

**RAPID APPRAISAL AS AN APPROPRIATE
PLANNING TOOL FOR PRIMARY
HEALTH CARE SERVICES**

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Abstract

Rapid Appraisal has gained popularity amongst policy makers, and is used in strategic planning of primary health care services. This study aimed at determining whether Rapid Appraisal is an appropriate planning tool for primary health care services in South Africa. This study compares Rapid Appraisal with a Regional Health Management Information System (ReHMIS), using the Northern Province as a case study. In comparison, Rapid Appraisal took half the time of ReHMIS for data collection, and used less resources in the process. There is significant difference between the two data sets and this is explained by the fact that Rapid Appraisal does not only determine whether the facility is there or not but it also identifies management issues. Rapid Appraisal is an innovative method that engages all the relevant stakeholders in planning their primary health care services. The findings proved that Rapid Appraisal is an appropriate planning tool for primary health care services.

Declaration

I declare that this report is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Management (in the field of Public and Development Management) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

D. Conco

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30 October 1998

Dedication

This work is dedicated to my late mother, Doreen Conco. “*Uphumule kahle ntombi ka Majola, styohlala sikukhumbula*”.

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Table of Contents

1. Chapter One: Introduction to the Research	1
1.1. Introduction	1
1.2. Operational Definition of Terms	2
1.2.1. Health planning system	2
1.2.2. Health information system	2
1.2.3. Rapid Appraisal	2
1.2.4. ReHMIS	2
1.3. Background to the Research	2
1.3.1. South African health status	3
1.3.1.1. Mortality	3
1.3.1.2. Nutrition	4
1.3.1.3. Access to basic services and health care	5
1.3.1.4. Northern Province situation	6
1.3.2. Summary of the South African situation	8
1.3.3. National Health Strategy	10
1.3.3.1. What is primary health care?	10
1.3.3.2. District Health System	12
1.3.4. Health planning initiatives	14
1.3.4.1. Northern Province ReHMIS data	14
1.3.4.2. Rapid Appraisal in the Northern Province	15
1.4. Summary of the Background	15
1.5. Research Problem	16
1.5.1. Why research this specific problem?	16
1.5.2. Relevance of this study	16
1.6. Limitations	17
1.7. Conclusion	17
 2. Chapter Two: Literature Review	 19
2.1. Introduction	19
2.2. Definitions Relevant to Appropriate Planning in Primary Health Care	19
2.2.1. Defining "appropriate"	19
2.2.2. Defining planning	19
2.2.3. Defining primary health care	21
2.2.3.1. Equity	22
2.2.3.2. Community participation	26
2.2.3.3. Inter-sectoral approach	27
2.2.3.4. Appropriate technology	28
2.2.3.5. Emphasis on health promotion	29
2.2.3.6. Decentralisation	30
2.2.4. Implications for a health planning process	31
2.3. Criteria for an Appropriate Planning System in Primary Health Care	32
2.4. Health Information in Planning Primary Health Care Services	33
2.4.1. Principles or guidelines for health information	33
2.4.2. The South African process of developing health information systems	35

2.5. ReHMIS	37
2.5.1. Aims of ReHMIS post-1994	38
2.5.2. How was the ReHMIS process implemented?	39
2.5.3. The ReHMIS implementation process in the Northern Province	40
2.6. Rapid Appraisal	41
2.6.1. Defining Rapid Appraisal	41
2.6.2. Experience of Rapid Appraisal in different countries	41
2.6.3. Rapid Appraisal in planning primary health care services	43
2.6.4. The validity and reliability of Rapid Appraisal	44
2.6.5. Rapid Appraisal in the Northern Province	45
2.6.5.1. The Rapid Appraisal method	46
2.7. Conclusion	47
 3. Chapter three: The Research Question	 48
3.1. Introduction	48
3.2. The Study Approach	48
3.3. The Research Question	49
3.4. Specific Objectives	49
3.5. Assumptions Underlying this Study	49
3.6. Conclusion	50
 4. Chapter Four: Research Methodology	 51
4.1. Introduction	51
4.2. Unit of analysis	51
4.3. Purpose of the Study	51
4.4. Population and Sample	51
4.4.1. Area of study	52
4.4.2. Interviews and documents	52
4.4.2.1. Interviews	53
4.4.2.2. Documents	53
4.4.3. Data on how the ReHMIS and Rapid Appraisal data compare	53
4.4.3.1. ReHMIS	53
4.4.3.2. Rapid Appraisal	54
4.4.4. Data on decisions and plans made based on the information systems	54
4.5. Data collection and analysis	54
4.5.1. Interviews	55
4.5.2. Review, e.g documents	55
4.5.3. Decisions and plans	56
4.6. Tabular Representation of Data Collection Methods Used	57
4.7. Conclusion	57

5. Chapter Five: Analysis of results	58
5.1. Introduction	58
5.2. Comparison of the Rapid Appraisal and ReHMIS Processes	58
5.2.1. The ReHMIS process in the Northern Province	58
5.2.2. The Rapid Appraisal Process	59
5.2.3. Tabular presentation comparing the processes	60
5.2.4. Discussion of the comparison	60
5.2.4.1. Time taken	60
5.2.4.2. Data collection process	61
5.2.4.3. Profile of people involved	62
5.2.4.4. Training	63
5.2.4.5. Analysis of data	64
5.3. Comparison of Data	65
5.3.1. Areas of similar coverage	66
5.3.2. Definitions used for data collection	67
5.3.3. Response rate for the facility checklist	67
5.3.4. Comparison of data for the whole province	68
5.3.4.1. Telephone	68
5.3.4.2. Electricity	68
5.3.4.3. Water	68
5.3.4.4. Toilet / sewerage	69
5.3.5. Response rate by region	69
5.3.6. Comparison of data by region	69
5.3.7. Statistical analysis of data from Region 4	70
5.3.7.1. Telephone	70
5.3.7.2. Electricity	71
5.3.7.3. Water	71
5.3.7.4. Toilet	72
5.3.8. Discussion	72
5.4. Decisions Based on the Two Information Systems	73
5.4.1. ReHMIS process	73
5.4.2. Rapid Appraisal process	73
5.5. Exploring Rapid Appraisal as a Planning System	74
5.5.1. Consistency with policies of decentralisation	74
5.5.2. Consistency with the promotion of equity	74
5.5.3. Consistency with the promotion of a multi-sectoral approach to health, including ensuring cognisance of the non-governmental and private sector	75
5.5.4. A clear and defined relationship with donors	75
5.5.5. Consistency with the overall government planning and budgeting system	75
5.5.6. An open system, with minimal bureaucratic requirements	76
5.5.7. An internally coherent system, with clear links between the different functions of planning	76
5.5.8. A combination of long-term policy continuity with the flexibility necessary to respond to inevitable changes in external factors	76
5.5.9. Sustainability of the planning system	76
5.5.10. Consistency with other decision-making processes in the sector, including budgetary and personnel processes	77
5.6. Conclusion	77

6. Chapter six: Interpretation of the Results	78
6.1. Introduction	78
6.2. Comparing the Research Processes Followed	78
6.2.1. Time taken	78
6.2.2. Data collection process	79
6.2.3. Profile of people involved	80
6.2.4. Training	80
6.2.5. Analysis of data	81
6.3. Comparison of Data	81
6.3.1. Areas of similar coverage	81
6.3.2. Definitions used for data collection	82
6.3.3. Response rate for the facility checklist	82
6.3.4. Comparison of data for the whole province	82
6.4. Decisions Based on the Two Data Sets	82
6.4.1. ReHMIS data	82
6.4.2. Rapid Appraisal method	83
6.5. Exploring Rapid Appraisal using Green's Criteria	83
6.6. Conclusion	84
 7. Chapter Seven: Conclusions and Recommendations	 86
7.1. Introduction	86
7.2. Conclusions	86
7.2.1. The Rapid Appraisal process followed during data collection	86
7.2.2. The validity of Rapid Appraisal data	86
7.2.3. The decision made based on these planning tools	87
7.2.4. Green's criteria for an appropriate planning system	87
7.3. Recommendations	87
References	89
Appendix A Interview Guide	93
Appendix B Detailed Statistical Analysis	94

1. Chapter One: Introduction to the Research

1.1. Introduction

South Africa is facing a number of health challenges and when the new government took over in 1994, new national health plans were developed. Although new health strategies exist, implementation remains a challenge. The South African health strategy, involves providing primary health care services through a district health system. Implementing primary health care services requires effective health planning systems.

A number of health planning initiatives have been adopted by the DOH¹. Two of these initiatives, namely Rapid Appraisal² and the Regional health management information system (ReHMIS)³, will be discussed in detail because of their relevance to this study. This study seeks to investigate the appropriateness of using Rapid Appraisal as a health planning system. Part of this investigation is to prove the validity of the data obtained by the Rapid Appraisal method. To prove the validity of this data, Rapid Appraisal data will be compared with ReHMIS data.

Chapter one presents a detailed background to this research study, and explains the research problem and the limitations of this study. There are terms used in this study report that can suggest different meanings to different readers. This has necessitated providing operational definitions of these terms as an attempt to ensure a shared understanding of the meaning of the terms.

¹ Department of Health

² Rapid appraisal is a participatory research method that is explained further in the literature review.

³ ReHMIS is a planning tool used in the provinces and involves having data gathered through a systematic and validated system.

1.2. Operational Definition of Terms

This section presents operational definitions of some of the terms that are vital for the understanding of this study.

1.2.1. Health planning system

'Health planning system' refers to a framework that enables translating policies into action plans and implementation of those plans.

1.2.2. Health information system

'Health information system' refers to a constant supply of reliable information to enable a health management team to plan, implement and evaluate the tasks that are needed to run the health system.

1.2.3. Rapid Appraisal

According to WHO⁴ (1993), 'Rapid Appraisal' refers to a participatory approach in which decision makers from different levels of the health care system work together on a rapid and comprehensive assessment of the health situation. This is the definition used for the purpose of this study.

1.2.4. ReHMIS

'ReHMIS' is the abbreviation of regional health management information system. This system has been used in South Africa in health service planning and it was adopted by the National District Health Committee as a step in the process of establishing a District Health System.

1.3. Background to the Research

In this section, South African health status is described using health indicators. Details of the situation in the Northern Province are provided, and what is unique to this province is discussed. After giving a summary of the South African situation, a national health strategy is discussed giving details on primary health

⁴ World Health Organisation

care and district health systems. Lastly in this section, the information on two health planning initiatives (Rapid Appraisal and ReHMIS) is presented.

1.3.1. South African health status

Health indicators seem to be the most common way of describing the health status of a country. For this study as well, some health indicators were used to describe South African health status. The main indicators used internationally include mortality, nutrition and access to basic care. These three main indicators will be used to discuss the health status of this country, using whatever data is available.

According to the RDP⁵ report (1996, p50), the data in South Africa on these key indicators is inadequate and present an incomplete picture. Despite the inadequacies of the existing data, available data has been used as evidence of the health status of this country. The RDP report states that the available data, even with its limitations, provides evidence of the disparities that exist between races⁶, as seen in the following scenarios.

1.3.1.1. Mortality

Mortality rates (also called death rates) are the number of deaths in relation to any particular disease or condition, and in this section, the maternal and infant mortality rates are explored. The maternal mortality rate refers to the number of women dying from complications of pregnancy or childbirth per 100 000 live births (Goosen & Klugman, 1996). According to the South African Health Review (1996, p26) the reported maternal mortality rate in 1990 was 3 for "White" women, 15 for "Indian" women, 30 for "Coloured" women and 230 for "African" women. Indirect demographic techniques estimated that the rate for "African" women was in the order of 250 in 1991 (Fawcus, 1996). The rates for the "White" population in South Africa compares favourably with those of developed countries across the world whereas that of the "African" population is

⁵ Reconstruction and Development Programme

⁶ It appeared important to explore the racial disparities as the differences are the key issues to consider in redressing the imbalances.

in line with the developing countries (UNFPA, 1996). This racial difference demonstrates how the apartheid system created within one country first world for "White" people and a third world for the "Africans". A similar picture is portrayed by the infant mortality rates.

The RDP report (1996) states that infant mortality is a sensitive indicator of the overall health of the community as it is also an indication of environmental and socio-economic conditions of people in particular communities. "The infant mortality rate refers to the number of children who die before they reach the age of one year in every 1 000 live births" (RDP, 1996, p50). The 1990 estimates by race group (these excluded the so-called 'independent' homelands) were 7.3 infant deaths per 1 000 for "Whites", 13.5 for "Indians", 28.0 for "Coloureds" and 52.8 for "Africans" (RDP, 1996, p50). These rates are usually underestimates, especially in the case of poor rural areas due to underreporting. Another analysis based on the Project for Statistics on Living Standards and Development (PSLSD) survey indicated higher rates, which were 86 per 1 000 live births for Africans and 94 for rural infants (RDP, 1996). This means that in rural areas about 94 infants out of 1 000 born alive die within their first year of life. Being an indicator of environmental and socio-economic conditions, the high infant mortality rates amongst Africans confirm the poor living conditions for the majority and the fact that the rural areas are worse than the urban areas. These living conditions seem to be related to nutritional intake.

1.3.1.2. Nutrition

Adequate nutrition maintains a healthy body, especially in children. There is a direct link between malnutrition and lowered resistance to diseases. Malnutrition among poor children is known to contribute considerably to mortality associated with diarrhoeal diseases, respiratory infections and measles (RDP, 1996).

According to the South African Health Review (1996), children's nutritional status is a good indicator of overall social development or social well being.

Findings of the survey reported in the South African Health Review (1996) using anthropometric⁷ measures, indicated that approximately 660 000 pre-school children were identifiably malnourished and 1 520 000 were stunted because of long-term malnutrition. According to the RDP report (1996, p51), the most vulnerable are those living in households in rural, peri-urban and informal settlements. Malnourished children suffer because they do not get enough food to eat. South Africa is not short of food, South Africans seem to have far more food than they actually need, so the issue then becomes how to distribute food to reach those who need it most. The same could be said about basic health services.

1.3.1.3. Access to basic services and health care

A National Household Survey of Health Inequalities in South Africa (1995, p2) prepared by CASE⁸ states: "only 20% of "African" households have a water tap inside the home, compared to nearly 100% of "White" and "Indian" households". This survey reports further that 16% of "African" households have no toilets and nearly 60% have no electricity.

Poor access to basic services like water and electricity places a greater burden on women because of the roles society prescribes for them. It is women who have to walk long distances to fetch water or to collect wood for fuel. These responsibilities have health consequences for women (Budlender, 1995).

Access to basic amenities like these do not only affect quality of life, but also impact on health. Lack of access to sanitation and clean water seem to contribute to the spreading of diseases like cholera, diarrhoea and typhoid. This situation is made worse by poor access to health care services.

The majority of South Africans' access to basic health care is limited. CASE (1995, p2) states: "cost of care, distance and the availability and cost of transport

⁷ refer to measurement of human body

⁸ Community Agency for Social Enquiry

are major barriers to health care for Africans". Three quarters of the African population who needed to seek out health care failed to do so because they could not afford it (CASE; 1995, p66). The majority of South Africans still have long distances to walk or have to take transport to get to the clinics, and these conditions are worse in the rural areas.

Another issue of access is the way people are treated by health care workers. According to Goosen and Klugman (1996), in their experience of health services women talked of being shouted at and of experiencing rudeness and impatience, and being at the mercy of stressed and overworked health care workers. Goosen and Klugman (1996, p477) state further that, "Rich, poor, black and white women testify that when they seek medical help, they are often treated like naughty children, both in the private and the public sectors." The attitude of health providers significantly influences patients' opinion of the quality of care provided. Women happen to be the people who visit health facilities more frequently simply because of their physiological make-up, being pregnant and delivering babies, and also because of their socially prescribed role of caring for children and the ill in their families.

Although the attitudes of health workers affect all women across all classes and races, because of limited resources the issue of access seems worse for people in rural areas. In rural areas, there are fewer health service points, and this limits the choice of where to go for health care. Rural areas are also the most affected by poverty and these are the areas that were neglected most by the previous government. In the Northern Province, the majority of the population live in rural areas, and so this study uses the case of the Northern province to look into health planning initiatives.

1.3.1.4. Northern Province situation

Northern Province is one of the poorest provinces in South Africa. Its population is 5.1 million, and ninety two percent of that population lives in rural areas (DOH,

1996). More than half of the Northern Province population is below 20 years of age (DOH, 1996), and this suggests that more than half of the population is economically dependent on others. The unemployment rate in the Northern Province is 41.0% of the economically active population.

Illiteracy in rural areas is 50% for all South Africans and 61% for Africans living in rural areas (South African Beijing Conference report, 1995, p25). These South African rates are appropriate for the Northern Province since the majority of the population is made up of African people living in rural areas.

Teenage pregnancy and unsafe abortions are still common in this province, as in the rest of South Africa. The South African teenage pregnancy rate is 330 per 1000 women under the age of 19 years (South African Green Paper on Population policy, 1995, p7). In the Northern Province 28% of teenagers were or had been pregnant between the age of 15-19 years (Health Trends in South Africa, 1997). The teenage pregnancy rate is one of the indicators of women's status in a country. These high rates give an indication of the number of young women who may delay their educational progress or may even leave school and add to the statistics of the unemployed, making it even more difficult to escape from poverty. Although not all teenage pregnancies are unplanned and/ or unwanted, teenage pregnancy still serves as an indication of unwanted pregnancies. The high rate of unwanted pregnancies describes the degree to which individuals have access to the information and services to help them make informed decisions about their bodies, health and lives. The burden of teenage pregnancy is carried in a disproportionate way by young women.

Other challenges facing this province are related to bringing together the different administrations and related management structures created during the apartheid era (DOH, 1996). The provincial DOH was faced with amalgamating six

administrations those of the TPA⁹, NHPD¹⁰, Venda, Gazankulu, Lebowa and local authorities which used different approaches to delivering health care. People from different cultural backgrounds, with diverse styles of operating as well as different understanding of how health planning should take place, were expected to work together towards a common goal.

According to the African management theory, value systems that individuals use to shape their worlds play a major role in work situation (Koopman, 1994). According to Lessem (1994, p17), "social, political and economic transformation of South Africa has not been accompanied by a differentiated and subsequently integrated approach". He goes on to say: "Southern African managers have yet to recognise, and indeed harness, the full potential of their cultural, economic and personal variety." The African management philosophy is especially appropriate for the Northern Province because of the diverse cultural groups of people who are forced to work together. This suggests that for the transformation process to be successful, the cultural diversity of the groups of people working together needs to be addressed and appreciated. The transformation process must also include analysing the situation before implementing any form of change.

1.3.2. Summary of the South African situation

The indicators used to describe South African health status seemed to be interrelated. These indicators are all directly related to poor living conditions. The majority of the South Africa population is African people, who live in poor environmental and socio-economic conditions, especially those in rural areas and informal settlements. These conditions are similar to those of other developing countries. What is unique about South African health status is the fact that some groups of people enjoy a developed-country standard of living. These disparities and the poor living conditions of the majority are some of the challenges facing policy-makers in this country.

⁹ Transvaal Provincial Administration

¹⁰ Department of National Health and Population Development

Although South African health status is consistent with other developing countries in other parts of the world, the discrepancy lies in the fact that South Africa is far better off in terms of resources compared to other developing countries. In support of this statement, the RDP report (1996, p34) states that "compared to other developing countries, South Africa has a relatively well resourced health service". If resources are there, then it becomes even more important to identify what exactly is the problem in this country.

It is highly likely that the problem in this country is management of those resources. Management of resources includes distributing resources to where they are needed, and making sure that the available resources are well maintained, fully functioning and available especially to those groups of people who need them most. Resources do not only refer to things like infrastructure, personnel and money but also to health information which plays a vital role in planning.

The determinants of health are numerous and include amongst other things socio-economic status, education, and gender relations, which could be seen as external to the provision of health care services. Although socio-economic status and these other issues seem external to the provision of health care services, the effect they have on each other cannot be denied. To illustrate how provision of health care services can influence health status, we can look at how immunisations of children reduce the infant mortality rate and also how provision of safe infant delivery is directly related to low mortality rates. Access to the provision of health care services then becomes an important issue.

Therefore in South Africa there is a need to extend health care services, to ensure population coverage. Related to this is the issue of redressing the disparities indicated in the section on health status in South Africa. To address these challenges the South African government has adopted a new health strategy.

1.3.3. National Health Strategy

In order to address health care needs the South African policy framework embraced a district-based primary health care approach. The national health strategy involved the development of a new national health policy. The South African policy framework for the national health system aims to achieve "substantial, visible and sustainable improvements to the accessibility, efficiency and effectiveness of a *publicly funded primary health care (PHC) service*" (Restructuring the national health system for universal primary health care, 1996, p5). Making primary health care services the foundation for restructuring the health system is supported by major interest groups like the WHO¹¹, the World Bank, donors and NGOs¹². Health care reform in South Africa is about shifting away from a curative-based and urban-centred health system to a system that is based on a primary health care approach (Power *et al.*, 1996).

1.3.3.1. What is primary health care

Primary health care is "essential health care based on practical, scientifically sound, and socially acceptable methods and technology made universally available to individuals and families in the community through their full participation, and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self reliance and self determination" (WHO, 1978, Alma-Ata declaration 6). According to Tamiro (1991, p5), the International Conference on Primary Health Care, held at Alma-Ata in 1978, identified two components of primary health care. One component of primary health care consist of at least eight elements, namely:

- health education;
- provision of essential drugs;
- immunisation;
- maternal and child care;
- treatment of common diseases and injuries;

¹¹ World Health Organisation

¹² Non Governmental Organisations

- adequate supply of safe water and basic sanitation;
- communicable disease control; and
- food supply and proper nutrition.

The other component of primary health care is the approach to the provision of health care that is characterised by:

- equity;
- inter-sectoral action; and
- community participation (Tarimo, 1991,p5).

According to the Alma-Ata's list of primary health care elements, services traditionally not seen as health care services are included: for example, supply of safe water and sanitation. This list already suggests that the Department of Health alone cannot on its own, effectively implement primary health care without working together with other sectors.

South Africa has adopted the Alma-Ata definition of primary health care. For South Africa, the primary health care approach is an attempt to rectify the variations created by the apartheid system in terms of quality and accessibility to health care by redistributing resources (Power *et al.*, 1996). The redistribution process should address issues of equity, which makes the approach proposed by the Alma Ata Declaration relevant to the South African situation.

Transforming the health system also involves "replacing top-down managerial approaches with far greater decentralisation and community participation in health care governance" as stated by Power *et al.* (1996, p35). By definition, primary health care suggests decentralisation, and the Alma-Ata approach emphasises community participation. To achieve a working primary health care system, it is therefore important to forge partnership with the community through governance. For South Africa primary health care should be seen as an integral part of the health system, bringing health care services closer to where people live and

focused on the overall socio-economic development of the community through inter-sectoral collaboration.

Different authors in the literature reviewed for this study suggested District Health System as the best option for implementing a primary health care approach. The World Bank report (1994) states that "one proven strategy to accomplish this is to adopt a district-based system". According to the South African Health Review report (1996), the district system is the foundation for the future health service. The World Bank (1994) reported that in Zimbabwe, a District Health System led to more complete population coverage. In Botswana which is also known for its effective District Health System, primary health care seemed to reach even the most remote areas¹³.

1.3.3.2. District Health System

The District Health System is crucial for delivering quality primary health care. Through the District Health System, authority and power will be taken to the lowest possible level and management will draw heavily on community involvement. According to the World Bank report (1994, p22), through the District Health System the clinics could become the primary level of the health system; the health care providers would focus on primary and preventive care; and there would be more involvement of communities and NGOs, and this could ensure accountability and that local needs are addressed.

Health issues cannot be divorced from other socio-economical factors prevailing in the community. Health must be dealt with in the context of other developmental issues in that particular community. This could be achieved through the District Health System, which is a method of decentralisation. Decentralisation promotes governance even at the local level. According to Garrity (1992) "The decentralisation has a potential to widen the policy process to include a more participatory and pluralistic model of governance". Governance at

¹³ This was observed by the researcher during Botswana study tour in 1996

the local level would also make inter-sectoral collaboration a possibility. This remains a challenge to most local authorities. Collaboration at the district level means that the health sector will work with other sectors like welfare, water and sanitation, education, road and transport in addressing the needs of that particular community.

Although there is an agreement that the District Health System approach is the most appropriate vehicle to implementing effective primary health care services, the uncertainties about this policy cannot be ignored. Mjekevu (1996, p190) raises the issue as to which level of government should be responsible for implementation of District Health System, the local government or the provincial government. This confusion about which level should take the responsibility is made worse by the lack of capacity at local government level. Amongst other issues of uncertainty mentioned by Mjekevu (1996, p190) is community participation. Although there is agreement on the value of community participation, community participation has proved to be difficult and complex to implement. These issues of uncertainty raised are directly related to the reality of our society and should be dealt with as challenges rather than as obstacles.

It is evident that the District Health System is faced with a number of challenges. To deal with these challenges, the District Health System needs effective health information systems. Tarniro (1991) cites health information system as essential to enable the district system deliver the quality primary health care. It is the role of the health information systems to inform the health planners about the state of primary health care services and facilities at the most peripheral point in the health care system. This is an important element in the health planning and development initiatives that the health department has embarked on.

1.3.4. Health planning initiatives

The South African NDH¹⁴ has embarked on various initiatives of data collection and planning systems for primary health care services. Two of these planning initiatives (ReHMIS and Rapid Appraisal) took place almost simultaneously in 1995 in three provinces: the Northern Cape, the Northern Province and the North West. Having these two planning initiatives presented an opportunity to compare their data.

One of these initiatives is the process of developing an updated health management information system known as ReHMIS. The ReHMIS data is used for health planning and to improve the health database. The other initiative used the Rapid Appraisal approach to assess the capacity of primary health care services to provide integrated reproductive health services in a project called the Transformation of Reproductive Health Services Project (TRHSP). More details are given on these two initiatives, specifically in relation to the experience in the Northern Province.

1.3.4.1. Northern Province ReHMIS data

This study used the case of the Northern Province to explore the use of Rapid Appraisal methods for planning primary health care services and for comparing ReHMIS and Rapid Appraisal data.

The ReHMIS process is a national initiative, involving reviewing health facilities in all South African provinces. The process uses standardised forms designed at the national level for data collection. Data collectors from within the Northern Province have been trained to use these forms. They visit health facilities in the province, including hospitals, health centres and clinics. Most of the information is obtained from hospitals because most clinics are attached to hospitals. In some cases the data collectors have to go to the clinics for information.

¹⁴ National Department of Health

The data collected was processed and compiled into a report called *Health Care in Northern Province: Implications for Planning 1996*. This report provides baseline information on health and welfare resources in the province, as well as their distribution between districts and regions. This report is especially meant for district, regional and programme managers so that they can easily collate information relating to their regions (DOH, 1996). Information from the ReHMIS data relates to the types of facilities, the resources they have and the services they render.

1.3.4.2. Rapid Appraisal in Northern Province

The Northern Province was one of three provinces that piloted a health systems development initiative to assess the capacity of primary health care services to provide reproductive health services at the primary care level. This initiative, TRHSP, used a Rapid Appraisal approach to do a situational analysis of the primary health care services and facilities. This process assessed health services, staff, infrastructure and functions, using both qualitative and quantitative data collection instruments with managers, providers and users. For this Rapid Appraisal process, an NGO¹⁵ worked in partnership with the provincial DOH. The findings from this situational analysis were disseminated in a workshop to the decision makers, managers, and health care providers from different levels of the provincial health system. Following the dissemination workshop, a planning meeting was held for all key personnel to make an informed decision on what action to take.

1.4. Summary of the Background

The background attempted to give a picture of:

- what the health situation in South Africa is like;
- how this situation has influenced the national health strategy; and

¹⁵ Women's Health Project is an NGO and a unit within the Department of Community Health at the University of the Witwatersrand.

- the two health planning initiatives used for primary health care services in the Northern Province since 1995.

This background influenced how the research problem was understood in this study.

1.5. Research Problem

The Rapid Appraisal approach has been gaining popularity internationally and locally amongst health policy makers in health planning. The appropriateness of using this approach in primary health care planning has not been established in this country, hence the title: "Rapid Appraisal as an appropriate planning tool for primary health care services".

1.5.1. Why research this specific problem?

The problem identified is that the appropriateness of using the Rapid Appraisal method is not known. If this is the problem, then it seems important to explore this method so as to determine its suitability for use in planning primary health care services.

There were two main aims in this study:

- One aim was to shed some light as to how Rapid Appraisal could be used for strategic planning in the process of decentralisation and transformation of primary health care.
- The other aim was to check the validity of data obtained by Rapid Appraisal methods by comparing it with ReHMIS data.

1.5.2. Relevance of this study

As discussed in the section 1.3, there is a need for good health information or planning systems to support the development of the District Health System. District Health Systems are seen as the vehicle to deliver effective primary health care services. Rapid Appraisal (amongst other initiatives) has been used in the transformation of primary health care services. If this study could shed light into the appropriateness of using this method, more confidence could be gained

regarding its use in future. Even more confidence could be gained if the validity of Rapid Appraisal data could be ascertained.

1.6. Limitations

The following are the identified limitations of this study:

- My involvement in the Rapid Appraisal process in the Northern Province may have biased my observations, although at the same time this involvement allowed for an enhanced access and understanding of the issues.
- Although scientific methods have been adhered to, the methodology used in this study has not been used before. It is therefore difficult to assess its strength and weaknesses at this stage.
- The data found and later used for comparing the Rapid Appraisal and ReHMIS methods for validity was limited and sometimes these methods used different approaches, which made it difficult to compare the data. Nonetheless there was sufficient data to compare and analyse.

1.7. Conclusion

There are numerous factors that affect the health status of South Africa. One example of this is the relationship between the health status of the country and living conditions. Living conditions are directly related, amongst other things, to socio-economic factors like housing, unemployment and education. There seem to be numerous interventions towards improving the health status of a country, some are health initiatives while others are developmental initiatives. But because of the complexity of the issue of health status, it becomes difficult to measure the effect of those interventions, especially in the short term. Although it is difficult to measure the effectiveness of the health initiatives, process indicators can always be used to determine whether or not the objectives of a project are met. It then becomes essential to understand the processes followed by the initiatives. This study explores the appropriateness of the process of the Rapid Appraisal method.

Given this background, it is then proper to look into what has been published on the research topic. The next chapter then presents a literature review.

This rest of the report is structured in the following manner:

Chapter 2 presents an overview of literature pertinent to the research problem. In this study the literature will present the criteria for an appropriate planning system in primary health care and describe: the role of health information in planning health care services; the meaning of planning within the context of health; and how Rapid Appraisal has been used as a planning tool for health services.

Chapter 3 will give details of the questions that this study aims to answer. These research questions are derived from the research problem in Chapter 1 and have been informed by the literature review in chapter 2.

Chapter 4 gives a detailed discussion of the research methods followed in this study. This section will elaborate on: the unit of analysis; purpose of the study; population and sample; data collection and analysis; and the use of statistical analysis.

Chapter 5 then presents the results of the study. Tables are used to present the comparison between the ReHMIS and the Rapid Appraisal systems.

Chapter 6 presents a detailed interpretation of results. The findings are explored in terms of the research question, as well as the underlying theoretical concepts.

Chapter 7 finally presents conclusions and recommendations which this report makes and additions to the existing body of knowledge. Possible avenues for further research are also suggested.

2. Chapter Two: Literature Review

2.1. Introduction

Literature relevant to the research problem was reviewed. The aim of reviewing the literature was to seek possible solutions to the research problem. It is then appropriate for this chapter to present theory on health planning as well as the criteria for an effective health planning system for primary health care. A discussion on the role of the health information in health planning follows. A detailed discussion of the ReHMIS and Rapid Appraisal is also provided in this chapter.

2.2. Definitions relevant to appropriate planning in primary health care

2.2.1. Defining "appropriate"

The research problem identified in this study is that the appropriateness of using Rapid Appraisal methods is not known. It is important to note that there is no all-encompassing definition of the term "appropriate". According to the Concise Oxford Dictionary (1983), "appropriate" means "suitable or proper". This therefore means that this study is looking at investigating the suitability, appropriateness or properness of Rapid Appraisal in planning primary health care services. What does then planning in primary health care mean?

2.2.2. Defining planning

The definitions of planning given by different authors refer to planning as making decisions about the future. A WHO technical report (1992, p46) defines planning as "deciding in advance what is to be done and how it is to be done". An English dictionary refers to planning as formulating or organising "the method by which a thing is to be done" (Sykes, 1983, p782). Green (1992, p3) gives a more detailed definition of planning in referring to it as "a method of trying to ensure that the resources available now and in the future are used in the most efficient way to obtain explicit objectives". It seems that the definitions by different authors refer

to planning as a process of making decisions about how to use resources to improve the future.

According to Amonoo-Lartson, Ebrahim, Lovel and Ranken (1984, p68), effective planning lies in finding answers to the following four key questions:

- Where are we now?
- Where do we want to go?
- How will we get there?
- How will we know when we arrive?

Similar components of the planning process are supported by other authors (Green, 1992; Gatherer & Warren, 1971; WHO technical report, 1992; Lee & Mills, 1982; and Pickett & Hanlon, 1990). The questions raised by Amonoo-Lartson *et al.* (1994) are related to the following stages of the planning process that are also identified by other authors:

- *making a situational analysis*, that includes identifying issues, and determining available resources at the primary health care level;
- *determining objectives, priorities, and goals* -- this stage attainable objectives are set;
- *making a detailed plan or programming*, after considering alternatives. This step seeks to answer the question: "What would be the most effective implementation to achieve the identified objectives?";
- *ensuring implementation and monitoring*. Monitoring is vital at this stage of carrying out the plan. Close monitoring helps identify problems early, and can inform a change in plan; and
- *making an evaluation*. This step comes at the end of the programme to assess whether or not the objectives set out were achieved (Green, 1992; Gatherer &

Warren, 1971; WHO technical report, 1992; Lee & Mills, 1982; and Pickett & Hanlon, 1990).

A planning process must be seen as part of the management process. In fact WHO (1992) refers to planning as the beginning of the management process. Planning should lead to action for attaining the objectives that were identified in the plan (Amonoo-Lartson *et al.*, 1984). Management is the process of utilising resources in the most efficient and effective way towards realising the goals of the institution (WHO, 1992). It is therefore important to acknowledge the role of managers in implementing the planning process. In case of planning processes in primary health care, the role of the district health management is vital to the realisation of the plan.

The preceding paragraphs have clarified what the terms "appropriate" and "planning" mean. The planning process detailed above can be applied to any issue and that is why we need to understand it further in the context of primary health care. It is therefore appropriate at this stage to define primary health care.

2.2.3. Defining primary health care

In 1978 primary health care was declared a priority at an international conference called by the World Health Organisation and the United Nations Children's Fund at Alma-Ata. According to Alma-Ata Declaration, as discussed in the first chapter, primary health care should use an approach that is guided by the following main themes:

- the importance of equity;
- community participation in decision making;
- an inter-sectoral approach;
- the use of appropriate technology; and
- an emphasis on health promotional activities.

These main themes should be applied in the process of providing the following essential service interventions

- health education;
- promotion of food supply and nutrition;
- adequate supply of safe water and sanitation;
- maternal and child health care;
- immunisation;
- prevention and control of communicable diseases;
- treatment of common diseases and injuries; and
- provision of essential drugs (Green, 1992).

This definition of primary health care describes the main themes that should influence the approach to be used in implementing primary health care, as well as the list of basic elements to be covered by the service. To gain more clarity about this definition of primary health care, it is then necessary to further explore the meanings of these main themes.

2.2.3.1. Equity

Equity was identified as the first principle of primary health care. The meaning of social equity is defined by Frederickson (1980, p6) as

a phrase that comprehends an array of value preferences, organisational design preferences, and management style preferences. Social equity emphasises equality in government services. Social equity emphasises responsibility for decisions and program implementation for public managers. Social equity emphasises change in public management. Social equity emphasises responsiveness to the needs of citizens rather than the needs of public organisations. Social equity emphasises an approach to the

study of and education for public administration that is interdisciplinary, applied, problem solving in character, and sound theoretically.

This definition of social equity covers a whole range of issues including decision-making processes, change in management, problem-based interventions, multi-sectoral or interdisciplinary approaches, as well as issues of equality. Applying this understanding of equity to primary health care interventions suggests the following:

- equality in primary health care services or equality in access to primary health care services;
- accountability of health managers for decisions made and for the implementation of programmes;
- change towards decentralised health management with emphasis on the participation of the public in decision making;
- health services that are responsive to the needs of that particular community; and
- and inter-sectoral approach using applied and / or problem-solving methods in dealing with health-related issues.

All except the first point (which is related to equality), appear to be practical and realistic to implement. The above points would be important to consider in an attempt to apply the principle of equity in planning primary health care services. The first point on equality in or of access to primary health care services is difficult to comprehend and it is explored further below.

In exploring the meaning of the term "equity", it transpires that most authors avoid defining this term, though it is frequently used in discussing issues related to development. The term "equity" is loosely applied by some authors without defining it, and when this is done it then becomes difficult to follow their arguments. Sometimes one gets the impression that the term "equity" is used to avoid dealing with the issues of equality or inequalities which are sometimes difficult to address.

In relation to health, Green (1992, p55) identified the following variety of possible definitions of equity:

- equal health;
- equal access to health care;
- equal utilisation of health care;
- equal access to health care according to need; and
- equal utilisation of health care according to need.

The above definitions are impractical and would be impossible to attain. These definitions clearly are in conflict with the diversity of individuals in our society. It would therefore be impossible to use such definitions for planning processes. To explore this argument, an example of access and utilisation of health care is used by Green (1992). Access and utilisation depend on many other factors like:

- distance from the health facility;
- costs involved in seeking health care, including:
 - * service fees;
 - * transport fare; and

- * lost income during time spent attending the service;
- implications of being absent from work;
- perception of the need for health care;
- cultural beliefs in relation to use of health care; and
- health workers' attitudes (Green, 1992, p56).

Additional to these factors is the language barrier which is particularly important to the diverse culture of South African society (HST, 1996).

These factors highlight the difficulty of achieving equality in health and how all these factors are related to socio-economic and cultural factors. These issues are further influenced by overall underlying factors like race, class and gender (Green, 1992). All these issues of equity are related to the diversity that exists within our society. The principle of equity is important for primary health care and therefore there is a need to find a suitable definition to guide the planning process.

Green (1992) suggests a clear, well-defined and workable understanding of equity, as well as criteria that can be used to monitor progress towards achieving equity. According to Green (1992), for planning in primary health care, disadvantaged groups must be identified and this can be done in terms of health status, and access to, or utilisation of, services. In the case of South Africa this group would mostly be "African" people, especially those from rural communities and informal settlements. Even within large groups like the rural population, one finds that women are more disadvantaged compared to the rest of the population. It is therefore a planner's role to identify disadvantaged groups, develop plans that take specific account of their needs, advocate for these groups and make sure that their voices are heard (Green, 1992).

In South Africa, the national Department of Health identified two components of the promotion of equity:

- a rapid and substantial improvement in the delivery of services to under-served communities in the short term; and
- the development of a system that will ensure equity in service provision in the long term (DOH, 1995, p17).

The South African approach to dealing with the principle of equity is to have a short-term strategy that will improve accessibility of services to the disadvantaged. At the same time, the DOH will be implementing a long-term strategy to ensure equity.

2.2.3.2. Community participation

Community participation is the second principle underlying primary health care as presented in the Alma-Ata Declaration. There seem to be many and different interpretations of community participation. Green (1992, p59) identified the following interpretations:

- the individual's responsibility for her/ his own health;
- individual or community involvement in decisions about health care; and
- the individual's contribution to resources or community 'self-help' schemes.

Different interpretations will have different implications when applied to the planning process. To illustrate this, the World Bank's policies in health care financing have used the last interpretation in justifying initiatives on community financing of health care (Green, 1992). In South Africa, most organisation and government departments tend to interpret community participation as community involvement.

Different authors see community involvement as an essential part of primary health care (Amonoo-Lartson, *et al.*, 1984; ANC¹⁶, 1994; DOH, 1995; HST, 1996; Report of the Committee of Inquiry into a National Health Insurance System, 1995). The South African national Department of Health has spelt out the following principles for involving the community:

- all South Africans should be equipped with the information and the means to identify behavioural change conducive to improvements in their health;
- people should be provided with the opportunity of actively participating in planning, managing, monitoring and evaluating their health services; and
- the Department of Health should provide the public with regular updates on progress, results, and emerging issues related to its work, and should ensure that the public participates in the development of national policy (DOH, 1995, p22).

For effective community participation, there is a need to put in place processes of support to ensure community participation in the governance, management, provision and monitoring of health services. Energy and effort must be invested in building the capacity of community members and organisations to participate as part of a team addressing health and development problems (HST, 1996). In planning primary health care, the issue of community involvement needs to be clearly defined. In the South African literature there is emphasis on developing the capacity of the community members to be able to participate fully in the running of health care services. Planning processes must clearly spell out how they will ensure community involvement in their implementation.

2.2.3.3. Inter-sectoral approach

The principle of an inter-sectoral approach could address the multifaceted nature of the determinants of health. Factors influencing the health status of a country

¹⁶ African National Congress

are numerous and complex, as was highlighted in the previous chapter. These determining factors are directly related to poverty and the environment. Although the health services play a vital role in improving the health status of the country, health planners need to be aware of the limitations of health services and be able to recognise what other sectors can do.

The inter-sectoral approach is supported by the ANC (1994), as it argues that this approach is essential, especially if the extensive role of other interventions in health promotion is to be recognised and promoted. Sectors identified in the ANC report (1994) include Agriculture, Sanitation, Water, Education, Health, Employment, Trade and Industry, Finance, Welfare, Transport, Energy and Housing. According to the South Africa DOH (Report of the Committee of Inquiry into a National Health Insurance System, 1995), it is the function of the district health authority to provide for inter-sectoral collaboration with other government and non-government sectors in promoting health and rendering health services. Therefore the planning process must incorporate strategies on how the health sector will work with other disciplines in achieving the goals of primary health care.

2.2.3.4. Appropriate technology

The fourth theme of primary health care, appropriate technology, refers to the use of skills and resources in such a way that it takes into account both the health-care needs and the socio-economic context of a country (Green, 1992). The examples of appropriate technology applied to health care include using a coloured strip for measuring arm circumference, re-hydration spoons and low-cost hand pumps for water supply (Amonoo-Lartson, *et al.*, 1984).

Proponents of appropriate technology caution against misinterpreting it as the opposite of high technology (Green, 1992; and Kaplinsky, 1990). According to

Green (1992, p63), appropriate technology is a choice of particular technologies that will include consideration of:

- cost;
- efficacy and effectiveness in dealing with the health problem;
- acceptability of the approach to both the target community and health service providers;
- broader social and economic effects; and
- the sustainability of the approach.

This therefore suggests that appropriate technology does not necessarily mean using cheaper equipment. Related to this, is the fact that appropriate technology is not necessarily only for poor countries, as some developed countries have found value in using it. There is evidence that using appropriate technology contributes to the alleviation of poverty globally (Kaplan, 1990). Sustainability of projects could be realised through the use of appropriate technology. This should be of value to primary health care and needs to be considered in planning.

2.2.3.5. Emphasis on health promotion

Emphasis on health promotion is a step towards a promotive approach to health (Green, 1992). If the focus is more on maintaining the health of the population, there will be more resources allocated to promoting health rather dealing with diseases. According to Amonoo-Lartson *et al.* (1984), emphasis should be on health education. Through health education a community can get information that can help its members adopt healthy lifestyles, and prevent diseases. This preventive and promotive approach, encourages a shift in thinking from a curative oriented health service to a promotive approach.

In South Africa health workers at all levels should promote general health and encourage healthy lifestyles. The government should also seek to establish appropriate mechanisms that will lead to the integration of traditional and other complementary healers into the national health system (DOH, 1995). For planning, it is important to be reminded that the whole primary health care approach is about maintaining a healthy status and not just dealing with diseases. The emphasis on promotive approach should go hand in hand with how resources are distributed. If the country's goal to have a healthy society is to be recognised and realised then more resources should be invested in promoting health.

2.2.3.6. Decentralisation

The ANC (1994) has suggested that the authority over, responsibility for, and control over funds should be decentralised to the lowest level possible and that clinics, health centres and independent practitioners (including traditional practitioners and other alternative medicine practitioners) should be the main points of first contact with the health system. It has also proposed that rural health services be made accessible, with particular attention given to improving transport (ANC, 1994). In South Africa, decentralisation is seen as something that will contribute to the following:

- an increase in both accountability and efficiency;
- improved staff morale as staff will have more control over their budget and their functions; and
- increased initiativeness and flexibility at the local level (DOH, 1995).

Through decentralisation the decision-making process gets closer to the communities and this can make community participation a reality. Decision making at the lower level by the providers can result in more appropriate decisions being taken. It is also argued that with decentralisation, there is a bigger chance of inter-sectoral collaboration at the low level of service delivery. Decentralisation is

therefore seen as a step towards greater efficiency in service delivery (Green, 1992).

In planning one needs to be aware of the potential negative attributes of decentralisation as well. Decentralisation can lead to inequity between different areas, especially if linked to resource or income-generating mechanisms. Another concern is related to lack of sufficient skilled staff to speed up the process of implementing decentralisation, and this is a reality for South Africa.

2.2.4. Implications for a health planning process

According to Green (1992) the principles of primary health care (according to the Alma-Ata declaration) imply a particular approach to planning. If a country is committed to the philosophy of primary health care then it has to adopt the suggested approach to planning. It is therefore proper to expect all primary health care plans to include:

- a clear well-understood definition of equity;
- a clear process for involving communities in decision making about strategies to improve health;
- a clear process for involving other sectors in health-promotive strategies;
- management structures consistent with the principles of primary health care;
- criteria for assessing the appropriateness of the approaches chosen; and
- a recognition that there will be resistance to the philosophy, and that strategies to overcome this resistance will be needed (Green 1992, p69).

These are the principles that should guide any planning system or process in primary health care.

2.3. Criteria for an Appropriate Planning System in Primary Health Care

The main objective of this study is to assess if Rapid Appraisal methods are appropriate planning tools for primary health care. To answer this question one needs criteria that clearly define what an appropriate planning system should be like in primary health care. This section aims at identifying the criteria for appropriate planning systems.

Green (1992, p317) suggests the following criteria for an effective planning system for primary health care:

- consistency with other decision-making processes in the sector, including budgetary and personnel processes. *The plan should be within the budgetary constraints of the country;*
- consistency with policies of decentralisation;
- consistency with the promotion of equity;
- consistency with the promotion of a multi-sectoral approach to health, including ensuring cognisance of the non-governmental and private sectors;
- a clear and defined relationship with donors;
- consistency with the overall government planning and budgeting system;
- an open system, with minimal bureaucratic requirements;
- an internally coherent system, with clear links between the different functions of planning;
- a combination of long-term policy continuity with the flexibility necessary to respond to inevitable changes in external factors; and
- sustainability of the planning system.

The criteria given above cover all the principles of primary health care as related issues and these are the criteria that will be used to explore the Rapid Appraisal method as an appropriate tool for planning. Related to effective planning is the availability of data to inform decisions to be made. The role of health information in planning primary health care services cannot be undermined.

2.4. Health Information in Planning Primary Health Care Services

"For effective management in health, a comprehensive health information system is essential" (ANC, 1994). The literature reviewed in this study suggests that health information plays a vital role in health management. Health planning needs information that is comprehensive in nature and should also follow a comprehensive process from data collection to using data for planning.

According to the national health plan for South Africa prepared by the ANC (1994), this health information system should consist of the collection, organisation, reporting, storage and use of data for planning health care services. This system should also be flexible enough to incorporate data from research programmes, as well as data gathered from other sectors (ANC, 1994). The ANC (1994) also states that the health information system must be flexible. Flexibility is one of the principles attributed to health information but more principles are spelt out by different authors.

2.4.1. Principles or guidelines for health information

Different authors have the following to say about the information system:

- The information should provide an insight into overall health needs and make it possible to ascertain the strengths and weaknesses of the existing District Health System and how it can be improved (Tarimo, 1991). *The process of information gathering should do a situational analysis of the lowest level of care provision.*
- District health information systems should not be established until the users of that information at the district level can be identified (Owen, 1995; DOH,

1996). *The users need to be identified and also involved in the process of developing the information.*

- This information should provide a basis for rational planning of the work of the District Health System and also provide a foundation for quality assurance (WHO, 1992). *Health information and planning go together and should be treated as such. It is interesting to note that only one author raised quality assurance as an issue related to information and planning. Quality is part of health planning and information and it is important to develop indicators of quality care.*
- The information should support the district health management teams in assessing health needs in the district, implementation, planning, controlling key resources, monitoring programmes and taking corrective action when necessary, and evaluating programmes (WHO, 1988).
- The health information system should be based on primary health care principles, unlike the conventional health information systems which were developed within services of a different nature (WHO, 1988). *Conventional methods were centralised. This guideline suggests a decentralised system that will reach the primary level of care.*
- Staff at all levels should be involved in the development and use of the information system, and receive appropriate training (ANC, 1992). *Involvement of staff, particularly those who will be expected to implement changes, is important. Involvement should also incorporate building the capacity of those involved.*

The above detailed principles or guidelines should form the basis for any health information to be used for primary health care services. Given this basis, it is proper to look at what is happening in South Africa as far as information for planning health services is concerned.

2.4.2. The South African process of developing health information systems

Health information inherited from the previous government, in South Africa was found to be centralised, to have gaps and not to be inclusive of all South Africans. Isaacs and Bourne (1996) report that the national DOH inherited a paper-based information system that was based at the provincial level and designed to feed information to centrally managed health units and hospitals. According to Isaacs *et al.* (1996), there is a need to collect information that will help in deriving indicators of equity, service usage and health status. The information that Isaacs *et al.* (1996) refer to, would be used for resource allocation and other health management functions. Resource allocation needs to be done in accordance with the principles of equity. South Africa, since it is in the process of restructuring, needs an effective information system.

The DOH is involved in moving towards a national health information system. The policy and strategy for this information system is spelt out in the South African Health Review report (HST¹⁷ 1996) as follows:

- it is to be based on the health policy and strategies adopted by the Reconstruction and Development Programme. *This is appropriate, especially because the Reconstruction and Development Programme was a national strategy to address the inequalities that were created by the past regime, thus moving the DOH towards the goal of equity;*
- it is to be based on consensus between the provincial and national institutions, which are the possible primary users. *This statement suggests that only the provincial and national institutions made decisions, while district involvement is not mentioned. This statement highlights the realities related to not having the district structures in place, at the time this process was put in place;*
- it is to be developed as one parent system with a number of component systems, and its development and operation will be governed by nationally

¹⁷ Health Systems Trust

accepted standards regarding the methodology, technology and procedures;
and

- data will be collected at the point of generation to enable service assessment, as well as self-assessment. *The point of generation includes the primary health care level and this means data must be collected from there as well.*

Although there is move towards decentralisation, there is also evidence of the national and provincial institutions still maintaining control. One of the reasons for this situation is related to the fact that there was a delay in the establishment of district health systems. There was a feeling that this delay should not stop some processes taking place, so the provincial and national departments went ahead with the initiative.

The South African Health Review report (1996) describes the role of provinces in relation to this information system. The provinces are responsible for the following:

- enabling the districts to perform their roles efficiently and effectively;
- setting standards in accordance with nationally agreed standards;
- developing planning and policy at provincial level;
- co-ordinating and monitoring the development of information systems;
- budgeting for this information system in the province;
- supporting provincial hospitals to run their systems effectively; and
- maintaining a provincial health information system

The final responsibility for developing the health information system lies with the provincial institutions. However the district health structures will be involved in this process through the guidance of the provincial level. This demonstrates a well-planned process towards an appropriate health information system for the South African situation. Isaacs *et al.* (1996, p110) report that progress towards this system was delayed, the main reasons being that the provincial and district structures were not yet in place and in some cases restructuring was still taking

place. Although this process was delayed, provinces have succeeded in doing the ReHMIS surveys.

Isaacs *et al.* (1996, p109) cautions the reader against assumption that information will improve management and that health service provision will be more equitable. This raises the issue of how the information is used and who uses it and if there is capacity to make optimal use of the information once it is there. Earlier in this chapter some principles raised by different authors referred to users of information, how they should be involved in the process and be trained to use information effectively.

These authors (Isaacs *et al.*, 1996) then argue that resource allocation on a scientific basis is easier said than done, since scientifically based decision-making models "may obscure built-in value judgements". Isaacs *et al.* (1996) argue that although scientifically based decision-making models are important and can make people feel secure or confident about decisions, there is a need to incorporate "value judgements". This is a call to urge health researchers and managers to be realistic about the use of scientific methods in planning. It is important to note that information systems are not only scientific planning methods but they are also strategic planning tools. Value judgements have a valuable place in strategic planning. For effective planning the health information system must incorporate the issue of value judgements and the issue of building the capacity of the information users. These principles serve as a guide to any initiative to collect information for planning health services in this country. It is therefore appropriate to expect the Rapid Appraisal and ReHMIS initiatives to have followed and incorporated all these guides and principles.

2.5. ReHMIS

ReHMIS stands for Regional Health Management Information System. ReHMIS was designed by the Medical University of Southern Africa (MEDUNSA) in 1991. The main aim then was to assist in the objective assessment of health

services in the Northern Transvaal. It was then implemented nationally in the years 1993--1994. Although ReHMIS started in the apartheid era, it has been and continues to be the existing health information system in South Africa. In 1995 ReHMIS was adopted by the new government to be used in strengthening the District Health Systems.

2.5.1. Aims of ReHMIS post-1994

ReHMIS, one of the initiatives adopted by the National Committee, was seen as a step towards establishing a District Health System advisory group called the District Health System Information Support Group (DHSISG) was established to drive the ReHMIS process. In 1995 the DHSISG started the process of updating ReHMIS in the nine provinces. The aims of ReHMIS were then to bring together all the information needed for health service planning and management on a national/provincial/regional basis. Although the primary purpose for ReHMIS was to satisfy the information needs of the regional health service management, the data could also be used for planning at the national and provincial levels (ReHMIS Update Document, 1995).

Data was collected at the regional level and aimed at providing a basis to evaluate the adequacy of health service provision and to plan structural changes (ReHMIS Update Document, 1995). The data was collected in such a way that it was possible to compare data against the accepted norms and standards of health service provision. ReHMIS provided data on:

- the existing health facilities;
- their distribution in the area; and
- how this information compare to the accepted norms and standards.

The ReHMIS process aimed at collecting data from all levels of health provision, including primary and tertiary health care levels. Such data would make it possible to compare information across regions and provinces.

Another purpose of ReHMIS was to serve as a support system for regional health service management. According to the ReHMIS Update Document (1995, p1), the main goal of ReHMIS was to provide this level of management with "objective and structured data regarding health resources and to strengthen their ability to analyse this information locally in a flexible and easy way". The ReHMIS aimed not only at providing useful information but also at building the capacity of the people responsible for managing regional health services on how to use this data. According to the ReHMIS Update Document (1995), ReHMIS has been used in restructuring primary health care services and in developing models for regional and district health services. ReHMIS is primarily designed to develop a regional level of health care and should be implemented as such.

2.5.2. How was the ReHMIS process implemented?

In order to implement the ReHMIS process in the provinces the National District Health Committee appointed an advisory group called the District Health System Information Support Group (DHSISG). The main functions of the DHSISG was to facilitate the formation of provisional project teams, arrange training and support for provincial teams, and to do quality control on the provincial data sets. There was an understanding that the national DHSISG would work closely with and give full support to the provincial teams. For the provincial teams, their main tasks included:

- developing a practical implementation plan for the province and drafting the budget;
- getting commitment from the health service providers;
- training data collectors; and
- collecting, capturing and checking data.

These tasks applied to the provincial teams, including that of the Northern Province.

2.5.3. The ReHIMIS implementation process in the Northern Province

This study used the case of the Northern Province in exploring the ReHIMIS process and that is why the focus is on the process as experienced in this particular province. The provincial project team was responsible for the following activities:

- developing a practical implementation plan;
- drafting a budget;
- obtaining commitment from service providers;
- undertaking training, and
- ensuring responsible data collection, capture and verification in the first instance, and validation of the completeness of coverage of all facilities.

After capture of data, further validation was done.

The process of analysis and interpretation of data consisted of:

- a workshop to design a framework for analysis;
- a phase of data analysis;
- a follow-up workshop to interpret the findings;
- drafting of a report;
- verbal and written presentation to senior health managers for review; and
- subsequent editing and revision of the draft and publication of the report.

During the analysis, health service managers participated in the design and the review workshops.

The DHSISG members worked closely with the provincial project team to ensure the process was consistent and that it supported national plans. It is worth noting

at this point how data was validated. Responsible data collection was ensured, followed by verification and then validation. It is this part of the process which is considered to have validated the ReHMIS data and this is also why this data is used in this study. This "valid" data was used in this study to compare with the Rapid Appraisal data.

2.6. Rapid Appraisal

2.6.1. Defining Rapid Appraisal

Rapid Appraisal is defined by the World Health Organisation (WHO) (1993) as a participatory approach in which decision makers, programme managers, trainers and health service providers from different levels of the health care system work together on a rapid and comprehensive assessment of the health service situation. Other literature reviewed supports the WHO definition of Rapid Appraisal (Murray, 1994; Ong, 1991 and Askew, 1993). Ong (1991) further explains that Rapid Appraisal uses a semi-structured multi-disciplinary approach that leaves room for flexibility and innovations. Smith (1989) reports that Rapid Appraisal provides basic information for identification of problem areas. The definition of Rapid Appraisal suggests participation by stakeholders, flexibility, innovation and comprehensiveness, which are important aspects of strategic planning.

2.6.2. Experience of Rapid Appraisal in different countries

According to Smith (1989), Rapid Appraisal has been used most frequently in 'veloping countries. Developing countries often have scarce resources for their health programmes and that is why Rapid Appraisal has been used to address the need for good information systems that will allow them to allocate those resources wisely (Smith, 1989). This author went on to conclude that: "The Rapid Appraisal is seen as an appropriate method for developing countries" (Smith, 1989). It is important to note at this stage that although South Africa is a developing country, it is also unique in many ways. One of the unique features of South Africa is the fact that it has better resources than most of the developing countries. Although this is a fact, it is also true that there is a dire need to

distribute the available resources wisely to reach areas that were previously neglected. This need for redistribution is what makes Rapid Appraisal an attractive tool to use in planning health care services in South Africa. Let us then look at other countries' experiences of the use of the Rapid Appraisal methods.

Different countries, namely Tanzania, Russia, the United States of America, Bangladesh, Nigeria, and Mexico, have used the Rapid Appraisal methods for different projects in relation to health planning (Weaver *et al.*, 1997; Kelly & Akogun, 1997; Boiadzhian & Gaenko, 1996; Nelson-Gardeli, 1997; Mayaud *et al.*, 1997). It is interesting to note that both developing and developed countries have used Rapid Appraisal. The Rapid Appraisal methods in the abovementioned studies were used to gather data on health services for different conditions and / or programmes like Sexually Transmitted Diseases, HIV/AIDS, child abuse, male mental disorders amongst prisoners, and onchocerciasis prevalence. The results obtained provided a picture of what a particular situation was like, which facilitated planning. In all the abovementioned studies the Rapid Appraisal methods proved to be useful in terms of being quick at obtaining useful information at a low cost.

Rapid Appraisal also allowed for different target groups to be studied. In the abovementioned studies the target groups varied from prisoners and refugees, to children and adolescents. Rapid Appraisal has proved to be flexible for use in different topics for planning health services and also with different groups of people. It is also interesting to note that even developed countries have found the use of Rapid Appraisal methods useful. This is well demonstrated in a study done in England to define the health and social needs of an urban, deprived community (Ong *et al.*, 1991).

2.6.3. Rapid Appraisal in planning primary health care services.

Although Rapid Appraisal methods are popularly used for specific programmes as noted in the studies listed above, some countries have adopted for the primary health care concept. Primary health care is comprehensive and may include different programmes in its delivery. For planning services at the Primary health care level, health managers need: information in relation to the health status of that particular area, information on what services are already available and the utilisation of those services, community related information like perceptions and behaviour patterns, as well as information on the impact of the programmes that already exist in that particular area. It is vital for the researcher to select a data gathering method that will be able to give a picture of what the situation is like in relation to what health managers need.

Vlassof and Tanner (1992, p1) state that the Rapid Appraisal process can provide information for all categories in health care and service management. These categories include:

- health status information: frequency, distribution, causes / determinants of morbidity and mortality;
- health impact information: effectiveness of policies, strategies and programmes;
- health service information: availability, supply, utilisation and cost of services and
- health behaviour information: health-seeking and risk-taking behaviour of individuals and / or communities, determinants of behaviour, need and demand patterns,

The list is comprehensive and in line with the principles of primary health care. Primary health care principles support a health systems approach instead of a different health programmes approach. The health systems approach allows for

delivery of comprehensive health services compared to the different health programmes approach which results in vertical service delivery. The recent trend internationally is to adopt a health systems approach.

South Africa has already adopted the District Health Systems approach as the vehicle to deliver primary health care services. Although this approach is advocated by many health specialists as the most suitable move for South Africa, implementing primary health care remains a challenge. The Rapid Appraisal process in this case can be used strategically as a process to implement primary health care services. Rapid Appraisal can provide the comprehensive information which can be found useful by health managers in the process of implementing primary health care services. This is supported by Vlassof & Tanner (1992) who states that health managers need timely and accurate information to reach decisions in launching, monitoring and evaluating primary health care services and this can be made possible by the Rapid Appraisal process.

Although the literature indicates that Rapid Appraisal can be useful in terms of providing comprehensive information and implementing primary health care services, it remains necessary to address the question of validity and reliability of this information.

2.6.4. The validity and reliability of Rapid Appraisal

The validity and reliability of Rapid Appraisal processes have been questioned by different professionals in the field of health, even South African health professionals. The authors advocating Rapid Appraisal argue strongly on how data gathered can be validated and proved reliable. Askew (1993) argues that Rapid Appraisal can be adapted for use in primary health care and that triangulation of data collected using various methods increases the reliability of findings. This means that data collection from one method can be validated or rejected by checking it with data from at least two other resources or methods of data collection.

Vlassof and Tanner (1992, p4) state: "It is particularly important to refute the notion that rapid assessment generates inaccurate data or just summarises impressions". According to Vlassof and Tanner (1992, p4), the Rapid Appraisal methods have been developed and validated by biomedical, social science and epidemiological researchers. They further argue that like any other research procedure, Rapid Appraisal process should aim for the highest possible accuracy and careful validation procedures need to be established.

Although a number of authors argue strongly for the validity and reliability of the Rapid Appraisal methods, it is also true that seemingly no work has been done on proving this, other than what has been cited. From the extensive literature search done for this report, no studies of the validity and reliability have been found and this is one big motivation for this particular study. Although this has served as a motivation for this study it also posed a handicap, because there was limited literature to guide this study which specifically looked into the experience of Rapid Appraisal in the Northern Province.

2.6.5. Rapid Appraisal in the Northern Province

The Rapid Appraisal approach was used in the Transformation of Reproductive Health Services Project (TRHSP). The TRHSP was a collaboration between an NGO (the Women's Health Project) and the Department of Health. The Northern Province was one of the three provinces that piloted this initiative. The main objectives of this initiative were to:

- assess the capacity of primary health care services to provide reproductive health services at the primary care level;
- develop health systems based on the understanding that for any health intervention to work efficiently and effectively, health systems need to be in place and functioning;
- implement methodologies and processes that are necessary to bring change to health systems; and

- take into account the impact gender inequality has on women, health services, health providers and users.

The TRHSP initiative conducted a Rapid Appraisal of primary health care services, staff, infrastructure and function, using both qualitative and quantitative data collection instruments with managers, providers and users.

2.6.5.1. The Rapid Appraisal method

This method included:

- A time-flow and workload study. The method was participatory, working with health service personnel in restructuring service delivery in their primary health care facility.
- Key informant interviews. All the managers and decision makers involved in planning were identified and interviewed. These interviews aimed at establishing health priorities according to the views of the key informants.
- Self-administered questionnaires were sent to all health personnel working at the primary health care level, to identify what their views were on the changes needed at this level.
- Focus group discussion were conducted with the community members to prioritise their health needs.
- Facility checklists were sent to all clinics, to be filled in by the person in charge of the clinic. The facility checklist was developed and tested in previous research¹⁸, it was then modified to suit the purpose of this Rapid Appraisal study.

The findings of this situational analysis were disseminated in a workshop to the decision makers, managers and health care providers from different levels of the provincial health system. Following the dissemination workshop, a planning

¹⁸ Rispe, L., Cabral, J., Marawa, N., Xaba, M. and Fonn, S. The integration of primary health care services at the district level using Uptington as a case study. Technical Report. Centre for Health Policy, Department of Community Health, University of Witwatersrand, Johannesburg, March 1995.

meeting was held for all key personnel to make informed decisions on what action to take.

2.7. Conclusion

The South African health system depends on the success of primary health care to attain its goals in addressing the inequalities that were created in the past. The challenge is to make District Health Systems work, since this is seen as the vehicle to effective primary health care delivery. Effective primary health care will depend on appropriate planning tools for use at the district level. There are various methods of data collection, some aimed at collecting routine health data. Other methods, like Rapid Appraisal and ReHMIS, aim to deal with the need for planning primary health care services.

Literature reviewed showed how Rapid Appraisal methods have been used in planning of health care services in other countries with similar conditions to South Africa. The experiences of other countries suggest that use of Rapid Appraisal methods is appropriate even for the planning primary health care services. Some proponents of Rapid Appraisal argue for the validity of its data. Although this comes close to answering the research question, there is still a need to explore these issues in a South African context. The criteria for effective planning systems presented in this chapter will be used in exploring the use of the Rapid Appraisal method in the Northern province. In order to check the validity of Rapid Appraisal data, ReHMIS data (which seems valid) will be used for comparison. To achieve the objectives of this study, certain methodologies were followed and they will be discussed in the next chapter.

3. Chapter three: The Research Question

3.1. Introduction

This study seeks to explore the use of a Rapid Appraisal method in planning primary health care services. In the South African situation, planning tools for primary health care service development must be in line with the national health strategy which promotes decentralisation and governance through the District Health System. From the literature we learnt that information for strategic health planning and management should be innovative, action oriented and flexible. This is the understanding that guided the exploratory process of this study.

3.2. The Study Approach

Although this study sought to explore unit analysis, which is Rapid Appraisal, this is done within a case-study approach. Bailey (1987, p 298) states: "The case-study approach allows the researcher to select examples that illustrate the points he or she wishes to make". In this study Northern Province experience is studied as a way to explore the topic of using Rapid Appraisal in planning primary health care services. Although the main focus of this study was on Rapid Appraisal, as the research topic suggests, having ReHMIS data available at the same provinces made it possible to compare these two methods. The fact that health planners have been relying on the ReHMIS as a planning system for some time now, and also the fact that its data is validated during collection, makes ReHMIS an appropriate standard to use for comparison. So this study involves comparison of these two planning methods.

The case-study approach used in this study allowed for the use of both qualitative and quantitative methods in data collection and analysis. How this was done will be elaborated in the methodology section in the next chapter. The exploratory method adopted in this study attempted to bring answers to the identified research question.

3.3. The Research Question

In order to resolve the research problem, the question posed was: "Is Rapid Appraisal an appropriate planning tool for primary health care services?" This study investigated the appropriateness of Rapid Appraisal in two ways. The first part explored the Rapid Appraisal processes using the criteria for primary health care planning systems as a guide. The second part compared the processes and data of the ReHMIS and Rapid Appraisal methods.

3.4. Specific Objectives

Specific objectives presented here influenced the methodology adopted in dealing with the research question:

- to describe and compare the processes followed to collect data in both health planning systems (ReHMIS and Rapid Appraisal);
- to assess if any data fields were comparable;
- to compare the data from ReHMIS and Rapid Appraisal and then discuss findings in terms of validity;
- to describe and compare the planning decisions made by management based on each health information system within the framework set by the DOH national strategy; and
- to assess Rapid Appraisal using various criteria (found in the literature reviewed).

3.5. Assumptions Underlying this Study

This study was based on the following assumptions:

- The ReHMIS has been in place for a number of years and has been used as a method of data collection for planning. Because this system has been in place for a long period of time and is being continually used, it is assumed that it meets a planning need. The validity of ReHMIS data was also ensured through the process of data collection which involved validation. ReHMIS has therefore proved to be an appropriate planning system for primary health

care services. Comparing Rapid Appraisal to this method will give some indication of the validity of Rapid Appraisal methods.

- The literature found no other studies that had been done to determine whether Rapid Appraisal was an appropriate tool for primary health care planning in South Africa. It was then assumed then this is the first study of this kind.

3.6. Conclusion

This chapter has laid out what this study aimed to achieve and the next chapter describes the methodology followed in answering the abovementioned question.

4. Chapter Four: Research Methodology

4.1. Introduction

Chapter Four explains in detail methods followed during data collection and data analysis of this study.

4.2. Unit of analysis

Unit of analysis refers to that part of the study in which decisions are made. This study aimed at exploring the Rapid Appraisal method, using the experience of the Northern Province. The methodology used involved comparison of Rapid Appraisal and ReHMIS but the conclusions were drawn regarding Rapid Appraisal in the Northern Province. Therefore, the Rapid Appraisal method is the unit of analysis in this study.

4.3. Purpose of the Study

According to Babbie (1989, p80), an exploratory study's major purpose is to examine a new interest when the subject is new or unstudied. Rapid Appraisal methods are not new, but how these methods compare with other existing data collection methods in health planning has not been explored. This study will then explore:

- how does Rapid Appraisal match the criteria for planning systems;
- how does the Rapid Appraisal process and data compare with those of ReHMIS; and
- what decisions can be made based on these two methods.

4.4. Population and Sample

For practical reasons samples are used in research studies, this study is no exception. In this study purposive sampling was used. Purposive sampling is also known as judgmental sampling, and according to Babbie (1989, p204), it is appropriate for the researcher to select a sample on the basis of knowledge of the population, its elements, and the nature of the research. Bailey (1987) supports

this statement, stating that in purposive sampling the researcher uses her or his own judgement about which respondents to choose, and picks only those who best meet the purposes of the study.

The case-study approach also allows the researcher to select examples that will illustrate the points to be made. This section elaborates on samples used in relation to the area of study, as well as samples used during data collection.

4.4.1. Area of study

A purposive sample was selected of the area to be studied. The Northern Province was chosen, especially because the researcher had foreseen easy access to information needed for this study.

For the ReHMIS process, the population included all nine provinces in South Africa and the Northern Province was then the sample. In relation to the Rapid Appraisal method, the population included the Northern Cape, North West and the Northern Province, and the sample for this study was the Northern Province. Although only the Northern Province's experience was explored in this study, it would be interesting to study the other two provinces (the Northern Cape and North West) which also both have planning systems.

4.4.2. Interviews and documents

The aim of the interviews was to ask the respondents to describe the processes followed by the two methods (Rapid Appraisal and ReHMIS). For the interviews conducted, the individuals in a sample were selected because of their involvement in, and their level of understanding of, the Rapid Appraisal and ReHMIS processes.

All documents with relevant information in relation to the activities involved in the processes followed by the two planning systems were reviewed.

4.4.2.1. Interviews

Interviews were used to collect data on the processes followed by the two planning systems. It is important to note these interviews only aimed at collecting information about the data collection processes followed, and no views or opinions were sought from the respondents. The number of respondents was not an issue for this study--more important was how well informed the key informants were about the data collection processes.

For the ReHMIS process, all individuals from Northern Province involved in data collection and analysis were regarded as the population and the sample was the ReHMIS provincial representative and the provincial project leader. For Rapid Appraisal, the population was all the members of the NGO research team and the provincial personnel involved in data collection and analysis. The sample was the provincial co-ordinator and the project co-ordinator from the NGO.

4.4.2.2. Documents

For both ReHMIS and Rapid Appraisal, there were documents on the processes followed which were reviewed for the purpose of collecting data. The ReHMIS process is presented in a report called *Health Care in Northern Province: Implications for Planning 1996*. For the Northern Province Rapid Appraisal there were different reports for each tool used in data collection.

4.4.3. Data on how the ReHMIS and Rapid Appraisal data compare

4.4.3.1. ReHMIS

This data used for comparison between the ReHMIS and Rapid Appraisal was found in documents. For ReHMIS again *Health Care in Northern Province: Implication for Planning 1996* was used, together with information from the ReHMIS update documentation (1995).

4.4.3.2. Rapid Appraisal

There were different reports used for Rapid Appraisal including:

- a time-flow and workload study;
- key informant interviews with managers and decision makers;
- self-administered questionnaires sent to all health personnel working at the primary health care level;
- a focus group discussion with the community members; and
- facility checklists for all clinics. The facility checklist was developed and tested in previous research¹⁹. It was then modified to suit the purpose of this Rapid Appraisal study.

The sample taken from Rapid Appraisal was the facility checklist report because of the nature of data in this particular report. More details are given on this in the next chapter.

4.4. Data on decisions and plans made based on the information systems

To obtain data on decisions and plans the population for the ReHMIS included all documented data from planning meetings and the sample was the documented decisions and plans which would have been made by managers as part of the ReHMIS data process. For Rapid Appraisal the population was all the documents from the planning workshop and the sample was the same as the ReHMIS data – the decisions and plans made by the managers at different levels in the province.

4.5. Data collection and analysis

To achieve the objective of this study different methods were used in data collection. This section gives details of the method followed in collecting and analysing data according to each tool used.

¹⁹ Rispel, L., Cabral, J., Marnwa, N., Xaba, M. and Ponn, S. The integration of primary health care services at the district level using Upington as a case study. Technical Report. Centre for Health Policy, Department of Community Health, University of Witwatersrand, Johannesburg, March 1995.

4.5.1. Interviews

Telephonic interviews using an interview guide (Appendix A) were conducted with the sample, i.e. the provincial representative and the provincial project leader, because of their involvement in the ReHMIS data process. Face-to-face interviews were conducted with the provincial co-ordinators and the project co-ordinator who were involved full time in the Rapid Appraisal process. The names of the interviewees are not mentioned because of confidentiality. During the telephonic and face-to-face interviews, permission to take notes was obtained. The total number of interviews was four.

The interviews aimed at collecting data to describe and compare the processes followed by the two information systems. So the interview guide aimed at :

- establishing the length of time spent from data collection until the dissemination of information to the relevant stakeholders to make plans and decisions based on the data collected;
- establishing the human resource capacity required for the development of the data collection tool, training of data collectors, data collection and data analysis; and
- describing the details of data collection processes for each health planning system.

The above data was put into tables for comparison and then discussion of the findings was presented separately.

4.5.2. Reviewing documents

Documents were reviewed in order to gather data to compare and discuss in terms of validity. A ReHMIS report from the Northern Province entitled *Health Care in Northern Province: Implications for Planning 1996* was reviewed. A Rapid Appraisal report entitled *The State of Primary Health Care Facilities in Northern Province* which contained data from the facility checklist was also reviewed. From the above reports:

- areas of shared coverage were identified;

- data from those shared areas were compared;
- tables to present the compared data were developed;
- it was ascertained whether or not the results were similar or not;
- findings were discussed; and
- statistical analysis was used to prove scientifically whether or not the data from the two sets compared was significantly different. For the detailed statistical analysis, an example of one region was used. Region four had a high response rate (72%) for the facility checklist data and this allowed for statistical analysis.

4.5.3. Decisions and plans

One of the objectives was to describe and compare the decisions made by the health managers based on each information system being studied. For ReHMIS data there were no documented decisions and plans available from the people involved in the process. For the Rapid Appraisal method, the planning meeting minutes were obtained and reviewed, looking into the decisions and plans made. The decisions and plans of the two methods were hence not compared but those of Rapid Appraisal were described and explored.

4.6. Tabular Representation of Data Collection Methods Used

Data	Population	Sample	Method
Process of ReHMIS data collection	All individuals involved in ReHMIS data collection (90)	ReHMIS provincial representatives, national co-ordinator (2)	Interviews with individuals, either by telephone or face to face
Process of Rapid Appraisal	Individuals involved in Rapid Appraisal (13)	Provincial co-ordinators and project co-ordinator (2)	
ReHMIS data	9 Provinces	Northern Province	Comparison analysis and statistical analysis
Rapid Appraisal data	3 Provinces	Northern Province	
ReHMIS decisions and plans	All documents from planning meetings	Decisions and plans made available	Comparison analysis
Decisions and plans from the Rapid Appraisal	Documents from the dissemination workshop and the planning meeting	Decisions and plans made available	

4.7. Conclusion

This chapter has spelt out how the data was collected and analysed. It is interesting to observe how the flexibility of using a case study helped the process of this particular research especially because there was no literature to provide guidance on the methodology. Although there are some limitations observed in the process of this study, the willingness of respondents to participate, as well the detail of the available documents, made it possible to achieve the objectives of this study. The next chapter will then present the findings and the analysis of the results.

5. Chapter Five: Analysis of results

5.1. Introduction

This chapter presents the results of the study. Detailed interpretation of the results will be presented in the next chapter. Tables are used to present a comparison between the units of analysis, namely the ReHMIS process and the Rapid Appraisal process. Before embarking on the analysis of the two processes, it was considered proper to present the details of Rapid Appraisal and explore how it was carried out.

5.2. Comparison of the Rapid Appraisal and ReHMIS Processes

This section presents findings on how the two data processes compare in terms of: time taken, data collection process, profile of people involved, training, and analysis of data. The data analysed in this section was gathered from the four respondents through telephonic and face-to-face interviews and some of this data was obtained from the ReHMIS and Rapid Appraisal documents. Let us then be reminded what these two processes involve.

5.2.1. The ReHMIS process in the Northern Province

The provincial project team was responsible for the following process:

- developing a practical implementation plan;
- drafting a budget;
- obtaining commitment from service providers;
- undertaking training;
- ensuring responsible data collection, capture and verification in the first instance, with validation assessing the completeness of coverage of all facilities;
- providing a workshop to design a framework for analysis;
- performing data analysis;

- organising a follow-up workshop to interpret the findings;
- drafting a report;
- making verbal and written presentations to senior health managers for review; and
- editing and revising the draft report and then publishing the final report.

5.2.2. The Rapid Appraisal Process

At the end of the Rapid Appraisal process different reports were provided based on the following tools used:

- a time-flow and workload study;
- key informant interviews with managers and decision makers;
- self-administered questionnaires sent to all health personnel working at the primary health care level;
- a focus group discussion with the community members;
- facility checklists for all clinics. The facility checklist was developed and tested in previous research²⁰. It was then modified to suit the purpose of this Rapid Appraisal study.

The process followed involved developing the above-mentioned tools, data collection through the existing health systems structures, data analysis, developing reports and then disseminating the information.

²⁰ Rispe, L., Cabral, J., Marawa, N., Xaba, M. and Fonn, S. The integration of primary health care services at the district level using Uptington as a case study. Technical Report. Centre for Health Policy, Department of Community Health, University of Witwatersrand. Johannesburg, March 1995.

5.2.3. Tabular presentation comparing the processes

	ReHMIS data process	Rapid Appraisal process
Time taken	10 months	5 months
Data collection process	Trained data collectors visited the district hospitals to collect data.	Qualitative and quantitative data collection methods were used.
Profile of people involved	Team included data collectors, co-ordinators and two local consultants. Total: 91	Researchers worked with the provincial co-ordinator and data collectors. Total: 13
Training	There was one day of training for co-ordinators and data collectors.	On job training for all involved. There was one day of training for the researchers to do the key interviews. There was also a one day training for two data collectors to run the focus group discussion.
Analysis of data	Process involved two workshops, data analysis, drafting a report and presentation to managers.	Qualitative and quantitative data was analysed. Findings were disseminated in a workshop.

5.2.4. Discussion of the comparison

This section will give details on the findings of the five sections identified for analysis of the process.

5.2.4.1. Time taken

ReHMIS process

The time taken to collect, analyse and report excludes time taken to develop methodologies. According to one of the respondents the process of developing ReHMIS methodology at the national level took years. The ReHMIS process in the Northern Province started with training in June 1995 and the final report was produced in March 1996. The total time spent on the provincial process was 10 months.

Rapid Appraisal process

Data collection took 3 months, started from March 1996, analysis took one month, and then dissemination of the results took place in July 1996, which was within 5 months of starting with data collection. This time also does not include time taken in developing the tools.

Comments

The ReHMIS data collection process took 10 months and the Rapid Appraisal process took approximately 5 months. The Rapid Appraisal took less time than the ReHMIS data process.

5.2.4.2. Data collection process

ReHMIS process

The ReHMIS data framework was developed by the national team. The provincial team then looked into ways of adapting it for Northern Province situation. Trained data collectors worked with management in different institutions in accessing data. Depending on the quality of data they found in the central or district hospital, sometimes it was necessary for them to go to the different sectors like laboratories and clinics.

Rapid Appraisal process

The data collection process was influenced by the tools that were used in data gathering, as they are elaborated in paragraph 5.2.2. The process involved:

- developing the tools, which was done by the NGO research team together with the provincial co-ordinator;
- identifying key informants from the provincial, district and local authority level and doing interviews with them;
- sending self-administered questionnaires and facility checklists to the primary health care clinics and centres through the structures of the district health system. A system was put into place to trace and ensure the return of these particular data collection tools; and

- running focus group discussions with community members.

Comments

For the ReHMIS process, trained data collectors accessed the data and this method guaranteed uniformity in the way the variables were defined by data collectors. The same cannot be said about the data collection tools used in the Rapid Appraisal process which relied on the perceptions of respondents. The list of respondents for the Rapid Appraisal methods included: community members, health workers at the facility level, and health managers and decision makers. This process gave stakeholders at different levels an opportunity to identify their own issues.

Based on the interviews for this study, it appears that the ReHMIS data was often provided by people at the central hospital level, and the data collectors visited the clinics when data was not available at the hospital.

5.2.4.3. Profile of people involved

ReHMIS process

The ReHMIS project team included one provincial project leader, 11 regional co-ordinators, 75 data collectors and 2 data capturers. Two consultants were involved in the process of analysis.

Rapid Appraisal process

An NGO team of six researchers and two people from the province worked together in data collection and analysis. Two members from the Department of Health and welfare ran the community focus group discussions. One tertiary level student was contracted to do data entry. Two additional researchers joined at the analysis stage.

Comments

For the ReHMIS process, personnel from within the bureaucratic structure were involved in carrying out different parts of the process, for example there were data collectors who were solely responsible for data collection. In contrast, the Rapid Appraisal process involved personnel from the same bureaucratic structure working with NGO staff as a team, except for the two members who ran the focus group discussions. The ReHMIS process exposed a high number of people from the province to some level of research experience and the Rapid Appraisal process exposed few people to a wide range of research skills.

5.2.4.4. Training

ReHMIS process

Regional co-ordinators and data collectors received one day of training. The training involved understanding of the ReHMIS framework and how the process was to take place in the regions.

Rapid Appraisal process

Two members of the Department of Health and Welfare were trained to run focus group discussions with the community. There was on-the-job training for the researchers in conducting interviews, doing a time flow study and using different methods (both qualitative and quantitative) in data analysis. The experience lasted 6 months.

Comments

ReHMIS built a capacity amongst a large number of people in terms of co-ordinating a project and data collection skills. Rapid Appraisal exposed few people to a whole range of research skills: designing the tool, statistical analysis, writing the research report and presenting findings. Formal training was incorporated in the ReHMIS process for all provincial staff.

5.2.4.5. Analysis of data

ReHMIS process

The project team involved the health managers in two workshops. Two local consultants participated to ensure that the process was in agreement with the national plan. The process of analysis involved 6 steps:

- a workshop to design a framework for analysis;
- a phase of data analysis;
- a follow-up workshop to interpret the findings;
- drafting of a report;
- verbal and written presentation to senior health managers for review; and
- subsequent editing and revising the draft report and then publishing the final report.

Rapid Appraisal process

Different tools used for data collection demanded different approaches to analysis. The research team did qualitative and quantitative data analysis. For quantitative data, data entry and analysis were done using EPI Info (Version 6). Reports for the different tools were developed and the research team presented findings in a dissemination workshop held in the province. The dissemination workshop involved different stakeholders from the Northern Province.

Comments

The ReHMIS followed an active process in the analysis of its data. There were workshops for developing the framework and also for interpreting the data which involved health managers in the Northern Province. Although the Rapid Appraisal process did not follow a similar method for data analysis, other stakeholders were given the opportunity to engage with the findings at the dissemination workshop.

5.3. Comparison of Data

Previous sections gave details on the process followed, while at this stage we look at how the data compare. The data compared were from two documents reviewed *Health Care in Northern Province: Implications for Planning 1996* which carried ReHMIS data, and *The State of Primary Health Care Facilities in Northern Province*, which is the report of the Rapid Appraisal facility checklist tool used.

The ReHMIS process collected extensive quantitative data on the following:

- distribution and use of facilities;
- distribution of human resources, including nursing personnel;
- primary level care services (outside hospitals);
- hospital services;
- maternal, child and women's health;
- communicable disease control;
- transport and emergency services;
- mental health services;
- oral health services;
- rehabilitation services;
- medico-legal services;
- environmental health services;
- radiological and imaging services;
- laboratory services;
- pharmaceutical services; and
- health information services.

All this data was compiled into the report whose main purpose was to present to health managers information for management of their health services. Not all the data collected here was comparable with Rapid Appraisal data. More details of this are given below.

Amongst the Rapid Appraisal data collection methods used, the facility checklist was the primary method that obtained data that could be compared to some areas of ReHMIS data. The main purpose of the facility checklist was to assess:

- the infrastructural adequacy;
- accessibility of clinics to the community served;
- the clinic/patient environment;
- involvement of the community at the clinic level; and
- the availability of equipment for reproductive health services.

For the purpose of this study, the ReHMIS data used for comparison with Rapid Appraisal was taken from the section that dealt with infrastructure at the primary care level. This information was found in Chapter 3 of *Health Care in Northern Province: Implications for Planning 1996* which is entitled "Distribution and utilisation of physical facilities". This chapter gives information on the following:

- definitions;
- public sector facilities;
- infrastructure at fixed clinics and health centres; and
- accessibility of clinics and health centres.

These two documents were reviewed to identify areas of similar coverage which are presented in the following table.

5.3.1. Areas of similar coverage

ReHMIS data	Facility checklist
Infrastructure at fixed clinics: grid electricity, water-borne sewerage, telephone, adequate water supply	Health service infrastructure and facilities: water, electricity, toilet and communication

Four areas were identified for comparison between the two methods. These were categories of health service infrastructure. The definitions used were noted.

5.3.2. Definitions used for data collection

	ReHMIS data	Facility checklist
Telephone	Functioning telephone line connected exclusively for use by the facility in question	A fully functioning telephone on site or a functioning telephone 24 hours per day within 100 metres
Electricity	An existing connection to the mainline electricity supply	Reliable power supply or power failure occurs but there is automatic/manual backup system
Water	In-house running, biological safe and potable water supply with no more than five days in the last year during which water was not available	Fully reliable water supply or monthly supply problem (6--12 times per year) or problems in the dry season only
Toilet/sewerage	Conventional water-borne sewerage	Separate flush toilets for patients and staff or one functioning flush toilet.

5.3.3. Response rate for the facility checklist

Total number of clinics	Number of responses	Percentage
302	157	52%

It is important to note that the ReHMIS data is based on the total number of clinics (302) whereas the facility checklist had a 52% response rate. This means that the facility checklist data analysis represents 52% of the facilities and the ReHMIS data is based on 100% of the facilities. This suggests that there is more reliability in ReHMIS data compared to the facility checklist.

5.3.4. Comparison of data for the whole province

Variable	ReHMIS data: percentage of clinics without basic amenities	Facility Checklist : percentage of clinics not reaching desirable standard
Telephone	23%	41%
Electricity	23%	48%
Water	30%	43%
Toilet/sewerage	49%	45%

The figures presented in this table highlight the lack of infrastructure at the clinics. The findings are discussed according to each category.

5.3.4.1. Telephone

According to the ReHMIS findings, 23% of the facilities do not have a functioning telephone line connected exclusively for use by the facilities and facility checklist data says that 41% of the facilities do not have access to a functioning telephone. One can conclude that although 23% of the facilities were observed as not having a telephone line, the health service staff reported that 41% of the facilities did not have fully functioning telephones available to them. It is appropriate at this point to remind the reader that the ReHMIS data was collected by data collectors who got the information from the central hospital or visited the facilities themselves. The facility checklist was filled in by the staff working in those facilities, basing their responses on their experiences of how the telephone functions.

5.3.4.2. Electricity

The ReHMIS data says that 23% of the clinics do not have an existing connection to the main line electricity supply, and the health service respondents said that 48% of the clinics did not have reliable power supply. It is important to note that the electricity line might be there, but may still be seen as unreliable by the staff.

5.3.4.3. Water

The ReHMIS data says that 30% of the clinics do not have in-house running, biological safe and potable water supply with no more than five days in the last

year during which water was not available. According to the facility checklist, respondents said that 43% of the clinics did not have fully reliable water.

5.3.4.4. Toilet / sewerage

The ReHMIS data collectors found that 49% of the clinics did not have conventional water-borne sewerage and according to the facility checklist, respondents said that 45% of the clinics did not have flush toilets for patients and staff. The provincial rates represent an average of the different regions.

5.3.5. Response rate by region

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6
Total	21	19	47	79	80	56
Response	7	11	25	57	27	26
Percentage	33%	58%	53%	72%	34%	46%

The response rate differed by region. Region 4 had the highest rate-72%, and region 1 had the lowest rate-33%. The differences observed may be affected by the response rate. The higher the response rate the more reliable the results will be. The results of region 4, which has the highest response rate, will be used for a statistical analysis to determine whether there is any significant difference between the two data sets.

5.3.6. Comparison of data by region

	Region 1		Region 2		Region 3		Region 4		Region 5		Region 6	
	RD ²¹	FC ²²	RD	FC	RD	FC	RD	FC	RD	FC	RD	FC
Tele ²³	26%	12%	10%	27%	32%	36%	15%	47%	37%	52%	12%	44%
Elect ²⁴	0%	12%	20%	64%	26%	40%	21%	56%	31%	44%	26%	48%
Water	10%	0%	40%	36%	30%	44%	26%	40%	40%	37%	26%	68%
Toilet	16%	25%	50%	45%	68%	48%	52%	36%	52%	48%	42%	82%

²¹ ReHMIS data of facilities without the basic amenities

²² Facility checklist, percentage of clinics not reaching the acceptable standard

²³ telephone

²⁴ electricity

The figures in the above table represent the percentage of clinics without the basic amenities. According to the facility checklist, it is the percentage of clinics that do not reach the acceptable standard. For telephone, electricity and water, the facility checklist consistently has higher rates in all the regions than the ReHMIS data.

5.3.7. Statistical analysis of data from Region 4

EPI Info (version 6) was used to do a statistical calculation of chi-squares using Region four data. The P-values differed with the categories analysed. The analysis is based on real values, not percentages, which is why figures given below will not be the same as those in the table above.

5.3.7.1. Telephone

	Acceptable level	Unacceptable	Total
ReHMIS	66	13	79
Facility checklist	22	27	49
Total	88	40	128

Chi-Square = 21.02

P-value = 0.0000045

Comment

According to this table, there is a significant difference between the two data sets. The ReHMIS methodology is six times more likely to report availability of a telephone than the facility checklist. This could also mean that the facility checklist could be presenting a six times underestimate of effective telephone services. Although the ReHMIS data collectors may have observed that there is a telephone line to the clinic, the experience of staff at the clinic of that telephone may have been different. The facility checklist data was supported by the data from other Rapid Appraisal tools, using triangulation. From the interviews done for Rapid Appraisals, staff reported that telephone accounts were sometimes not paid by the managers, leading to a telephone cut. The facility checklist not only

identified the state of telephone services, but because of triangulation with other methods, an ineffective management system was identified.

5.3.7.2. Electricity

	Acceptable level	Unacceptable	Total
ReHMIS	61	18	79
Facility checklist	25	32	57
Total	86	50	136

Chi-Square = 15.85

P-value = 0.0000687

Comment

There is a significant difference between the ReHMIS data and facility checklist data. The ReHMIS data is four times more likely to report availability of electricity than the facility checklist data. The comment here is similar to that for telephone services. The ReHMIS data collectors may have observed electricity line supply to facilities and yet the facility staff may have reported that the electricity supply is unreliable. Again here the facility checklist goes beyond establishing whether or not electricity is there and ask a management question as to whether it is functioning effectively or not.

5.3.7.3. Water

	Acceptable level	Unacceptable	Total
ReHMIS	56	23	79
Facility checklist	34	23	57
Total	90	46	136

Chi-Square = 1.87

P-value = 0.1717237

Comment

For water there is no significant difference between the findings of the two data sets. This could be explained by the fact that the definitions of water supply used by both methods were similar. Water is known to be a reliable resource in South Africa, and once the supply is there, the chances of it being cut off are minimal.

5.3.7.4. Toilet

	Acceptable level	Unacceptable	Total
ReHMIS	34	45	79
Facility checklist	20	35	55
Total	54	80	134

Chi-Square = 0.60

P-value = 0.4384325

Comment

In this category data about toilets from the facility checklist was compared to sewerage data from the ReHMIS with the understanding that there can be no flush toilets without sewerage. Statistically there is no significant difference between the two data sets compared. This infrastructure is not difficult to manage or maintain, once it is in place. The ReHMIS data (which is an observation of people outside the facility) is similar to the data reported by people in the facilities.

5.3.8. Discussion

The differences in the data presented above highlight the qualitative aspect of the facility checklist. The data received does not just note the essential amenities, but it also reveals a management issue as to whether management functioned adequately and carried out their purpose. This also shows the difference in sensitivity of data collection tools. It is important to note that for those categories (telephone and electricity) that depend on the health system management for their functioning there is significant difference between ReHMIS and Rapid Appraisal.

Yet for infrastructure like water and sewerage there is no significant difference because of the known reliability of these services.

5.4. Decisions Based on the Two Information Systems

5.4.1. ReHMIS process

The ReHMIS process included a workshop to train managers on how to use the data in planning and decision making for their regions or districts. Documenting decisions and plans based on the ReHMIS was not part of this process. The results was that there were no documents to use for comparison with Rapid Appraisal plans and decisions. This was confirmed by the project leader, who reported it was not part of the process to monitor or follow up those decisions. On this issue the respondent recommended a follow-up process to investigate how this report had been used in planning by district managers. She believed that the ReHMIS data has been used by the managers for planning.

5.4.2. Rapid Appraisal process

All stakeholders were invited to the dissemination workshop. The invitation list included managers at all levels, representatives from operational staff, NGOs and interested parties like universities and nursing colleges, especially those who worked with or within the Department of Health and Welfare in the Northern Province. Participants were randomly divided into small groups. The groups rotated around different stations of presentations. Each station presented different data based on the findings of one of the Rapid Appraisal tools. After presentation a group discussion was facilitated to get participants' suggested solutions. These suggested solutions were then used in the planning meeting which took place a day after the dissemination workshop. The planning meeting involved provincial, regional and district managers, and the NGOs. The main aim of this meeting was to use the findings to make decisions and plans appropriate for the province. Decisions made were related to the following issues:

- Problems were identified relating to management style and inadequate communication with the health service. A need for a more participatory

management style was expressed and a commitment was made to ensure that every primary health care facility was visited on a regular basis. The managers felt that the picture was not as bad as that painted by the health service people, and they then identified the need to ensure information flow to and from the service sites.

- Developing integrated comprehensive one-stop-shop primary health care services was highlighted. Managers decided to use a participatory time-flow and workload method, which was piloted with the Rapid Appraisal, to restructure primary health care facilities from giving vertical services to providing an integrated comprehensive approach.
- It was decided to further disseminate Rapid Appraisal findings to the regions. As part of accountability to people on the ground, a decision was made to take the dissemination workshops to a level down, and make the research findings more accessible to the grassroots.

5.5. Exploring Rapid Appraisal as a Planning System

Rapid Appraisal was explored using the criteria adopted from Green (1992, p317) (see page 35 of this report). These criteria are for an appropriate planning system for primary health care and are based on the Alma-Ata definition of primary health care. The Rapid Appraisal process is discussed using each criteria.

5.5.1. Consistency with policies of decentralisation

The main focus of the Rapid Appraisal study was on the primary health care institutions which are the lowest level of care and most often found in the communities. To reach this level existing structures of district health systems were used. The staff who occupied positions in the district health structures were involved in the whole process. This showed consistency with the national strategy which prioritises the development of district health systems.

5.5.2. Consistency with the promotion of equity

This Rapid Appraisal initiative took into account the impact of gender inequality on health services, health providers and users. Gender was identified as one of the

overall factors affecting equity even in relation to accessibility of health care services, thus the topic of this initiative was "The Transformation of Reproductive Health Services Project" (TRHSP).

5.5.3. Consistency with the promotion of a multi-sectoral approach to health, including ensuring cognisance of the non-governmental and private sector

TRHSP was a collaboration between the government and a non-governmental organisation. The non-governmental organisation played a supportive role to the Department of Health. During situational analysis, the health personnel identified other sectors that they were working with and some participated as key informants, while others attended the dissemination workshop and the planning meeting. In the dissemination workshop university staff, other NGOs and CBOs participated.

5.5.4. A clear and defined relationship with donors

Donors for the project worked hand-in-hand with the NGO and the Department of Health. The TRHSP project co-ordinator reported that the donors did not interfere with the running of the project, and that their relationship was clearly spelt out in the project proposal. The frustrations that were reported by the project staff were related to the logistics of filtering the money from the funders through the government to where the implementation of the project took place.

5.5.5. Consistency with the overall government planning and budgeting system

The involvement of the government ensured that this initiative was in line with overall government planning. The government representatives were present even in developing the budget proposal to ensure the government rates were used.

5.5.6. An open system, with minimal bureaucratic requirements

The NGO worked with the provincial co-ordinator from the province and for the course of the project this person was not used by the bureaucratic structure of the government. This made it possible for her to cut across all lines of communication. Also the fact that this initiative was run by an NGO made it possible to cut across the bureaucratic system of the government department.

5.5.7. An internally coherent system, with clear links between the different functions of planning

The plan of the project was to have a provincial steering committee meeting three times during the course of this project, and it would be its role would be to ensure a coherent system within the province. Although these meetings were well attended, the evaluation report explains how the senior managers sent different representatives which led to lack of continuity (Lund, 1997). In this case the plan incorporated the criteria but the reality made it less effective.

5.5.8. A combination of long-term policy continuity with the flexibility necessary to respond to inevitable changes in external factors

This project involved a situational analysis and at the end the findings were disseminated to all stakeholders. In the planning meeting, there was a facilitated session to ensure that the regional and provincial managers came up with a plan of actions that were realistic for them to implement.

5.5.9. Sustainability of the planning system

Individuals such as the Superintendent General, the Director of Primary Health Care, regional managers, provincial co-ordinators and reproductive health facilitators supported this initiative. Although this was an NGO initiative and was facilitated by the NGO, these people from the province were fully participative in

the whole process. This therefore means that this system will be sustained even when the NGO ends its support (Lund, 1997).

5.5.10. Consistency with other decision-making processes in the sector, including budgetary and personnel process

Representatives of the human resources and finance departments were targeted and involved right through the process. The decisions as to what should be done were made by the provincial officials. During the development of the budgetary process the relevant officials from the Department of Health were consulted.

5.6. Conclusion

The analysis of results presented here will be followed by their interpretation in the next chapter. The same headings used in this chapter for data analysis will be used for the interpretation.

6. Chapter six: Interpretation of the Results

6.1. Introduction

Chapter 6 presents the interpretation of the results, particularly in relation to the research question. The discussions are presented in the same section as in the previous chapter. The focus of the interpretation of results is mostly on the process followed by Rapid Appraisal, exploring its appropriateness.

6.2. Comparing the Research Processes Followed

This section will give an interpretation of the findings on the processes followed by the two systems (Rapid Appraisal and ReHMIS). These processes will be discussed under the following headings: time taken; data collection process; profile of people involved; training; and analysis of data.

6.2.1. Time taken

Time taken by Rapid Appraisal is 50% shorter compared to the time taken by the ReHMIS in the Northern Province. If the results of the data collected are disseminated within a shorter period, the respondents will identify with them and participate in the process, whereas if the results are disseminated far later the respondents might fail to identify with that data, and sometimes much might have happened to alter people's perspectives. Time taken for a study has cost implications. The longer it takes, the more costly it will be.

The Rapid Appraisal method managed to collect and analyse data from the province and within five months the information was disseminated. Tools used were in line with the principle of governance, which promotes participation of people on the ground. Since the data collection process engaged with the people on the ground, it is important not to lose that impact but to disseminate findings within a short period. This was achieved by Rapid Appraisal.

6.2.2. Data collection process

For the ReHMIS process the data collectors gathered most of their data from central hospitals which are distant from the clinics, whereas with the Rapid Appraisal process, respondents who filled in the facility checklist were the staff based at the facilities. The staff at the facility level are more likely to give a correct account of their situation compared to the people reporting from a distance, as was the case with the ReHMIS data. To illustrate this point an example of a blood pressure machine is used. The hospital may have a record of 4 blood pressure machines in a particular clinic and this will be data captured by the ReHMIS process. In the same clinic the person in charge may be able to account for only 2 blood pressure machines because the other two may have been sent away for repairs for perhaps two months.

The ReHMIS data was collected by people who had been trained to understand the definitions in the same way, and so the consistency of the results is greater. The interpretations of self-administered questionnaires used in the Rapid Appraisal process could vary with different understandings by the respondents but it is important to note that these questionnaires were unambiguous to avoid different interpretations.

The Rapid Appraisal method aimed at getting information from all personnel involved in primary health care. This data collection tool ensured the participation of health service staff at the facility level. This Rapid Appraisal process started engaging people in discussing the research issue, which was about the transformation of services. Starting this dialogue, impacted on the participants' understanding of the issue of transformation. The data collection process also allowed researchers to gain an in-depth understanding of the province in terms of local context, language, power relations, ways of functioning, and developing trust. This helped researchers to put findings into context in appreciation of the dynamics prevailing in this particular province.

Transformation of health services is a political process. Rapid Appraisal ensured the participation of all stakeholders in this process. This is in line with the philosophy of governance. Governance is defined by Hyden (1983) as "the conscious management regime structures with a view to enhancing the legitimacy of the public realm".

6.2.3. Profile of people involved

Rapid Appraisal data was filled in at the grassroots level, whereas the ReHMIS process data was collected by a higher level of personnel. Data from a person at another level will differ from data given by the person who is directly affected by the issues researched. This therefore means that Rapid Appraisal will present more sensitive findings compared to ReHMIS.

The fact that Rapid Appraisal was initiated by an NGO from outside the government system must have had a positive effect in cutting across the bureaucratic system. This enabled researchers to engage effectively with personnel from all levels of the government. As an outside organisation, this NGO could afford to be more flexible. Another issue is the minimal use of human resources by the Rapid Appraisal, which is hence cost effective. Compared to Rapid Appraisal, ReHMIS proved to be costly. It used a large number of people within the government, and still had to bring in consultants for the analysis process.

6.2.4. Training

Different approaches were used by the two systems in building capacity in the province. The ReHMIS created a big pool of skilled people within the province, whereas the Rapid Appraisal process developed few people in a broad range of skills. In relation to the ReHMIS, one does wonder when the data collection skills will be needed in the province again. This may be another dilemma for human resource management: why develop a person and still keep her or him in the same position? There were cost implications of the formal training that took place for

data collectors and regional co-ordinators. No formal training was needed for Rapid Appraisal.

The learning process related to Rapid Appraisal that took place amongst the provincial officials was part of the process. The Rapid Appraisal process demonstrated the use of the participatory management method within the health system. This process made it possible for a few individuals from the province, who were a part of the research team, to gain a wide range of research skills. This also applied to the NGO research team, as Rapid Appraisal provided opportunities for researchers to enrich their skills in research.

6.2.5. Analysis of data

Although both processes involved workshops, the approaches used were different. The ReHMIS process involved mainly the managers at provincial and district level in analysing the data and they were also trained on how to use the ReHMIS report to develop plans for their districts.

The Rapid Appraisal process used a participatory approach and involved stakeholders from the different levels of the government structures. The participatory management style used in developing plans and making decisions ensured that the people who were supposed to implement the plans had their say in those plans.

6.3. Comparison of Data

6.3.1. Areas of similar coverage

The ReHMIS process had an extensive set of data in a number of health categories. The Rapid Appraisal approach was more focused on the primary care level. Categories of similar coverage identified were limited to facilities like clinics.

6.3.2. Definitions used for data collection

The different definitions used are related to the approaches. The Rapid Appraisal moved from asking: "How many" to asking a management question: "Is it functioning fully?". This question ensured that the respondents were engaged in the process of analysing their own situations. The principle of engaging with people is supported by the African management philosophy which is advocated by Christie, Lessem & Mbigi (1994).

6.3.3. Response rate for the facility checklist

The facility checklist response rate of 52% is above 45%, which is the standard criteria for self-administered questionnaires.

6.3.4. Comparison of data for the whole province

The difference between the two data sets is remarkable, especially for telephone and electricity services. The facility checklist differs substantially from that of ReHMIS. This difference could be related to the different approaches of data collection but they can also be related to the sensitivity of the tools. The Rapid Appraisal tool is likely to be more sensitive because it asks for the views of the respondents.

6.4. Decisions Based on the Two Data Sets

6.4.1. ReHMIS data

The ReHMIS process's main aim was to collect information and put it together for health planning and management. This ReHMIS process did not incorporate a follow-up procedure to find out about the type of health plans that had been developed based on this report. The use of this report depends entirely on the managers. As one respondent said, the ReHMIS report "is a very useful tool for regional and district managers to use, but there is no scientific way to determine the usefulness of the ReHMIS in terms of the product", which in this case was the plans and management decisions made. This ReHMIS process could have been made more strategic by incorporating a process to facilitate development of plans

and management decisions based on this data. The simple process of facilitating plans and decision making could have added more value to the ReHMIS process.

6.4.2. Rapid Appraisal method

The Rapid Appraisal process adhered to participatory management principles by involving all stakeholders, and bringing government officials from all levels of bureaucracy together to make plans. An innovative method was used to ensure that all attendees (the stakeholders) participated by using facilitators to run a discussion after each presentation. After those discussions, the attendees suggested solutions for the problems identified by the Rapid Appraisal research. The Rapid Appraisal process was based on management principles that are in line with different management theories, namely governance, African management and strategic management. The process was in line with governance because of accountability, and involving people on the grassroots level. The African management style supports talking to people, rather than sending messages, especially where diverse cultures exist. The Rapid Appraisal approach had similar aims to those of the National Health Strategy, to achieve substantial, visible and sustainable improvements in the accessibility, efficiency, and effectiveness of primary health care services (Restructuring the national health system for universal primary health care, 1996, p5).

6.5. Exploring Rapid Appraisal using Green's Criteria

Rapid Appraisal seemingly fulfilled Green's criteria (1992) for an appropriate health planning system which is based on the Alma-Ata definition of primary health care. On the question of equity, this process dealt with the issue of gender inequality, this is suggested by the title of the project, "Transformation of Reproductive Health Services Project (TRHSP)". Improving reproductive health services is seen as one strategy to mainstream gender in health.

On the topic of community participation in decision making, the Rapid Appraisal process involved NGOs in addition to the focus group discussions held with the

community members. NGOs are seen as representatives of the interests of civil society and their involvement in the process, especially in planning, suggested that the interests of civil society were represented. This also demonstrated that the role of NGOs was recognised.

The Rapid Appraisal method showed consistency with the policies of decentralisation, the process aimed at developing health systems at the primary health care level. Through decentralisation, an inter-sectoral approach can be made possible. The process involved those who had a role to play in the development of health systems even if they were not in the Department of Health and Welfare.

6.6. Conclusion

The interpretation of the findings of this study highlighted the following points about the Rapid Appraisal process:

- The process followed was cost effective in terms of time taken, and human resources.
- The process applied the principles of governance and decentralisation through a participatory approach.
- Capacity building was ensured as part of the process.
- A strategic approach to planning and the end of the process ensured the involvement of all stakeholders in decision making.
- Rapid Appraisal data compare well with ReHMIS data.
- Triangulation of data added value to the credibility of the Rapid Appraisal data.
- The Rapid Appraisal tools proved to be sensitive enough to raise management issues at the grassroots level.
- This process also proved to be flexible, cutting across bureaucratic structures.

These issues fall in line with the principles and criteria raised by different authors in the literature reviewed for this study. The literature reviewed presented

principles and criteria that should guide data gathering or planning for primary health care in order for that planning system to be deemed appropriate. The same principles were fulfilled by the Rapid Appraisal planning process. The next chapter will then draw conclusions based on the interpretations made in this chapter.

7. Chapter Seven: Conclusions and Recommendations

7.1. Introduction

This chapter concludes the study by giving the answers to the research questions based on the findings. Additional to the conclusions are the recommendations which arose from the process of doing this study.

7.2. Conclusions

The conclusions to this study will be presented under sub-topics which are based on the objectives identified for this study (see Chapter 3).

7.2.1. The Rapid Appraisal process followed during data collection

The Rapid Appraisal process used methods that were innovative, flexible, purposeful and directed to achieve the relevant goal. The main goal of Rapid Appraisal was for health planners to come up with decisions and plans based on the findings and this was achieved. These are the principles guiding an effective information and planning system.

The Rapid Appraisal approach adhered to the principles of governance:

- it involved stakeholders;
- stakeholders participated actively in the process;
- the process involved the grassroots; and
- the approach demonstrated accountability.

7.2.2. The validity of Rapid Appraisal data

In comparing the Rapid Appraisal data to ReHMIS data, there were differences and similarities. Where there were differences, those differences could be explained. The similarities could be explained as well. The findings showed that

the facility checklist data compared well with the ReHMIS data. Having Rapid Appraisal data that compared well with ReHMIS data, lends confidence to the Rapid Appraisal approach.

The Rapid Appraisal method highlighted issues of management. There were significant differences between the two data sets (ReHMIS and the facility checklist) on those issues (telephone and electricity services) that needed active management to ensure that they were working. There was no significant difference on issues like water and sanitation because this infrastructure needs very little management once it is there. The Rapid Appraisal method proved to be more sensitive than the ReHMIS method in identifying such management issues.

7.2.3. The decision made based on these planning tools

ReHMIS produced a valuable report for planning, but there is a danger of missing out on the opportunity of making it even more valuable to the regional / district managers. It is ambitious to expect overworked district managers to successfully formulate their own plans without a team or outside assistance to facilitate the process. There is a need to investigate ways to ensure that the district managers get full support for making decisions based on the ReHMIS data.

7.2.4. Green's criteria for an appropriate planning system

The Rapid Appraisal approach fulfilled the criteria, identified by Green (1992), for appropriate planning systems for primary health care services. The Rapid Appraisal method can therefore be seen as an appropriate planning system for primary health care services.

7.3. Recommendations

- The Rapid Appraisal method can be used with confidence by all health planners who need to implement or improve primary health care in their provinces, regions or districts.

- It may be valuable to repeat this study in the other two provinces that had implemented both systems, and even more valuable would be a study of all the three provinces involved.
- Also recommended is a study to follow up whether or not the decisions and plans made based on the Rapid Appraisal method were implemented.
- An investigation into how the regional directors have been using the ReHMIS data, could add value to this method.
- The last recommendation relates to incorporating a process in ReHMIS that will enable health managers to actually develop plans of actions with the help of experts.
- It is also recommended that the health managers using ReHMIS data to make plans should be aware of the fact that, although the ReHMIS has valid data, it does not necessarily highlight the management issues.

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Appendix A

Interview Guide

This is an interview guide to be used with individuals who were involved in ReHMIS and Rapid Appraisal in the Northern Province. This guide's objective is to obtain details of the process followed during data collection.

1. Length of time

- When did you start with data collection?
- How long did it take to do data collection?
- When was the data available to decision makers to use?

2. Capacity needed

- How many people are involved in this project?
- Were all the people working on this project full time and for how long?
- How long did the training for data collectors take?
- How many data collectors were involved?
- What is the minimal level of education required for data collectors?
- Were there specialists involved in processing the data?
- How were people involved in data processing? Explain.
- Data collectors, who did they involve in the collection of the data?
- How much time did it take for those involved from the institutions?

Appendix B

Detailed Statistic analysis from Epi Info (version 6)

Telephone

	+	-	
+	66	13	79
-	22	27	49
	88	40	128

Odds ratio = 6.23 (2.56 <or< 15.43)

Cornfield 95% confidence limits for OR

Relative risk = 1.86 (1.34 <RR< 2.58)

Taylor Series 95% confidence limits for RR

Ignore relative risk if case control study

	chi-squares	P-values
Uncorrected:	21.02	0.0000045
Mantel-Haenszel:	20.86	0.0000049
Yates corrected:	19.26	0.0000114

Electricity

	+	-	
+	61	18	79
-	25	32	57
	86	50	136

Odds ratio = 4.34 (1.94 <OR< 9.78)

Cornfield 95% confidence limits for OR

Relative risk = 1.76 (1.28 <RR< 2.42)

Taylor Series 95% confidence limits for RR

Ignore relative risk if case control study

	chi-squares	P-values
Uncorrected:	15.85	0.0000687
Mantel-Haenszel:	15.73	0.0000731
Yates corrected:	19.26	0.0001444

Water

	+	-	
+	56	23	79
-	34	23	57
	90	46	136

Odds ratio = 1.65 (0.76 <OR< 3.60)

Cornfield 95% confidence limits for OR

Relative risk = 1.19 (0.92 <RR< 1.54)

Taylor Series 95% confidence limits for RR

Ignore relative risk if case control study

	chi-squares	P-values
Uncorrected:	1.87	0.1717237
Mantel-Haenszel:	1.85	0.1733076
Yates corrected:	1.40	0.2368009

Toilet

	+	-	
+	34	45	79
-	20	35	55
	54	80	134

Odds ratio = 1.32 (0.61 <OR< 2.85)

Cornfield 95% confidence limits for OR

Relative risk = 1.18 (0.77 <RR< 1.82)

Taylor Series 95% confidence limits for RR

Ignore relative risk if case control study

	chi-squares	P-values
Uncorrected:	0.60	0.4384325
Mantel-Haenszel:	0.60	0.4401463
Yates corrected:	0.36	0.5512905

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