

**AN ASSESSMENT OF THE IMPLEMENTATION OF THE PROVINCIAL
CERVICAL SCREENING PROGRAMME IN SELECTED PRIMARY HEALTH
CARE CLINICS IN THE ILEMBE REGION, KWAZULU-NATAL**

BY

MAUREEN NOKUTHULA SIBIYA

**A mini-dissertation submitted in partial compliance with the requirements
for a Master's Degree in Technology: Nursing at Technikon Natal.**

**I, Maureen Nokuthula Sibiya, do hereby declare that this dissertation is
representative of my own work.**


.....
Signature of student

16.04.2002
.....
Date of signature

APPROVED FOR FINAL SUBMISSION


.....
Signature of supervisor

16/04/2002
.....
Date of signature

SUPERVISOR:

Prof L. Grainger

RN; RM; CHN; B.Soc. Sc. (Nursing); B, Soc. Sc. (Hons); D.N.Ed.; PhD.


.....
Signature of joint supervisor

16.04.2002
.....
Date of signature

JOINT SUPERVISOR

Mrs E. Snyman

RN; RM; Diploma in Psychiatric Nursing.

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DEDICATION

This study is dedicated to my dearest parents, Mr and Mrs Majozi, my husband, Mfundu and my two lovely sons, Mfana and Nelisa for their support and encouragement of my studies. Without their support, it would not have been possible for me to finish this study. Over and above, this study is dedicated to all women in KwaZulu-Natal who strive to support and care for their families.

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ABSTRACT

Cervical cancer is almost completely preventable, yet it is the second most prevalent cancer amongst women in South Africa. KwaZulu-Natal (KZN) in particular has a high mortality rate of cervical cancer and 1:40 women die from cancer of the cervix. Therefore, in 1997 a cervical screening policy and programme was implemented in the province. The KZN Department of Health and the Sub-Directorate Maternal, Child and Women's Health needed to know what was happening currently in terms of implementation of the cervical screening programme since it was first implemented three years ago. Therefore, the purpose of the study was to evaluate the implementation of the Provincial Cervical Screening Programme in selected Primary Health Care clinics in Ilembe Region, KZN.

This study took the form of formative evaluation research. The target population consisted of PHC clinics in KZN that have implemented the cervical screening policy and the programme. The accessible population for this study consisted of the clinics in the Ilembe Region. A four-stage selection plan was applied to select the sample from the accessible population. The first stage involved a random selection of two clinics from an urban area and two from a rural area. Within each of the selected clinics, three types of evidence for the evaluation of the implementation of the cervical screening programme were sampled. Therefore, the second stage of the plan was the selection of records. A purposive sample of

all records of clients who were diagnosed with abnormal smears was assessed. The third stage involved the selection of all Professional Nurses from each of the selected clinics. Lastly, the fourth stage involved the selection of the day for collecting data on the facilities and resources. The sources of evidence that were used to evaluate the implementation of cervical screening programme by the clinics were non-participant observation, which involved clinic audit, a review of abnormal smear records and self-reports from nurses regarding the cervical screening programme.

Results indicated that there was a lack of resources needed for implementing the programme in rural clinics compared to urban clinics. However, all clinics in the study had an adequate supply of the drugs needed for the treatment of abnormal smears. The researcher also found that nurses lacked knowledge regarding the indications for taking smears. On reviewing the records, the researcher noted that most of the results indicated that smears had adequate cells needed for analysis. However, the results indicated that there was a problem with follow-up of clients with abnormal smears. There was lack of necessary resources such as telephones needed to do proper follow-up. Feedback to the clinics from the referral hospital regarding the outcome of the visit was inadequate. The results also indicated that the mechanisms of record keeping were poor. Nurses were of the opinion that women should have their first Pap smear at the age of 20 and thereafter at intervals of five years, once they start to be sexually active because of the high rate of sexually transmitted infections and HIV/AIDS in KZN.

Therefore, the above results indicate that problems exist at the selected PHC clinics that may result in ineffective implementation of the cervical screening programme.

CHAPTER ONE

THE PROBLEM AND ITS SETTING

1.1 BACKGROUND TO THE STUDY

Cervical cancer is an important women's health problem in developing countries, killing some 200,000 women each year. It is the third most common cancer overall and the leading cause of death from cancer among women in such countries. At least 370,000 new cases are identified globally each year and 80% are in developing countries. (Tinker, 1999.) In South Africa cervical cancer is now the second most common cancer amongst women, comprising 16% of all cancers. About 1 in 30 women will develop this cancer in her lifetime. Cervical cancer is the most common cancer in Black (31,2%) and Coloured (22,9%) women, followed by Asian (8,9%) and White (2,7%) women. (Sitas, Madhoo and Wessie, 1999.) From this data, it can be seen that this disease occurs more often among African women. This is further supported by the study that was done by de Jonge, Makin and Lindeque (1999) which indicated a more aggressive tumour in black women compared with white women with cervical cancer in South Africa.

Cervical cancer has been described as "a disease of the economically disadvantaged" because even in developed countries such as the United States, cervical cancer mostly affects women of low socio-economic status, rural and poor women. The reason most cases of cervical cancer occur in developing

countries is attributed primarily to the differential access to effective screening programmes aimed at detecting and treating pre-cancerous condition. (Dickson-Tetteh, 1998.) Cervical cancer, a preventable cause of death, accounts for nearly 2% of deaths of women aged 15-44 years and 4% of women aged 45-59 years. (Health Systems Trust, 2000). According to the study that was done by de Jonge, Makin and Lindeque (1999), black women presented late with an advanced stage of the disease and late presentation in black women is an issue which is dictated by unfavourable socio-economic variable. Lack of cancer awareness and knowledge amongst the black population and ongoing inequities in opportunistic screening were pivotal to this situation.

No country in the developing world has ever successfully established mass cervical screening programmes. There are many reasons for this, including the demands of competing health needs, such as malaria, tuberculosis and HIV, the lack of a well-developed primary health care (PHC) infrastructure, limited human, financial and technical resources and the diversion of resources that occurs in areas where war and civil strife tend to be endemic. (Denny, 2000.) According to Dickson-Tetteh (1998), screening efforts in developing countries have had only limited success for a number of reasons including:

- limited screening services;
- failure of the programmes to target or to reach at risk women;
- limited frequency of screening;
- inadequate laboratory and treatment services;

- inadequate number of trained personnel;
- inadequate Pap smear supplies;
- difficulty in client follow-up;
- high cost of services;
- limited awareness of cervical cancer as a health problem; and
- cultural obstacles to providing services.

KwaZulu-Natal has the highest incidence of cervical cancer in the Western world. This province in particular, has a high mortality rate of cervical cancer and 1:40 women will die from cancer of the cervix (Department of Health, 2000b). KZN has a cervical screening policy, which aims to detect women at risk of developing cancer. It states that cervical screening will be available to all women from the age of 30 years at intervals of ten years provided no smears has been taken within the previous five years. It also stipulates that women of any age with a visible cervical abnormality and those that have risk factors, for example, post-coital bleeding and repeated sexually transmitted infections (STIs) should have a Pap smear taken (Appendix 1). This policy is based on the national cervical screening policy, which was developed by taking into account the models of the natural history of the disease. The explicit objectives are to reduce the incidence of cervical cancer, the morbidity and mortality associated with the disease, and ultimately the amount of money spent on the treatment of invasive cancer. (Smith and Hoffman, 2000.) A protocol for the implementation of the policy has been

developed and this is intended to form the basis of the cervical screening policy for KZN (KZN Department of Health, 1999).

1.2 PURPOSE OF THE STUDY

The purpose of the study was to evaluate the implementation of the Provincial Cervical Screening Programme in selected Primary Health Care clinics in Ilembe Region, KZN.

1.3 THE OBJECTIVES OF THE STUDY

The objectives of the study were to evaluate the implementation of the Provincial Cervical Screening Programme in selected PHC clinics in Ilembe Region, KZN to determine:

- resources available;
- reasons for taking cervical smears;
- treatment for clients with abnormal smears;
- useability of smears taken;
- follow-up of clients who were diagnosed with abnormal smears;
- referral process;
- record keeping; and
- perceptions of nurses about cervical screening programme in order to identify problems and suggest solutions.

The researcher and the Sub-Directorate Maternal, Child and Women's Health identified these from the protocol for the Cervical Screening Programme as important aspects that needed to be evaluated.

1.4 MOTIVATION AND SIGNIFICANCE FOR THE STUDY

The researcher decided to do an evaluation study to assess the effectiveness of the implementation of the Provincial Cervical Screening Programme after three years of implementation, so as to identify shortfalls to improve the service. The KZN Department of Health and the Sub-Directorate Maternal, Child and Women's Health in KZN needed to know what was happening currently in terms of the implementation of the programme so that problems could be identified and solutions suggested where possible. Up to the present time, cervical cytology has only occurred on an opportunistic basis. Smears are taken at irregular intervals when patients present themselves and when circumstances allow this. Follow-up with treatment of positive smears has not been adequate for a variety of reasons and the defaulter rate is between 60-80%. Unfortunately South Africa does not possess the infrastructure for the type of screening programme established in the first world western countries where the aim has been to take a cervical smear from every sexually active woman every two to three years. (CANSA, 1994.)

According to the study that was done by Michelow, Wright, Mayet and Leiman (1999) on the evaluation of the interim cervical screening programme in the

greater Johannesburg metropolitan area, reasons for the failure of cervical screening programme included:

- insufficient numbers of smears taken;
- lack of education in the target population who do not present for smears nor return for results;
- a mobile target population making follow-up difficult;
- confusion over whose responsibility is to follow-up patients resulting in unacceptable follow-up rates of positive cases;
- clinic health workers who themselves do not view screening as important and therefore, do not promote its use;
- inadequate resources available for screening;
- sub-optimal management of patients within the referral hospital; and
- poor communication between clinic, laboratory and referral hospital.

Cancer of the cervix is preventable if detected early by a Pap test screening. By the time there are physical symptoms such as bleeding and pain, the disease could be at an advanced stage. It is, therefore, vital for all women, regardless of their age, to have a regular Pap test (CANSA, 1994). If not detected early, treatment of invasive cancer can cost an average of R53 000. 00 per patient. The treatment is not always available, so a woman may only be offered two treatments and then sent home to die (Department of Health, 1999). This is not acceptable and can be avoided. The success of the screening programme in reaching its aim is dependent on achieving adequate coverage. While the

screening programme will be introduced incrementally depending on health service capacity, the ultimate goal is to screen at least 70% of women, nationally, within the target age group within 10 years of initiating the programme. (Department of Health, 2000b.) Therefore, effective, ongoing monitoring, evaluation and support for the implementation and sustainability of the screening programme will not only benefit women of South Africa, but the country as a whole.

It is therefore, necessary to design a programme, which would be practical and cost-effective in the South African context.

1.5 OPERATIONAL DEFINITIONS

Terms were defined following the pattern of literature review.

1.5.1 Pap Test – cytologic examination of cells scraped from the cervix to detect early changes of the cervix (Cancerbacup, 1999).

1.5.2 Adequate smear – smear that contains both ecto- and endo-cervical cells, cervical mucus and minimal amounts of blood, pus and debris (KZN Department of Health, 1999).

- 1.5.3 **Useability of smear** – smear that is adequate in that it contains the cells needed for analysis in the laboratory in order to accurately identify an abnormal smear.
- 1.5.4 **Abnormal smear** - smear that is classified as low-grade squamous intra-epithelial lesion or high-grade intra-epithelial lesion which requires follow-up and referral for colposcopy.
- 1.5.5 **Squamous Intra-epithelial Lesion (SIL)** – pre-cancerous changes involving the ectocervix (outer part of the cervix). SIL, cervical intra-epithelial neoplasia (CIN) and dysplasia are names for potentially pre-cancerous changes of the cervix (The Cervical Cancer Resource Centre, 1999).
- 1.5.6 **Colposcopy** – this is the procedure where the cervix is viewed through a colposcope, an instrument with magnifying lenses to make a more thorough examination of the abnormal cells of the cervix detected on the smear test (Cancerbacup, 1999).
- 1.5.7 **Urban Clinics** - Clinics that are situated in the townships.
- 1.5.8 **Rural Clinics** - Clinics that are situated outside the townships.
- 1.5.9 **Resources** – Equipment that is used for taking Pap smears.

1.6 ASSUMPTION

It is assumed in this study that if cervical cancer is detected while in its earliest in situ stage, the likelihood of survival is almost 100% with timely and appropriate treatment and follow-up. The success of a screening programme in reaching its aims is dependent on achieving adequate coverage. While the screening programme is introduced incrementally depending on health service capacity, the ultimate goal is to screen at least 70% of women nationally, within the target age group 10 years of initiating the programme. (Department of Health, 2000b.) Therefore, effective ongoing monitoring, evaluation and support for the implementation and sustainability of the screening programme will not only benefit women of South Africa, but the country as a whole.

1.7 LIMITATIONS OF THE STUDY

The research consisted of a small sample due to limited time. This study was intended to be a pilot study. However, to overcome this limitation, the researcher made use of triangulation of methods to obtain a more realistic and detailed picture of what was happening. The results of this study could then be used to design wider scale studies that will give more representative findings.

1.8 CONCLUSION

Since cervical cancer is the most common cancer amongst women in South Africa, and as such, an extremely important cause of morbidity and mortality, the problem cannot be ignored. The death of women results in a tremendous loss to families and subsequently to nations themselves. In addition, patients who are terminally ill with a disease that is almost entirely preventable, burden the health care system. Therefore, an effective cervical screening policy and programme should be in place.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Cervical cancer is almost completely preventable, yet it is prevalent amongst women in South Africa. Cervical cancer is the most common cancer in Black (31,2%) and Coloured (22,9%) women, followed by Asian (8,9%) and White (2,7%) women (Sitas, Madhoo and Wessie, 1999). Cancer of the cervix is preventable if detected early by a Pap test screening. By the time there are physical symptoms such as bleeding and pain, the disease could be at an advanced stage. If not detected early, treatment of invasive cancer can cost an average of R53 000.00 per patient. Such treatment is not always available, so a woman may only be offered two treatments and then be sent home to die (Department of Health, 1999).

Screening for cervical cancer has been erratic and unevenly distributed throughout the country. The Department of Health has been developing National Guidelines in consultation with a variety of stakeholders for a number of years. These Guidelines were launched in November 2000 and the intention is to facilitate comprehensive and systematic cervical cancer screening for all South African women. (HST, 2000.) Therefore, KZN has a cervical screening policy,

which aims to detect women at risk of developing cancer. A protocol for the implementation of the policy has been developed and this will be explained later in detail, since this is going to be relevant to the implementation of the programme.

Cervical cancer is a preventable disease that is amenable to two public health interventions.

- Primary prevention: The health promotion approach, which includes health education and specific protection. Educating people about the disease to increase awareness and promote low risk sexual behaviour and use of barrier contraception to reduce risk.
- Secondary prevention: Early diagnosis and treatment of the disease. This entails implementation of cervical screening programmes to detect cervical cancer in its pre-invasive stages. (KZN Department of Health, 1999.)

Cervical cancer, however, provides an example of a cancer for which there is a "consensus-agreed" screening test which also prevents the onset of the disease by detecting women with a pre-invasive intraepithelial lesion (Twinn, 2001). It is therefore, necessary to design a programme, which would be practical and cost-effective in the South African context.

2.2 NATURAL HISTORY OF CERVICAL CANCER IN RELATION TO SCREENING

Cancer of the cervix develops over time from a precursor lesion, which, although seemingly invisible to the naked eye, can be diagnosed by special investigations for example, cervical cytology, also known as Pap smear. The principal goal of cervical cancer screening is not to diagnose overt clinical cancer but to detect pre-cancerous abnormalities among thousands of cells that may lead to cancerous lesions. In 1988, under the guidance of the National Cancer Institute (NCI), the Bethesda system was introduced as a guideline for cyto-pathology reports of cervical smears (Mahon, 1995). The Bethesda system is the most widely used system for describing Pap test results. In terms of this, the pre-cancerous lesions, which have previously been referred to as cervical intraepithelial neoplasia (CIN), are now named squamous intra-epithelial lesions (SIL). SIL is then divided into low-grade SIL, previously CIN 1 and high-grade SIL, previously CIN 2 and CIN 3. (Department of Health, 2000a.) Sometimes, SIL is classified as mild, moderate, or severe dysplasia which are equivalent to CIN 1, CIN 2 or CIN 3 respectively (The Cervical Cancer Resource Center, 1999). There is evidence that low-grade lesions will spontaneously regress to normal. Low-grade lesions, however, do indicate an "at risk" group and require follow-up in the form of repeated cervical smears in 6 to 12 months' time (Michelow, Wright, Mayet and Leiman, 1999). A lesion classified as high-grade SIL is less likely than low-grade SIL to regress without treatment and more likely to

eventually develop into invasive cervical cancer if it is not treated. (KZN Department of Health, 1999). According to the National Health and Medical Research Council (1993), a number of studies have suggested that carcinoma-in-situ (CIN 3), the most advanced pre-malignant change that is reported, without treatment will develop into invasive cancer in 18-35% of women over a period of time ranging from one to 23 years.

The Bethesda system also classifies two new categories that represent refinements of atypia: atypical squamous cells of undetermined significance (ASCUS) and atypical glandular cells of undetermined significance (AGUS) (Bernard-Pearl and Smith-McCune, 2001). ASCUS is used when it is not possible to tell from the Pap test whether the abnormal cells are due to inflammation or to a pre-cancer. In these situations, repeat Pap tests such as colposcopy may be recommended depending on the patient's history and the results of the previous Pap test. AGUS, a rare event is when endo-cervical glandular cells have features that do not permit a clear decision as to whether or not they are cancerous. The patient will usually undergo further testing if a Pap test shows AGUS. (The Cervical Cancer Resource Center, 1999.)

According to the KZN Department of Health (1999), younger women (under 30 years of age) tend to present with a milder degree of precursor. In older women, however, the regression rate decreases, resulting in lesions that are more likely to progress to high-grade precursors and ultimately to cancer.

2.3 DIAGNOSIS OF CANCER OF THE CERVIX

The Pap test is a screening test rather than a diagnostic test. According to Beaglehole, Bonita and Kjellstrom (1993), screening is the process by which unrecognized diseases or defects are identified by tests that can be applied rapidly on a large scale. Screening tests sort out apparently healthy people from those who may have the disease. Decisions on the appropriate criteria for a screening test depend on the consequences of identifying false negatives and false positives. The screening test itself must be reliable and valid. A test is reliable if it provides consistent results, and valid if it correctly categorizes people into groups with and without the disease, as measured by its sensitivity and specificity. Sensitivity is the frequency with which persons who have the disease test positive and specificity is the frequency with which persons who do not have the disease test negative (Valanis, 1996). The cervical sample should contain cells from the endo-cervical epithelium. Smears without endo-cervical cells are a warning signal for the possibility of a false negative report. (Mahon, 1995.)

Screening is not usually diagnostic and it requires appropriate investigative follow-up and treatment. Therefore, clients with abnormal Pap test results have additional tests (colposcopy and biopsy) to find out whether a pre-cancerous change or cancer is present. A colposcopy is a procedure where the cervix is viewed through a colposcope, an instrument with magnifying lenses very much like binoculars. The colposcope makes it possible to see the surface of the cervix

closely and clearly. If abnormal areas are seen on the cervix, a biopsy (removal of a small tissue sample) is done for study under the microscope by a pathologist in the laboratory. (The Cervical Cancer Resource Center, 1999.) Once a decision has been taken, colposcopic assessment should be performed as soon as possible to allay the woman's anxiety (preferably within six weeks). Initial colposcopy should be for assessment alone, that is treatment should not be undertaken on the same occasion. If an abnormal area is visualized, biopsy results should be obtained and the woman counselled, before any treatment. According to the National Health and Medical Research Council (1993), the colposcopy report should include the following:

- a description of the cervix;
- the location, extent and boundaries of any lesion or lesions;
- colposcopic assessment of the lesion in terms of CIN grading;
- above all, whether a diagnosis of invasive cancer can be confidently excluded;
- a precise statement about the site of directed punch biopsy for histological diagnosis;
- a diagram of the cervix with abnormalities indicated, including biopsy sites; and
- a plan outlining proposed management.

Where a histologic diagnosis of invasive or possibly invasive carcinoma has been made, the woman should be referred for management within two weeks to a specialist with expertise in the management of gynaecological malignancy.

2.4 TREATMENT OF CLIENTS WITH ABNORMAL SMEARS

An abnormal smear is a smear that is classified as either low-grade SIL or high-grade SIL, which requires follow-up and/or referral for colposcopy. According to KZN Department of Health (1999), clients with CIN1, 2 and 3 should be referred to the referral institution for colposcopy. Those clients with any other malignancy or suspicion of malignancy should also be referred immediately to the nearest regional referral centre for further assessment and management. In the event that invasive cancer of the cervix is identified, treatments are offered by the referral centre. The treatment of cancer should be done at academic health complexes under the supervision and guidance of the comprehensive cancer care centres situated at academic health complexes. Comprehensive cancer care centres can be defined as 'centres that provide all the diagnostic modalities as well as surgical and non-surgical treatment modalities. This includes follow-up and supportive services required by cancer patients.' (Department of Health, 2000a.) According to the Cervical Cancer Resource Center (1999), options for treating each patient with cervical cancer depends on the stage of her disease. The stage of a cancer describes its size, depth of invasion and how far it has

spread. The three main types of treatment used for patients with cervical cancer are surgery, radiation therapy and, less commonly, chemotherapy.

Clients with abnormal smears who are found to have infection or inflammation should be treated according to the Syndromic Management of STIs approach. (Department of Health, 1998.) Therefore, clinics need to have an adequate supply of drugs indicated for the treatment of STIs. For more information on Syndromic Management of STIs, refer to Appendix 11.

2.5 FACTORS ASSOCIATED WITH CERVICAL CANCER

Studies that have identified risk factors associated with cervical cancer have shown that cervical cancer is closely linked to:

- certain sexual behaviors for example, increased number of sexual partners;
- human papillomavirus (HPV), which can be sexually transmitted;
- immunosuppressive disorders such as HIV/AIDS; and
- failure to receive regular Pap Test. (Centers for Disease Control and Prevention, 2001.)

Other risk factors include low socio-economic status, smoking, diet and long term use of oral contraceptives (The Cervical Cancer Resource Center, 1999).

According to KZN Department of Health, (1999), a full history should be taken during the first visit to the Primary Health Care/ Reproductive Health Care service so as to exclude other risk factors like:

- contact bleeding, including post-coital bleeding;
- any abnormal vaginal bleeding, irrespective of age;
- history of multiple sex partners;
- a known malignancy elsewhere in the body;
- known HIV infection;
- repeated sexually transmitted infections and those not responding to treatment;
- high parity under the age of 30 years;
- painful coitus;
- previous abnormal Pap smears or treatment for a cervical lesion;
- women who have had a positive Pap smear but defaulted in the follow-up;
- and
- smoking.

These risk factors will be considered in further detail below.

2.5.1 Human Papillomavirus

Genital HPV has been directly linked with occurrence of cervical cancer, the second most common form of cancer among women worldwide. Although Pap tests have assisted in reducing the mortality rate of cervical cancer in recent

years, the rate of HPV has been rising in the past decade (Kenney, 1994). Although it has been found that 90% to 95% of all cervical cancer biopsies contain HPV DNA, it is important to note that repeated epidemiological studies demonstrate that the presence of HPV alone is insufficient to cause cervical cancer. Co-factors such as cigarette smoking, early age of first coitus, multiple sex partners, dietary deficiencies and oral contraceptives use have all been studied extensively as potential stimuli that might lead to infection of cervical cells to convert to disease. (Daley, 1998.) Recent data strongly suggest that the majority of persons with HPV spontaneously clear the infection without any specific medical intervention (Zenilman, 2001). Only a small minority of these infected persons develop cervical dysplasia, and of these, a minority develop invasive carcinoma. Therefore, the involvement of co-factors in the pathogenesis of HPV-related complications has been suspected. Persistent infection with high-risk HPV is, therefore, required for the development and maintenance of CIN 3 (Nobbenhuis, Walboomers, Helmerhorst, Rozendaal, Remmink, Risse, Van der Linder, Voorhorst, Kenemans and Meijer, 1999).

2.5.2 Certain sexual behaviours

Certain types of sexual behaviour increase a woman's risk of getting HPV infection. These high-risk sexual behaviours include intercourse at an early age, having many sexual partners and having unprotected sex at an early age (The Cervical Cancer Resource Center, 1999). One case-controlled study reported

that 60% of HPV positive women had initiated sex prior to reaching 16 years old. This may expose women to sexually transmitted infections (STIs), which may lower a women's immune response and contribute to malignant transformation of HPV infections. (Kenney, 1994.)

The traditional view that a woman's sexual activity determines her chances of developing cervical cancer was challenged by Butcher (2001) who cited the 1982 study on "the male factor" by Skegg et al (additional authors not stated). This study found that in cultures where both partners were sexually monogamous, there were very low rates of cervical cancer. In Latin America women are culturally bound to one lifetime partner yet a very high rate of cervical cancer was found; the authors attributed this to male promiscuity. Of those questioned, 91% had had premarital intercourse with a prostitute. These authors note that such facts raise several issues, such as whether women with partners who have a history of penile warts or whose previous partners had cervical cancer are at a significantly higher risk of developing pre-invasive cancer. Likewise, do health professionals tell men who have had partners with pre-invasive cancer that, potentially, they may infect future partners with HPV? And are women with high-risk HPV told that they might infect their sexual contacts that may then be at risk of penile cancer or, potentially, infect subsequent partners? Therefore, sexual behaviours of both males and females will determine whether the woman is at risk of developing cervical cancer or not.

2.5.3 HIV/AIDS

Women with HIV are at higher risk of developing SIL. They are seven to ten times more likely to develop SIL than women in general. With the HIV epidemic escalating among women, prevalence, morbidity and mortality related to SIL are likely to increase unless adequate prevention and detection programmes are mounted. (Lovejoy and Anastasi, 1994.) It is unknown what the effect of HIV/AIDS has been so far but it is possible that an increasing HIV-sero-prevalence could in part explain the shift to more advanced stages of cervical cancer. According to Bernard-Pearl and Smith-McCune (2001) an extensive body of evidence indicates that immuno-compromised women are at higher risk for poor outcomes for HPV infection than women who are immuno-competent. The rate of HPV detection in the genital tract is increased in women with HIV infection and is inversely correlated with the CD4 count. Immuno-compromised women with cervical cancer present with more advanced disease and have a short interval to recurrence.

In Kwazulu-Natal in 1990, the HIV sero-prevalence in black women with cervical dysplasia was 5% and the prevalence of other STIs, namely syphilis, trichomoniasis and HPV were 15,5%, 13% and 88% respectively (Naidu, Mayat, Hoosen, Moodley and Kharsany, 1992). HIV prevalence in black women with cervical cancer rose from 1% in 1994 to 8% in 1997. South Africa is in the exponential growth phase of the HIV epidemic. Projections predict that HIV

prevalence in South African adults may reach between 18% and 27% in the next 15 years. (De Jonge, Makin and Lindeque, 1999.) The fact that there has been an exponential increase during a time of extensive HIV/AIDS prevention messages and a growing awareness of AIDS is of great concern, especially considering:

- South Africa now has one of the largest number of people living with HIV in any country in the world;
- the high rates of infection in women and men of reproductive and economically active age;
- the projection that women of 20-30 years have the highest rates of all age groups and sexes, with prevalence rates of approximately 26%;
- the increasing mortality over the last 5 years across all ages including infants and especially amongst women;
- the decreasing life expectancy with 15 year old youth having a 70% lifetime risk of AIDS death; and
- the impact of the epidemic on young black and economically poor women is more severe than in any other group. (Health Systems Trust, 2000.)

If the scenario continues to develop, it is suspected that an increase in the cervical cancer rate from 39,28 to 471,36 per 100 000 women will occur by 2008 given an abnormal cervical cytology rate of 50 per 1000 previously unscreened women. There will also be a relative risk of 10 for HIV-infected women to develop

an abnormal smear and a four-fold increase in progression from CIN to cervical cancer in HIV-infected women. (De Jonge, et al. 1999.) Therefore, there is a need for effective cervical screening in KZN.

2.5.4 Failure to receive regular Pap test

Cervical cancer deaths are higher in populations around the world where women do not have access to routine Pap tests. These cases are usually diagnosed at an invasive late stage, rather than as pre-cancers or early cancers. Many people with low incomes do not have ready access to adequate health care services, including Pap tests and treatment of pre-cancerous cervical disease. Such women may also be undernourished, which may play a role in increasing their risk. (The Cervical Cancer Resource Center, 1999.) This is confirmed in the study that was done by De Jonge, et al. (1999), in which 63% of Black patients were found to be in the late advanced stage of cervical abnormalities when smears were done. The fundamentals to the ethnic differences in stage profile found were complex but a lack of cancer awareness and knowledge amongst the Black population and ongoing inequities in opportunistic screening were pivotal to this situation. The results also revealed that although the effects of overall political and socio-economic uncertainties in that same period were difficult to quantify. It further stated that increasing levels of unemployment and crime and progressive deterioration of peripheral health services were factors which were

suspected to have caused changes in health-seeking behaviour with delay in diagnosis and treatment in many women.

2.5.5 Low socio-economic status

Women of low socio-economic status have higher rates of cervical cancer. Cervical cancer has been described as "a disease of the economically disadvantaged" because even in developed countries such as the United States, cervical cancer mostly affects women of low socio-economic status, rural and poor women. The reason most cases of cervical cancer occur in developing countries is attributed primarily to the differential access to effective screening programmes aimed at detecting and treating pre-cancerous condition. (Dickson-Tetteh, 1998.) Cervical cancer, a preventable cause of death, accounts for nearly 2% of deaths of women aged 15-44 years and 4% of women aged 45-59 years (Health Systems Trust, 2000). According to the study that was done by De Jonge et al, (1999), black women presented late with an advanced stage of the disease and late presentation in black women was an issue which was dictated by unfavourable socio-economic variables. The results also suggested stressful events may predispose women to cervical cancers, and stressful situations such as unemployment, poor housing and low incomes are most common among working class women. According to Kerr (1995), most women who develop the disease have either never been screened or have not had a recent test. Therefore, there is a need for a cervical screening programme that will be

available and accessible for women of low socio-economic status in KZN Province.

2.5.6 Smoking

Smoking exposes the body to many cancer-causing chemicals that affect more than the lungs. These harmful substances are absorbed by the lungs and carried in the blood stream throughout the body. Women who smoke cigarettes have been found to have more concentrated nicotine and cotinine in their cervical mucous than non-smokers, which contributes to dysplasias. Smoking may also promote cervical neoplasia, thus increasing the risk of transformation of some HPV types to CIN and invasive cancer. (Kenney, 1994.)

2.5.7 Diet

Women with poor diets may be at increased risk for cervical cancer. Diets low in fruits and vegetables are associated with an increased risk of cervical cancer. Folate deficiencies increase DNA fragility, making DNA more susceptible to invasion by carcinogenic HPV. (Lovejoy and Anastasi, 1994.)

2.5.8 Oral contraceptives

There is some statistical evidence that long-term oral contraceptives use may slightly increase the risk of cervical cancer. Some research suggests a relationship between oral contraceptive use for five or more years. The long-term use of oral contraceptives may contribute to transformation of HPV infections to cervical cancer. (Kenney, 1994.)

2.6 SCREENING AGE

The Provincial Cervical Screening Policy recommends three free smears per lifetime at ages 30, 40 and 50 years or earlier if there are risk factors. Taking into account the difficult circumstances in many developing countries, the WHO has recommended a minimum requirement of one adequate smear per lifetime (older than 35 years of age). There are various controversial opinions about this policy. Many health professionals feel that in reality of the increased incidence of HIV/AIDS and sexually transmitted infections, younger women are at risk. (KZN Department of Health, 1999.) A critical question that needs to be asked is the following: will a policy based on the WHO recommendations for cervical screening in developing countries with three smears in a lifetime starting at the age of 30, and repeated at 10-year intervals, as stated in the programme, be able to contain the problem of cervical cancer in South Africa?

According to the study that was done by Smith and Hoffman (2000), approximately half of the nurses sampled were of the opinion that women should have their Pap smears done at the start of sexually activity, whilst a quarter thought that this should occur when the woman is under the age of 30 years. This is in contrast with the protocol for the Cervical Screening Programme, which states that younger women (under 30 years of age) tend to present with milder degrees of precursor. It further states that there is evidence that the majority of these low-grade lesions will spontaneously regress to normal. However, in older women, the regression rate decreases resulting in lesions that may lead to high-grade precursors. (KZN Department of Health, 1999.)

The study that was done by Cox (1999) provides further evidence that age is the most important factor in the complex relationship between sensitivity and specificity of HPV testing. Only 15% of histological HSIL occurred in women older than 40 years, with the subgroups 20-29 and 30 to 39 years each contributing approximately 40%, and women 19 and younger, approximately 5%. Zahm and colleagues (names not stated) as cited by Cox (1999), determined that women with SIL who were younger than 35 years were most likely to be HPV positive than women with SIL who were older than 35 years. This is in contrast with what Michelow, et al (1999) recommended in their study. They recommended that no women under the age of 25 be screened. If 1000 women between the ages 20 and 24 years were screened, 50,8 low-grade lesions would be detected. If 1000 women aged between 30 and 34 years were screened 32,9 low-grade lesions

and 38,1 high-grade lesions would be detected. They argued that this would reduce the burden of long-term follow-up significantly, although 17,7 HSIL that they identified from women below 25 years would not be detected. They further argued that it could be anticipated that as HSIL have such a long in situ phase, most of these lesions would be detected in women over the age of 25 years before they became invasive. This suggests that by carrying out first smear in women over the age of 30, the opportunity to detect and effectively treat women with HPV would be missed by adhering to the KZN protocol, which stipulates first age of screening as 30 years. Therefore, the researcher can conclude that there is a possibility for the occurrence of high-grade SIL in women who are below 30 years of age due to high prevalence rate of HIV/AIDS in KZN. This indicates a need for further research on HIV/AIDS and cervical cancer.

2.7 IMPLEMENTATION OF THE CERVICAL SCREENING PROGRAMME

Cervical screening has been shown to be effective in several countries but reasons for the past failure have not been the lack of money or skill but of organisation, accountability, and commitment. The current dilemma is not whether screening should or should not be performed but how a service can be organised to greatest effect. (Austoker, 1994.) An estimated 90% of cervical cancer deaths could be avoided if women were offered and accepted a high quality cytology screening programme. According to Dickson-Tetteh (1998), screening efforts in developing countries have had only limited success because

of limited screening services and treatment services as well as inadequate Pap smear supplies. Roberts as cited by Kerr (1995), suggests it is not just a problem of money or lack of expertise, which causes problems in service delivery, but the lack of organisation, accountability, and commitment. Therefore, attention has to be paid to the way in which the cervical screening services are provided in terms of the resources that are needed for implementing the programme, the useability of smears, the follow-up of clients with abnormal smears, the referral system and record keeping, hence the objectives of this study. Unfortunately South Africa does not possess the infra-structure for the type of screening programme established in the first world western countries, where the aim has been to take a cervical smear from every sexually active woman every two to three years. Until the present, cervical cytology has only occurred on an opportunistic basis. (CANSA, 1994.) This section will examine these aspects, which are necessary for the implementation of a successful cervical screening programme, in more detail.

2.7.1 Resources

2.7.1.1 Human resources

According to KZN Department of Health (1999), all service providers must have access to information and be technically competent to perform adequate Pap smears with effective management of abnormal results. Obtaining the

appropriate sample is only a part of the procedure. Preparation of the smear requires that both sides of the sampling instrument be carefully and rapidly pressed to a clear glass slide and the smear to be fixed immediately. The pathologist also benefits from knowing the client's age, last menstrual period, obstetric history and risk factors for cervical cancer. (Mahon, 1995.) Training of nurses regarding cervical screening will ensure effective implementation of the programme. Improving the quality of the service while incrementally increasing the number of Pap smears done, will allow the programme to develop (Smith and Hoffman, 2000).

2.7.1.2 Physical Resources

According to KZN Department of Health (1999), the following resources should be available for doing Pap smears so as to obtain adequate, well-preserved cell sample for the identification of pre-malignant lesion of the cervix:

- usco vaginal specula;
- Aylesbury spatula;
- glass specimen slides;
- cytological fixatives;
- laboratory forms;
- water for lubricating the specula;
- paper hand towels for draping;
- angle poise lamps/ torches;

- couches;
- sheets;
- bucket with disinfectant; and
- gloves.

Clinics also need to have an adequate supply of drugs indicated for the treatment of STIs as mentioned in Section 2.4 and Appendix 11. These drugs are ciprofloxacin, doxycycline, erythromycin, metronidazole, clotrimazole and benzathine penicillin (Department of Health, 1998).

Clinics should also have an adequate number of autoclaves for sterilising specula for infection control purposes, and if an autoclave is not available equipment should be boiled at 100 degrees Celsius for 60 minutes (KZN Department of Health, 1999). Improving the availability of equipment, particularly specula and sterilizers will facilitate a rise in screenings performed (Smith and Hoffman, 2000). According to the KZN Department of Health (1999), there should be an adequate number of specula as an infection control measure.

2.7.2 Reasons for taking cervical smears

According to the KZN Department of Health (1999), the criteria for doing smears include the following:

- all women from 30 years and above at an interval of 10 years;
- all pregnant women 30 years and older;

- women of any age with a visible cervical abnormality; and
- all symptomatic and at risk women. (These were discussed in Section 2.5).

Therefore, it is important that a full history should be taken from a woman when she visits the clinic so that risk factors like contact bleeding, abnormal vaginal discharge, history of multiple partners or STIs are excluded. Nurses should have adequate knowledge about reasons for taking Pap smears to ensure effective implementation of cervical screening programme.

2.7.3 Useability of smears

Quality control is another issue within the screening service. An adequate smear is a smear that contains both ecto- and endo-cervical cells, cervical mucus and minimal amounts of blood, pus and debris (KZN Department of Health, 1999). The cervical sample should contain cells from the squamous epithelium, the squamo-columnar junction (transformation or T-zone) and from the endo-cervical epithelium. For this study, useability of smear means an adequate cervical smear that has the cells needed for analysis in the laboratory. Theoretically, endo-cervical elements should be a clinically relevant marker of an accurate sample for early detection of cervical cancer because more than 95% of cancers arise in the T zone. Smears without the endo-cervical elements may miss atypia because the T-zone was not sampled. Smears without endo-cervical cells are a warning signal for the possibility of a false negative report. (Mahon, 1995.)

Cervical cytology requires a relatively sophisticated health care infra-structure, trained cyto-technicians and well-equipped laboratories, a high level of built-in quality control to ensure the correct processing and interpretation of Pap smears. Prompt examination of smears demands considerable resources. Furthermore, poor technique of taking the smears and examining them can cause 20% or more pre-cancerous abnormalities in the cervix to be missed. (Kerr, 1995.) To be effective, the Bethesda system requires that the clinician collect an adequate sample and history, and that the cyto-pathologist recommend follow-up of any abnormalities (Mahon, 1995). Therefore, useability is an important aspect for successful implementation of the cervical screening programme.

According to KZN Department of Health (1999) the adequacy rate of a screening facility should be at least 70%. Cytological laboratories have to audit or monitor the proportion of adequate smears, and they have to inform facilities on a six monthly basis of the adequacy rate. According to Kerr (1995) few laboratories have satisfactory internal and external assessment of quality. Should a facility consistently achieve below 70% adequacy, the staff will have to be re-trained. A woman with an inadequate smear should be re-screened. If the second smear too is inadequate, the patient should immediately be referred to a known competent screening service (Department of Health, 2000a). The amount of emotional turmoil and financial effort required for repeated smears is probably significant and difficult to measure. Therefore, as explained in Section 2.7.1.1, it is important that nurses should have skills of taking smears with adequate cells

so that women with abnormal smears will be identified early to exclude pre-cancerous changes.

2.7.4 Follow-up of clients with abnormal smears

A working follow-up system needs to be in place for effective implementation of the programme. There is no point in screening for pre-cursor lesions and not follow-up or referring clients to an appropriate facility. Before taking the Pap smear, the woman must understand the implications of the procedure. She must be informed that she will have to return for follow-up and treatment if any abnormality is found. (KZN Department of Health, 1999.) The longer that a woman with an abnormal smear is left untreated, the more chance there is of her lesion progressing (The Cervical Cancer Resource Center, 1999). If the client is not willing to return for the follow-up treatment, it must be well documented that she was advised and refused to return. The nurse is expected to re-counsel the client. The time lapse between screening and follow-up should be 1-4 weeks depending on circumstances. Every attempt possible should be made to find those patients with positive results who do not return voluntarily. This responsibility rests with the institution that performed the cervical screening service. The original screening institution should trace patients who do not keep their appointments at the colposcopy clinics. (KZN Department of Health, 1999.)

According to Dickson-Tetteh (1998) screening efforts in developing countries have had only limited access for a number of reasons. One of the reasons is the difficulty in client follow-up. This could be related to the fact that some of the clients do not have proper addresses and telephone numbers because they are from informal settlements. Another fundamental problem with the service is that it does not have an accurate computerised database to enable follow-up to be done (Kerr, 1995).

In addition, women with abnormal Pap smears are traditionally referred for colposcopy, a service that is usually only available in urban, tertiary health institutions, if available at all. It has been well documented in some areas, that up to 70% of women with abnormal Pap smears, never reach a colposcopy clinic and their abnormal Pap smears are never treated. (Denny, 2000). According to the study that was done by Zweigenthal (1998) an attempt was made to follow-up the vast majority (74%) of clients with high-grade lesions. Only 66% of these attempts were successful. The major problem with follow-up was that women were not living at the addresses that they gave to the clinic. Some had left employment at the addresses whilst others had never lived at the addresses.

2.7.5 Referral system

A good referral system should be in place to ensure effective implementation of the programme. The nurse needs to know where to refer clients who present with

positive Pap smears. There should also be effective liaison with referral centres for diagnosis and treatment to ensure effective follow-up and monitoring. Effective communication between the screening facility and the laboratory is also important to ensure effective reporting, follow-up and monitoring. (KZN Department of Health, 1999.) According to Smith and Hoffman (2000) nurses work diligently to achieve good rates of follow-up, but there is one group of women that they cannot monitor, namely those with high-grade lesions. Once a woman is referred to colposcopy, the nurses do not receive feedback regarding whether she kept her appointment, or what the outcome was.

Improving communication would allow nurses to remain involved with their clients, and help to ensure that follow-up takes place. The referring doctor has a responsibility to the woman to ensure that she has fully understood the significance of her abnormal smear, the options for evaluation and management of that smear, and has been involved in the decision-making (National Health and Medical Research Council, 1993). This is further supported by the findings of the study that was done by Wood and Jewkes (1996) where the health workers expressed disappointment that they continued to not receive feedback from hospital specialists to whom they referred women found to have abnormal smears, which merited further clinical investigations. The clinic staff said that when such women returned to the clinic at a later time, they were not in a position to know what had happened diagnostically or curatively, and so were unsure as to how to act in the patient's best interest. According to the KZN

Department of Health (1999) clinics are expected to request for feedback to maintain client profile. According to the study that was done by Zweigenthal (1998), the results showed that all patients were encouraged to report back to the clinic to give information as to the outcome of their hospital visit. That was the only way the feedback of a referral to hospital was gained, as the colposcopy clinics did not send a report of their findings to the clinics.

According to the National Health and Medical Research Council (1993), responsibility for follow-up of screen-detected abnormalities cannot be left entirely to the clinician. Women should also take some responsibility for their own health care. Ideally, the treating clinician should discuss with the woman all the options available to her, assist her in the involvement in the decision-making and ensure that she is clear about the next step in the management of her cervical abnormality.

According to the study that was done by Wood and Jewkes (1996), health workers described how some women who were found to have CIN refused to go to the hospital when referred there. Reasons they suggested included that women thought that inyangas were able to cure cancer, and that they associated hospitals with terminal illness and death. According to Kerr (1995) an individual's belief in the usefulness of the service is also important for its effectiveness. The woman must believe that screening could decrease the likelihood of her developing the disease, or improve the prognosis if the disease is already

present. Therefore, it is necessary for health promotion services to improve the educational material and publicity surrounding cervical cancer and the screening process. Intercultural and intra-cultural differences in racial and ethnic minority women challenge nurses to explore strategies that focus on the health care provider, the health care delivery system, and the individual woman within the context of the woman's culture.

2.7.6 Record Keeping

It is crucial for the effectiveness of any screening programme that women recommended for repeat Pap smear receive their results, and return to the clinic for follow-up. To this end, every clinic must have an effective mechanism of record keeping, record maintenance, and recall. Records are an integral part of the communication structure of the health care organisation. Accurate and complete records are required by law (Stanhope and Lancaster, 2000). Currently, some clinics have no record keeping protocol, and among those who do, quality varies (Smith and Hoffman, 2000). According to the KZN Department of Health (1999), the following details should be recorded in the Pap register for each Pap smear sent to the laboratory:

- name of the client;
- age;
- contact details;
- date sent to laboratory;

- date sent to laboratory; and
- date returned to the clinic.

When the results are received, the laboratory number allocated to the client by the laboratory should be recorded on the client's carrier card and other relevant records. This will ensure continuity of care if there is a need for follow-up smears. If the results show an abnormality that requires a follow-up smear, that patient's name should be recorded on the abnormal Pap smear control list. The purpose of this control list is to keep track of those women who require further follow-up and/or referral. (KZN Department of Health, 1999.) According to the study that was done by Kerr (1995), the results revealed that the service did not have an accurate computerised database to enable the target population to be invited for screening and follow-up. Unless service authorities are able to improve their age-sex information significantly, the call and recall system will never be truly effective.

2.8 PERCEPTIONS OF NURSES ABOUT CERVICAL SCREENING PROGRAMME

There are various controversial opinions about the policy. Many health professionals feel that considering the increased incidence of HIV/AIDS and sexually transmitted infections, younger women are also at risk. (KZN Department of Health, 1999.) According to the study that was done by Smith and

Hoffman (2000), approximately half of the nurses sampled were of the opinion that women should have their first Pap smear at the start of the sexual activity whilst a quarter thought that this should occur when the woman is under the age of 30 years, as previously discussed in Section 2.6. Zweigenthal (1998) found a correlation between a high level of screening and nurse's knowledge or a personal interest in cervical cancer. This researcher reported that the screening rates increased with an increase in the level of nurses' education.

Despite the existence of the policy and protocol, difficulties do appear to occur with the implementation of the cervical screening policy. According to Health Systems Trust (2000), the challenge is for health services at PHC level to expand and include cervical screening as a regular service, along with other women's services. Part of the challenge is to manage the process of screening, and ensure that services have the equipment needed, including specula and spatulas. Health systems need to be strengthened in order to provide for good co-ordination between laboratories and the health services and referral centres for follow-up and treatment. At the same time, health workers need to be motivated and trained with regard to the policy, in order for them to identify target women to screen and to have a referral system to rely on (Makhanya, 2000).

2.9 CONCLUSION

Cervical cancer is an important cause of suffering among women in developing countries and is the only known cancer that can be prevented by using a simple test, such as a Pap smear. Early intervention once an abnormality is detected is important if the cervical screening programme is to be effective. Human error, lacks of interest, ignorance and economic constraints have contributed to make the screening programme less effective than it could be. Health professionals at all levels have a moral obligation to improve the service. Without the commitment and motivation, cervical cancer will remain a cause of concern in KZN.

CHAPTER THREE

THEORETICAL FRAMEWORK

3.1 INTRODUCTION

A comprehensive means of evaluating and improving the cervical screening programme could be achieved by adopting a quality management approach. The purpose of this approach is to ensure that the results of an organized activity are consistent with the expectations (Stanhope and Lancaster, 2000). Well-conceived, well-designed and conducted and thoughtfully analyzed evaluations have the potential to provide insights into how services are operating, the extent to which they are meeting intended goals or the needs of the recipients, their strengths and weaknesses and their cost effectiveness (Cormack, 1996). One such approach, the American Nursing Association Model (ANA, 1977) incorporating Donabedian's framework for evaluating health care programmes was used to evaluate the implementation of the cervical screening policy. There are a number of models/ approaches that could be used to evaluate the quality of care, for example the Tracer and the Sentinel approaches. Donabedian's model was selected because it was particularly suited to the aim of this study. This model introduces three aspects to the evaluation of the quality of care, that is structure, process and outcome. Structure, process and outcome may be used separately to evaluate a part of care. However, to get an overall picture of quality

of care, which is what this study was seeking to achieve, they should be used together. The Tracer and Sentinel approaches only measure the process and outcome of care and were therefore not considered to be as relevant for the study.

According to Katzenellenbogen, Joubert and Karim (1997), health care can be thought of as if it were an industrial process, which starts with production plans (policy), builds a factory and develops rules and procedures for running it, adds raw materials (inputs), combines them in processes to produce health care of different kinds (outputs), which may lead to improved health care. The aspects of this approach will also be referred to, as they are similar to Donabedian's model and explain the structure, process and outcome aspects further. The ANA part of the model introduces measurement criteria to measure standards for structure, process and outcome. (Stanhope and Lancaster, 2000.) Details of how the framework has guided the study will be given in Chapter 4. The steps in the structure-process-outcome model will now be explained in more detail, below.

3.2 STRUCTURE

The evaluation of structure involves evaluating the setting and instruments used to provide care. 'The philosophy and objectives of the programme or service will define the structural standards of the agency. Once the objectives have been formulated, the resources needed to accomplish the objectives should be

identified. These could include the personnel, supplies and equipment, facilities and financial resources'. (Stanhope and Lancaster, 2000.)

As stated in 3.1, Katzenellenbogen, et al. (1997) have identified inputs required to provide health care. These are similar to the structure aspects of the Donabedian's model as they include people, material goods and financial resources that go into making up the health care system. Input evaluation compare the inputs provided against existing norms or standards, previous measurements or comparable areas and services. They may also be analysed to see whether resources are being distributed fairly (equity).

3.3 PROCESS

Process involves 'the evaluation of activities as they relate to standards and expectations of health providers in the management of client care' (Stanhope and Lancaster, 2000). This is further explained by Katzenellenbogen et al, (1997) who state that processes are the complex interactions, which occur in the delivery of health care. They take place when infrastructure and other inputs are applied to communities or individual patients with health problems. Process evaluations assess the way in which care is provided, and whether it meets any institutional guidelines, which may exist. Evaluation of processes should include those individuals who participate in the processes themselves. The purpose of

the process evaluation is to identify the most efficient ways to accomplish a process (Hoeman, 1996).

3.4 OUTCOME

'Outcomes are health states of people, groups or communities that result from interaction with the health system. Outcome evaluations check that the intervention was effective, that the desired health goal was achieved, and that the patient, client, or community obtained prevention, amelioration, cure, or rehabilitation of a particular problem.' (Katzenellenbogen, et al, 1997.) Process and outcome are closely interwoven (Hoeman, 1996). The ability to identify changes in the client's health status as a result of nursing care provides nursing data that demonstrate the contribution of nursing to the health care delivery system. Strengths and weaknesses in nursing care delivery can be determined. The most common measurement methods are direct physical observations and interviews. Outcome evaluation assumes that health care has a positive effect on client status. The major problem with outcome evaluation is determining which nursing care activities are primarily responsible for causing changes in client status. (Stanhope and Lancaster, 2000.)

3.5 STANDARDS, CRITERIA AND MEASUREMENT TOOLS

Standards relating to structure, process and outcome need to be identified to provide a yardstick against which to measure the quality of care. Standards indicate how well aspects should be met. In many cases they are not specific enough to be used for measurement, and therefore, criteria need to be identified to reduce ambiguity. This can be done by using the tools as measurements. Standards only define structure, process and outcome. They are not evaluating the programme. There are different kinds of tools and data collection methods. For example, observation method, which entails checklist and audit, self-report, which may be interview or questionnaire and record reviews can be used to measure the quality of care.

3.6 EVALUATION, INTERPRETATION AND ACTION

'Interpreting the findings of a quality care evaluation is an essential component of the process. It allows for the identification of discrepancies between the quality care standards of the agency and the actual practice of the nurse or other health providers' (Stanhope and Lancaster, 2000). The thrust is to understand how well a service is moving towards its objectives so that remedial action may be taken when things seem to be going well (Section 4.1). Regular intervals for evaluation should be established within the agency, and periodic reports should be written

so that the combined results of structure, process and outcome efforts can be analysed and health care delivery patterns and problems can be identified.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 DESIGN

The design of this study was an evaluation study. According to Bond in Cormack (1996) evaluation research is conducted with the purpose of informing decision-makers to enable them to make better decisions. Programme evaluation is an essential organisational practice in public health; however, it is not practised consistently across programme areas, nor it is well integrated into the day-to-day management of most programmes. Programme evaluation is also necessary to fulfill Centers for Disease Control and Prevention's (2000) operating principles for public health, which include:

- using science as a basis for decision making and action;
- expanding the quest for social equity;
- performing effectively as a service agency;
- making efforts outcome-oriented; and
- being accountable.

These operating principles imply several ways to improve how public health activities are planned and managed. They underscore the need for programmes to develop clear plans, inclusive partnerships, and feedback systems that allow

learning and ongoing improvement to occur. One way to ensure that new and existing programmes honour these principles is for each programme to conduct routinely practical evaluations that inform their management and improve their effectiveness.

This study took the form of formative evaluation research. According to Bond in Cormack (1996) formative evaluation has its main thrust in providing information, which will improve the running or development of an on-going service in relation to its value. The thrust is to understand how well a service or project is moving towards its objectives so that remedial action may be taken when things seem to be going amiss and modifications are required, or to recognise when things are going well. However, this study is not just an evaluation of a programme, but an evaluation research because it conforms to the canons of science and measurement principles to arrive at information that is valid. Findings could be generalized because random sampling was done to select the sample and there was enough data to show that it was representative of the situation at the clinics. Differential statistics was utilized although it was a small study. This study can be replicated and the results could be linked with the previous research studies that were conducted on cervical screening. Reporting of the results was external, public and open, which is one of the characteristics of research. (Cormack, 1996.) This study evaluated the programme implementation by collecting data using three methods, which were non-participant observation involving clinic

audits, record review and self-reports collected from focus group discussions with the nurses.

4.2 POPULATION

Polit and Hungler (1997) describe a population as the entire population that meets designated criteria. The target population consisted of PHC clinics in KZN that have implemented the cervical screening policy. Burns and Grove (1995) define an accessible population as the portion of the target population to which the researcher has access. The accessible population consisted of the clinics in the Ilembe Region that refer clients to a secondary hospital that is also in that region. The cervical screening programme has been implemented in all these clinics. There are 15 clinics that refer to the hospital, and out of these clinics, ten are situated in urban areas and five in rural areas. Furthermore, the staff establishment of the clinics is determined according to the geographical location of the clinics. Urban clinics are staffed by eleven Professional Nurses and other categories, and rural clinics by three Professional Nurses and other categories. Urban clinics cater for the communities in the townships as well as the informal settlements around those townships, whereas rural clinics cater mainly for the communities outside the townships. Sources of evidence, which were used to evaluate the implementation of the cervical screening programme by the clinic, were non-participant observation of the facilities, a record review in the clinics and self-reports from nurses. This is in accordance with the Donabedian's model

with the American Nursing Association model for evaluation of quality management as explained in section 3.1. The application of this model to this study is clearly explained in section 4.4 of this chapter.

4.3 SAMPLING STRATEGY

4.3.1 Sampling Method

Sampling refers to the process of selecting a portion of the population to represent the entire population (Polit and Hungler, 1997). A four-stage selection plan was applied to select the sample from the accessible population. The first stage of the selection involved a random selection of two clinics from urban areas, which were indicated as clinic A and clinic B and two from rural areas indicated as clinic C and clinic D. Urban clinics are better resourced than the rural clinics, therefore, it is important to evaluate one of each in order to investigate whether differences in implementation have occurred. Within each of the selected clinics, the evidence for the evaluation of the implementation of the cervical screening programme was sampled. Therefore, the second stage of selection was the selection of records. A purposive sample of all records of clients who were diagnosed with abnormal smears was assessed. The third stage involved selection of all consenting Professional Nurses from each of the selected clinics. Lastly, the fourth stage involved the sample selection of the day for collecting data on the facilities and resources in accordance with time

sampling. Clinics A and D are doing cervical smears only on Tuesdays because of problems with the transport that take smears from clinics to the laboratory for analysis. Therefore, the clinic audits were done on one Tuesday for each clinic on a mutually agreed date and time.

4.3.2 Selection Criteria

4.3.2.1 Clinics

Inclusion Criteria

- Clinics in Ilembe Region
- Clinics that refer to the selected referral hospital in Ilembe Region
- Clinics that provide a service for taking cervical smears

Exclusion Criteria

- Clinics outside Ilembe Region
- Clinics that do not refer to the hospital in Ilembe Region
- Clinics that do not take cervical smears

4.3.2.2 Records

The sample consisted of all records of clients that were diagnosed with abnormal smears as from 1st January 2001 to 30th September 2001. The researcher

specifically chose to examine those records so as to get an idea of what had been happening most recently in terms of the implementation of the cervical screening programme.

Inclusion Criteria

- Records of clients who were diagnosed with abnormal smears as from 1st January 2001 to 30th September 2001

Exclusion Criteria

- Records of clients with normal smears
- Records of clients with abnormal smears prior to 31st January 2001 and after 30th September 2001

4.3.2.3 Audit of clinic by observation

An audit of the clinic was carried out at each of the four selected clinics. All equipment and consultation rooms that are used for taking smears were assessed by visual inspection for resources available.

Inclusion Criteria

- Consulting rooms where cervical smears are done
- Equipment for taking cervical smears

Exclusion Criteria

- Consulting rooms where cervical smears are not done
- Equipment not used for taking cervical smears

4.3.2.4 Professional Nurses

Professional Nurses are the only category of nurses permitted to do Pap smears because of their scope of practice.

Inclusion Criteria

- Professional nurses working at the selected PHC clinics

Exclusion Criteria

- Professional nurses working outside the selected PHC clinics

4.3.3 Sample Size

4.3.3.1 Clinics

The sample consisted of two clinics from urban areas and two from rural areas that refer to secondary hospital in Ilembe Region. Urban clinics were labelled as clinic A and B, and rural clinics as C and D. There are 15 clinics that refer to the hospital, and out of these clinics, ten are situated in urban areas and five in rural

areas. Therefore, four clinics from a total of 15 constitute 27% of the population. Initially, the researcher had planned to do research at one clinic from urban and one from rural clinic. The researcher discovered that there were no Pap smear results for the smears that were done in one of the rural clinics. An autoclave was also not available for sterilising the equipment, so the cervical smears were not done.

4.3.3.2 Records

The sample consisted of all records of clients who were diagnosed with abnormal smears as from 1st January 2001 to 30th September 2001 to assess follow-up. A booking system is used when smears are done. A total of 88 records of clients with abnormal smears out of 206 clients taken smears were analyzed for the four clinics. This constituted 42,7% of the records as from the 1st January 2001 to 30th September 2001.

4.3.3.3 Professional Nurses

The sample consisted of 14 Professional Nurses from the two urban clinics and seven from the two rural clinics. Two focus groups discussions were held at clinic A and the first group consisted of five Professional Nurses and the second group consisted of three Professional Nurses. One focus group discussion was held at clinic B and 6 Professional Nurses participated in the study. Other nurses were

not available at the time of the discussions. Only one discussion was done in rural clinics because of limited number of nurses. Five Professional Nurses from clinic C participated in the study and only two participated at clinic D because one Professional Nurse was off sick. Therefore, 21 Professional Nurses out of a total of 39 participated in the focus group discussion. This constituted 53,8% of the population.

4.4 DATA COLLECTION METHODS

When collecting data, the researcher made use of three methods. The first was non-participant observation, which involved clinic audit. The second was a record review. The third was self-reports, which were collected from focus group discussions with the nurses. The researcher did not evaluate the skill of doing a Pap smear. Therefore, the sources of evidence that were used to evaluate the implementation of the Cervical Screening Programme by the clinic were non-participant observation of the facilities, record review of abnormal smears and self-reports from the nurses regarding the cervical screening programme. This is in accordance with the Donabedian's approach with the American Nursing Association model for evaluation of quality management and the sources of evidence that should be used (Stanhope and Lancaster, 2000). The use of these sources of evidence meant that structure, process and outcome aspects of the programme were evaluated.

The aspect of structure was used to explain the following objectives:

- adequacy and condition of resources needed to do Pap smears;
- treatment of clients with abnormal smears;
- record review of clients with abnormal smears;
- follow-up of clients with abnormal smears; and
- perceptions of nurses about the cervical screening programme.

The aspect of process was used to explain the following objectives:

- reasons for taking Pap smears;
- record review of clients with abnormal smears.

The aspect of outcome was used to explain the following objectives:

- useability of smears taken;
- follow-up of clients with abnormal smears;
- referral process of clients with abnormal smears.

Table 1 explains the manner in which the data was collected in order to meet the research objectives as well as the way in which Donabedian's model guided the study.

TABLE 1: SUMMARY OF DATA COLLECTION METHODS

Objectives	Theoretical framework Donabedian's Model	Method	Tool	Questions
Evaluation of the implementation of the Provincial Cervical Screening Programme to determine:- resources available	Structure	Non-Participant Observation	Clinic Audit Tool	<ul style="list-style-type: none"> - Check for adequacy and condition of resources needed to do Pap smears (see audit tool).
reasons for taking smears	Process	Focus Group Interview	Interview Guide	<ul style="list-style-type: none"> - What criteria do you use to determine whether a client requires a Pap smear?
treatment	Structure / Process	Non-Participant Observation Focus Group Interview	Clinic Audit Tool Interview Guide	<ul style="list-style-type: none"> - Check if there are enough drug supplies to treat clients with abnormal smears. - Do you experience any problems with the supply of drugs to treat clients with abnormal smears?
Useability of smears taken	Outcome	Record Review	Record Review Guide	<ul style="list-style-type: none"> - Check whether sufficient cells were present for laboratory analysis.
follow-up	Structure / Outcome	Record Review	Record Review Guide	<ul style="list-style-type: none"> - Check records if the client's particulars are recorded. - Check for the following information:- <ul style="list-style-type: none"> o whether an attempt to contact the client was made; o whether sufficient cells were present for laboratory analysis; o whether the results were communicated to the client; o whether appropriate referral arrangements were made; o whether feedback from the referral institution was obtained; and o feedback from the client as to the result or outcome of hospital treatment.

Objectives	Theoretical framework	Method	Tool	Questions
			Focus Group Interview	<ul style="list-style-type: none"> - Do you experience any problems in contacting clients with abnormal smears? If yes, please describe them.
referral process	Outcome	Focus Group Interview Record Review	Interview Guide Record Review Guide	<ul style="list-style-type: none"> - Where do you refer your clients with abnormal smears? - How do you get the report from the referral hospital? - Check whether appropriate referral arrangements were made. - Check whether feedback from the referral institution was obtained. - Check whether feedback from the client as to the result or outcome of the hospital treatment
record keeping	Process	Record Review	Record Review Guide	<ul style="list-style-type: none"> - Check if the client's particulars are recorded in the Abnormal Pap Smear Control List: <ul style="list-style-type: none"> o age; o contact details; o laboratory number; and o summary of the Pap results.
perception of nurses	Structure	Focus Group Interview	Interview guide	<ul style="list-style-type: none"> - Have you encountered any problems with the cervical screening programme? If yes, please specify. - How have you overcome the problems? - What do you like about the programme? - What do you dislike about the programme? - Would you like to change anything in the programme?

4.4.1 Non-Participant Observation

4.4.1.1 Clinic Audit

In order to ensure successful implementation of the cervical screening programme, there should be adequate resources for taking cervical smears. The adequacy of resources to deliver care is the structure aspect of Donabedian's model with the American Nursing Association model for evaluation of quality management, which was used to guide this study. It was also an objective of this study. Therefore, each clinic was audited in relation to its resources for the cervical screening. Equipment and consultation rooms that are used for taking smears were assessed by visual inspection for resources available. The researcher also checked whether there were enough drug supplies to treat clients with abnormal smears, because there was no point in identifying women with abnormal smears if there was no treatment available for them.

Tool

A checklist was used to assess available resources (Appendix 2). This was developed from the protocol for the cervical cancer screening programme for KZN. A pilot study was done to assess whether the tool measured what it was intended to measure. It was done in one of the urban clinics attached to the

selected referral hospital but not included in the sample. No modifications of the tool were regarded as necessary.

Venue and Time

The venues for the observations were the selected PHC clinics that refer to a secondary hospital. A booking system is used when Pap smears are done in these clinics. They are only done on Tuesdays because of transport problem related to the collection of smears for delivery to the laboratory for analysis. Therefore, the clinic audits were done on a Tuesday for each clinic. The audit lasted for approximately one hour.

Person conducting clinic audit

The researcher personally conducted the clinic audit so as to ensure accuracy of the findings.

4.4.2 Record Review

A retrospective analysis of records was done in order to assess the follow-up of clients who were diagnosed with abnormal smears. If the result shows an abnormality that requires a follow-up smear, that patient's name should be recorded on the Abnormal Pap Smear Control List. The following client's

particulars should be entered in the control list: name, age, contact details, laboratory number and a summary of the Pap results. The purpose of this Control List is to keep track of those women who require further follow-up and/or referral. The nurse needs to know where to refer clients who present with positive Pap results. It is essential to liaise with the medical personnel and hospital to which clients will be referred. Clinics are expected to request for feedback to maintain client profile. (KZN Department of Health, 1999.)

This was developed from the protocol for the cervical cancer screening programme for KZN. The procedure followed is indicated in Appendix 4 and the manner in which it accords with the objectives is discussed in Table 1.

Tool

A checklist was used to record the data, identified in Appendix 3, in order to assess the follow-up pattern of those clients who were diagnosed with abnormal smears (Appendix 4). The researcher developed a procedure to review each record of an abnormal Pap smear from the Abnormal Pap Smear Control List to determine:

- whether identifying details were recorded (age, contact details, laboratory number and a summary of the Pap results);
- whether an attempt to contact the client was made;

- useability of smear measured according to whether sufficient cells were present for laboratory analysis;
- whether the results were communicated to the client;
- whether appropriate referral arrangements were made;
- whether feedback from the referral institution was obtained; and
- feedback from the client as to the result or outcome of their hospital treatment.

Venue and Time

The record reviews to assess follow-up of clients were done at the clinics during mutually agreed times with the clinic staff. This was usually on Tuesdays in the afternoons, which is the day for doing Pap smears.

Person conducting record review

The researcher conducted the record review. The Professional Nurse in-charge of the clinic made a photocopy of records, after concealing the names of clients so that the researcher was unable to link the information from the records with the client. The researcher numbered the records. This means that de-identification occurred, and anonymity was ensured. The record review was done at the clinics.

4.4.3 Self-report

Focus group discussions were conducted at each clinic with the aim of obtaining information about the perceptions of the clinic staff regarding a cervical screening programme. According to Nyamathi and Shuler (1990) the focus group discussion is a research method for gathering information which, when performed in a permissive non-threatening group environment, allows for the investigation of a multitude of perceptions on a defined area of interest. The purpose of the focus group discussion was to develop an understanding of perceptions, beliefs, attitudes and experience and to explore the context in which these were formed (Krueger, 1994). The group interaction consisted of verbal and non-verbal communication, which facilitated the changing of ideas and opinions of participating individuals. (De Vos, 1998.) Participants actively participated in the discussions and responses were not prompted.

Tool

An interview guide was used to obtain information from the nurses (Appendix 5). Nyamathi and Shuler (1990) emphasize that writing down the plan is absolutely critical in making sure logic is followed and shortcomings are identified. Questions were ordered from the more general to the more specific and more sensitive issues were dealt with last (De Vos, 1998). The interview guide was piloted with the respondents representative of those who later participated in the

actual focus group discussion. Participants in the pilot study consisted of three Professional Nurses from an urban clinic attached to the selected referral hospital but not included in the sample. No modifications of the tool were regarded as necessary.

Venue and Time

The focus group discussion was conducted at the selected PHC clinics to avoid disruption of service. The researcher ensured that participants were relaxed, in a comfortable setting by interviewing them at their workplace. According to Clarke (1999), the venue should be accessible to all concerned, but removed from the immediate clinical area. At each clinic, the researcher identified a room away from the consulting rooms. To minimise the risk of undue interruption to the service, subjects were divided into two groups when interviews were conducted in one urban clinic. Sessions lasted for approximately one hour.

Person conducting focus group discussion

The researcher conducted and facilitated the discussions. In health research, a single interviewer generally, facilitates the group (Holloway and Wheeler, 1996). If the group feels at ease with the interviewer, the interaction will be open and productive, and the participants will be comfortable about disclosing their perceptions and feelings. According to Nyamathi and Shuler (1990), the main

advantage of focus group discussion over other styles of qualitative or quantitative research data collection methods is the possibility of stimulating spontaneous exchanges of ideas, thoughts and attitudes that may be more easily expressed in the "security of being in a crowd". Focus group discussions are normally tape-recorded and notes taken by the facilitator or the scribe (De Vos, 1998). Therefore, the discussions were tape-recorded and a scribe was present to take notes. This was because of possible danger of battery failure and tape malfunction referred to by Nyamathi and Shuler, 1990. The scribe was a Professional Nurse who was known by the clinic staff, and was not in a management position so that the participants did not feel threatened. Group members were informed at the outset that the discussions were only going to be recorded in order to capture everyone's comments and this ensured that participant co-operation was obtained.

4.5 DURATION OF THE STUDY

Collection of data was done during the last week of November 2001 until the end of December 2001.

4.6 ETHICS STATEMENT

4.6.1 Permission

Prior to the commencement of the study, the researcher obtained written permission to undertake the study from the Department of Health (Appendix 8 and 9), Chief Medical Superintendent of the referral hospital (Appendix 10), and Professional Nurses at the clinics (Appendix 6).

4.6.2 Relevance

According to the Guidelines for the Ethical Conduct of Research at Technikon Natal (2000), all research must have relevance for South Africa and its needs, in order to prevent the wastage of resources. In South Africa cervical cancer is now the most common cancer amongst women, and therefore, it is necessary to design a Cervical Screening Programme which would be practical and cost-effective in the South African context.

4.6.3 Informed Consent

The researcher obtained the informed consent of the participants of the study before the research was conducted. According to the Guidelines for the Ethical Conduct of Research at Technikon Natal (2000), informed consent requires that

an individual has adequate understanding of the research including the risks and benefits of the research, and freely gives consent to participate without coercion, undue influence or incentives. Therefore, a Subject Information Sheet was used to explain the study and then obtained written consent from research participants (Appendices 6&7). The following information was present in the Subject Information Sheet:

- the purpose of research;
- anticipated duration of the subject's participation;
- a description of any benefits to the subject or to others which may be expected;
- an explanation that the discussion will be tape-recorded and that they may reject the use of it;
- that participation is voluntary;
- that refusal to participate will not result in adverse consequences of any kind; and
- that the subject has a right to be informed of new findings.

4.6.4 Freedom From Coercion

According to the Guidelines for the Ethical Conduct of Research at Technikon Natal (2000), individuals must not, in any way, be coerced to participate in research. Therefore, Professional Nurses were informed that they were not

obliged to participate and that they might withdraw from research at any stage and refusal to participate would not result in adverse consequences of any kind.

4.6.5 Anonymity

When reviewing clinic records in order to assess follow up of clients with abnormal smears, the researcher ensured anonymity of clients by the process of complete de-identification. The identifiers were removed permanently and the numbers were allocated. The Professional Nurse in-charge of the clinic made a photocopy of records after concealing the names of clients so that the researcher was unable to link the information from records with the client.

4.6.6 Confidentiality

When focus group interviews are conducted, each participant was allocated a number and her name did not appear on any documents. According to the Guidelines for the Ethical Conduct of Research at Technikon Natal (2000), confidentiality refers to the situation where the researcher knows the identity of the participants and can link information to them, but does not reveal it to other people. Therefore, personal identifiers were removed from the data by the researcher, in order to preserve confidentiality. A promise of confidentiality to participants is a guarantee that any information the participants provides will not

be publicly reported or made accessible to parties other than those involved in the research (Polit and Hungler, 1997).

4.7 LIMITATIONS OF THE STUDY

The research involved of a small sample due to limited time. It was intended to be an initial study, which could be extended at a later stage. However, to overcome limitations, the researcher made use of triangulation of methods to obtain a more realistic and detailed picture of what was happening. The results of this study could then be used to design wider scale studies that will give more representative findings.

4.8 ANALYSIS OF RESULTS

Descriptive statistical analysis of the data as carried out and these findings have been presented in table format.

CHAPTER FIVE

ANALYSIS AND DISCUSSION OF RESULTS

This chapter will present the analysis of the results for each clinic according to each of the sources of evidence. Thereafter, these results will be integrated to give an overview of all clinics for each of the sources of data. The results will then be further integrated in order to evaluate the implementation of the Cervical Screening Programme in accordance with the objectives of the study, and based on Donabedian's model and ANA framework. Only the findings will be presented in Sections 5.1 – 5.3, whilst the discussions and interpretation of the results will be given in Sections 5.4 and 5.5. The links between literature review and these sections will also be given in Sections 5.4 and 5.5, and will generally be indicated in brackets. It is realized that the sample size was relatively small hence triangulation of methods was used.

5.1 CLINIC AUDITS

These clinics were audited using the audit tool that was developed from the protocol for the Cervical Screening Programme for KZN.

CLINIC A (URBAN)

The average number of clients seen per day was seven. The evaluation of the adequacy of the resources was based on the fact that an average number of seven clients were seen per day.

1. Number of consulting rooms

There was one consulting room, which was adequate because a booking system was used when Pap smears were done in this clinic. They were only done on Tuesday afternoons because of transport problems related to the collection of Pap smears from the clinic to the hospital for analysis. Only one or two Professional Nurses were allocated for doing Pap smears. If there were two, one was allocated for writing the particulars of the client in the Pap smear record book.

2. Curtains/ Screens

There was one screen, which was adequate because only one room was used for doing Pap smears. Privacy of clients was maintained.

3. Drugs for treatment

Drugs that are required for treatment of abnormal smears as specified by the programme were available and adequate.

4. Cusco vaginal speculum

There were 32 different sizes specula in this clinic and they were all in a good working condition. They were adequate because only one room was used for doing Pap smears and an average number of seven clients were seen per day.

5. Aylesbury spatulum

There were two boxes of spatula. Each box had 100 spatula. These were adequate because only one room was used for doing Pap smears and an average number of seven clients were seen per day.

6. Glass specimen slides

There were two boxes of glass specimen slides. Each box had 50 slides. Therefore, they were adequate because only one room was used for doing Pap smears and an average number of seven clients were seen per day.

7. Cytological fixative

There were three cans of fixative spray. They were adequate because only one room was used for doing Pap smears and an average number of seven clients were seen per day. The researcher did not check the expiry date.

8. Water for lubricating speculum

The clinic staff used warm, tap water for lubricating speculum and the tap was fixed inside the consulting room.

9. Paper hand towel for draping

One big roll of paper hand towel was present. This was adequate because only one room was used for doing Pap smears and an average number of seven clients were seen per day.

10. Angle poise lamp or torch

One lamp was found in the consulting room and it was in a good working condition. It was adequate because only one room was used for doing Pap smears and one client was seen at a time.

11. Couch

There was only one couch. It was adequate because only one room was used for doing Pap smears.

12. Sheets/ draw sheets

There were ten sheets present and they were clean and in a good state. They were adequate because only one room was used for doing Pap smears and an average number of seven clients were seen per day. The nurses also mentioned that they always had enough linen.

13. Linen protector

There was one box containing 50 linen protectors in the consulting room. There were waterproofed protectors for infection control. It was adequate because only one room was used for doing Pap smears and an average number of seven clients were seen per day.

14. Bucket with disinfectant

A bucket containing a disinfectant was present in the consulting room. Questioning of staff revealed that the disinfectant was mixed prior to the

commencement of the daily Pap smears. This disinfectant was Biocide D, which was mixed by adding one sachet to nine litres of water. This is in accordance with the Cervical Screening Programme protocol.

15. Gloves

There were two boxes of gloves. Each box had 100 gloves. Therefore, they were adequate because only one room was used for doing Pap smears and an average number of seven clients were seen per day.

16. Autoclave/ steriliser

There was one autoclave in the clinic and it was in a good working condition. It was adequate because only one room was used for doing Pap smears and there were 32usco vaginal specula, which meant that these only needed to be autoclaved after each clinic was completed.

CLINIC B (URBAN)

The average number of clients seen per day was ten. The evaluation of the adequacy of the resources was based on the fact that an average number of ten clients were seen per day.

1. Number of consulting rooms

There was only one consulting room, which was not adequate because all Professional Nurses used that room whenever there was a client that needed a Pap smear to be taken. It was the only room that had the necessary equipment for taking Pap smears. A booking system was not used in this clinic. Cervical smears were stored at the clinic for a week before transported to the laboratory for analysis. Immediate fixation of the smear was done to ensure optimal results. The cytology laboratory staff confirmed that this practice was satisfactory, when contacted by the researcher.

2. Curtains/ Screens

There was only one screen, which was adequate because only one room was used for doing Pap smears. Privacy of clients was maintained.

3. Drugs for treatment

Drugs that are required for treatment of abnormal smears as specified by the programme were available and adequate.

4. Cusco vaginal speculum

There were 25 different sizes of specula in this clinic and they were all in a good working condition. They were adequate because only one room was used for doing Pap smears and an average number of ten clients were seen per day.

5. Aylesbury spatulum

There were two boxes of spatula. Each box had 100 spatula. Therefore, these were adequate because only one room was used for doing Pap smears and an average number of ten clients were seen per day.

6. Glass specimen slides

There were two boxes of spatula. Each box had 50 slides. They were adequate because only one room was used for doing Pap smears and an average number of ten clients were seen per day.

7. Cytological fixative

There were two cans of fixative spray. They were adequate because only one room was used for doing Pap smears and an average number of ten clients were seen per day. The researcher did not check the expiry date.

8. Water for lubricating speculum

Tap water for lubricating speculum was readily available because the tap was fixed inside the consulting room.

9. Paper hand towel for draping

One big roll of paper hand towels was present. It was adequate because only one room was used for doing Pap smears and an average number of ten clients were seen per day. The nurses mentioned that they always had enough linen.

10. Angle poise lamp or torch

One lamp was found in the consulting room. It was in a good working condition. It was adequate because only one room was used for doing Pap smears and one client was seen at a time.

11. Couch

There was only one couch. It was adequate because only one room was used for doing Pap smears.

12. Sheets/ draw sheets

There were ten sheets present and they were clean and in a good state. They were adequate because only one room was used for doing Pap smears and an average number of ten clients were seen per day.

13. Linen protector

There was one box, containing 50 linen protectors in the consulting room. There were waterproofed linen protectors for infection control. It was adequate because only one room was used for doing Pap smears and an average number of ten clients were seen per day.

14. Bucket with disinfectant

A bucket containing a disinfectant was present in the consulting room. Questioning of staff revealed that the disinfectant was mixed prior to the commencement of the daily Pap smears. This disinfectant was Biocide D, which

was mixed by adding one sachet to nine litres of water. This is in accordance with the Cervical Screening Programme protocol.

15. Gloves

There were two boxes of gloves present. Each box had 100 gloves. Therefore, they were adequate because only one room was used for doing Pap smears and an average number of ten clients were seen per day.

16. Autoclave/ steriliser

There was one autoclave in the clinic and it was in a good working condition. It was adequate because only one room was used for doing Pap smears and there were 25usco vaginal specula. Since an average of ten clients were seen each clinic day, it would not be necessary to sterilize them during the clinic.

CLINIC C (RURAL)

The average number of clients seen per day was ten. The evaluation of the adequacy of the resources was based on the fact that an average number of ten clients were seen per day.

1. Number of consulting rooms

There were six consulting rooms. These were adequate because an average number of ten clients were seen per day. A booking system was not used at this clinic. Pap smears were taken on daily basis. Six Professional Nurses were allocated for taking smears. Therefore, each Professional Nurse used her own consulting room when smears were done.

2. Curtains/ Screens

Each room had a screen and this was adequate because an average of ten clients were seen per day between all the nurses. Privacy of clients was maintained.

3. Drugs for treatment

Drugs that are required for treatment of abnormal smears as specified by the programme were available and adequate.

4. Cusco vaginal speculum

There were 25 different sizes of specula and they were all in a good working condition. They were adequate because an average number of ten clients were seen per day and autoclave was available for sterilisation of used specula.

5. Aylesbury spatulum

There were six boxes of spatula. Each room had a box of spatula, which contained 100 spatula. These were adequate because an average number of ten clients were seen per day.

6. Glass specimen slides

Each room had a box full of slides. Each box had 50 slides. They were adequate because an average number of ten clients were seen per day.

7. Cytological fixative

Each room had a can of fixative spray. This was adequate because an average number of ten clients were seen per day. The researcher did not check the expiry date.

8. Water for lubricating speculum

The clinic staff used warm, tap water for lubricating speculum and the tap was fixed inside the consulting room.

9. Paper hand towel for draping

Each room had a big roll of paper hand towels for draping. This was adequate because an average number of ten clients were seen per day.

10. Angle poise lamp or torch

Each room had a lamp and they were all in good working conditions. They were adequate because an average number of ten clients were seen per day.

11. Couch

Each room had a couch. They were adequate because an average number of ten clients were seen per day.

12. Sheets/ draw sheets

Each room had four sheets and they were clean and in a good state. They were adequate because an average number of ten clients were seen per day. The nurses reported that they always had enough linen.

13. Linen protector

Each room had four linen protectors. There were waterproofed linen protectors for infection control. They were adequate because an average number of ten clients were seen per day.

14. Bucket with disinfectant

A bucket containing a disinfectant was present in each consulting room. Questioning of staff revealed that the disinfectant was mixed prior to the commencement of the daily Pap smears. This disinfectant was Biocide D, which

was mixed by adding one sachet to nine litres of water. This is in accordance with the Cervical Screening Programme protocol.

15. Gloves

Each room had a box of gloves. Each box had 100 gloves. They were adequate because an average number of ten clients were seen per day.

16. Autoclave/ steriliser

There was only one autoclave and it was in a good working condition. It was adequate because an average number of ten clients were seen per day and there were 25usco vaginal specula. Since an average of ten clients were seen each clinic day, it would not be necessary to sterilize them during the clinic.

CLINIC D (RURAL)

The average number of clients seen per day had been four. The evaluation of the adequacy of the resources was based on the fact that an average number of four clients were seen per day. However, the autoclave had been broken for nine months and smears had not been taken during that time. Therefore, although the facilities were audited, they were not being used for smear taking at the time of the audit. Clients who needed smears to be taken, were not referred to other clinics because there was no other clinic nearby.

1. Number of consulting rooms

There was one consulting room, which was adequate because a booking system was used when Pap smears were done in this clinic. They were only done on Tuesday afternoons because of transport problems related to the collection of Pap smears from the clinic to the hospital for analysis. Only one Professional Nurse was allocated for doing Pap smears.

2. Curtains/ Screens

There was one screen, which was adequate because only one room was used for doing Pap smears. Privacy of clients was maintained.

3. Drugs for treatment

Drugs that are required for treatment of abnormal smears as specified by the programme were available and adequate.

4. Cusco vaginal speculum

There were three different sizes of specula. They were not adequate because an average number of four clients were seen per day and an autoclave was not available at this clinic. Even if there had been an autoclave, this was insufficient because it would have meant that specula would need to be sterilized for re-use during the clinic session.

5. Aylesbury spatulum

There was one box, which had 100 spatula. It was adequate because only one room was used for doing Pap smears and an average number of four clients were seen per day.

6. Glass specimen slides

There was one box of slides, containing 50 slides. It was adequate because only one room was used for doing Pap smears and an average number of four clients were seen per day.

7. Cytological fixative

There was one can of fixative spray. It was adequate because only one room was used for doing Pap smears and an average number of four clients were seen per day. The researcher did not check the expiry date.

8. Water for lubricating speculum

The clinic staff used warm, tap water for lubricating speculum and the tap was fixed inside the consulting room.

9. Paper hand towel for draping

One big roll of paper hand towels for draping was present and this was adequate because only one room was used for doing Pap smears and an average number of four clients were seen per day.

10. Angle poise lamp or torch

One lamp was found in the consulting room. It was adequate because only one room was used for doing Pap smears and one client was seen at a time. That lamp was not used because a globe had fused about three months ago. There was no record that indicated that a follow-up of the fused lamp was done.

11. Couch

There was only one couch. It was adequate because only one room was used for doing Pap smears.

12. Sheets/ draw sheets

There were six sheets present and they were clean and in a good state. They were adequate because only one room was used for doing Pap smears and an average number of four clients were seen per day.

13. Linen protector

There was one box, containing 50 linen protectors. There were waterproofed linen protectors for infection control. It was adequate because only one room was

used for doing Pap smears and an average number of four clients were seen per day.

14. Bucket with disinfectant

There was one bucket and the disinfectant was not prepared for use because cervical smears were not being taken. The clinic did not have an autoclave.

15. Gloves

There were two boxes of gloves. Each box had 100 gloves. These were adequate because only one room was used for doing Pap smears and an average number of four clients were seen per day.

~ 16. Autoclave/ steriliser

There was no autoclave because it was taken to the hospital for repairs about nine months ago. The records indicated that a follow-up was done on several occasions about the missing autoclave, but had failed. Therefore, Pap smears were not done at this clinic. The results for record review corroborate these findings (Section 5.2).

TABLE 2: SUMMARY OF CLINIC AUDIT FINDINGS

EQUIPMENT	CLINIC A URBAN	CLINIC B URBAN	CLINIC C RURAL	CLINIC RURAL
Number of consulting rooms	Adequate	Inadequate	Adequate	Adequate
Curtains/ Screens	Adequate	Adequate	Adequate	Adequate
Drugs for treatment	Adequate	Adequate	Adequate	Adequate
Cusco vaginal speculum	Adequate	Adequate	Adequate	Inadequate
Aylesbury spatulum	Adequate	Adequate	Adequate	Adequate
Glass specimen slides	Adequate	Adequate	Adequate	Adequate
Cytological fixative	Adequate	Adequate	Adequate	Adequate
Cytology lab forms	Adequate	Adequate	Adequate	Adequate
Water for lubricating speculum	Adequate	Adequate	Adequate	Adequate
Paper hand towel for draping	Adequate	Adequate	Adequate	Adequate
Lamp	Adequate	Adequate	Adequate	Adequate but no globe for 3 months
Couch	Adequate	Adequate	Adequate	Adequate
Sheets/Draw sheets	Adequate	Adequate	Adequate	Adequate
Linen protector	Adequate	Adequate	Adequate	Adequate
Bucket with disinfectant	Adequate with correct disinfectant	Adequate with correct disinfectant	Adequate with correct disinfectant	Not prepared – no smears were taken
Gloves	Adequate	Adequate	Adequate	Adequate
Autoclave/ Steriliser	Good working condition	Good working condition	Good working condition	Not available, sent for repairs – missing for 10 months

5.2 RECORD REVIEW

The records of clients with abnormal smears were reviewed using the record review tool that was developed from the protocol for the Cervical Screening Programme for KZN.

CLINIC A (URBAN)

The records of clients for each clinic were analyzed following the procedure as indicated in Appendix 3. The statistics relating to records of smears for Clinic A during the period 01st January 2001 to 30th September 2001, records were as follows:

- Total number of smears done – 51 (100%)
- Number of results received – 39 (76%)
- Number of results not received – 12 (23%)
- Number of abnormal smears – 24 (61%)
- Number of adequate smears – 22 (91%)
- Number of inadequate smears – 2 (8%)
- Results recorded in Abnormal Pap Smear Control List - 0

The results of records reviewed are given hereafter:

1. Age

All records (100%, N=24) showed that age was recorded.

2. Contact details

Out of the records that were reviewed, 37,5% (N=9) records had contact details.

Telephone numbers and/or home addresses were recorded.

3. Laboratory number

All records (100%, N=24) indicated the laboratory number.

4. Summary of Pap smear results

All records (100%, N=24) were included in a summary of Pap smear results, but abnormal results were not recorded on the Abnormal Pap Smear Control List as stated in the programme.

5. Attempt to contact client

Only 8,3% (N=2) records showed that an attempt was made to contact the client.

6. Useability of smear

Adequacy of smears was good because 95% (N=22) records indicated the useability of smear. This was above the 70% rate as expected by the Provincial Cervical Screening Programme (Section 2.7.3).

7. Results communicated to the client

Only 8,3% (N=2) records indicated that results were communicated to the client.

8. Appropriate referral arrangements

No referrals were made because no clients had high-grade SIL result, and therefore no further treatment was needed.

9. Feedback from the referral institution

No referrals were made because no clients had a high-grade SIL result. Therefore, there were no referrals done.

10. Feedback from the client

No referrals were made because no clients had a high-grade SIL result.

Therefore, there were no referrals done.

CLINIC B (URBAN)

The statistics relating to records of smears for Clinic B during the period 01st January 2001 to 30th September 2001, records were as follows:

- Total number of smears done – 60 (100%)
- Number of results received – 44 (73%)
- Number of results not received – 16 (27%)
- Number of abnormal smears – 26 (59%)
- Number of adequate smears – Not recorded
- Number of inadequate smears – Not recorded
- Results recorded in Abnormal Pap Smear Control List - 0

The results of records reviewed are given below:

1. Age

All records (100%, N=26) showed that age was recorded.

2. Contact details

Out of the records that were reviewed, 57,6% (N=15) had contact details.

Telephone numbers and/or home addresses were recorded.

3. Laboratory number

All records (100%, N=26) indicated the laboratory number.

4. Summary of Pap smear results

All records (100, N=26) were included in a summary of Pap smear results, but these abnormal results were not recorded on the Abnormal Pap Smear Control List as stated in the programme.

5. Attempt to contact client

Only 34.6% (N=9) records showed that an attempt was made to contact the client.

6. Useability of smear

No records (0%, N=0) indicated the quality of smear.

7. Results communicated to the client

Only 34,6% (N=9) of the records indicated that the results were communicated to the client.

8. Appropriate referral arrangements

There were only five clients that were referred to the referral hospital. Appropriate referral arrangements (100%, N=5) were made for all the clients that were referred.

9. Feedback from the referral institution

No feedback from the referral hospital (0%, N=0) was recorded.

10. Feedback from the client

All records (100%, N=5) indicated that feedback from the client was recorded.

CLINIC C (RURAL)

The statistics relating to records of smears for Clinic C during the period 01st January 2001 to 30th September 2001, records were as follows:

- Total number of smears done – 85 (100%)
- Number of results received – 68 (80%)
- Number of results not received – 17 (20%)
- Number of abnormal smears – 28 (41%)
- Number of adequate smears – 51 (75%)
- Number of inadequate smears – 17 (25%)
- Results recorded in Abnormal Pap Smear Control List - 0

The results of record reviewed are given below:

1. Age

All records (100%, N=28) showed that age was recorded.

2. Contact details

Out of the records that were reviewed 57,1% (N=16) records had contact details.

Telephone numbers and/or home addresses were recorded.

3. Laboratory number

All records (100%, N=28) indicated the laboratory number.

4. Summary of Pap smear results

All records (100%, N=28) were included in a summary of Pap smear results, but these abnormal results were not recorded on the Abnormal Pap Smear Control List as stated in the programme.

5. Attempt to contact client

Only 25% (N=7) records showed that an attempt was made to contact the client.

6. Useability of smear

Adequacy of smears was good because 75% (N=21) records indicated the useability of smear. This was above the 70% rate as expected by the Provincial Cervical Screening Programme (Section 2.7.3).

7. Results communicated to the client

Only 21,4% (N=6) records indicated that results were communicated to the client.

8. Appropriate referral arrangements

Appropriate referral arrangements (100%, N=28) were made for all those clients who needed referral to the hospital.

9. Feedback from the referral institution

No feedback from the referral hospital was recorded.

10. Feedback from the client

Out of the records that were reviewed, 82,1% (N=23) indicated that feedback from the client was received.

CLINIC D (RURAL)

The statistics relating to records of smears for Clinic D during the period 01st January 2001 to 30th September 2001, records were as follows:

- Total number of smears done – 10 (100%)
- Number of results received – 0
- Number of results not received – 10 (100%)
- Number of abnormal smears – No results received
- Number of adequate smears – No results received
- Number of inadequate smears – No results received
- Results recorded in Abnormal Pap Smear Control List - No results received

The results of record reviewed are given below:

1. Age

All records (100%, N=10) showed that age was recorded.

2. Contact details

No records had contact details.

3. Laboratory number

Laboratory number was not recorded because results were not received from the laboratory. There was no evidence that a follow-up of missing results was done.

4. Summary of Pap smear results

No results were received from the laboratory.

5. Attempt to contact client

No results were received from the laboratory.

6. Useability of smear

No results were received from the laboratory.

7. Results communicated to the client

No results were received from the laboratory.

8. Appropriate referral arrangements

No results were received from the laboratory.

9. Feedback from the referral institution

No results were received from the laboratory.

10. Feedback from the client

No results were received from the laboratory.

TABLE 3: SUMMARY OF RECORD REVIEW

RECORD DETAILS	CLINIC A URBAN	CLINIC B URBAN	CLINIC C RURAL	CLINIC D RURAL
Age	100%	100%	100%	100%
Contact details	37,5%	57,6%	57,1%	0%
Laboratory Number	100%	100%	100%	100%
Summary of abnormal Pap smear results	100%	100%	100%	No results received
Attempt to contact client	8,3%	34,6%	25%	No results received
Useability of smear	95%	Not recorded	75%	No results received
Results communi- cated to the client	8.3%	34,6%	21,4%	No results received
Appropriate referral arrange- ments	No referral needed	100%	100%	No results received
Feedback from the referral institution	No referral needed	0%	0%	No results received
Feedback from the client	No referral needed	100%	82,1%	No results received

5.3 FOCUS GROUP DISCUSSIONS

Focus group discussions were conducted using the interview guide.

CLINIC A (URBAN)

There were eight Professional Nurses that participated in the focus group discussion. All the respondents agreed with one another when they responded and it would be noted if any respondents differed from others.

1. Have you ever had a Pap smear done?

All the respondents (100%, N=8) mentioned that they had had a Pap smear done.

2. If yes, how old were you when you first had it done?

All the respondents (100%, N=8) mentioned that they were between 20 to 30 years of age.

3. If not, what was the reason?

Not applicable

4. Have you ever done a Pap on a client in this clinic?

Only one respondent reported that she had not done a Pap smear on a client.

5. If not, what was the reason?

The respondent was new at the clinic, and had to undergo training regarding taking of Pap smears before doing it.

6. At what age do you think a woman should start having Pap smear done?

All the respondents (100%, N=8) mentioned that a woman should start having Pap smear done between ages 20 to 25 because this is a sexually active age group.

7. What criteria do you as a nurse working in this clinic, use to determine whether a client requires a Pap smear?

Respondents mentioned visible cervical abnormality, vaginal bleeding, repeated STIs, if requested by a woman of any age if sexually active.

8. How long does it usually take for your clinic to receive results from the laboratory?

The respondents reported that the results took about six weeks.

9. If a client's Pap smear result is positive, how is she usually contacted?

The respondents mentioned that clients were usually contacted telephonically or message was given to other clients if they were neighbours.

10. Do you experience any problems in contacting clients with abnormal smears? If yes, please describe them?

The respondents reported incorrect contact details and change of address.

11. Where and why do you refer clients with abnormal smears?

The respondents reported that clients with abnormal smears were referred to the referral hospital according to the protocol of the hospital.

12. How do you get the report from the referral hospital?

The respondents reported that no feedback was given to the clinic except if the client came back for the next visit.

13. Do you experience any problems with the supply of drugs to treat clients with abnormal smears?

The respondents reported that there were no problems with the supply of drugs to treat clients with abnormal smears.

14. Have you encountered any problems with the cervical screening programme? If yes, please specify.

The respondents did not state that they had encountered any problems with the cervical screening programme, except that they were concerned that 30 years was too late for the woman to have her first smear.

15. How have you overcome these problems?

The respondents reported that smears were done upon request provided the woman was sexually active.

16. What do you like about the programme?

The respondents appreciated the fact that the cervical screening was provided at no charge.

17. What do you dislike about the programme?

The respondents reported that 30 years was too late for the woman to have her first smear and a 10-year interval was too long.

18. Would you like to change anything in the programme?

The respondents recommended that first Pap smear should be done at the age of 20 years at an interval of 5 years.

CLINIC B (URBAN)

There were six Professional Nurses that participated in the focus group discussion.

1. Have you ever had a Pap smear done?

All the respondents (100%, N=6) mentioned that they had had a Pap smear done.

2. If yes, how old were you when you first had it done?

All the respondents (100%, N=6) mentioned that they were between 20 to 30 years of age.

3. If not, what was the reason?

Not applicable

4. Have you ever done a Pap on a client in this clinic?

All the respondents (100%, N=6) mentioned that they had done a Pap smear on a client.

5. If not, what was the reason?

Not applicable.

6. At what age do you think a woman should start having Pap smear done?

All the respondents (100%, N=8) mentioned that a woman should start having Pap smear done between ages 20 to 25 because this is a sexually active age group.

7. What criteria do you as a nurse working in this clinic, use to determine whether a client requires a Pap smear?

The respondents mentioned visible cervical abnormality, vaginal bleeding, repeated STIs, first visit for contraceptives, woman referred for tubal ligation and if requested by a woman who was sexually active.

8. How long does it usually take for your clinic to receive results from the laboratory?

The respondents reported that they took about six weeks.

9. If a client's Pap smear result is positive, how is she usually contacted?

The respondents reported that clients were contacted telephonically.

10. Do you experience any problems in contacting clients with abnormal smears? If yes, please describe them?

The respondents mentioned incorrect contact details, change of address.

11. Where and why do you refer clients with abnormal smears?

The respondents reported that clients with abnormal smears were referred to the referral hospital according to the protocol of the hospital.

12. How do you get the report from the referral hospital?

The respondents reported that no feedback was given to the clinic except if the client came back for the next visit.

13. Do you experience any problems with the supply of drugs to treat clients with abnormal smears?

The respondents reported that there were no problems with the supply of drugs to treat clients with abnormal smears.

14. Have you encountered any problems with the cervical screening programme? If yes, please specify.

The respondents did not state that they had encountered any problems with the cervical screening programme except that they were concerned that 30 years was too late for the woman to be done first smear.

15. How have you overcome these problems?

The respondents reported that smears were done upon request provided the woman was sexually active.

16. What do you like about the programme?

The respondents appreciated the fact that cervical screening programme was provided at no charge.

17. What do you dislike about the programme?

The respondents reported that 30 years was too late for the woman to have her first smear and the 10-year interval was too long.

18. Would you like to change anything in the programme?

The respondents recommended that the first Pap smear should be done at the age of 20 years at an interval of 5 years.

CLINIC C (RURAL)

There were five Professional Nurses that participated in the focus group discussion.

1. Have you ever had a Pap smear done?

Only one respondent mentioned that she had not had a Pap smear.

2. If yes, how old were you when you first had it done?

The respondents mentioned that they were between 20 to 30 years of age.

3. If not, what was the reason?

The respondent did not know about the importance of doing Pap smear.

4. Have you ever done a Pap on a client in this clinic?

All the respondents (100%, N=5) mentioned that they had taken Pap smear on a client.

5. If not, what was the reason?

Not applicable.

6. At what age do you think a woman should start having Pap smear done?

The respondents mentioned that a woman should start having Pap smear done between ages 20 to 25 because this is a sexually active age group.

7. What criteria do you as a nurse working in this clinic, use to determine whether a client requires a Pap smear?

The respondents mentioned visible cervical abnormality, vaginal bleeding, repeated STIs, if requested by a woman of any age,

8. How long does it usually take for your clinic to receive results from the laboratory?

The respondents reported that the results took about six weeks.

9. If a client's Pap smear result is positive, how is she usually contacted?

The respondents reported that clients were contacted telephonically and Community Health Workers usually visited clients in their homes or a message was given to other clients if client was known or if they were neighbours.

10. Do you experience any problems in contacting clients with abnormal smears? If yes, please describe them?

The respondents reported unavailability of house numbers, and the fact that most clients did not have telephones at home, incorrect contact details, and change of address.

11. Where and why do you refer clients with abnormal smears?

The respondents reported that clients with abnormal smears were referred to the referral hospital according to the protocol of the hospital.

12. How do you get the report from the referral hospital?

The respondents reported that no feedback was given to the clinic except if the clients came back for the next visit.

13. Do you experience any problems with the supply of drugs to treat clients with abnormal smears?

The respondents reported that there were no problems with the supply of drugs to treat clients with abnormal smears.

14. Have you encountered any problems with the cervical screening programme? If yes, please specify.

The respondents did not state that they had problems with the cervical screening programme except that they were concerned that 30 years was too late for the woman to be done first smear.

15. How have you overcome these problems?

The respondents reported that smears were done upon request provided the woman was sexually active.

16. What do you like about the programme?

The respondents reported that they appreciated the fact cervical screening programme was provided at no charge and those women with cervical abnormalities could be identified early.

17. What do you dislike about the programme?

The respondents reported that 30 years was too late for the first smear to be done and a 10-year interval was too long.

18. Would you like to change anything in the programme?

The respondents recommended that first Pap smear should be done at the age of 20 years at an interval of 5 years.

CLINIC D (RURAL)

There were two Professional Nurses that participated in the focus group discussion.

1. Have you ever had a Pap smear done?

All the respondents (100%, N=2) mentioned that they had had a Pap smear done.

2. If yes, how old were you when you first had it done?

All the respondents (100%, N=2) mentioned that they were between 20 to 30 years of age.

3. If not, what was the reason?

Not applicable

4. Have you ever done a Pap on a client in this clinic?

All the respondents (100%, N=2) mentioned that they had done a Pap smear on a client.

5. If not, what was the reason?

Not applicable.

6. At what age do you think a woman should start having Pap smear done?

The respondents mentioned that a woman should start having Pap smear done between ages 20 to 25 because this is a sexually active age group.

7. What criteria do you as a nurse working in this clinic, use to determine whether a client requires a Pap smear?

The respondents mentioned vaginal bleeding, repeated STIs, if requested by a woman who is sexually active, before tubal ligation.

8. How long does it usually take for your clinic to receive results from the laboratory?

The respondents reported that they had not received the results from the laboratory for the past nine months.

9. If a client's Pap smear result is positive, how is she usually contacted?

The respondents reported that the message was given to other clients if they knew the client or if they were neighbours.

10. Do you experience any problems in contacting clients with abnormal smears? If yes, please describe them?

The respondents reported that there was no telephone at the clinic and no postal services. They had to rely on other clients for follow-up.

11. Where and why do you refer clients with abnormal smears?

The respondents reported that clients with abnormal smears were referred to the referral hospital according to the protocol of the hospital.

12. How do you get the report from the referral hospital?

The respondents reported that no feedback was given to the clinic except if the client came back for the next visit.

13. Do you experience any problems with the supply of drugs to treat clients with abnormal smears?

The respondents reported that there were no problems with the supply of drugs to treat clients with abnormal smears.

14. Have you encountered any problems with the cervical screening programme? If yes, please specify.

The respondents reported that 30 years was too late for the woman to have her first smear. They also reported a lack of the necessary equipment to implement the programme as well as the delay in receiving the results.

15. How have you overcome these problems?

The respondents reported that smears were done upon request provided the woman was sexually active. Pap smears were not done because of lack of equipment and they reported that follow-up of missing results was done without success.

16. What do you like about the programme?

The respondents reported that they appreciated the fact that cervical screening programme was provided at no charge and women with cervical abnormalities could be identified early.

17. What do you dislike about the programme?

The respondents reported that 30 years was too late for the first smear to be done and a 10-year interval was too long.

18. Would you like to change anything in the programme?

The respondents recommended that first Pap smear should be done at the age of 20 years at an interval of 5 years.

TABLE 4: SUMMARY OF FOCUS GROUP DISCUSSION

QUESTION	CLINIC A URBAN	CLINIC B URBAN	CLINIC C RURAL	CLINIC D RURAL
1. Had Pap smear done	All yes	All yes	Only one not done it	All yes
2. Age when first done	All between ages 20 to 30	All between ages 20 to 30	All between ages 20 to 30	All between ages 20 to 30
3. If not, reason	N/A	N/A	Did not know about the importance of Pap smear	N/A
4. Pap smear on a client.	Only one had not done it	All yes	All yes	All yes
5. If not, reason	New at the clinic, had to undergo training first	N/A	N/A	N/A
6. Age first Pap smear	20-25, sexually active age group	20-25, sexually active age group	20-25, sexually active age group	20-25, sexually active age group
7. Criteria for Pap smear	Vaginal bleeding, repeated STIs, on request if sexually active	Visible cervical abnormality, Vaginal bleeding, repeated STIs, first visit for contraceptives, before T/L sexually active	Visible cervical abnormality, vaginal bleeding, repeated STIs, on request if sexually active	Vaginal bleeding, repeated STIs, on request if sexually active, before T/L
8. Results from laboratory	About six weeks	About six weeks	About six weeks	Results not received from the laboratory
9. Contact if positive results	Telephonically, other clients if neighbours	Telephonically, Community Health Workers	Telephonically, Community Health Workers, other clients if neighbours	Never contacted because there is no telephone, other clients
10. Problems with follow-up	Incorrect contact details, change of address	Incorrect contact details, change of address	Unavailability of house numbers, no telephone at home, incorrect contact details, change of address	No telephone at the clinic, no postal services

11. Referral	Referral hospital according to the policy	Referral hospital according to the policy	Referral hospital according to the policy	Referral hospital according to the policy
12. Feedback from referral institution	No feedback except if client comes back for next visit	No feedback except if client comes back for next visit	No feedback except if client comes back for next visit	No feedback except if client comes back for next visit
13. Problems with supply of drugs	None	None	None	None
14. Problems with cervical screening programme	30 years too late, lack of training regarding taking of smear,	30 years too late, collection and control of fees if woman <30 years	30 years too late	30 years too late, lack of equipment, delayed results from laboratory
15. Overcome problems	Free Pap smear done on request	Free Pap smear done on request	Free Pap smear done on request	Pap smears not done, follow-up of missing results without success
16. Likes	Free	Free	Free	Free
17. Dislikes	30 years too late and 10-year interval too long	30 years too late and 10-year interval too long	30 years too late and 10-year interval too long	30 years too late and 10-year interval too long
18. Changes	First smear at the age of 20 at intervals of 5 years	First smear at the age of 20 at intervals of 5 years	First smear at the age of 20 at intervals of 5 years	First smear at the age of 20 at intervals of 5 years

5.4 ANALYSIS AND DISCUSSION OF RESULTS OF ALL CLINICS

This section will discuss the results and the summary of the findings of all clinics.

CLINIC AUDIT

1. Number of consulting rooms

Clinics A, C, and D had adequate number of consulting rooms. Clinics A and D were using a booking system when Pap smears were done, and therefore one consulting room was regarded as adequate. Clinic C was not using a booking system, but it had adequate number of consulting rooms. Clinic B had only one consulting room, which was not adequate because all Professional Nurses used that room whenever there was a client that needed to have a Pap smear. A shortage of consulting rooms, as was observed in one of the clinics may result in ineffective implementation of the programme because according to the policy, women of any age with a visible cervical abnormality should be screened. This may facilitate rise in the screenings performed because of a high rate of STIs and HIV/AIDS in KwaZulu-Natal (Section 2.5.3).

2. Curtains / screens

All clinics had an adequate number of screens to provide privacy. Most clinics used only one room for doing Pap smears because they followed the method of booking system. This ensured that privacy was provided.

3. Drugs for treatment

All clinics had an adequate amount of drugs for treating clients with abnormal smears according to the Syndromic Management of STIs. This may have a positive impact in controlling cervical cancer because STIs lower the immune response and contribute to malignant transformation of HPV infections (Section 2.5.1).

4. Cusco vaginal speculum

Most clinics had an adequate number of specula. Different sizes of specula were available as required by the programme to ensure least possible discomfort to the client, and to obtain a good view of the cervix. Only one clinic from rural area (Clinic D) did not have enough specula. The autoclave was also not available for sterilisation and facilities needed for boiling the specula were not available. This is not in accordance with the programme, which states that there should be an adequate number of specula as an infection control measure (Section 2.7.1.2). The results also indicated that there was lack of resources in rural areas

compared to urban areas. That is the reason that made the researcher initiated the research in both areas to compare the availability of resources (Section 4.3.1).

5. Aylesbury spatulum

All clinics had an adequate number of spatula which are required for effective implementation of the programme.

6. Glass specimen slides

All clinics had an adequate number of slides with frosted ends as recommended by the programme for easy writing of client's particulars (KZN Department of Health, 1999).

7. Cytological fixative

All clinics had an adequate number of fixative spray cans. Immediate fixation of the Pap smear is critical for optimal results, as failure to observe any of the steps during the preparation of the smear may produce an unsatisfactory sample, and consequently reduce the ability of the laboratory to submit a useful report (KZN Department of Health, 1999).

8. Water for lubricating speculum

All clinics had warm tap water, which is required for lubricating speculum to ensure less discomfort for the client (KZN Department of Health, 1999).

9. Paper hand towel for draping

All clinics had an adequate number of hand towels for draping to ensure infection control.

10 Angle poise lamp / torch

Out of four clinics, only three had an adequate number of lamps. Clinic D (rural) had one lamp, which did not have a globe. A torch was also not available. This is not in accordance with the Cervical Screening Programme protocol, which states that there should be direct light on the vulval area to ensure a good view for observation and the procedure (KZN Department of Health, 1999).

11. Couch

All clinics had an adequate number of couches used for examining the client.

12. Sheets/ draw sheets

All clinics had an adequate number of sheets and draw sheets to cover the couch and the client to ensure privacy.

13. Linen protector

All clinics had an adequate number of linen protectors to ensure infection control.

14. Bucket with disinfectant

Most clinics had an adequate number of buckets and were using the correct disinfectant with the correct strength to maintain infection control (KZN Department of Health, 1999). Only one clinic (rural) did not prepare for disinfection of spatula. Pap smears were not taken at this clinic because there was no autoclave.

15. Gloves

All clinics had an adequate number of gloves for prevention of cross infection (KZN Department of Health, 1999).

16. Autoclave/ steriliser

Only one clinic (rural) did not have an autoclave for sterilisation of specula. No other method was used to sterilise the equipment. This is not in accordance with the programme, which states that specula can also be boiled at 100 degrees Celsius (Section 2.7.1.2). As a result Pap smears were not done at this clinic. This is also not in accordance with the Cervical Screening Programme protocol, which states that all service providers must ensure that all women have access to cervical screening.

RECORD REVIEW

1. Age

All the records indicated that age was recorded. There are various controversial opinions about the policy. Many health professionals feel that in the reality of the increased incidence of HIV/AIDS and STIs, younger women are at risk (Section 2.6).

2. Contact details

Contact details were inadequate for all the clinics. Clinic A recorded details for 37,5% of clients, Clinic B 60%, Clinic C 69%, whilst Clinic D did not record contact details for any clients. It can be deduced that this low percentage could have been the contributory factor to failure to do follow-up of clients with abnormal smears. It is expected that every clinic must have an effective mechanism of record keeping, record maintenance and recall (Section 2.7.6).

3. Laboratory number

All records indicated that the laboratory number was recorded as stated in the KZN Cervical Screening Programme protocol. Recording of the laboratory number facilitates continuity of care because it has to be quoted on the cytology laboratory form whenever follow-up smears are done (Section 2.7.6).

4. Summary of Pap smear results

All records from clinics A, B, and indicated that a summary of Pap smear results was recorded. Clinic D did not receive results from the laboratory for the past nine months, and there were no records that indicated that an attempt to do a follow-up on missing results was done. According to the Cervical Screening Programme protocol, the Professional Nurse is responsible for checking every

month if all the results are received. If delayed, she must check with the laboratory (Section 2.7.4).

5. Attempt to contact client

The results indicated that clinics did not put much effort into contacting clients. It is crucial for the effectiveness of any screening programme that women need to have a repeat smear or treatment, receive their results, and return to the clinic for follow-up. There is no point in screening for pre-cursor lesions and not follow-up or referring clients to an appropriate facility (Section 2.7).

6. Useability of smear

About 95% of records in Clinic A and 75% in Clinic C recorded the useability of smear. Clinic B did not record and Clinic D did not receive the results. The results showed that the quality of records differed between the clinics. Review of cytology results provided insight into the quality of the screening programme and character of Pap smears from the clinic. According to the programme, the adequacy rate of a screening facility is to reach at least 70% (Section 2.10). Therefore, the rate of adequacy of smear was above the expected rate as stated by the Provincial Cervical Screening Programme (Section 2.7.3)

7. Communication of results to the clients

The results indicated that few clients were told about their results. Fortunately, all the women with HSIL were successfully contacted. The results indicated that there was lack of proper follow-up, which could result in ineffective implementation of the programme. According to the programme, the responsibility for informing the client about the results and follow-up rests with the institution that performed the cervical screening service (Section 2.7.4).

8. Appropriate referral arrangements

No referrals were required for Clinic A. Clinics B and C managed to refer all their clients and Clinic D did not receive the results, and therefore no referrals were made. The results showed that there was good referral system at three of the clinics. The lack of referrals at one clinic is the cause of concern. This will ensure that women with abnormal smears are treated early before the woman develops invasive cancerous lesions (Section 2.2).

9. Feedback from the referral institution

There were no referrals done at Clinic A because there were no clients that had lesions that indicated high-grade SIL. Clinics B and C did refer clients but they did not get any feedback from the referral hospital. Clinic D did not receive the

results therefore, no referrals were made. These findings are consistent with those of the previous study by Zweigenthal (Section 2.7.5). This indicated that there was lack of communication between the clinic and the referral institution. According to the Cervical Screening Programme protocol, there should be an effective liaison with referral centres for diagnosis and treatment to ensure effective follow-up and monitoring. Clinics are expected to request for feedback so as to maintain client profile (Section 2.7.5).

10. Feedback from the client

There were no referrals for clinic A. The results indicated that Clinic B received feedback from all the clients that were referred to the referral hospital whilst 80% of clients referred gave feedback to Clinic C. Clinic D did not make any referrals. These results indicated that there was good communication between clinics and clients when compared with referral institutions. These findings are consistent with those of the study by Zweigenthal (Section 2.7.5).

FOCUS GROUP DISCUSSION

1. Have you ever had a Pap smear done?

Of the nurses in the group, 95% reported that they had undergone Pap smear tests and this indicated that nurses were motivated to have smears done on

themselves. This could be an indication that they may be motivated to encourage women to do smears as stated by the Cervical Screening Programme.

2. If yes, how old were you when first had it done?

The respondents reported that they were between ages 20 and 30 years when they first had a Pap smear test. Therefore, the ages at which the nurses were having their first Pap smears taken was consistent with their perceptions about when clients should have their first smears. This is shown in the results for question six of the focus group discussions, where all the nurses indicated that that they would recommend that smears be done at an earlier age.

3. If not, what was the reason?

Only one respondent (5%) did not know about the importance of having a Pap smear taken. Primary prevention of cervical screening includes health promotion approach that involves educating people about the disease to increase awareness and promote low risk sexual behaviour (Section 2.1). Therefore, this indicates a need to inform women about cervical screening.

4. Have you ever done a Pap smear on a client?

Most nurses (95%) reported that they had done Pap smears on clients. Only one nurse had not taken a Pap smear from a client because she had not undergone training regarding cervical screening. It is assumed that most nurses had undergone training regarding taking of cervical smears as stated in the Provincial Cervical Screening Programme protocol (Section 2.7.1.1). It is important that nurses should have skills of taking smears with adequate cells so that women with abnormalities will be identified early to exclude pre-cancerous lesions (Section 2.10).

5. If not, what was the reason?

One nurse reported that she was new at the clinic, and still had to undergo training first regarding taking of Pap smear. This is not in accordance with the Cervical Screening Programme protocol, which states that all service providers must attend the relevant training course for cervical screening according to the identified needs to ensure quality of service (Section 2.7.3). However, it was indicated that this nurse was due to be trained shortly.

6. At what age do you think a woman should start having Pap smear done?

All the respondents mentioned that women should have their Pap smear done between ages 20 to 25 because this is a sexually active age group. Many health professionals feel that in view of the increased incidence of HIV/AIDS and STIs, younger women are at risk. This is also in contrast with what the programme, which states that younger women (below 30) tend to present with milder degrees of precursor. It further states that these low-grade lesions will spontaneously regress to normal (Section 2.4).

7. What criteria do you as a nurse use to determine whether a client requires a Pap smear?

The results indicated that nurses lacked knowledge regarding the indications of taking smears as has been discussed in previous studies. A high level of screening is related to nurses' knowledge of cervical cancer. Unless a nurse has an awareness of the importance of or personal interest in screening, time will not be made for this service. Screening rates increase with an increase in the nurses' knowledge of cervical cancer screening programme (Section 2.3).

8. How long does it usually take for your clinic to receive results from the laboratory?

Respondents from Clinics A, B, and C said that results took about six weeks to reach the clinic from the laboratory, and Clinic D did not receive the results from the laboratory. The results of the study indicated that the results were delayed in reaching the clinic because according to the programme, the time between screening and follow-up should not be more than four weeks. The longer that a woman with abnormal smear is left untreated, the more chance there is of her lesion progressing (Section 2.7.4). The programme further states that there should be an effective communication between the screening facility and the laboratory to ensure effective reporting, follow-up and monitoring (Section 2.7.4). The records (Clinic D) did not indicate that there was any follow-up of missing records that was done.

9. If a client's Pap smear is positive, how is she usually contacted?

Clinic A contacted clients telephonically, and they also made use of other clients if records indicated that they were from the same area. Clinics B and C contacted clients telephonically and they also made use of Community Health Workers to trace clients, Clinic D did not contact clients because they did not receive results. The results indicated that there was unequal distribution of resources in rural areas compared to urban areas, (specifically, lack of telephones in one rural

clinic and absence of numbering of house addresses) which was the reason that made the researcher to conduct research in both areas (Section 4.3.1). One can assume that the high prevalence rate of cervical cancer in KZN is partly related to lack of necessary facilities needed for follow-up. This may lead to late identification of pre-cancerous lesions as discussed in Section 2.7.1.2).

10. Do you experience any problems in contacting clients with abnormal smears? If yes, describe them.

The respondents reported lack of proper addresses, incorrect contact details and change of addresses without informing the clinics. Clinic D did not have a telephone as a result it was difficult to make a follow-up of clients with abnormal smears. The results indicated that there was a lack of a proper follow-up system at the clinics. According to the Cervical Screening Programme protocol, a working follow-up system needs to be in place for effective implementation of the programme (2.7.4).

11. Where and why do you refer clients with abnormal smears?

All the respondents reported that they referred clients with abnormal smears to the referral hospital according to the referral hospital policy. This is in accordance with the KZN Cervical Screening Programme, which states that referral of clients

with abnormal smears, should be according to the regional or district patterns (2.7.4).

12. How do you get the report from the referral hospital?

All the respondents stated that they did not receive feedback from the hospital, except if the client came back for the next visit. All clients were encouraged to report back to the clinic to give information as to the outcome of their hospital visit. This was the only way that feedback of a referral to a hospital was gained. This is not according to the Cervical Screening Programme protocol, which states that there should be effective liaison with referral centres for diagnosis and treatment to ensure effective follow-up and monitoring (Section 2.7.5).

13. Do you experience any problems with the supply of drugs to treat clients with abnormal smears?

All the respondents mentioned that they had enough supply of drugs for treating clients with abnormal smears. One can assume that this led to effective management of clients with cervical infection, commonly related to STIs (Section 2.4).

14. Have you encountered any problems with cervical screening programme? If yes, please specify.

All the respondents stated that 30 years was too late to take a Pap smear for the first time. This was confirmed by the results of the focus group discussions where the nurses admitted that smears were taken from women who were below 30 years of age, even if there was no indication for taking smear in terms of the protocol. Women were not made to pay for those smears. The respondents also mentioned lack of training regarding the cervical screening programme and this was also confirmed by the results of record review, which indicated that nurses did not record clients with abnormal smears in the Abnormal Pap Smear Control List. The purpose of this list is to keep track of those women who require further follow-up and referral (Section 2.7.6). Clinic D also mentioned inadequate equipment necessary for doing Pap smears. As a result the nurses were not taking Pap smears from women who needed the service. This is not in accordance with the Cervical Screening Programme protocol, which state that Pap smears should be available to all women who meet the criteria (Section 2.7.1.2).

15. How have you overcome these problems?

The respondents reported that Pap smears were done upon request provided a woman was sexually active. This is not according to the Cervical Screening

Programme protocol, which states that smears should be available to women who are below 30 years only if there is a visible cervical abnormality (Section 2.6). One can assume that this could result in waste of resources that are not even adequate for effective implementation of the cervical screening programme.

16. What do you like about the programme?

All the respondents reported that they appreciated that cervical screening programme was provided at no charge to women who met the criteria according to the Cervical Screening Programme protocol. It is assumed that more women will come forward for Pap test because cervical cancer deaths are higher in populations around the world where women do not have access to routine Pap tests (Section 2.5.4).

17. What do you dislike about the programme?

All the respondents stated that 30 years was too late for the Pap smear to be provided for the first time to women and 10-year interval was also too long. This is supported by the findings that the researcher identified during the focus group discussions, where the nurses indicated that smears were taken from women who were below 30 years even if there was no indication.

18. Would you like to change anything in the programme?

All the respondents were of the opinion that women should have their first Pap smear at the start of the sexual activity, that is at the age of 20 years, and the interval period between smears should be five years due to the high rate of HIV/AIDS in this province. This is in contrast with what the Cervical Screening Programme states, where it is indicated that younger women (below 30) tend to present with milder degrees of precursor. It further states that these low-grade lesions will spontaneously regress to normal. However, in older women, the regression rate decreases resulting in lesions, which may lead to high-grade precursors. The programme further states that the fact that the precursor stage develops slowly (10 – 20 years) implies that a single smear within this period will diagnose the disease should the smear's endo-cervical cells are adequate (Section 2.4).

5.5 EVALUATION OF THE OBJECTIVES IN RELATION TO THE PROGRAMME

The objectives of the study were to evaluate the implementation of the Provincial Cervical Screening Programme in selected PHC clinics in Ilembe Region to determine the:

- resources available;
- reasons for taking cervical smears;
- treatment for clients with abnormal smears;
- useability of smears taken;
- follow-up of clients who were diagnosed with abnormal smears;
- referral process;
- record keeping; and
- perceptions of nurses about cervical screening programme.

Each objective will, therefore be evaluated in relation to the findings of the study.

5.5.1 Resources

The first objective was achieved when the clinic audit was done. The results of the study indicated that in some clinics there was a lack of necessary equipment in working order for the effective implementation of the cervical screening programme. This was observed in rural clinics compared to urban clinics. For

clinics. Therefore, one can assume that this could result in failure to implement the cervical screening programme.

5.5.2 Reasons for taking cervical smears

The second objective was achieved by conducting focus group discussions with Professional Nurses at the selected clinics. The researcher found that the nurses lacked knowledge regarding the indications for doing Pap smears according to the Cervical Screening Programme protocol. The nurses stated that they did not know that the indications were stated in the programme. Therefore, this may result in ineffective implementation of the cervical screening programme because a number of women could be missed and only found during the invasive stage.

5.5.3 Treatment of clients with abnormal smears

The third objective was achieved when the clinic audit and focus group discussions were conducted. When comparing the results using both methods of collecting data, the researcher noted that the results were the same. All the clinics had an adequate supply of drugs for the treatment of abnormal smears. Therefore, one can assume that this would have a positive impact on preventing and controlling cancer of the cervix.

5.5.4 Useability of smears taken

The fourth objective was achieved by means of the record review. The researcher noted that most of the Pap smear results that were recorded indicated that smears had adequate cells. According to the Cervical Screening Programme protocol, the adequacy rate of a screening facility is to reach at least 70%. Those clinics that recorded the results on the adequacy of a smear were above the expected rate. It was also noted that the quality of records differed between the clinics. One clinic did not record anything about the useability of the smear and another clinic did not receive the results. It is very important that all clinics should keep accurate records of quality of smear so that in cases of inadequate smear, a Pap smear should be repeated within a year. According to the Cervical Screening Programme protocol, cytological laboratories have to audit or monitor the proportion of adequate smears, and they have to inform facilities on a six monthly basis about the adequacy rate.

5.5.5 Follow-up of clients with abnormal smears

The fifth objective was achieved by means of the record review and focus group discussions. The researcher noted that the results were the same when data was analysed by comparing both methods. The results indicated that there were problems with follow-up because of a lack of infra-structure, such as telephones and postal services in one of the rural clinics. During the discussion, the nurses

reported that the major problem was that women were often not living at the addresses that they had indicated when they visited the clinic for the first time, or that they had left those addresses. Another problem that was identified was the lack of proper house numbers, which made follow-up difficult.

5.5.6 Referral process

The sixth objective was also evaluated through data from the record review and focus group discussions. The researcher noted that few clients were referred to the hospital because of problems with follow-up. During the discussions, the nurses reported that when clients were referred successfully, little feedback was received by the clinics, which is not in accordance with the Cervical Screening Programme protocol. The only way that the clinics received the feedback was through the clients, who reported back to the clinics as to the outcome of their hospital visit. The nurses reported that at times clients did not get an explanation about the outcome of the investigations done in the hospital. The nurses reported that they had attempted to get feedback from the hospital, but they always met with problems due to incomplete and inaccurate records.

5.5.7 Record keeping

The seventh objective was achieved through the record review. The results indicated that mechanisms of record keeping were inadequate. Contact details were not recorded properly. This resulted in problems with follow-up of clients with abnormal smears. One clinic did not indicate the adequacy of the results and that could contribute towards ineffective implementation of the programme because the laboratory needs to know how well everyone is taking smears. The researcher also noted that none of the clinics were using the Abnormal Pap Smear Control List for recording clients with abnormal smears. The purpose of the list is to keep track of those women who require further follow-up and/or referral. This could also have been a contributory factor towards unsuccessful follow-up of clients with abnormal smears.

5.5.8 Perceptions of nurses regarding Cervical Screening Programme

The last objective was achieved by conducting focus group discussions with the nurses. The researcher found that the nurses were not satisfied with the policy and the Cervical Screening Programme. They were of the opinion that women should have their first Pap smear at the age of 20 and thereafter at the intervals of five years, when they start to be sexually active, because of high rate of STIs and HIV/AIDS in KZN. The nurses in one of the rural clinics also complained about a lack of equipment needed for taking Pap smears. They also complained

about lack of training regarding cervical screening as well as the delayed results in reaching the clinic.

5.6 EVALUATION OF THE PROGRAMME IN TERMS OF STRUCTURE, PROCESS AND OUTCOME OF DONABEDIAN'S CONCEPTUAL FRAMEWORK

The final evaluation of the programme in terms of the Donabedian/ American Nursing Association model (1977 in Stanhope and Lancaster, 2000) as contained in the conceptual framework of the study (page 43) is given below. Table I (page 59) indicated specific questions that were used to collect data on these aspects.

5.6.1 Structure

The results indicated that in one of the rural clinics, there was a lack of necessary equipment for the implementation of cervical screening protocol. All the clinics had adequate drug supplies to treat clients with abnormal smears noting the presence of an STI. The results also indicated that there were problems with follow-up of clients with abnormal smears from one of the rural clinics because of the lack of infra-structure, such as telephones and numbering of houses. Therefore, with regard to structure, the programme has been well implemented with the exception of one clinic.

5.6.2 Process

During the focus group discussions, the researcher found that the nurses lacked knowledge regarding the indications for doing Pap smears according to the cervical screening programme protocol. During focus group discussions, the nurses indicated that women should have their first Pap smear at the age of 20 and thereafter at intervals of five years, which is not in accordance with the protocol.

A review of the records revealed that in all clinics, the age and laboratory number were recorded. Contact details were inadequate for all records at all clinics. Clinics A, B and C recorded the summary of results, whilst Clinic D did not receive results from laboratory and therefore a summary of results was not available. In view of this follow-up was not possible and very few clients were referred to the hospital.

In conclusion, the programme was not well implemented with regard to process because record keeping was poor.

5.6.3 Outcome

The record review of Pap smear results for three clinics demonstrated that smears had adequate cells. One clinic had not received any results for Pap smears and therefore there was no indication of the useability of the smears.

The nurses reported that when clients were referred successfully, little feedback was received by the clinics. The only way that the clinics received feedback was through the clients who came back to the clinics and informed them about the outcome of their hospital visit. Regarding the outcome, the results of the records of the clinics that recorded useability of smears indicated that the quality of smears taken was good. However, the researcher noted that few clients with abnormal smears that were referred to the hospital because of problems with follow-up. This indicates that the protocol was not well implemented as far as outcome was concerned.

5.7 CONCLUSION

The results of the study indicate that there are problems with the implementation of the Cervical Screening Programme in this region. It is realized that the sample size was relatively small. However, some aspects of the programme are being appropriately handled.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

The results have demonstrated that problems have occurred with the implementation of the Cervical Screening Programme in the Ilembe Region. One these concerns the lack of equipment necessary. It is recommended that clinic supervisors should have a manual where all the equipment that is needed for cervical screening is recorded. The designated person for equipment that is missing or needs to be repaired should check this manual on a daily basis. This supervisor's manual must also be checked by the trainer for cervical screening at least once a month. According to the research findings, some of the equipment was not available at the clinic for a long period. Therefore, it is important that the clinic supervisors should be motivated to follow-up missing equipment at their clinics and facilitate its replacement. There should also be a store to exchange broken equipment for those in good working condition. The supervisor should also be supported by her staff regarding implementation of the protocol.

The researcher also found that all the nurses lacked knowledge regarding the indications for doing smears, which in turn shows insufficient knowledge regarding cervical screening as well as the interpretation of the protocol. A high level of screening is related to nurses' knowledge of cervical cancer and increased knowledge would increase the screening rates. Therefore, it is recommended that nurses should receive regular training regarding cervical

screening. The cervical screening programme trainer should visit the clinics regularly, in order to identify such shortfalls. This would necessitate the availability of transport to take her to the clinics.

The results indicated that there were problems with the follow-up of clients with abnormal smears, because of a lack of infra-structure needed to do proper follow-up. The nurses also reported that the major problem was that women were not living at the addresses that they gave to the clinic and had left those addresses. Another problem that was identified was lack of proper house numbers, which made follow-up difficult. It is recommended that women should be motivated to come back for their results after a certain period to facilitate follow-up. Women need to be educated about the disease to increase awareness as discussed in Section 2.1. Improving communication would also allow nurses to remain involved with their clients, and help to ensure that follow-up takes place. Women should be encouraged to take some responsibility for their own health care. Results need to be communicated to clients. If the smear needs to be repeated for technical reasons or abnormal results and follow-up or referral is required, nurses should inform the clients themselves in a sensitive manner. This will ensure co-operation from a woman.

The researcher also noted that few clients were referred to the hospital because of problems with follow-up. In the case of those clients that were successfully referred, no feedback was given to the clinics, which is not in accordance with the Cervical Screening Programme. The only way that the

clinics received the feedback was through the clients that reported back to the clinics as to the outcome of their hospital visit. The nurses reported that at times clients did not get an explanation about the outcome of the investigations done in the hospital. It is recommended that the Provincial task team that is responsible for monitoring the programme and the policy should review the communication system between the clinics and the referral hospitals. Nurses should also put more effort by persuading the referral hospital to provide feedback.

The results also indicated that a good mechanism for record keeping was lacking. Contact details were not recorded properly. This resulted in problems with follow-up of clients with abnormal smears. One clinic did not indicate the adequacy of the results and that may contribute towards ineffective implementation of the programme. The researcher also noted that none of the clinics used the Abnormal Pap Smear Control List for recording clients with abnormal smears. The nurses reported that they did not know what the list was used for. This could also have been a contributory factor towards the unsuccessful follow-up of clients with abnormal smears. It is therefore recommend that a good, reliable health information system be introduced to maintain records of smear results. This could take the form of a computer-based system or a dedicated person who as a part of her normal duty, checks, records and follows-up abnormal smear results. An integrated, computerised system linking hospitals, clinics and laboratories would achieve this.

The researcher found that the nurses were not in agreement the protocol. They were of the opinion that women should have their first Pap smears at the age of 20 at the interval of five years. The results of this study regarding the screening age were similar to the study that was done by Smith and Hoffman (2000). The researcher noted that the age at which first smear should be done has been questioned by the nurses, yet they failed to make any attempts to follow the clients that they had already identified with abnormal smears. Some evidence from clinic records suggests (although this needs to be clarified by an epidemiological study) that women under 30 years of age are equally affected as women over 30 years. However, an important consideration that is taken into account is the cost. In view of this, the following questions need to be asked:

- Is it economically feasible to expand coverage of screening programme to include women under 30?
- Is it cost-effective to include women below 30 years of age in the screening programme target group?

Therefore, one would recommend further research studies be done to determine the prevalence rate of abnormal smears in women who are below 30 years of age as discussed in Sections 2.5.5, 2.6 and 2.7.

It is the researcher's personal opinion that many nurses feel helpless and hopeless when dealing with HIV/AIDS patients who have had abnormal smears identified. Given that there is already little to offer these patients in terms of treatment for HIV/AIDS in South Africa, as well as the poor resources to manage and treat invasive cancer (as discussed in Section 1.4) the

researcher assumes that a general apathy exists among nurses tasked to undertake Pap smears. However, this is a personal opinion and possibly needs to be further investigated.

One can conclude by indicating that there are problems with the implementation of the Cervical Screening Programme in KZN. The Provincial Department of Health needs to ensure that there are adequate facilities for the implementation of the cervical screening programme. Otherwise, this province is still going to experience a high prevalence rate of cancer of the cervix. Training and educating nurses in the technique of taking Pap smears appeared to have had a favourable outcome. However further training input into the knowledge of cytology, clinical guidelines and rationale for the protocol are preliminary steps that still need to be undertaken to achieve a high quality-screening programme with wide coverage. Training must clarify and allow for discussion of the beliefs, which guide the programme implementation. Nurses also need to put more effort into the implementation of the programme. The important aspect of the systematic follow-up of records, with particular emphasis on abnormal smears cannot be overemphasised.

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PROVINCIAL POLICY: CERVICAL SCREENING.

OBJECTIVE

The objectives of the cervical screening programme are:

- The early detection of women at risk of developing cervical cancer.
- Provision of a service for further investigation or treatment of those women requiring a service.

ASSUMPTIONS

The policy is based on the assumption that:

- Those clients presently screened every three years by the family planning service will be screened according to this policy. It is believed that the reduction in screening in the Family Planning service will create sufficient capacity in both the Cytology Department and the Primary Health Care service to make the service accessible to more women.
- Cervical smears will be taken in all health services where women present and that it will not become the sole responsibility of the family planning service.
- Cervical screening is an integral part of a holistic, cancer of the cervix prevention programme.

SCREENING PROGRAMME

1. Cervical screening will be available to all women from the age of thirty (30) years at intervals of ten (10) years provided no smears has been taken within the previous five (5) years.
2. A total of three (3) smears will be taken in a woman's lifetime.
3. Smears will be taken from all pregnant women thirty (30) years and older. This will be followed up with a repeat smear twelve (12) months later as the sensitivity of screening during pregnancy is low. This screening will be considered as one of the three (3) lifetime smears.
4. Women of any age with a visible cervical abnormality will be screened.


SECRETARY: DEPARTMENT OF HEALTH
KWAZULU-NATAL

**AN ASSESSMENT OF THE IMPLEMENTATION OF THE PROVINCIAL
CERVICAL SCREENING PROGRAMME IN SELECTED PRIMARY HEALTH
CARE CLINICS IN THE ILEMBE REGION, KWAZULU-NATAL**

CLINIC AUDIT TOOL FOR EACH CONSULTING ROOM

STANDARD: Adequate equipment and resources are available for the effective implementation of the cervical screening programme.

EQUIPMENT AND RESOURCES	YES/ N/A	NO/ N/A	QUANTITY/ N/A	COMMENTS INCLUDING ADEQUACY/CONDITION AND METHODS OF STERILISATION WHERE APPLICABLE
Number of consulting rooms				
Curtains/ Screens				
Drugs for treatment				
Cusco vaginal speculum				
Aylesbury spatulum				
Glass specimen slides				
Cytological fixative				
Cytology laboratory forms				
Water for lubricating speculum				
Paper hand towel for draping				
Angle poise lamp/ torch				
Couch				
Sheets/ Draw sheets				
Linen Protector				
Bucket with disinfectant				
Gloves				
Steriliser/Autoclave				

**AN ASSESSMENT OF THE IMPLEMENTATION OF THE PROVINCIAL
CERVICAL SCREENING PROGRAMME IN SELECTED PRIMARY HEALTH
CARE CLINICS IN THE ILEMBE REGION, KWAZULU-NATAL**

PROCEDURE FOR REVIEWING RECORDS

Analysis of the Abnormal Pap Smear Control List for each client with respect to the following aspects:

1. Check if the following client particulars are recorded:
 - age;
 - contact details;
 - laboratory number; and
 - summary of the Pap smear results;

2. Determine whether:
 - attempt was made to contact the client;
 - useability of smear measured according to whether sufficient cells were present for laboratory analysis;
 - results were communicated to the client;
 - appropriate referral arrangements were made;
 - feedback from the referral institution was received; and
 - feedback from the client as to the results or outcome of the hospital treatment was given to the clinic

APPENDIX 4

DATA COLLECTION SHEET FOR RECORDS

RECORDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Age															
Contact details															
Laboratory number															
Summary of Pap smear results															
Attempt to contact client															
Sufficient cells present in the smear for data analysis															
Results communicated to the client															
Appropriate referral arrangements															
Feedback from the referral institution															
Feedback from the client															

KEY:

Yes = 1

No = 2

RECORDS	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Age															
Contact details															
Laboratory number															
Summary of Pap smear results															
Attempt to contact client															
Sufficient cells present in the smear for data analysis															
Results communicated to the client															
Appropriate referral arrangements															
Feedback from the referral institution															
Feedback from the client															

KEY:

Yes = 1

No = 2

**AN ASSESSMENT OF THE IMPLEMENTATION OF THE PROVINCIAL
CERVICAL SCREENING PROGRAMME IN SELECTED PRIMARY HEALTH
CARE CLINICS IN THE ILEMBE REGION, KWAZULU-NATAL**

FOCUS GROUP INTERVIEW GUIDE

1. Have you ever had a Pap smear done?
2. If yes, how old were you when you first had it done?
3. If not, what was the reason?

(These are starter questions to get participants talking and establish attention.)

4. Have you ever done a Pap on a client in this clinic?
5. If not, what was the reason?
6. At what age do you think a woman should start having Pap smear done?
7. What criteria do you as a nurse working in this clinic, use to determine whether a client requires a Pap smear?
8. How long does it usually take for your clinic to receive results from the laboratory?
9. If a client's Pap smear result is positive, how is she usually contacted?

10. Do you experience any problems in contacting clients with abnormal smears? If yes, please describe them?
11. Where and why do you refer clients with abnormal smears?
12. How do you get the report from the referral hospital?
13. Do you experience any problems with the supply of drugs to treat clients with abnormal smears?
14. Have you encountered any problems with the cervical screening programme? If yes, please specify.
15. How have you overcome these problems?
16. What do you like about the programme?
17. What do you dislike about the programme?
18. Would you like to change anything in the programme?

SUBJECT INFORMATION SHEET

Dear Professional Nurse

I am a Professional Nurse currently doing Masters Degree with Technikon Natal for which I will be undertaking a research project. The study that I am undertaking is an evaluation of the implementation of the Provincial Cervical Screening Programme at the selected Primary Health Care Clinics in Ilembe Region, KwaZulu-Natal.

Your clinic was randomly selected to be part of the study. You are therefore, requested to participate in the focus group discussion which will be conducted with an aim of obtaining information about your perceptions regarding the cervical screening programme. Focus group discussion is the purposive discussion of a specific topic, taking place in a group with a similar background and common interest. This discussion will be scheduled for a time suitable to you and will take approximately one hour. The researcher will personally conduct the discussion and the tape-recorder will be used in order to capture everyone's comments. You have a right to reject the use of tape-recorder. There will also be a scribe who is a Professional Nurse that will assist by taking notes during the discussion. Although I will keep a record of who participated in my study, your name will not appear on any documents, instead a number will be allocated to you thus protecting your identity.

Participation in this study is voluntary. You are under no obligation to participate. You have the right to withdraw at any time and refusal to participate will not result in adverse consequences of any kind. At the completion of the study, the results will be made available to your clinic.

The results of this project will be used to make recommendations that could help to improve the cervical screening programme, which will benefit women, health care personnel and the government. As far as can be determined, there will be no risk or discomfort to you.

.....

RESEACHER: M.N. SIBIYA

.....

SUPERVISOR: DR. L. GRAINGER

CONSENT FORM

TITLE OF RESEARCH PROJECT

AN ASSESSMENT OF THE IMPLEMENTATION OF THE PROVINCIAL
CERVICAL SCREENING PROGRAMME IN SELECTED PRIMARY HEALTH
CARE CLINICS IN THE ILEMBE REGION, KWAZULU-NATAL

NAME OF SUPERVISOR : DR L. GRAINGER TEL NO. (031) 204 2036

NAME OF CO-SUPERVISOR: MRS E. SNYMAN

PARTICIPANT'S FULL NAME:.....

PARTICIPANT'S ALLOCATED NUMBER:.....

PLEASE TICK THE APPROPRIATE ANSWER

1. Have you read the research information sheet?
YES NO
2. Have you had an opportunity to ask questions regarding the study?
YES NO
3. Have you received satisfactory answers to your questions?
YES NO
4. Have you had an opportunity to discuss the study with the researcher?
YES NO
5. Have you received enough information about this study?
YES NO
6. Do you understand the implications of the study?
YES NO
7. Do you understand that you are free to withdraw from the study at anytime
and without giving reasons for withdrawing?
YES NO
8. Do you agree to voluntarily participate in the study?
YES NO

9. Do you understand that you have the right to anonymity and confidentiality?

YES

NO

If you have answered "NO" to any of the above, please obtain the information before signing.

I.....hereby give consent for the proposed study on me as part of the above mentioned research project.

Participant's Name:..... Signature:.....

Witness Name:..... Signature:.....

Researcher's Name: **NOKUTHULA SIBIYA** Signature:.....

M Tech, Nursing Student

Technikon Natal

P.O.Box 1108
Seaglen Gardens
Rossburgh
4094

Dr Nkonzo-Mthembu
Director: Human Resource Development
Department of Health
Private Bag X9051
PIETERMARITZBURG
3200

Dear Dr Nkonzo-Mthembu

REQUEST TO CONDUCT RESEARCH

I am a Professional Nurse currently doing a Masters Degree with Technikon Natal for which I will be undertaking a research project. In collaboration with the Maternal, Child and Women's Health Department, I have identified a research topic that I would like to undertake. The aim of the study is to evaluate the implementation of the Provincial Cervical Screening Programme in selected Primary Health Care clinics in the Ilembe Region, KwaZulu-Natal in order to identify problems and suggest solutions. The programme was initiated three years ago and the Department wishes to evaluate its implementation. Data will be collected at D Clinic and Zwelibomvu Clinic, which refer to Prince Mshiyeni Memorial Hospital. These clinics were randomly selected from 15 clinics that are under this hospital.

When collecting data, the researcher will carry out a clinic audit to assess the resources available. A retrospective analysis of records as from 1st January 2001 to 30th September 2001 will also be conducted to assess follow-up of clients who were diagnosed with abnormal smears. Focus group discussions will also be conducted, with the aim of obtaining information on the perceptions of the Professional Nurses regarding the cervical screening programme. The sample will consist of all Professional Nurses in both clinics and the interviews will last for approximately one hour. The researcher will ensure that there is no delay in the

service provided in the clinics, by dividing nurses into two groups when focus group interviews are conducted in the urban clinics. Focus group discussions of the two groups will not take place simultaneously. Data collection will take place at times suitable for the clinic.

No names of the institutions and participants will appear on any documents to maintain confidentiality. The participants will be informed that participation is voluntary and refusal to participate will not result in adverse consequences of any kind. There will be no cost to nurses if they participate. When reviewing clinic records, the researcher will ensure anonymity of clients by the process of complete de-identification. Names of clients will be removed permanently by the Professional Nurse in-charge of the clinic by concealing the name of the client and make a photocopy so that the researcher will be unable to link the information from the records with the client. These photocopies will be examined in the clinic, under the supervision of the Professional Nurse in-charge. Before conducting the research, the researcher will obtain approval from the Technikon Research Ethics Committee.

The results of this project will be used to make recommendations that could help to improve cervical screening programme, which may benefit women, health care professionals and the government. The study will take place in clinics that are in the Ilembe Region. As these clinics are all under the jurisdiction of the Department of Health KZN, I wish to formally request permission to undertake research project. At the completion of the study, the results will be made available to your Department with necessary recommendations.

For more information you may contact my supervisor, Dr Linda Grainger at (031) 204 2036. I have enclosed a research proposal with evaluation tools for your records.

Thank you.

Yours Sincerely

.....

RESEARCHER: M.N. SIBIYA

.....

SUPERVISOR: DR. L. GRAINGER

Prince Mshiyeni Nursing College
Private Bag X10
Mobeni
4060

Dr Gxagxisa
Chief Medical Superintendent
Prince Mshiyeni Memorial Hospital
Private Bag X07
Mobeni
4060

Dear Dr Gxagxisa

REQUEST TO CONDUCT RESEARCH

I am a Professional Nurse currently doing a Masters Degree with Technikon Natal for which I will be undertaking a research project. In collaboration with the Maternal, Child and Women's Health Department, I have identified a research topic that I would like to undertake. The aim of the study is to evaluate the implementation of the Provincial Cervical Screening Programme in selected Primary Health Care clinics in the Ilembe Region, KwaZulu-Natal in order to identify problems and suggest solutions. The programme was initiated three years ago and the Department wishes to evaluate its implementation. Data will be collected at D Clinic and Zwelibomvu Clinic, which refer to Prince Mshiyeni Memorial Hospital. These clinics were randomly selected from 15 clinics that are under this hospital.

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For more information you may contact my supervisor, Dr Linda Grainger at (031) 204 2036. I have enclosed a research proposal with evaluation tools for your records.

Thank you.

Yours Sincerely

.....
RESEARCHER: M.N. SIBIYA

.....
SUPERVISOR: DR. L. GRAINGER

APPENDIX 10
P.O. Box 1108
Seaglen Gardens
Rossburgh
4094

Ms S. Dunkley
Acting Regional Director
Prince Wing
Addington Hospital
Durban
4000

Dear Ms Dunkley

REQUEST TO CONDUCT RESEARCH

I am a Professional Nurse currently doing a Masters Degree with Technikon Natal for which I will be undertaking a research project. In collaboration with the Maternal, Child and Women's Health Department, I have identified a research topic that I would like to undertake. The aim of the study is to evaluate the implementation of the Provincial Cervical Screening Programme in selected Primary Health Care clinics in the Ilembe Region, KwaZulu-Natal in order to identify problems and suggest solutions. The programme was initiated three years ago and the Department wishes to evaluate its implementation. Data will be collected at D Clinic and Zwelibomvu Clinic, which refer to Prince Mshiyeni Memorial Hospital. These clinics were randomly selected from 15 clinics that are under this hospital.

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For more information you may contact my supervisor, Dr Linda Grainger at (031) 204 2036. I have enclosed a research proposal with evaluation tools for your records.

Thank you.

Yours Sincerely

.....
RESEARCHER: M.N. SIBIYA

.....
SUPERVISOR: DR. L. GRAINGER

Urethral discharge and swollen testis

☐ Confirm discharge by examination. Look for other STD syndromes.

☐ Confirm painful and swollen testis.
☐ Refer immediately if torsion of testis is suspected or if no discharge or history of discharge < 18 yrs old or not sexually active or history of trauma

☐ Ciprofloxacin 500 mg p.o. stat
plus
☐ Doxycycline 100 mg p.o. BD for 7 days

- ☐ Manage partner for cervical infection as in protocol 3.
- ☐ Consider treating a person with burning on micturition, in the absence of a discharge, if there is a significant risk of the person having acquired an STD.
- ☐ Some provinces have chosen to use a 250 mg dose of Ciprofloxacin.

Genital ulcers

☐ Confirm presence of ulcer(s) by examination.
Look for other STD syndromes.

☐ Benzathine Penicillin 2.4 MU IM stat
plus
☐ Erythromycin 500 mg p.o. TDS for 5 days
☐ Aspirate any fluctuant glands

Complete treatment
Counsel on safer sex and HIV risk
Condom promotion
Contact management

- ☐ If allergic to penicillin, give Erythromycin 500 mg QID for 14 days.
- ☐ If on return, lesion(s) healing but not cured: ie. decrease in size or dec in number, continue with another course of Erythromycin. If lesions are worse, refer.