policies are developed
Increase investments for health development and reorient current investments both within and between countries to ensure a multi-sectoral approach.

Consolidate and expand the number of people working together for health, both between different sectors, as well as at levels of governance and society.

Increase community capacity and empower the individual. Social and cultural resources need to be harnessed to maximise access to the decision making process for marginalised communities.

Secure an infrastructure for health promotion locally, nationally and globally (Coulson et al. 1998:12).

2.3.5 Local trends in health promotion

Since this study aims to appraise the status of environmental health promotion within a South African context, it is necessary to examine health promotion structures, trends and policy within this context.

2.3.5.1 An overview of the history of health promotion in South Africa

The introduction of the modern discipline of health promotion to the health system is fairly new in South Africa. South Africa’s first Public Health Act was introduced in 1919, which *inter alia* established the first Department of Public Health in an attempt to co-ordinate health care more efficiently on a national level. This development took place after the devastating flu epidemic that followed World War I. However, research indicates that by 1942 the general health and health circumstances of people had not improved (Health Systems Trust 1995:5).

The years 1940-1950, heralded an exciting period in health care in South Africa. Attempts were made to redirect health policy entirely (Health Systems Trust 1995:5). In February 1942, during his first term as a Member of Parliament, Dr. Henry Gluckman, introduced a proposal to the South African House of Parliament that a Commission of Enquiry into the country’s health services be appointed. The response was positive and a
National Health Services Commission was appointed with Gluckman as chairperson. The Commission recommended to the Minister that financial provision should be made to establish health centres as the foundation of the national health service. The health centres would aim to provide services comprising the promotion of health and the prevention and treatment of disease and would be located in those areas where populations were most in need of these services (Kark & Kark 1999:79). The Commission's recommendation regarding a separate health ministry was accepted in 1945, and later that year, Gluckman became Minister of Health and Housing. During the short period between 1945 and 1948 when he was Health Minister, 40 health centers were established in different parts of the country (Health Systems Trust 1995:5).

The first such comprehensive health care centre in South Africa was established by Sidney and Emily Kark in 1940 at Pholela in the Natal midlands under the directive of the Union Health Department. Through its multi-disciplinary teams and comprehensive community-based intent, the Pholela health centre sought to prevent and treat illness, to provide health education and to encourage local co-operation and community responsibility for health. The family health programmes were available to all, regardless of place of residence, and included out-patient care and epidemic control. The latter targeted the residents in an ‘intensive area’, with the aim of providing comprehensive care and socio-economic upliftment. Statistics kept by the centre made it possible to document the improvements in the health of the particular population over the first decade. The crude mortality rate decreased from 38.3/1 000 in 1942 to 13.6/1 000 in 1950 and infant mortality dropped from 275/1 000 to 100/1 000. Due to these achievements the health centre was described in the Gluckman Report as the ‘foundation of the National Health Service’ (Health System Trust 1995:11-12).

The next ten years saw the systematic dismantling of the health centre initiatives. The programme was sabotaged by the Nationalist government’s policies of discrimination and by Smuts’ disregard for the key recommendations of the Gluckman Report (Health Systems Trust 1995:12). Unfortunately with the defeat of the Smuts government in 1948, Gluckman’s politically influential ministerial post was terminated and the health centres
which had been developed throughout the country were gradually closed down (Kark & Kark 1999:88). Some of the inspiration and ideas for the subsequent proposals made by the Gluckman Commission came from the Pholela Unit, which integrated the curative-preventative approach and which encouraged the promotion of health. The work of both Gluckman and Kark laid a basis for understanding the role of health promotion in South Africa (Coulson et al. 1998:15).

The health care provided by the apartheid government was racially-based with large well-equipped hospitals emerging in centres such as Pretoria, Stellenbosh and Bellville, while the facilities in ‘homelands’ were under-funded, under-staffed and under-equipped. Since the facilities were based on race, there was often a duplication of facilities within a kilometre of each other - two facilities serving different race groups (Coulson et al. 1998:16).

Towards the end of the apartheid era, the emergence of progressive community-based health organisations in the late 1970s and 1980s was in keeping with a resurgence of community resistance to apartheid that was starting to develop in all sectors of society. In the mid-1980s, an escalation in community resistance led to the collapse of apartheid structures in some areas. Communities wanted to establish structures of people’s power. Health workers spoke openly about community control of health services. A significant contribution of this period to health promotion practice was the focus on the underlying determinants of health (Coulson et al. 1998:16-17).

This period of struggle - also in relation to health services - was mass-based, organised around local demands and supported through strategic alliances. Activists realised the importance of involving the mass of people in the struggle against apartheid. The formation of the United Democratic Front (UDF) in 1983 provided the necessary leadership for the hundreds of local struggles. Today it is possible to look back and see some of the activities of these anti-apartheid health activists as part of health promotion. Many of these people were excellent community organisers and realised the need for communities to be in charge of their own health (Coulson et al. 1998: 17-18).
As the apartheid regime fell into greater crisis at the end of the 1980s, there was a change from oppositional politics towards development. When President FW de Klerk unbanned the liberation movements and embarked on a process to repeal apartheid legislation, his own government was already talking of redirecting the health system towards PHC. In response to the government launching its own PHC philosophy, a group from the National Medical and Dental Association (NAMDA) and the Health Workers Association established the National Progressive Primary Health Care Network (NPPHCN). This network aimed to promote a more far-reaching concept of PHC, which included both preventative and promotive health and a commitment to equity in health (Coulson et al. 1998:19).

In this period, organisations began to turn their attention to developing policies for a new South Africa which was rapidly moving into a period of transition (Coulson et al. 1998:20). Without doubt, health promotion policy would also be affected by this transition.

2.3.5.2 The nature of health promotion policy in South Africa

At the time of the study, the Government health promotion infrastructure consisted of a National Directorate of Health Promotion. This Directorate was organised into two sub-directorates, namely the Public Policy and Health Promotion Settings and the Coordination with Stakeholders and Media Liaison (see figure 1). The provision made for health promotion in the provinces varied considerably, with Gauteng having by far the largest department. Generally health promotion services were and still are found to be weak in the provinces and there are only a few working models of district health promotion practice. A capacity gap with regard to training, research and resources dominates as a primary concern (Health System Trust 1999:300).

A study of organisations within the health field in South Africa in 1992, found that the most common understanding of health promotion was focused on individual behaviour change, through old style didactic teaching. This study did not however address the rich
history of progressive health thinking and practice that runs parallel to the conservatism above and the fact that South Africa had a long history of a commitment to a broader concept of promoting health even before and during the legislated apartheid (see 2: 2.3.5.1).

In a research study conducted by Lazarus (1994:7) to investigate health promotion trends in South Africa two distinct ethoses underpinning health promotion trends were identified, namely the solidarity and the service ethos. Health promotion as defined in the Ottawa Charter is underpinned by a solidarity ethos with its dominant actions being enablement, mediation and advocacy. On the other hand, health promotion trends in South Africa appear to be dominated by a service ethos. As a health promoting service, health promoting actions entail mainly the dissemination of information, education and the prevention and cure of specific health problems. The most commonly used methods of communication in health promotion are lectures, exhibitions, leaflets and posters. Unfortunately, although most organisations recognise the importance of reflecting on their interventions, few organisations actually evaluate their interventions due to a lack of methodologies, resources and time.

When the findings of Lazarus in 1994 and the recently released findings of the South African Health Review in 1999 are compared, it can be concluded that progress towards improving the status of health promotion remains slow. It could be posited that any fundamental change in the practice of health promotion must be, inevitably, accompanied by addressing the power relationship between the health promoter and the community – this in itself is a long and slow process.

Because of the collective nature of its action and the commitment to redress the structural causes of ill-health, the South African approach to health promotion is a more radical approach to health promotion than those of more developed countries. The problem which surfaces currently is that throughout the history of health promotion it has never been understood as health promotion per se and because the words are new and unfamiliar, the concept sounds foreign (Coulson et al. 1998:23).
However, reflecting on this history is important in the current practice of health promotion. The challenge is to understand the course that the history of health promotion has taken, and to take it forward with an understanding that an indigenous form of health promotion to suit the South African situation should be found.

2.3.6 The role of education in health promotion

There has been much debate since the mid-1980s on the use of the terms health promotion and health education. The debate came into focus because the range of activities undertaken in the pursuit of better health widened from traditional health education which was mostly about giving information and aimed towards ensuring individual attitude and behaviour changes, to the broader concept of health promotion which also encompasses the interaction between the social, political, cultural, economical, personal and physical spheres in which people function. Health promotion became widely used as the umbrella term for a range of activities while health education was regarded as an important element in health promotion (Ewles & Simnet 1992:20).

It is useful to describe the role of education in health promotion as one of the five action areas of the Ottawa Charter, namely the development of personal skills (see 2:2.3.4.2). However, the role of education is not exclusively about personal skills development and there is clearly a role for education in policy work or in community action (Coulson et al. 1998:73).

Many people still view health promotion as being equivalent to health education. This is not surprising given that the forerunner of health promotion was indeed health education. People also continue to believe that through education alone illness can be prevented, although it is conceded that a variety of measures are needed to help individuals change their behaviour and sustain that behavioural change to improve and sustain health. A good health promoter needs to determine and take into consideration learners' current level of understanding of the issue at hand and will thus build on the experience of the learners. It has also been found that group learning and participation are essential for
health promotion since health problems are often solved collectively and not individually (see 1: 1.8.7). Therefore, health education and health promotion should move away from the didactic teaching style which distances the learner and the teacher. An approach that supports active learning, critical thinking, reflection and action should be adopted when health education and health promotion initiatives are implemented. Adult education and more specifically environmental health education and promotion face a challenge of adopting a holistic approach to instruction, promoting learner-centredness, empowerment and ownership in adult learners. Environmental health promotion should become an interactive challenge of learning and planning together followed by action to bring about change. The challenge lies in the willingness to do things differently than in the past (South Africa 1997b: 7-8).

In conclusion, it must be emphasised that although many people view health promotion as being equivalent to health education, the terms health education and health promotion are not interchangeable (Dennill et al. 1995:85).

2.4 ENVIRONMENTAL HEALTH – A FRESH FOCUS ON HEALTH EDUCATION AND PROMOTION ACTIVITIES

With increasing awareness of the link between environmental conditions and health and with the worldwide focus on environmental protection and improvement, it is recognised that there are few areas in the health field that provide better opportunities for primary prevention of disease, than in environmental health (see 1:1.9.2). The scope for environmental health departments to provide health education and promotion through service rendering authorities, is very wide. There are a number of health promotion roles to be played and there is a constant escalation in these roles as new threats to the environment emerge. This paradigm shift in the role of environmental health departments and EHOs towards prevention, education and health promotion will be discussed further on.
2.4.1 A historical perspective of environmental health

The issue of environmental health is possibly as old as humankind itself. The earliest recorded public health measures were concerned with environmental issues and matters. Many customs, taboos and religious practices had their roots in observed or presumed interaction between humankind and the environment. For example in Biblical times, God’s laws through Moses contained specific dictates concerning sanitation. The principles of these dictates could also have applications today. This point is supported by Purdom (1980:2) who remarks that the supply of water and the removal of waste have been critical problems for aggregations of people.

When we look back, some of the scourges that ravaged humankind make present day environmental health problems look almost insignificant. After killing some thirteen million people in China and India, the ‘Black Death’ or bubonic plague transmitted by rats to people by fleas descended on Egypt in the 1340s, where 10 000-15 000 deaths occurred daily during the epidemic. As the plague progressed through Europe, at least 100 000 people died in London alone (Purdom 1980:3).

With the advent of the Renaissance and the development of the microscope, it became possible to identify the bacteria that caused communicable diseases and the first depiction of bacteria was by Anthony van Leewenhoek in 1683. When the Industrial Revolution emerged in the mid-1700s new hazards to humans were introduced into the environment and it was at about this time that the First Organisation of Public Resources and Society in the Interest of Public Health began (Purdom 1980:3-4). The Liverpool Sanitary Act of 1846 was the first precautionary measure towards improved environmental hygiene in England. This act also authorised the appointment of an Inspector of Nuisances. The Public Health Act of 1875 consolidated all the public health laws of the time and it was mainly this period that produced the occupation of the health inspector (Oberholster 1987:56-57). The WHO was established in 1948 to oversee and promote international cooperation in the improvement of health (Oberholster 1987:60).
The history and development of environmental health in South Africa can be traced back to 1656 when Jan Van Riebeeck prohibited swimming and the washing of clothes in the Amstel river – the community’s main source of drinking water (Oberholster 1987:64). As time passed the practice of environmental health was to ensure and implement legislative measures to ensure that the health of people was protected. From 1723, decisions geared towards the improvement of the environment in South Africa were made to ensure a healthy living environment. People were appointed to clean the streets and by 1742 it was required that dead animals be buried by their owners. In 1836 ward masters in local authorities were made responsible for monitoring water supply, drainage systems and markets for selling meat, fish, fruits and vegetables. During 1840 six street keepers were appointed in Cape Town to address nuisances. Kimberley appointed its first sanitary inspectors in 1883 and four years later Cape Town appointed its first four health inspectors (Oberholster 1987:70). Thereafter other emerging local councils followed in the appointing of sanitary inspectors (South Africa 2000a:4).

The influenza epidemic of 1918 led to the promulgation of the Public Health Act No36 of 1919 (see 2: 2.3.5.1). The purpose of the Public Health Act was to ensure that infectious diseases were controlled and environmental sanitation measures imposed on local authorities. The Department of Public Health was established as the central health authority. This Act also provided for the appointment of health inspectors and their scope of work was expanded to include the monitoring of epidemic diseases, licensing of premises, labelling of foods, monitoring of noise pollution and microbiological aspects of the environment (Oberholster 1987:73 ; South Africa 2000a:4-5).

Having dealt briefly with the history of environmental health, it is now necessary to consider the scope and focus of environmental health internationally.
2.4.2 The international scope and focus of environmental health

Bassett (1992:xxi) elaborates on the objectives and functions of an environmental health organisation by saying that it should focus on the prevention, detection and control of environmental hazards which affect human health. He includes the following functions:

- waste management
- food control
- housing
- epidemiological control
- air quality management
- occupational health and safety
- water resources management
- noise control
- protection of the recreational environment
- radiation health
- control of frontiers, air and sea ports and border crossings
- educational activities
- promotion and enforcement of environmental health quality standards
- collaborative efforts to study the effects of environmental hazards
- environmental impact assessments

Environmental health standards are currently believed to be high on the political agendas of most of the developed countries as public concern over environmental issues increases. International problems of acid rain, the greenhouse effect and the depletion of the ozone layer, as well as national concerns regarding medical waste disposal, radioactive and toxic waste management, transportation accidents, health aspects of urbanisation and traffic, occupational health and safety, air and water pollution, as well as local concerns over water quality, clean air, solid waste management and finding a balance between the economic incentives of development and a quality life are highlighted by the WHO
Environmental Health Division. This broad range of concerns does not only apply to industrialised countries, but also to most developing countries (Bassett 1992: xxi-xxii).

Environmental health is thus a global problem and though each country has its own profile of environmental health problems and needs and although some countries have stronger scientific, technical, economics and social resources to apply to the problems, no country has the situation under control. In every country man-made environmental problems are being generated faster than they can be prevented or solved. The environmental health capacity in every country is inadequate to meet human needs, even as the problems change – becoming more complex and urgent (Bassett 1992: xxii).

2.4.3 The scope and status of environmental health in South Africa

The vision of environmental health education and promotion initiatives, is a sustainable, healthy and safe environment for every person to live, work and recreate in South Africa. The mission for Environmental Health Services is to provide caring, efficient leadership, guidance, support and service in environmental health through interaction with other stakeholders within the PHC approach (South Africa 2000b:4-5).

Currently Government Environmental Health Services are rendered through a three-tiered system. At the national level the Directorate for Environmental Health is located within the Chief Directorate of Environmental and Occupational Health. Institutional arrangements for EHOs at the provincial and local levels are varied, but are traditionally aligned with health departments (Health Systems Trust 1999:286). The current distribution of EHOs in South Africa indicates the number of existing EHOs in the nine provinces as 1982 with a shortfall of 2076 EHOs. This shortfall is calculated by comparing actual with proposed EHO to population served ratios. The EHO : population ratio is indicated as 1: 20 473. The WHO recommends a ratio of 1:10 000. Currently in South Africa we have on average a ratio of 1:20 000 (South Africa 2000a:12). There is also evidence that the available EHOs are inequitably distributed in relation to the prevailing environmental challenges (Health Systems Trust 1999:283). While almost
50% of the population live in rural areas more than 75% of EHOs work in urban areas (Health Systems Trust 1999:283; South Africa 2000b:12). The number of EHOs and the ratio EHO: population varies from province to province ranging between 365 (1:10841) in Western Cape, 330 (1:25 506) in KwaZulu-Natal, 127 (1:20 736) in the Free State, 176 (1:28 008) in Northern Province, 228 (1:27 643) in the Eastern Cape, 443 (1:16 588) in Gauteng Province, 139 (1:20 149) in Mpumalanga, 114 (1:29 424) in the North West Province and 60 (1:13 902) in the Northern Cape (South Africa 2000a:12).

With their training related to environmental health aspects of a broad cross-section of development sectors, a focus on intersectoral liaison as well as community participation and health promotion, EHOs are well placed to meaningfully participate in the new approaches to environmental health management (Health Systems Trust 1999:283).

In the light of the recent paradigm shifts and emerging environmental health methodologies, there is a need to build capacity in environmental health and to place new emphases on the principles and processes of environment and health in sustainable development, environmental health promotion, community participation and development. The need for change has been recognised and in the context of South Africa, environmental health paradigms and strategies need to take account of the overarching roles of poverty and inequity on the state of the environment and health (Health Systems Trust 1999:288).

The National Department of Health (South Africa 2000b:5-6) reports that causes of poor environmental health and the most important factors in the environment which contribute to disease, disability and death in South Africa include:

- poor sanitation
- lack of hygiene education
- poor supply of water
- poor water quality
- smoke pollution within people's homes
The problem of poor environmental health in South Africa is extensive, combining the worst of industrial and poor rural societies. As with most developing countries, the most pressing problems are waterborne diseases, such as diarrhoea. Acute respiratory infections are the second biggest killer of children who are not yet five years old. Most of the severe air pollution occurs in homes where families use wood or coal for fuel. Due to poor ventilation smoke and small particles are readily breathed in. This occurs primarily in rural areas (South Africa 2000b:5-6). However, poverty and all the associated factors, such as limited access to energy, overcrowding and inadequate sanitation, is a key cause of poor environmental health, high infant mortality and poor quality of life.

2.4.3.1 An overview of the changing role of the environmental health officer

Within South Africa, past approaches to environmental health related in practice mainly to inspections, monitoring and control in order to ensure that legal and other specifications were met, often in response to public complaints. In the context of the scale and spectrum of environmental health problems and concerns facing South Africa today, this approach is reactive, labour-intensive and costly. Emerging legislation (discussed below) implies a shift from reactive approaches towards comprehensive, integrated and preventative management of the environment for health (Health Systems Trust 1999:282).

The birth of PHC in 1978 and the democratisation of South Africa in 1994 meant that institutions of learning had to incorporate the principles of PHC, namely equitable
service, team work, community participation and involvement, participatory approach and joint planning and implementation (South Africa 2000b:9).

The PHC strategy also requires of programmes to engage in joint planning and implementation, and that projects and programmes have to involve affected communities for them to be sustainable. Prevention and promotion became the driving forces in PHC and programmes, including the transformation of environmental health services to accommodate the new thinking (South Africa 2000b:7).

In June 1992, The United Nations convened a Conference on Environment and Development (UNCED) in Rio De Janeiro, Brazil. Arising from that was the document popularly known as Agenda 21 – one of the five documents produced as an action plan for sustainable development. The WHO Global Strategy for Health and Development considers Agenda 21 the basis for countries to devise and change their activities impacting on the environment. The link between development, environment and health were brought to the attention and human beings were identified to be the centre of concerns for sustainable development. After 1994 South Africa adopted the Constitution which formed the basis of many policy documents. In the Constitution the Bill of Rights (Section 24 on the Environment) enshrines each citizens’ right to a healthy environment and to the right that the environment be protected for the present and future generations (South Africa 1996:8). This implies that all developments have to be sustainable (South Africa 2000b:7). The Reconstruction and Development Programme (RDP)(ANC 1994:39) emphasises the rebuilding of society with consideration for the environment. One of the fundamental aims of the RDP is to address the imbalances of the past. Consequently it advocates integrated development and sectoral collaboration – thereby implying a shift in thinking and action.

The Department of Health produced a White Paper on the Transformation of the National Health System in 1997. This paper clearly advocated for a PHC approach through the District Health System, which emphasised community participation, intersectoral
collaboration and education and awareness creation (South Africa 1997c:36,178) - objectives that are clearly in line with the Constitution and the RDP.

EHOs practicing in South Africa have been trained to apply and enforce current legislation and standards. The development of the EHO was mainly aimed at producing a technically competent practitioner who is able to identify, advise and apply required legislation. This approach unfortunately favoured the fairly developed areas, which in South Africa are mainly urban. There was no conscious effort to improve environmental conditions in the rural and underdeveloped areas (South Africa 2000b:8,9).

Progressively from 1990, other aspects such as management, research, community development, promotion and prevention were added to the discipline, but the lack of response by institutions to organise appropriate retraining courses further disadvantaged the practitioners. The Department of Health realises that the problem does not lie with individual EHOs but with their training and therefore for the shift in paradigm to occur in institutions of higher learning.

A few significant roleplayers in the environmental health field also emphasised the importance and need for a paradigm shift towards prevention, education and promotion and are discussed below. Van Rooyen (1992:3) emphasises the fact that EHOs' highest priority must be education and that they are in most respects community development officers. He also remarks that the necessary skills are not always employed to make the concept of community-based environmental health viable. As the National Director of Environmental Health at the time he urged the EHOs to ask themselves if they considered themselves to be inspectors or whether they regarded themselves as educators, community developers and facilitators of community action. He stressed the point that EHOs urgently need to change their priorities.

Von Schirnding (1996:5), a Director for Environmental Health in Johannesburg (one of the service rendering authorities in the Central Wits Region), during a workshop discussed the EHOs role of inspection versus the role of education and community
development and concluded that it was obvious that education and community upliftment were the most important roles that EHOs are required to fulfil. She further commented that these new roles relate more to the new environmental agenda and the solving of new and emerging environmental problems. EHOs were consequently challenged to make themselves more visible in communities and to see themselves as agents of change. This observation links to the following quote by Swart (2000), the co-chairperson of the Professional Board for Environmental Health:

...important measures to increase awareness of environmental determinants will have to be increased, such as ...health education, health protection and promotion.

From a document compiled by the Environmental Health Task Team on the Restructuring of the Environmental Health Service of Gauteng (Brits, Coulson, Hamilton, Mahlangu & Von Schirnding 1994:13), it became clear from a survey that was conducted with local councils that public education was placed as the highest priority in addressing environmental health problems. Likewise Ewles and Simnet (1992:55) highlight the importance of the role of the EHO in health promotion and further suggest that the scope for health promotion by the service rendering authorities environmental health departments is very wide and are constantly growing along with new threats to the environment.

The National Department of Health (South Africa 2000a:4) included environmental health education and promotion as one of the ten core functions of the EHO. Other functions include risk management, environmental impact assessment, public or community involvement, data and information management, sectoral collaboration, resource mobilisation, planning and development, policy development and research and documentation. Most of these other functions and roles can also be viewed as health promotion activities. Health promotion should therefore be a support activity for all these functions and roles.
years. These changes were followed by changes in the training curriculum of environmental health officers.

2.4.3.2 An overview of the changes in the training of the environmental health officer

The change in the training programme for environmental health officers is parallel to the environmental changes in communities. The change also appears to relate to the changed perception of how environmental health problems could best be addressed. Furthermore, these changes in training link directly to the emerging perception of the role and duties of EHOs.

The training and development of health inspectors, now called EHOs (since 1992), was based on the British qualification of the Royal Sanitary Institute. Full time training of health inspectors in South Africa commenced in 1955 at the Worcester Technical College. The duration of the course was one year theoretical and three months practical training. Hereafter a course in the inspection of meat could be attended for a period of 40 working days. It was only after the establishment of the Republic of South Africa that the Department of Education, Arts and Science took responsibility for the examination of the Joint Board and the Royal Society of Health in 1964. During 1964 a new training programme was introduced. This programme consisted of full time training for two years at a technical college followed by practical training for three months. On completion the qualification, a National Diploma for Health Inspectors was issued by the Department of Education (Oberholster 1987:7). The training was primarily geared towards producing technically sound practitioners able to relate environmental hazards to health outcomes and able to apply appropriate remedial and preventative measures (South Africa 2000b:5).

The Environmental Health profession is registered under the Health Professions Act, 1974 (Act 56 of 1974) with the Health Profession Council of South Africa – the former Medical and Dental Council of South Africa. Under this Act, training in environmental
The Environmental Health profession is registered under the Health Professions Act, 1974 (Act 56 of 1974) with the Health Profession Council of South Africa – the former Medical and Dental Council of South Africa. Under this Act, training in environmental health is controlled by the Professional Board for Environmental Health (Health Systems Trust 1999:283).

The current three-year National Diploma in Environmental Health preceded by the National Diploma in Public Health has been offered since 1995 at all Technikons. For the purpose of this study it is important to mention that health education as a subject was only included in the third year of studies. This arrangement was only changed in 1995, when health education and promotion principles were included in the second year of studies in Community Development 11, a course much needed to contribute to the upliftment of disadvantaged communities (Technikon Witwatersrand 1994:1).

2.5 HEALTH PROMOTION AND COMMUNITY DEVELOPMENT

The Ottawa Charter identifies the strengthening of community action as one of the five key areas of health promotion. The Ottawa Charter builds on this and identifies community empowerment and community participation as basic principles in the promotion of health. There is clearly a link between community development and health promotion.

Jones and Sidell (1997:1) confirm this by stating that community participation has always been a central tenet of the WHO strategy and that the Alma Ata Declaration explicitly states that people have a right and duty to participate individually and collectively in the planning and implementation of their own health care. Community development involves local empowerment through organised groups of people acting collectively to control decisions, projects, programmes and policies that affect them as a community (Turton 1996 cited by Coulson et al. 1998:133).
Community development...

- addresses both concrete and abstract human needs
- is a learning process
- is a collective action
- is need orientated
- is objective orientated
- is action at grassroots level
- leads to community building
- creates awareness
- leads to further development

Community development is a process where the community ...

- identifies its needs or objectives
- ranks these needs or objectives
- develops the confidence and will to work at these needs or objectives
- finds the resources to deal with these needs or objectives
- takes action in respect to them
- extends and develops co-operative and collaborative attitudes and practices in the community (Coulson et al. 1998:134).

It can consequently be deduced that community participation and community action are seen as the basic building blocks of community development and that community development is not only about physical change and improvement at local level, but also about the emotional and social well-being of the community. Communities need to be in control of their own lives and they must feel that they can participate in decisions which affect their well-being (Coulson et al. 1998:134).

Hubley (1993:115) draws our attention to the fact that community participation requires that the emphasis be shifted from the individual to the community since many influences
on behaviour are at a community level and are not under the control of the individual. Jones and Sidell (1997:48) refer to the WHO statement of 1983 and point out that community participation is an essential way of unlocking valuable knowledge and shifting the emphasis from health education to community involvement.

2.6 CONCLUDING REMARKS

Health promotion offers a sound strategy for protecting and improving public health. The challenge especially for the EHO is to identify and implement strategies that are effective in creating supportive environments and to develop new strategies addressing the environmental health needs of the community.

Beyond educating individuals about their health, EHOs as professionals must also educate the media, elected officials and community leaders using health advocacy aimed at promoting appropriate public policy and healthy environments.

Although the concept ‘sustainability’ was clarified in Chapter 1, and only mentioned in Chapter 2, the EHOs have an important role to play in educating for sustainability by developing the communities’ awareness, competence, attitudes and values to enable them to be effectively involved in sustainable development at local level in helping them to work towards a more equitable and sustainable future.

The EHO can, through innovative and relevant environmental health education and promotion activities and projects, contribute meaningfully at all levels to make people appreciate the need for sustainability. The first step towards a more sustainable world is by adopting a more people-orientated and empowerment approach to education and health promotion initiatives.
In Chapter 3 the research design, including the methods that were used to gather data, the data collection tools, the research population and the research setting receive attention.
CHAPTER 3

THE RESEARCH DESIGN AND APPROACH

3.1 INTRODUCTION

Research design entails the planning of scientific inquiry, the common sense and the clear thinking necessary for the management of the entire research endeavour. It is a matter of thinking, imagining and thinking some more and addresses the designing of a strategy for finding out something. In this process it is necessary to determine what is going to be observed and analysed – why and how (Babbie 1995:83; Leedy 1997:93).

In this chapter, the planning aspect of the research process is dealt with. It commences with a description of the research approach and methods used while the rest of the chapter describes the research population, the research setting and the data collection tools used.

3.2 THE RESEARCH APPROACH

In view of the nature of the research, it was decided that a qualitative approach would be most appropriate. One of the reasons for this choice was that a qualitative approach tends to give rich insights into situations and people’s perceptions and experiences of these situations. Qualitative research has been described as an approach that concentrates on
words and observations to express reality and attempts to describe people in natural or lived situations (Krueger 1994:27) – issues which are crucial to this study. Qualitative research is holistic by nature and combines information and interaction with participants (Leedy 1997:106).

Within the qualitative approach the researcher choose to make use of the focused interview as well as the focus group interview as research methods for collecting the required data.

3.3 RESEARCH METHODS

In the process of collecting data, it is important to select methods that are reliable, valid and suited to the purpose and which will lead to research of a high quality.

Characteristics of qualitative research methods is the asking of open-ended questions which allow respondents to respond to questions in their own words. Respondents are encouraged to elaborate and express their personal views on the subject (Hubley 1993:215). The value of open-ended questions is that they help the researcher to discover the respondent’s priorities, frame of reference and perceptions. Open questions also give recognition to the respondent and satisfy a communication need by allowing the individual to talk through his/her ideas or understanding of the issue at hand. Open-ended questions tend to be easier to answer and pose little threat since there are no right or wrong answers. Furthermore, such questions tend to reveal the depth of a person’s knowledge and understanding of the issue at hand (Anderson 1999:184).

The selection of methods for this study fell on the focused interview and the focus group interview.
3.3.1 The focused interview

Focused interviews involve personal interaction between the interviewer and the interviewee. The focused interview is a dynamic process where the interviewer asks questions which are generally prepared according to a guide or protocol (Anderson 1999:167).

The focused interview has several advantages. This method generally produces a high response rate. People like to talk about themselves and feel flattered when they are selected to answer important questions. These interviews can be designed to be highly flexible and are the best method of dealing with open-ended questions (Gilmore & Campbell cited in Butler 1997:269). Anderson (1999:168) draws attention to the fact that focused interviews allow for in-dept analysis and a 100% response rate as well as good validity for the sample interviewed.

However, a focused interview also has major drawbacks. It can be costly due to expenses in training the interviewers and technical support staff, travel expenses incurred either by the researcher or the interviewee and the cost of time required for interviewing. Another drawback of this type of data collection tool is that the questions that may be threatening to the interviewee are difficult to ask face-to-face and participants are sometimes tempted to give a socially desirable answer in preference to an honest one (Butler 1997:269). Other disadvantages include the fact that focused interviews require extensive question and logistics planning and consequently require that a skilled facilitator be involved in the interview process (Anderson 1999:168). Despite these shortcomings, the focused interview produces representative results. Of the survey methods available, it is accepted that the data obtained are detailed and reliable (Butler 1997:269).
3.3.2 The focus group interview

The focus group interview may be described as an interview style designed for small groups. Berg (1995:86) describes focus group interviews as either guided or unguided discussions addressing a particular topic of interest or relevance to a group and the researcher.

The focus group interview is an innovative strategy for gathering sometimes difficult-to-obtain information. Although it is newly reborn in the social sciences, it promises to become an integral data-collection strategy among qualitative researchers and is said to operate well either as a stand-alone means for data collection, or as an additional line of action (Berg 1995:82).

Focus groups typically are used in an exploratory manner to generate hypotheses, uncover attitudes and opinions and to test new ideas (Butler 1997:269). The most distinguishing characteristic of the focus group interview is that the persons interviewed are known to have been involved in a particular situation (Merton et al. 1990:3).

The focus group generally ranges from six to twelve participants who are homogeneous on relevant characteristics and selected due to their representativeness of a larger group. Enough people are needed to achieve synergy and facilitate group dynamics, but not so many as to prevent everyone from having a say. For focus groups to be effective, the focus group procedure requires a facilitator, skilled at leading groups, having sufficient group dynamic skills and techniques to be able to exercise control over the group, yet doing so unobtrusively. A skilled facilitator will be able to draw out silent individuals and control those who dominate the conversation and will also be able to keep the flow directional, animated and relevant. A facilitator has to be a good listener and know how to empathise. The facilitator's task is to draw information from the participants regarding the topics of importance to a given research investigation (Anderson 1999:203-204; Berg 1995:68; Butler 1997:269).
If focus groups are administered properly, they can be extremely dynamic, producing a far larger number of ideas, issues, topics and even solutions to a problem than through individual interviews (Berg 1995:69). Other perceived advantages include them being relatively low-cost, not time consuming, easy to arrange, promoting a release of inhibitions and a great deal of spontaneity as well as interaction between participants (Berg 1995:72; Butler 1997:270; Merton et al. 1990:141). These advantages lead one to believe that the quality and range of responses could be heightened through collecting data during focus group interviews.

The following disadvantages of focus group interviews were highlighted by various authors: less moderator control, difficulty in analysing data, requiring a skilled group facilitator, difficult to assemble, not truly natural conversations, limited by the fact that most of the behaviour is verbal, problems of controversies and irrelevancy, the group could have an inhibiting effect on individuals who feel awkward or ill at ease when called upon to express an opinion in front of others (Anderson 1999:168; Berg 1995:74; Merton et al. 1990:147).

Despite these disadvantages, the focus group interview elicits a unique type of in-depth qualitative data which could not be obtained as efficiently in other ways (Anderson 1999:200).

3.4 THE RESEARCH POPULATION

The decision of whom to involve must be related to the purpose of the study (Krueger 1994:47). In order to identify the constraining and enabling factors in the implementation of environmental health promotion by EHOs, it is necessary to involve both the EHO on ground level as well as the management structures as participants in the process of collecting data.
The participants from Gauteng were randomly selected by drawing numbers representing the service rendering authorities as basis of the research population (see Table 1). It was not feasible to include all nine provinces in South Africa since this research study involves a dissertation of limited scope. To ensure that the target population was representative of the demographic areas of the country and consequently to enable the National Department of Health to consider and implement the outcomes and recommendations of this study on a national basis, the researcher ensured that the target population was representative of the urban, peri-urban and rural areas. Since Gauteng Province does not have rural areas, participants from rural areas in North West Province were asked to participate due to locality.

The following table depicts those participating service rendering authorities, the province and the setting they represent.
<table>
<thead>
<tr>
<th>SERVICE RENDERING AUTHORITY</th>
<th>PROVINCE</th>
<th>SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Metropolitan Local Council (Roodepoort)</td>
<td>Gauteng</td>
<td>Urban</td>
</tr>
<tr>
<td>Northern Metropolitan Local Council (Randburg)</td>
<td>Gauteng</td>
<td>Urban</td>
</tr>
<tr>
<td>Midrand Local Council</td>
<td>Gauteng</td>
<td>Urban</td>
</tr>
<tr>
<td>Kempton/ Tembisa Local Council</td>
<td>Gauteng</td>
<td>Urban</td>
</tr>
<tr>
<td>Krugersdorp Local Council</td>
<td>Gauteng</td>
<td>Urban</td>
</tr>
<tr>
<td>Nigel Local Council</td>
<td>Gauteng</td>
<td>Urban</td>
</tr>
<tr>
<td>Germiston Local Council</td>
<td>Gauteng</td>
<td>Urban</td>
</tr>
<tr>
<td>Western Gauteng Services Council</td>
<td>Gauteng</td>
<td>Peri-urban</td>
</tr>
<tr>
<td>Saulspoort/ Mafikeng</td>
<td>North West Province</td>
<td>Rural</td>
</tr>
</tbody>
</table>

**TABLE 1**

Participating authorities, provinces and settings
3.5 THE RESEARCH SETTING

It was important for the researcher to consider location or setting when planning focused and focus group interviews, since location factors influence the dynamics of interaction and discussion.

Managers of EHOs that were randomly selected to participate in the focused interviews were telephonically informed and were asked if they would be willing to participate in the study. The purpose and nature of the study was explained and the details of the date, venue and time of the interview were discussed. The managers were also asked to nominate an EHO who is actively involved in environmental health education and promotion activities and programmes to attend the focus group discussion with other selected EHOs. The telephonic arrangements were followed by a facsimile confirming all the details for the focused interview and the focus group interview (see Annexure 5).

Each focused interview was conducted at the office of the particular participating service rendering authority hereby ensuring that the interviewee was at ease in his/her own familiar environment. The interviews were conducted in either Afrikaans or English as preferred by the interviewee to ensure maximum participation and information transfer.

The focus group interview was conducted at a central venue, namely Technikon Witwatersrand in Johannesburg. This venue was selected because all the participants are familiar with the setting. The room where the group discussion took place was private and free from outside distractions. To ensure eye contact between the participants the chairs and tables were arranged in a circle.

One EHO representing each of the nine participating service rendering authorities was invited to attend. Only five participants attended the focus group discussion, but fortunately they were representative of the urban, peri-urban and rural settings.
Participants were asked whether they would consent to having their contributions in the interviews tape recorded as part of the qualitative study. The participants were unanimous in granting permission since they were assured of confidentiality.

It was decided to ask two co-facilitators to assist the researcher during the focus group interview. It was their responsibility to take notes and also to ensure that all the important issues were covered. This was done by using the interview checklist (see 3:3.6.3). Co-facilitators free the interviewer so that he/she is able to focus entirely on the interview process. The assistant is instrumental in overcoming logistical difficulties and is occupied with taking notes and sharing the analysis phase (Anderson 1999:204).

At the beginning of the group discussion the purpose and importance of the study was stressed as was the important role that the participants could fulfil with their specific and invaluable experiences and insights into the research topic. Assurances regarding anonymity were made during the introduction session. The duration of the interview was also discussed and participants were provided with an overview of the major topics that were to be discussed. These aspects are very important in setting the tone of the interview and establishing a rapport with the respondents. At the conclusion of the interview respondents were again thanked for their participation and contributions and were left with a sense of accomplishment. Arrangements for sharing the research results once the study was completed were discussed. A light lunch was provided as the participants came from as far a field as Mafikeng in North West Province.
The data collection process involved conducting nine focused interviews with managers of EHOs and one focus group interview with EHOs representing the urban, peri-urban and rural setting.

Two data collection tools (inquiry protocols) were used by the researcher during the interviews with EHOs and their management. The question for the focus group as well as the questions for the focused interviews was piloted by the researcher beforehand (with an EHO and a manager that were not part of the selected group). This was done to ensure that the selected question was appropriate for the specific target audience.

3.6.1 Data collection during the focused interviews

The research objectives (see I:1.4.2) were translated into pertinent questions that reflected what the researcher was trying to establish in order to achieve the research aims of this project. The following questions were asked during the focused interviews with managers of EHOs:

- How long have you been involved in environmental health and how long have you been a manager in this local council? (introduction question)
- What does health promotion (and more specifically environmental health promotion) mean to you?
- What do you as a manager regard as constraining or debilitating factors in the implementation of environmental health education and promotion?
- What do you as a manager regard as enabling or supportive factors in the implementation of environmental health education and promotion?
- What type of actions and measures do you as a manager take to ensure that environmental health education and promotion is addressed as part of the EHOs' scope of practice?
3.6.2 Data collection in the focus group interview

One of the most difficult tasks with focus group interviews is constructing the question or questions. The quality of the responses is directly related to the quality of the questions. Focus group questions are always open-ended and require forethought and planning (Anderson 1999:202; Krueger 1994:62).

Although only one broad open-ended question was used to obtain the information required, it was possible for the facilitator to probe for more information as required. The discussion was guided by the interview question stated below which was carefully thought through and carefully considered and tested beforehand. The researcher and the two co-facilitators used the interview checklist (see 3:3.6.3) to ensure that all the important aspects inherent to the question were covered. For example, respondents’ views regarding what is meant by environmental health promotion and what factors they experience or perceive to be constraining or enabling in the implementation of environmental health promotion initiatives were included in the checklist.

The following question was posed to participants in the focus group interview:

Tell me what you understand by health promotion, and more specifically environmental health promotion and how you implement environmental health promotion in your area.

3.6.3 Data recording strategies

Two methods of recording data were used by the researcher. The methods included audiotaping and taking down of unstructured notes. The benefit of audiotaping is that the interviewer’s interpretation of the interviewee’s answers is open to independent scrutiny because the primary material is available for study by others. It also means that it is possible to make a full transcript of the interview that it is accessible to independent analysis at a later stage (Polgar & Thomas 1995:140).
An interview checklist was designed by the interviewer as an aid to ensure that all the topics were covered during the interviews. The interview checklist was completed during the interview because immediate recording enhances validity and reliability (Polgar & Thomas 1995:141). An example of the checklist used in the focused interviews is provided on the next page.

Unstructured notes were taken during the course of the interview to complement the interview checklist and involved the interviewer making free form notes to record information she believed to be salient, either during or immediately following the interview.
Example of an interview checklist:

<table>
<thead>
<tr>
<th>Local council</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>UNCERTAIN</td>
</tr>
<tr>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>Does the interviewee have an overall understanding of the concept health promotion/environmental health promotion?</td>
<td>YES</td>
</tr>
<tr>
<td>Does the interviewee know what environmental health promotion entails?</td>
<td>UNCERTAIN</td>
</tr>
<tr>
<td>Does the interviewee understand the difference between health education and health promotion?</td>
<td>NO</td>
</tr>
<tr>
<td>Constraining factors mentioned.</td>
<td></td>
</tr>
<tr>
<td>Enabling factors mentioned.</td>
<td></td>
</tr>
<tr>
<td>Type of actions mentioned taken to ensure that environmental health promotion is being implemented.</td>
<td></td>
</tr>
<tr>
<td>Other comments.</td>
<td></td>
</tr>
</tbody>
</table>
### 3.6.3.1 The interview timetable

The following timetable portrays the interview schedule that was followed in this study:

<table>
<thead>
<tr>
<th>DATE</th>
<th>SERVICE RENDERING AUTHORITY</th>
<th>TIME</th>
<th>VENUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 June 2000</td>
<td>Western Metropolitan Services Council</td>
<td>8h00</td>
<td>Western Metropolitan Services Council</td>
</tr>
<tr>
<td>5 June 2000</td>
<td>Northern Metropolitan Services Council</td>
<td>10h00</td>
<td>Northern Metropolitan Services Council</td>
</tr>
<tr>
<td>6 June 2000</td>
<td>Midrand Local Council</td>
<td>9h00</td>
<td>Midrand Local Council</td>
</tr>
<tr>
<td>12 June 2000</td>
<td>Krugersdorp Local Council</td>
<td>9h00</td>
<td>Krugersdorp Local Council</td>
</tr>
<tr>
<td>12 June 2000</td>
<td>Western Gauteng Services Council</td>
<td>11h00</td>
<td>Western Gauteng Services Council (Randfontein)</td>
</tr>
<tr>
<td>13 June 2000</td>
<td>Focus group interview with EHOs</td>
<td>10h00</td>
<td>Technikon Witwatersrand</td>
</tr>
<tr>
<td>13 June 2000</td>
<td>North West Province – Mafikeng/Saulspoort</td>
<td>11h30</td>
<td>Technikon Witwatersrand</td>
</tr>
<tr>
<td>19 June 2000</td>
<td>Nigel Local Council</td>
<td>10h00</td>
<td>Nigel Local Council</td>
</tr>
<tr>
<td>19 June 2000</td>
<td>Germiston Local Council</td>
<td>12h00</td>
<td>Germiston Local Council</td>
</tr>
<tr>
<td>19 June 2000</td>
<td>Kempton/ Tembisa Local Council</td>
<td>14h00</td>
<td>Kempton/ Tembisa Local Council</td>
</tr>
</tbody>
</table>

**TABLE 2**

Interview schedule
3.7 DATA ANALYSIS

Data analysis is the process of systematically searching and arranging research data such as interview transcripts, fieldnotes and other materials that are accumulated during the research process to increase understanding of the topic of investigation so that the research findings can be presented to a broader audience. Analysis involves working with data, organising them, breaking them into manageable units, synthesizing them, searching for patterns, discovering what is important and what is to be learned and what needs to be disseminated to others (Biklen 1992:153).

The process is represented diagrammatically by Krueger (1994:131) who refers to an analysis continuum as follows:

```
Raw data -- Descriptive statements -- Interpretation
```

The accumulated raw data represents exact statements of participants as they were transcribed using the recordings made during the interviews. Notes made by the researcher and co-facilitators also form part of this raw data.

Raw data was used to summarise statements of respondents' comments. To give structure to this process the researcher designed a format (four spreadsheets) which allowed for the selection and summary of the information required for the study. The format or framework designed to analyse the raw data is outlined below. The same outline was also used for the other research questions. Included as Table 3 is one of the four spreadsheets addressing one of the research questions. This framework provided a structure to portray the differences between management and EHO responses and also between the urban, peri-urban and rural participants' responses.
Perceptions of EHOs and management of the concept environmental health promotion.

<table>
<thead>
<tr>
<th>SETTING</th>
<th>MANAGEMENT</th>
<th>EHOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Health promotion is all about improved knowledge and skills</td>
<td>Upliftment and sustainability</td>
</tr>
<tr>
<td></td>
<td>Education and upliftment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community development and empowerment</td>
<td>No health promotion without health education</td>
</tr>
<tr>
<td></td>
<td>Having information</td>
<td></td>
</tr>
<tr>
<td>Peri-urban</td>
<td>More than training</td>
<td>Targeting children – easy to influence –</td>
</tr>
<tr>
<td></td>
<td>Address and identify community problems and needs</td>
<td>link to parents</td>
</tr>
<tr>
<td>Rural</td>
<td>Participation from a great number of people</td>
<td>Community awareness and involvement</td>
</tr>
<tr>
<td></td>
<td>Health promotion encompasses health education</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 3**
Framework for data analysis
3.8 CONCLUDING COMMENTS

This chapter dealt with the planning aspect of the research process. A qualitative approach was followed and research methods included the focused interview and the focus group interview. Key informants consisted of EHOs and their managers, representing urban, peri-urban and rural service areas. Audiotaping and unstructured notes were chosen as methods of recording the information.

The next chapter deals with the synthesis and interpretation of the research findings.
CHAPTER 4

SYNTHESIS AND INTERPRETATION OF THE RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter focuses on the consolidation and the interpretation of the research findings. The findings are structured according to the four questions guiding this study (see 1:1.3). The research study aimed to provide answers to these four questions which are directly linked to the research aims and objectives as stated in chapter 1 (see 1:1.4).

- What do EHOs and their management understand by the concept environmental health promotion as grounded in the theoretical basis?
- What are the issues that EHOs and their management identify as being debilitating in the execution of their duty towards environmental health education and promotion?
- What enabling factors (internal and external) are in place that assist EHOs and their management in performing their role in environmental health education and promotion?
- What actions and measures do management take to ensure the implementation of environmental health education and promotion by the EHOs as part of their scope of practice?

The findings differentiate between the perceptions of EHOs and their management except for the last question that only focuses on the views of management. The outcomes of the research are subsequently discussed.
4.2 WHAT DO ENVIRONMENTAL HEALTH OFFICERS AND THEIR MANAGEMENT UNDERSTAND BY THE CONCEPT ENVIRONMENTAL HEALTH PROMOTION?

In order for the Environmental Health Sector to improve on the implementation of environmental health education and promotion, it is essential for both EHOs and their management to show an understanding of and attach the same meaning to the concept. The perceptions of EHOs and their managers are outlined below.

4.2.1 Management’s perceptions of the concept environmental health promotion

The perceptions and views of management regarding the concept can be portrayed by citing the following phrases which were responses to the question what was understood by the concept environmental health promotion. The explanations or interpretations that were forthcoming were namely that environmental health promotion …

➢ improves or changes knowledge, attitudes and skill or ability
➢ leads to an improvement in health
➢ deals with the marketing of environmental health and the services that EHOs render
➢ is the empowering of the community to improve their health
➢ is not only pure education, but also development and empowerment
➢ is community-driven
➢ is about having information
➢ requires needs assessment and problem identification
➢ is health promotion that encompasses health education
➢ is about posters with messages, leaflets, booklets, banners, radio, television
➢ is more than a range of activities to raise the level of awareness in communities – it is what happens thereafter that is important
➢ is still seen as pure education
> is about education and upliftment
> necessitates familiarising oneself with the community one serves and allowing them to be familiar with the services that are rendered
> is almost a pie in the sky – EHOs haven’t analysed it as such
> is more than training

Although some of the underlying principles of health promotion (see 2:2.3.4.1) for example empowerment, participation and intersectoral activity were mentioned by some of the research participants, not one of the nine managers of EHOs mentioned the five action areas of health promotion as specified in the Ottawa Charter (see 2:2.3.4.2). However, two of the areas were implied, namely the development of personal skills and the strengthening of community-action. This indicates that the management of EHOs are not necessarily familiar with the key areas of health promotion. It is interesting to note that the Ottawa Charter and the Alma Ata Declaration, the foundation documents regarding health promotion were not mentioned by any of the managers at all. Other important areas that were not mentioned were the importance of healthy public policy and the tools identified as being central in effective health promotion, namely advocacy, enabling and mediation. This indicates possibly that management of EHOs are not well-read on the topic of health promotion which forms the basis for the effective rendering of environmental health education and promotion.

The importance of the role of education and community development were indeed recognised by management of EHOs as well as the fact that health promotion entails more than mere education. Management also placed a good deal of emphasis on changed knowledge, skills and attitudes which relate directly to the educational aspect of health promotion. The role of environmental health education and promotion in creating an increased awareness of the role of the EHO within the community was also highlighted more than once.

There were no significant differences in the responses of management from the urban, peri-urban and rural settings, although it was only the rural participant who emphasised
that raising the level of awareness is not enough, but what happens thereafter is what counts. This is significant as it acknowledges that health promotion is much more than a one-to-one education session.

The perceptions of management on the issues of environmental health promotion can be summarised as follows. Although management knows that health promotion does not only entail education and although they recognise the importance of community participation and development in environmental health promotion, they appear to lack knowledge regarding the definitions, principles, key areas, tools and activities inherent to environmental health education and promotion.

4.2.2 Environmental health officers’ perceptions of the concept environmental health promotion

The responses from the EHOs about environmental health promotion can be portrayed as follows:

Environmental health promotion...

- is not easy
- entails community involvement
- must ensure upliftment and sustainability
- should be viewed in the context of the socio-economic development of the community
- cannot be done without health education – by educating people about health you are promoting health
- implies community awareness and community involvement

These pronouncements lead one to deduce that EHOs acknowledge the fact that environmental health promotion is much broader than health education. The perception of
some managers that EHOs think in terms of environmental health promotion as mere health education (see 4:4.2.1) does not appear to be justified.

As in the case of the management, none of the EHOs mentioned the Ottawa Charter or the key principles or areas of health promotion. It is significant to note that the word sustainability was mentioned by the EHOs and not by their management. The fact that the socio-economic development and the context thereof within environmental health promotion was mentioned by the EHOs and not by management is a further indication of their broader understanding of the concept.

The principles of health promotion according to the Alma Ata Declaration (see 2:2.3.4.1) that were implied by both the EHOs and their management include:

- **equity** – the right to equal opportunities to enjoy health by raising the awareness level of all communities and by educating people regarding environmental health issues – it is found that both EHOs and their management perceive environmental health promotion to encompass health education and that the one cannot take place without the other

- **community-involvement and participation** in relation to environmental health issues and the promotion thereof – communities and individuals will be involved as respected partners in the planning and implementation process of health and environmental health promotion programmes

- **the upliftment and empowerment** of communities in order for them to become self-directing adults – hereby recognising that environmental health education and promotion activities should be designed to increase and enhance the control that communities have over their own lives and their own health

- **intersectoral collaboration** as an important health promotion principle which focuses on multi-disciplinary inter-agency networking

The difficulties of implementing environmental health education and promotion were expressed by EHOs and not by their management.
4.3 WHAT ARE THE ISSUES THAT ENVIRONMENTAL HEALTH OFFICERS AND THEIR MANAGEMENT IDENTIFY AS BEING DEBILITATING IN THE EXECUTION OF ENVIRONMENTAL HEALTH EDUCATION AND PROMOTION?

Commitment and willingness to change their current practices in relation to environmental health education and promotion will be needed from both EHOs and their management if they want to see improvement in the status of environmental health services. However these factors will not be sufficient unless the debilitating factors identified by EHOs and their management themselves are also successfully addressed. In the following section the debilitating factors as identified during the interviews are explored.

4.3.1 Issues identified by management as being debilitating in the implementation of environmental health education and promotion

Debilitating issues that impact on the implementation of environmental health promotion as identified by managers of EHOs include:

- the lack of time – EHOs are overloaded with routine aspects of environmental health i.e. visible service delivery, and consequently lack the time to do environmental health promotion
- a shortage of human resources which directly contributes to the above-mentioned debilitating factor
- distribution of EHOs not done according to priority and problem areas
- limited budgets, resources and promotion material for the effective implementation of projects and programmes to promote environmental health (level of available material not always suited for the target group e.g. illiterate people)
- language and cultural barriers exist between EHOs and the community they serve
- fear of EHOs to enter unfamiliar or previously disadvantaged areas
- a lack of basic training with regard to health promotion – EHOs need re-skilling, refresher courses and continuous development in the field of health promotion with special emphasis on environmental health issues
- uncertainty within the political environment and internal restructuring within the health sector which impacts negatively on the EHOs’ motivational level
- some EHOs lack clarity regarding their roles with regard to health promotion – still used to ‘policing’ and law-enforcement
- health promotion is treated very lightly and is not given the attention it deserves – educational and promotional activities in environmental health is sometimes put last on the list due to a variety of crisis situations
- there is a lack of transport, especially in the rural areas
- health promotion is not coupled with rigorous research
- there is a lack of proper monitoring and evaluation systems for environmental health programmes
- a lack of commitment, innovation and creativity with regard to environmental health promotion exists – EHOs are not always eager and passionate about environmental health promotion or self-development

Similarities relating to the debilitating factors as identified by the urban, peri-urban and rural setting’s management are limited budget and the need for training and skills development with regard to environmental health education and promotion. A lack of time, manpower and training was identified by both the urban and peri-urban participants as being debilitating in their execution of environmental health education and promotion. The shortage of health promotion materials, especially for the illiterate, was highlighted by the peri-urban and rural participants. It was only the participant representing the rural setting who mentioned the lack of transport and the fact that they as ‘fieldworkers’ have to spend four of the five days per week in the office due to a lack of transport. Two important aspects namely the lack of research in environmental health promotion and the lack of proper monitoring and evaluation systems were also mentioned only by the rural participant. The lack of distribution of EHOs according to priorities and needs of
4.3.2 Issues identified by environmental health officers as being debilitating in the implementation of environmental health education and promotion

The following debilitating factors were highlighted:

- Environmental health officers experience a lack of time to do environmental health education and promotion – this means that they only solve the complaint and not the real problem or the underlying cause of the problem that could be solved through a proper environmental health education and promotion programme.
- The budget for environmental health education and promotion campaigns is limited.
- There is a shortage of health promotion material (e.g. posters) – EHOs have to develop their own material and this is time consuming and difficult.
- Environmental health officers are demoralised by the fact that environmental health promotion is a long-term process and by the fact that they do not see results immediately.
- There is a lack of skills-development in health promotion, e.g. communication and facilitation skills.
- There is a lack of practical training and experience in environmental health promotion.
- There is a lack of transport in rural areas.
- Language and cultural barriers exist between EHOs and the communities they serve.
- It is difficult to find venues for environmental health education and promotion projects.
- Follow-up on health education and promotion activities is difficult due to a lack of time, far distances to be travelled as well as the lack of electricity in rural areas.
- There is no overtime renumeration for community work done after hours.

Both the urban and peri-urban EHOs mentioned the fact that management regard routine inspections and following up on complaints from the public as important. However, this
leaves them with little time for health promotion activities. It appears that a lack of understanding by management with regard to health promotion may also contribute to this fact. It was only the EHO from the peri-urban setting that mentioned as a constraining factor the difficulty in obtaining venues in communities for projects as well as difficulty with follow-up activities. The rural area participant stressed the fact that the lack of electricity and extensive travelling distances hamper them in the implementation of environmental health education and promotion. The lack of payment for overtime worked was a concern raised by all EHOs. The planning, implementation and evaluation of environmental health education and promotion programmes demand from EHOs to attend regular after hours meetings with communities in order for the communities to commit themselves and to ‘buy into’ the processes involved. The fact that EHOs feel frustrated because they do not see immediate results highlights their lack of understanding of the long term processes and benefits involved in health promotion.
Table 4 illustrates the debilitating factors mentioned by both EHOs and their management and compares the factors given by management with those by EHOs within the three different setting.

<table>
<thead>
<tr>
<th></th>
<th>Time</th>
<th>Human Resources</th>
<th>Budget</th>
<th>L+C Barriers</th>
<th>Transport</th>
<th>Training/Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Peri-Urban</strong></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Rural</strong></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

✓ - Management  
× - EHOs

L+C - Language + Cultural

**TABLE 4**

Debilitating factors in the implementation of environmental health education and promotion
4.4 WHAT PROMOTING FACTORS (INTERNAL AND EXTERNAL) ARE IN PLACE THAT ASSIST ENVIRONMENTAL HEALTH OFFICERS AND THEIR MANAGEMENT IN PERFORMING THEIR ROLE IN IMPLEMENTING ENVIRONMENTAL HEALTH EDUCATION AND PROMOTION?

For the purpose of this study it was important to examine the supportive factors in the implementation of environmental health education and promotion in order to build on these strengths as identified by the EHOs and their management. The findings in this regard are detailed below.

4.4.1 Management's views on supportive factors that assist them in performing their role in environmental health education and promotion

The following supportive factors were identified by managers of EHOs:

➤ changes to legislation entrenches the need for community participation in environmental health education and promotion
➤ needy and developing communities willingly participate in environmental health education and promotion programmes and activities
➤ the District Health System and restructuring within the health sector enables people to work closer together towards improving intersectoral collaboration in environmental health education and promotion
➤ provincial health promotion staff (CLO's and health promoters) assist EHOs during the implementation of environmental health education and promotion programmes in service rendering authorities
➤ national departments (e.g. Water Affairs and Forestry, Environmental Affairs and Tourism) support management and EHOs in terms of information and resources especially for national environmental days
new EHOs have already been trained in environmental health promotion aspects during their second year of studies

- budgets are available for environmental health education and promotion (although insufficient) – EHOs have to submit a good business plan in order to receive financial support for the implementation of an environmental health education and promotion project or programme (only mentioned by one or two participants from the urban setting)

- EHOs speaking various languages and belonging to different cultures are able to interact more effectively with different communities during environmental health education and promotion activities

- due to the fact that overtime payment is not provided for, managers of EHOs show support and commitment towards environmental health education and promotion by giving EHOs time off for work done and community meetings held after official working hours

- forums are established for the coordination of planning, implementation and monitoring of environmental health education and promotion activities (only mentioned by a few participants)

- a specific EHO appointed to act as coordinator for environmental health education and promotion programmes seems to improve the level and quality of environmental health education and promotion programmes (only mentioned by one or two participants)

- intersectoral collaboration and networking between EHOs, NGOs and other relevant stakeholders improve the quality of service rendered to communities

- media resources (TV, radio and newspapers) which cater for many languages assist the EHOs in spreading the environmental health education and promotion message to the broader communities

- sponsorship from companies assist EHOs and contributes to effective service rendering and implementation of environmental health education and promotion programmes
participation from schools and schoolchildren in environmental health education and promotion programmes and activities help to convey the message to the broader community.

It is significant to note that it was only the rural representative who felt that the enabling factors are in abundance. He was also the only participant to mention the support from media resources, other government departments and sponsorship received from companies. This may be ascribed to the fact that the rural participants are generally more dependent on the support from outside organisations.

Although language and cultural differences were seen to be a debilitating factor by EHOs, some of the managers were of the opinion that having EHOs from the various languages and cultures can be a supporting factor. It would be difficult to comment at this stage on the success and role of forums and coordinators in the implementation of environmental health education and promotion without research on this aspect.

A debilitating factor mentioned by the EHOs was the absence of overtime payment however, management of EHOs mentioned the fact that they give the EHOs time off for overtime worked as a supportive factor. Although commitment and support from management were seen as debilitating factor by the EHOs, we see that some of the EHOs management felt that their support is a promoting factor. This possibly indicates a lack of communication between EHOs and their managers with regards to problems and frustrations experienced by EHOs in the processes and dynamics involved in environmental health education and promotion.

4.4.2 Views of environmental health officers on supporting factors assisting them in their role in environmental health education and promotion

When the proceedings of the focus group interview were reviewed and analysed, it was found that EHOs only mentioned two supporting factors:
the change in their profession and role from law-enforcer to educator, preventor, problem-identifier, community-developer and facilitator

the appreciation shown by children involved in health education and promotion projects and programmes (mentioned by the peri-urban and rural participants)

Based on the fact that the EHOs mentioned only these two supportive factors, it can be deduced that the EHOs attitude towards environmental health promotion is less positive than that of their managers (cf 4:4.4.1). This could be due to the fact that EHOs were exposed to the difficulties of implementing environmental health education and promotion, while managers of EHOs exposure to implementation procedures is limited. It also appears that some managers of EHOs are distanced from the real life situations in which the EHOs find themselves. It becomes necessary to acknowledge the existence of the problem and for managers of EHOs to become more sensitive to the challenges and demands that EHOs have to cope with when involved in the implementation of environmental health education and promotion.

It is significant to note the awareness of EHOs (and not their management) regarding the changed role of the EHO.

4.5 WHAT ACTIONS AND MEASURES DOES MANAGEMENT TAKE TO ENSURE THAT IMPLEMENTATION OF ENVIRONMENTAL HEALTH EDUCATION AND PROMOTION BY THE ENVIRONMENTAL HEALTH OFFICERS IS PART OF THEIR SCOPE OF PRACTICE?

In reply to this question, management of EHOs reported on the following actions taken:
identifying that health education and promotion should take a leading role within the restructuring of the health department and therefore placing environmental health education and promotion high on the agenda during planning and restructuring meetings (only mentioned by one urban participant)

- allocating budget for environmental health education and promotion activities and programmes
- visiting EHOs’ environmental health promotion projects to show support
- supporting the implementation of promotion days for environmental health, for example World Environment Day, Arbor Day, Water Week etc.
- including environmental health education and promotion in operational plans which are monitored bi-monthly and which are based on community needs assessment
- appointing project teams which incorporate and allow previously advantaged EHOs to work together with previously disadvantaged EHOs
- participating in provincial environmental health education and promotion programmes and at the same time allowing EHOs at service rendering level to be trained as master trainers receiving training and skills development in health promotion aspects such as communication, facilitation, project management etc.
- practicing a participative management style
- developing a core set of environmental health indicators that include health promotion and community participation programmes and campaigns

Considering the six main debilitating factors in the implementation of environmental health education and promotion, namely time, manpower, budget, language and cultural barriers, transport (rural setting) and training and skills development, it is interesting to note that only a few managers of EHOs are taking action to address budget issues and only one of the local councils is encouraging the EHOs from different race groups to work in teams to overcome communication and cultural barriers. It is evident that although the EHOs are encouraged to attend training sessions organised by the Gauging Health Department to enhance their skills in health promotion, management of EHOs are generally not organising any additional inservice training within the field of health promotion at a service rendering level themselves.
4.6 CONCLUDING COMMENTS

When reflecting on the findings of the research questions it becomes apparent that although most of the EHOs and their management acknowledge that health promotion is more than mere education, they lack knowledge regarding definitions, history, principles, key areas, tools and activities of environmental health promotion.

Both EHOs and their management identified the lack of time, the lack of human resources, budget constraints, problems with transport, insufficient training and skills development as well as language and cultural barriers as being debilitating in the implementation of environmental health education and promotion. Of significance to this study is the fact that the majority of the managers of EHOs are not taking the necessary steps to address the constraining factors identified and listed above.

It becomes important to draw conclusions and make recommendations regarding the future implementation of environmental health education and promotion programmes, based on the findings of this study.

The conclusions and recommendations regarding this research will be discussed in Chapter 5.
5.1 INTRODUCTION

This study has presented a theoretical overview of the concepts education, environment, health, environmental health, health promotion, health education, adult education, community participation and sustainable development through a literature review. It further determined, through the use of focused interviews and a focus group discussion the perceptions and understanding that EHOs and their management have of the concept environmental health education and promotion. Data was gathered regarding the issues that EHOs and their management identify as being debilitating in the execution of environmental health education and promotion activities and programmes. Supporting or enabling factors that assist EHOs and their management in their role in providing environmental health education and promotion were identified. Actions taken by managers of EHOs to ensure that environmental health promotion activities and programmes are carried out by EHOs as part of their scope of practice, were also determined.
5.2 SYNOPSIS OF THE RESEARCH

With more emphasis being placed on preventing illness and promoting health, the health sector, including the Environmental Health Sector, needs to become more health promoting in the execution of their every day duties towards improving the health of communities as well as enabling the communities to take control over their own health. Health promotion goes beyond the scope of traditional health education and implies a commitment to raising the health status of the community with a clear philosophical basis of self-empowerment and sustainability.

The capacity of the EHO with regard to environmental health education and promotion was examined during this study. Debilitating and enabling factors were identified to enable the researcher to make recommendations towards the improvement of environmental health education and promotion through policy and skills development within the Environmental Health Sector at all levels of service rendering.

This research study will hopefully contribute towards the improvement of the rendering of environmental health services through the change in focus on the developing roles of EHOs in Gauteng and nationally.

5.3 GENERAL CONCLUSIONS

The role of the EHO has entered a new and challenging phase. The need for a paradigm shift from routine health inspections towards sustainable community and developmental environmental health education and promotion programmes became clear as the role of the EHO highlighted throughout this study, has emerged.

This study has also presented a picture of the need to build capacity within the Environmental Health Sector in South Africa and to place fresh emphasis on the principles and processes of
environment and health in environmental health education and promotion, community participation and sustainable development.

The *Ottawa Charter* has set the strategic course for the past decade, but its direction is as important today as it was fifteen years ago. To improve action in the areas of environmental health education and promotion, the focus of practice needs to be sharpened and infrastructures need to be strengthened or developed. Governments and training institutions have a role to play in transforming these policies into action.

The need for managers of EHOs to refocus their operational plans towards prevention, education and health promotion has been recognised. The theoretical issue which forms the background to this point, is the focus of environmental health education and promotion on serving communities in such a way that environmental health education and promotion leads to a sustained situation. Environmental health services can no longer direct its activities towards routine inspections only, while the community development aspects lack behind. Service rendering authorities should ensure that they respond efficiently to express community needs regarding environmental health matters when developing and implementing environmental health education and promotion programmes.

It is also realised that commitment and willingness from EHOs and their management to change their practices will contribute to improved environmental health education and promotion practices, but won't be sufficient unless the debilitating factors identified by this study are successfully addressed. Policy formulators at all levels of service rendering should take the recommendations seriously. In the context of South Africa formulators of environmental paradigms and strategies also need to take account of the over-arching roles of poverty and inequity in the state of the environment and health.

Environmental health education and promotion can play an important role in addressing both the traditional and modern environmental health hazards, linking health issues of underdevelopment and sustainable development. There are few areas in the health field that provide better opportunities for primary prevention of disease, than in environmental health and
there is little doubt that the EHOs are well placed to play a significant role in addressing prevailing environmental and health concerns in South Africa.

5.4 RECOMMENDATIONS TOWARDS IMPROVED AND SUSTAINABLE ENVIRONMENTAL HEALTH EDUCATION AND PROMOTION WITHIN THE ENVIRONMENTAL HEALTH SECTOR

The following recommendations regarding the improvement of the implementation of environmental health education and promotion within the Environmental Health Sector need to be considered and the necessary steps be taken to address problem areas as identified by this study.

5.4.1 Institutional capacity in terms of human resources should be determined by all service rendering authorities. The present number of EHOs is inadequate to fulfill the implementation needs. The shortfall of EHOs countrywide is estimated at 2076 (see 2:2.4.3). It is recommended that public service rendering authorities, including all provincial and local government structures should budget for more posts in order to cope with the environmental health needs of the community. The National Department of Health should consider enabling service rendering authorities to be in a position to budget for more EHOs to cope with the existing and increasing demands for environmental health promotion and community development.

5.4.2 The workload, structure and time management of EHOs should be reviewed by management of EHOs (see 4:4.3.2). It is essential to allow more time for environmental health education and promotion activities. Most of the core functions and responsibilities of the EHO, apart from education and promotion as identified by the National Department of Health, include a health promotion function, e.g. public and community involvement, sectoral collaboration, resource mobilisation, planning and development, policy development, research and documentation. Health promotion should become a support activity throughout all these functions and roles.
5.4.3 Managers of EHOs will need to convincingly motivate an increase in their budgets to cater for environmental health education and promotion needs (see 4:4.3.1 & 4:4.3.2). Proper business plans linked to sustainable indicators will have to be drafted according to needs identified by the community. Budgets should provide for the development of formal and informal training programmes, skills development programmes and the procurement and purchasing of environmental health promotion material and training equipment.

5.4.4 Management and EHOs are not well-read on the topic of health promotion (see 4:4.2.1 & 4:4.2.2). Aspects such as definitions, principles, key areas, activities and tools of health promotion are not understood or known. Principles of health promotion are to be built into environmental health subjects e.g. food hygiene. EHOs need to acquire different skills to be able to implement environmental health promotion as a core function of service rendering e.g. communication, facilitation, project management, community development etc. (see 4:4.3.1 & 4:4.3.2) It is recommended that a basic short course on health promotion be made compulsory for all management and their EHOs in order to address the lack of understanding and the lack of training and skills development in the field of health promotion.

5.4.5 To address the language and cultural barriers experienced by EHOs during the implementation of environmental health education and promotion (see 4:4.3.1 & 4:4.3.2), projects and programmes should make provision for the high levels of illiteracy prevalent in the country through, for example, local street dramas, dramas and role-plays to get the environmental health promotion message across. To enhance effectiveness it is further recommended that EHOs and their managers develop environmental health education and promotion print material in all the different languages spoken by the identified target group.

5.4.6 The problems regarding transport in the rural areas will have to be addressed (see 4:4.3.1 & 4:4.3.2). It is recommended that a subsidised vehicle scheme should be considered by the relevant authorities to enable EHOs to render environmental health education and promotion services to the communities.
5.4.7 The current organisational design of environmental health structures does not specifically provide for environmental health promotion. It is necessary to develop an organogram that will be supportive of the fact that health promotion should take a leading role, and will, where possible, provide for a skilled health promotion person to assist the EHO or for EHOs to become skilled in the area of health promotion. Operational plans should reflect environmental health education and promotion as an integral part of the EHOs daily functions (see 4:4.5).

5.4.8 The lack of management support and commitment towards environmental health education and promotion programmes was mentioned by the majority of EHOs (see 4:4.3.2). It is therefore recommended that management encourage EHOs by visiting environmental health education and promotion projects (see 4:4.5) and allow EHOs to suggest their own initiatives and ideas. Support from management regarding budget allocation and training for environmental health promotion are also vital.

5.4.9 It is also recommended that forums for discussions (see 4:4.4.1) between management and EHOs be established to address the lack of communication with regard to problems and frustrations experienced by EHOs on a daily basis in the processes and dynamics involved in environmental health education and promotion.

5.4.10 The need for a core set of environmental health promotion indicators has been identified (see 4:4.3.1 & 4:4.5). The lack of indicators for environmental health education and promotion contributes to the fact that EHOs lack direction and also to the fact that they cannot evaluate their health education and promotion activities and programmes. It is recommended that a representative task team be established to address the need for monitoring and evaluating systems for environmental health promotion.

5.4.11 The roles and functions of the EHO regarding education and health promotion should be promoted to politicians as well as to the broader community (see 4:4.2.1). Actions and projects of the EHO should become more visible. It is recommended that a marketing strategy be developed by all service rendering authorities with guidance from the national office to
improve politicians' and the broader community’s awareness and understanding of the role and functions of the EHO regarding environmental health education and promotion.

5.4.12 The absence of **remuneration for overtime** worked on weekends and after hours has been identified as a concern of EHOs (see 4:4.3.2) and it is recommended that this issue be addressed by policy formulation. Environmental health education and promotion initiatives demand from EHOs to attend regular after hours and weekend meetings, projects and activities with the communities.

5.4.13 Environmental health promotion requires a multidisciplinary approach (see 2:2.3.4.1). EHOs and their managers should take the responsibility to drive the process of intersectoral collaboration and networking with all the relevant stakeholders involved in a specific environmental health promotion campaign or programme.

5.4.14 Environmental health promotion is currently not coupled with proper data and information associated with environmental health needs analysis and assessments (see 4:4.3.1). It is recommended that EHOs be encouraged to participate in research projects leading to the establishment of a sound research culture and hence to an enriched training milieu for environmental health professionals.

These are but a few of the challenges that must be met by the Environmental Health Profession and it is quite clear that policy and skills development are needed to make viable the concept of sustainable community based environmental health education and promotion.

**5.5 AREAS REQUIRING FURTHER INVESTIGATION**

Due to the fact that this is a dissertation of limited scope and the consequent constraints on scope, time, representivity, the following issues require further research:
➢ the establishment of a representative task team to develop a system to address the urgent need for process and outcome indicators for environmental health education and promotion
➢ the design of short courses in health promotion for management and EHOs in line with identified priorities and needs
➢ the monitoring of the effectiveness and successes of already established environmental health promotion forums and committees on regional and service rendering level to coordinate and monitor environmental health education and promotion programmes
➢ the utilisation of the three existing provincial environmental health promotion programmes (refer to 1:1:1) as case studies to establish further strengths and weaknesses in the field of environmental health promotion in Gauteng

Further investigation into the above-mentioned areas will contribute to addressing the need for ongoing research, communication and improvement in the field of environmental health education and promotion.

5.6 CLOSING COMMENT

It is the researcher's sincere wish that this study will inspire change, commitment and action towards improved and sustainable environmental health education and promotion within the Environmental Health Sector.

Only when people become actively responsively for their own and the community's health can important changes take place.

( David Werner, author of Where there is no Doctor)


ANNEXURE 1

REGULATIONS DEFINING THE SCOPE OF PRACTICE OF ENVIRONMENTAL HEALTH OFFICERS
SAIEH

CONFIDENTIAL

HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA
(THE INTERIM NATIONAL MEDICAL AND DENTAL COUNCIL OF SOUTHERN AFRICA)

THE PROFESSIONAL BOARD FOR ENVIRONMENTAL HEALTH OFFICERS

REGULATIONS DEFINING THE SCOPE OF THE PROFESSION OF ENVIRONMENTAL HEALTH OFFICERS

The Minister of National Health has, in terms of section 33(1) of the Medical, Dental and Supplementary Health Service Profession Act, 1974 (Act No 56 of 1974), on the recommendation of the South African Medical and Dental Council, made the regulations set out in the Schedule hereto.

SCHEDULE

1. In these regulations “the Act” means the Medical, Dental and Supplementary Health Service Professions Act, 1974 (Act No 56 of 1974), and any expression to which a meaning has been assigned in the Act shall bear such meaning.

2. The following acts are hereby specified as acts which shall for the application of the Act be deemed to be acts pertaining to the profession of environmental health officer.

   a. The identification of all critical environmental factors and the implementation, evaluation and control of intervention measures of all these factors regarding the interaction between man and his environment.

   b. The undertaking of acts supplementary to statutory duties to:

      i. introduce intervention measures to manage the critical environmental factors so as not to be detrimental to health and the environment; *

      ii. execute monitoring actions in order to give effect to acts for the safeguarding and maintenance of the health and environment of all communities; *
iii. provide environmental health promotion and development in order to make communities self-sufficient in respect of the creation and maintenance of an environment that is conducive for health, and to contribute positively towards sustainable physical and socio-economic development; *

iv. function within a multi-disciplinary team approach to meet the required environmental health objectives; and *

v. function within an intersectoral approach to meet the required environmental health objectives. *

2. For the purpose of subregulation (1) the scope of practice of an environmental health officer shall refer to Appendix A. *

Note

* indicates amendments on existing regulations
APPENDIX A

SCOPE OF PRACTICE OF ENVIRONMENTAL HEALTH

1. Environmental Health includes or relates to the identification, evaluation and control of critical factors in the following functional fields:

1.1 Water supplies, with specific reference to the provision of an adequate quantity and quality of safe water that are readily accessible to communities, and to the planning, design, management and health surveillance of community water supplies, giving due consideration to other essential uses of water resources e.g. recreational waters.

1.2 Waste water treatment and water pollution control, including the collection, treatment and disposal of sewage and other water borne wastes, and the control of the quality of surface water (including the sea) and ground water.

1.3 Waste management, including the storage, collection and disposal thereof, inclusive of medical waste.

1.4 Vector control of public health interest, including the control of arthropods, molluscs, rodents and other alternative hosts of disease.

1.5 Prevention and control of land pollution detrimental to human, animal or plant life.

1.6 Food hygiene and safety, including milk and meat control.

1.7 Air pollution management.

1.8 Environmental radiation hazards.

1.9 Occupational health and safety.

1.10 Environmental noise pollution.

1.11 Accommodation ** and its immediate environment in particular the public health aspects of residential, public and institutional buildings.

1.12 Environmental impact assessments relating to regional planning ***, and the establishment and management thereof.

1.13 Port health.

1.14 Accident prevention, e.g. paraffin usage.

1.15 Environmental health aspects of public recreation and tourism.
2. Environmental health measures associated with epidemics, emergencies, disasters and migrations of populations.

3. The establishment of an effective environmental health surveillance and information system.

4. To be actively involved in research relating to environmental health.

5. Preventative measures required to ensure that the general environment is free from risk to health.

6. Dealing with all environmental health aspects of:

6.1 Public Health legislation
6.2 The enforcement of legislation.

7. Health Education and Promotion

8. Public health nuisances.

9. Health aspects of cemeteries/crematoria

* Waste can be considered as any substance which, from the point of view of the generator, falls into disuse. This includes hazardous waste.

** Accommodation includes residential, public and institutional buildings, holiday resorts and recreational facilities.

*** Regional planning refers to an integrated approach to urban and rural planning.
ANNEXURE 2

ENDORSEMENT: GAUTENG HEALTH DEPARTMENT
MEMO

To: The Chairperson, Clinical Trials and Research Committee  
    C/o Dr Ahmed Valli, Director for Policy and Planning

From: Jo-Anne Collinge, Director for Health Promotion and Communications

Date: March 24 2000

Subject: Research proposal: Changing role of environmental health officers

Please find enclosed a preliminary research proposal submitted by Ms J Witthuhn, a chief community liaison officer in the sub-directorate for health promotion. She is enrolled for an M Ed at the University of South Africa and the research forms part of her course requirement.

The subjects of her research are environmental health officers in the employ of various local authorities. There are therefore no direct implications for clients of the GDH.

Furthermore, resource implications for the Department are limited to use of our buildings, recording equipment and a certain amount of Ms Witthuhn's working time. The allocation of working time to this research will be in accordance with the usual policy on study leave.
The central objective of the study is to identify constraining and enabling factors in transformation the role of environmental health officers. It should be a very useful piece of work for the GDH, which has been instrumental in:

- The reorientation and in-service training of environmental health officers working for local government.
- Facilitating the development of community-based environmental projects in many areas.

This Directorate therefore supports Ms Withuhn's proposed research and seeks the endorsement of the Research Committee.

Jo-Anne Collinge
Director for Health Promotion and Communications

Further supported/Not supported

Paul Brits
Director for Environmental and Occupational Health

Comments: Ms Withuhn's research will undoubtedly contribute to the transformation of the role of the Environment Officer. There is a need for a specific budget to support this research project.

109
ANNEXURE 3

ENDORSEMENT : NATIONAL HEALTH DEPARTMENT
THE CHANGED ROLE OF THE ENVIRONMENTAL HEALTH OFFICER IN RELATION TO COMMUNITY BASED HEALTH PROMOTION

The Department of Health welcomes the research proposal as it will assist the Department to identify some of the gaps in the development of the profession.

It will be appreciated if the research results can be made accessible to the Department of Health soon on completion of the project.

Thanking you in anticipation and wish you all the best in this venture.

Kind regards

DIRECTOR-GENERAL: HEALTH
DATE: 31/05/2000
ANNEXURE 4

OTTAWA CHARTER
OTTAWA CHARTER FOR HEALTH PROMOTION
CHARTE D'OTTAWA POUR LA PROMOTION DE LA SANTÉ

STRENGTHEN COMMUNITY ACTION
RENFORCER L'ACTION COMMUNAUTAIRE

DEVELOP PERSONAL SKILLS
DÉVELOPPER LES APTITUDES PERSONNELLES

ENABLE CONFERER LES MOYENS
MEDiate SERVIR DE MÉDIATEUR
ADVOCATE PROMOUVOIR L'IDÉE

CREATE SUPPORTIVE ENVIRONMENTS
CRÉER DES MILIEUX FAVORABLES

REORIENT HEALTH SERVICES
RÉORIENTER LES SERVICES DE SANTÉ

BUILD HEALTHY PUBLIC POLICY
ÉTABLIR UNE POLITIQUE PUBLIQUE SAINÉ

AN INTERNATIONAL CONFERENCE
ON HEALTH PROMOTION
The move towards a new public health
November 17-21, 1986 Ottawa, Ontario, Canada

UNE CONFÉRENCE INTERNATIONALE:
POUR LA PROMOTION DE LA SANTÉ
Vers une nouvelle santé publique
17-21 novembre 1986 Ottawa (Ontario) Canada
The first International Conference on Health Promotion, meeting in Ottawa this 21st day of November 1981, hereby presents this CHARTER for action to achieve Health for All by the year 2000 and beyond.

This conference was primarily a response to growing expectations for a new public health movement around the world. Discussions focused on the needs in industrialized countries, but took into account similar concerns in all other regions. It built on the progress made through the Declaration on Primary Health Care at Alma Ata, the World Health Organization's Targets for Health for All document, and the recent debate at the World Health Assembly on intersectoral action for health.

HEALTH PROMOTION

Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life-styles to well-being.

PREREQUISITES FOR HEALTH

The fundamental conditions and resources for health are peace, shelter, education, food, income, a stable eco-system, sustainable resources, social justice and equity. Improvement in health requires a secure foundation in these basic prerequisites.

ADVOCATE

Good health is a major resource for social, economic and personal development and an important dimension of quality of life. Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. Health promotion action aims at making these conditions favourable through advocacy for health.

ENABLE

Health promotion focuses on achieving equity in health. Health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. This includes a secure foundation in a supportive environment, access to information, life skills and opportunities for making healthy choices. People cannot achieve their fullest health potential unless they are able to take control of those things which determine their health. This must apply equally to women and men.

MEDIATE

The prerequisites and prospects for health cannot be ensured by the health sector alone. More importantly, health promoters demand coordinated action by all concerned: by governments, by health and other social and economic sectors, by non-governmental and voluntary organizations, by local authorities, by industry and by the media. People in all walks of life are involved as individuals, families and communities. Professional and social groups and health personnel have a major responsibility to mediate between differing interests in society for the pursuit of health.

Health promotion strategies and programmes should be adapted to the local needs and possibilities of individual countries and regions to take into account differing social, cultural and economic systems.

HEALTH PROMOTION ACTION MEANS:

BUILD HEALTHY PUBLIC POLICY

Health promotion goes beyond health care. It places health on the agenda of policy makers in all sectors and at all levels, directing them to be aware of the health consequences of their decisions and to accept their responsibilities for health.

Health promotion policy combines diverse but complementary approaches including legislation, fiscal measures, taxation and organizational change. It is coordinated action that leads to health, income and social policies that foster greater equity. Joint action contributes to ensuring safer and healthier goods and services, healthier public services, and cleaner, more enjoyable environments.

Health promotion policy requires the identification of obstacles to the adoption of healthy public policies in non-health sectors and ways of removing them. The aim must be to make the healthier choice the easier choice for policy makers as well.

CREATE SUPPORTIVE ENVIRONMENTS

Our societies are complex and interrelated. Health cannot be separated from other goals. The inextricable links between people and their environment constitutes the basis for a socio-ecological approach to health. The overall guiding principle for the world nations, regions and communities alike, is the need to encourage reciprocal maintenance — to take care of each other, our communities and our natural environment. The conservation of natural resources throughout the world should be emphasized as a global responsibility.
Changing patterns of life, work and leisure have a significant impact on health. Work and leisure should be a source of health to people. The way society organizes work should help create a healthy society. Health promotion generates living and working conditions that are safe, stimulating, satisfying and enjoyable. Systematic assessment of the health impact of a rapidly changing environment — particularly in areas of technology, work, energy, production and urbanization — is essential and must be followed by action to ensure a positive benefit to the health of the public. The protection of the natural and built environments and the conservation of natural resources must be addressed in any health promotion strategy.

STRENGTHEN COMMUNITY ACTION

Health promotion works through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them to achieve better health. At the heart of this process is the empowerment of communities, their ownership and control of their own endeavours and destinies.

Community development draws on existing human and material resources in the community to enhance self-help and social support, and to develop flexible systems for strengthening public participation and direction of health matters. This requires full and continuous access to information, learning opportunities for health, as well as funding support.

DEVELOP PERSONAL SKILLS

Health promotion supports personal and social development through providing information, education for health and enhancing life skills. By so doing, it increases the options available to people to exercise more control over their own health and over their environments, and to make choices conducive to health.

Enabling people to learn throughout life, to prepare themselves for all of its stages and to cope with chronic illness and injuries is essential. This has to be facilitated in school, home, work and community settings. Action is required through educational, professional, commercial and voluntary bodies, and within the institutions themselves.

REORIENT HEALTH SERVICES

The responsibility for health promotion in health services is shared among individuals, community groups, health professionals, health service institutions and governments. They must work together towards a health care system which contributes to the pursuit of health.

The role of the health sector must move increasingly in a health promotion direction, beyond its responsibility for providing clinical and curative services. Health services need to embrace an expanded mandate which is sensitive and respects cultural needs. This mandate should support the needs of individuals and communities for a healthier life, and open channels between the health sector and broader social, political, economic and physical environmental components.

Reorienting health services also requires stronger attention to health research as well as changes in professional education and training. This must lead to a change of attitude and organization of health services, which refocuses on the total needs of the individual as a whole person.

MOVING INTO THE FUTURE

Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love. Health is created by caring for oneself and others, by being able to take decisions and have control over one's life circumstances, and by ensuring that all members of society are living conditions of safety, stimulation, satisfactions and enjoyment.

Caring, holism and ecology are essential issues in developing strategies for health promotion. Therefore, those involved should take as a guiding principle that, in each phase of planning, implementation and evaluation of health promotion activities, women and men should become equal partners.

COMMITMENT TO HEALTH PROMOTION

The participants in this conference pledge:

- to move into the arena of healthy public policy, and to advocate a clear political commitment to health and equity in all sectors;
- to counteract the pressures towards harmful products, resource depletion, unhealthy living conditions and environments, and bad nutrition; and to focus attention on public health issues such as pollution, occupational hazards, housing and settlements;
- to respond to the health gap within and between societies, and to tackle the inequalities in health produced by the rules and practices of these societies;
- to acknowledge people as the main health resource; to support and enable them to keep themselves, their families and friends healthy through financial and other means, and to accept the community as the essential voice in matters of its health, living conditions and well-being;
- to reorient health services and their resources towards the promotion of health; and to share power with other sectors, other disciplines and most importantly with people themselves;
- to recognize health and its maintenance as a major social investment and challenge; and to address the overall ecological issue of our ways of living.

The conference urges all concerned to join them in their commitment to a strong public health alliance.

CALL FOR INTERNATIONAL ACTION

The Conference calls on the World Health Organization and other international organizations to advocate the promotion of health in all appropriate forums and to support countries in setting up strategies and programmes for health promotion. The Conference is firmly convinced that if people in all walks of life, nongovernmental and voluntary organizations, governments, the World Health Organization and all other bodies concerned join forces in introducing strategies for health promotion, in line with the moral and social values that form the basis of this CHARTER, Health For All by the year 2000 will become a reality.
This CHARTER for action was developed and accepted by an international conference, jointly organized by the World Health Organization, Health and Welfare Canada and the Canadian Public Health Association. Two hundred and twelve participants from 38 countries met from November 17 to 21, 1986, in Ottawa, Canada to exchange experiences and share knowledge of health promotion.

The Conference stimulated an open dialogue among lay, health and other professional workers, among representatives of governmental, voluntary and community organizations, and among politicians, administrators, academicians and practitioners. Participants co-ordinated their efforts and came to a clearer definition of the major challenges ahead. They strengthened their individual and collective commitment to the common goal of Health for All by the Year 2000.

This CHARTER for action reflects the spirit of earlier public charters through which the needs of people were recognized and acted upon. The CHARTER presents fundamental strategies and approaches for health promotion which the participants considered vital for major progress. The Conference report develops the issues raised, gives concrete examples and practical suggestions regarding how real advances can be achieved, and outlines the action required of countries and relevant groups.

The move towards a new public health is now evident worldwide. This was reaffirmed not only by the experiences but by the pledges of Conference participants who were invited as individuals on the basis of their expertise. The following countries were represented: Antigua, Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Eire, England, Finland, France, German Democratic Republic, Federal Republic of Germany, Ghana, Hungary, Iceland, Israel, Italy, Japan, Malta, Netherlands, New Zealand, Northern Ireland, Norway, Poland, Portugal, Romania, St. Kitts-Nevis, Scotland, Spain, Sudan, Sweden, Switzerland, Union of Soviet Socialist Republic, United States of America, Wales and Yugoslavia.

Cette CHARTE pour l'action a été élaborée et adoptée par une conférence internationale organisée conjointement par l'Organisation mondiale de la Santé, le Ministère canadien de la Santé et du Bien-être social et l'Association canadienne de santé publique. Deux-cent-douze délégués de 38 pays se sont rencontrés du 17 au 21 novembre 1986 à Ottawa (Canada) pour échanger connaissances et expériences en promotion de la santé.

La Conférence a stimulé un dialogue ouvert entre profanes et professionnels de la santé et d'autres secteurs, entre représentants des agences gouvernementales, bénévoles et communautaires, ainsi qu'entre politiciens, administrateurs, universitaires et praticiens. Les participants ont eu l'occasion de coordonner leurs efforts et de mieux définir les grands problèmes, tout en renouvelant leur engagement individuel et collectif face à l'objectif commun de la Santé pour tous d'ici l'année 2000.

Cette CHARTE pour l'action reflète l'esprit de celles qui ont précédé, dans lesquelles on reconnaissait et traitait les besoins des populations. Elle présente les stratégies et méthodes fondamentales de promotion de la santé que les participants considèrent indispensables à l'accomplissement de progrès majeurs. Le rapport de la Conférence traite en détail les questions soulevées, offre des exemples concrets et des suggestions pratiques sur la façon dont nous pouvons faire de réels progrès, et précise l'engagement exigé des nations et des groupes concernés.

ANNEXURE 5

FACSIMILE CONFIRMING INTERVIEWS
26 May 2000

FAX: 018-387-5096

Mr. OMR Mokate
Assistant Director: Environmental Health
P/ Bag X 2068
Mafikeng
2745

Dear Mr. Mokate

RESEARCH PROJECT ON ENVIRONMENTAL HEALTH PROMOTION

A research project jointly supported by UNISA, the National and Gauteng Departments of Health, and the Technikon Witwatersrand is currently being conducted by Ms. Jackie Witthuhn of the Department of Health: Gauteng.

The aim of this study is to determine the level of activity regarding environmental health promotion at local government. This research study also wants to establish or identify general trends regarding the helping and hindering factors towards the implementation of environmental health promotion by environmental health officer’s and management.

Your local authority has been selected to participate in this important study. As telephonically discussed with you, the arrangements for your structured interview with Ms. Witthuhn are as follows:

♦ 13 JUNE 2000 AT 11h30: Room 7220: John Orr Building: Technikon Witwatersrand

The arrangements for the one-hour focus group interview for one of your environmental health officers are as follows:

♦ TUESDAY 13 JUNE 2000
9:30 FOR 10:00
♦ VENUE: ROOM 7220, SEVENTH FLOOR, FACULTY OF HEALTH SCIENCES, JOHN ORR BUILDING, DOORNFONTEIN CAMPUS, TECHNIKON WITWATERSRAND

Your valuable input into this research is appreciated. All participants will remain anonymous and results will be reported as a group and not as individual feedback. Part of
the qualitative approach is that both the structured and focused interviews will be tape-recorded. Results of the study will be communicated to you via your professional bodies.

If you have any other queries, please contact André Swart.

Thank you very much for your participation.

Yours sincerely

[Signature]

André Swart
Programme Manager: Environmental Health
SCHOOL OF HEALTH