# PRIMARY HEALTH CARE IN THE EASTERN CAPE PROVINCE



# 1997 - 2000



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# Foreword by the MEC for Health

ften I am asked how health care in the Eastern Cape Province is progressing. While anecdotes and impressions often form the basis of press and public dialogue, in the field of health, objective data form the foundation of honest and objective assessment. Such data is frequently not available, or when it is, not widely cited and used. Thus I welcome this comprehensive report of Primary Health Care in the Province as an unbiased and epidemiologically sound reflection of the state of health in the communities and clinics of our Province. The data has been collected from annual surveys of our clinics, from the comprehensive household South African Demographic and Health Survey which visited over 3,000 Eastern Cape households in 1998, from our monthly routine health information system reports received from each of our 650 clinics, and from a number of special surveys and studies designed to illuminate health care services. The scope of this report, extending from households to clinic services and the various support programs of the Department of Health is unusually broad and gives a clear picture of progress as well as remaining challenges.

Overall, the findings of the report are encouraging: most services are rising and becoming more equitably distributed across the Province. Immunisation, family planning, treatment of tuberculosis and sexually transmitted illnesses are increasing. Services at our clinics are more responsive, more integrated and more comprehensive, while quality is measurably improving. Staff are being trained and upgraded and have already began to be redeployed to serve where needed most. New facilities have been built, but far from enough. Essential drugs are more widely and reliably available, and essential equipment is present in most clinics.

But we still have many challenges to meet. Staff shortages and imbalances persist and the maintenance and repair of many facilities is severely lacking. Some clinics even lack safe water supplies, sanitary latrines, and electricity. Telephone-links are being improved, linking the clinics to hospitals for advice, but vehicles are in short supply to move patients, staff or supplies. While in-service training continues, on-site supervision is compromised by the lack of adequate transport, which also affects access to laboratories and emergency referral. And worst of all, the persisting disparities by virtually every measure: the former homelands continue to suffer in comparison to the more fortunate areas of our Province. Mortality and fertility rates are higher, drug stock-outs more frequent, infrastructure more in need of repair, and specialized staff less available.



While we are proud of the measurable progress made in the last four years, the Eastern Cape Department of Health is committed to overcoming the disparities so rooted in the past and redressing the deficiencies of the system, to provide a responsive and quality level of health care to all our citizens. We intend to continue to measure what we do, and expect all our staff to live up to standards without compromise. The disparities highlighted in this report will be redressed and the difficulties overcome. I welcome the ongoing efforts of my staff, and their colleagues in the EQUITY Project, who have undertaken these various studies and analyses to measure and define the levels of health in our population, and to highlight our accomplishments and the tasks that lie ahead

Member of the Executive Council for Health Eastern Cape Province

# **Preface by the EQUITY Project Director**

The fundamental tool of public health is measurement: measuring the health situation, the population to be served, the services provided, the quality of care, the outcomes and eventually impact of efforts to improve health status. Since the start of the EQUITY Project, we have placed emphasis on measuring what we do and what progress has been made. To this end the EQUITY Project has supported annual surveys of health facilities, community surveys under the international standard demographic and health methodologies, the development of a routine health and management information system and special surveys, studies of salient problems and programs to assist the Eastern Cape Department of Health to plan and evaluate its efforts to improve health in the Province. Our team has developed guidelines to assist and orientate health staff to define and map catchment populations which they serve; to involve communities in a variety of information gathering initiatives; sharing of results and supervision systems to aid health workers to gather, interpret and use reliable data in the management of patients and in candid objective self-assessment of their work. In a very real sense, the EQUITY Project is largely about measurement!

This report is the latest publication of the EQUITY Project, a project of the National Department of Health, bringing together information from a variety of sources to portray the situation of the health of the people, of the health services, and of the distribution of these across the Province. While mindful that no one will ever reach an acceptable level of "health for all", for there is always more to be done, we do attempt in all we do to redress disparities between people; to better achieve the desired goal of "equity", an equal sharing of society's health resources according to need. Hence, this report places its major emphasis not only on progress that has been made over the past four years, since the EQUITY Project began in the Eastern Cape Province, but also on the distribution of those gains in health and health services to both highlight successes and underline what remains to be done.

We trust that our continued collaborative efforts with the Eastern Cape Department of Health and its staff throughout the Eastern Cape Province will show even greater measurable progress in the various health measures and that differences between services and outcomes across the Province will diminish even further.

This report is offered as a contribution to that shared goal that drives us all: Equity in the Eastern Cape Province.

Mengale-

Dr T D Mbengashe Director EQUITY Project



This report of Primary Health Care (PHC) in the Eastern Cape Province covering the four year period 1997 to 2000, is a reflection of the strong partnership - particularly in the field of monitoring and evaluation, health information systems, research and epidemiology - between personnel of the Eastern Cape Department of Health (ECDOH), and Management Sciences for Health (MSH) staff, since the inception of the EQUITY Project in 1997. This partnership has been exemplified by the leaders of both the ECDOH - Dr Bevan Goqwana - and the EQUITY Project - Dr Thobile Mbengashe. Their support and encouragement in carrying out the work culminating in this publication is much appreciated and acknowledged.

Acknowledgement is also extended to senior managers in the ECDOH - Dr Thobekile Mjekevu, Dr David Buso, Mrs Joyce Matebese, Mrs Bulelwa Mzileni and Mr Reuben Puchert - for their continued support, guidance and encouragement. To the other provincial managers of the ECDOH, too numerous to name here, we extend our appreciation.

Managers and staff in the former regional offices, and in the health districts, as well as the EQUITY Project Regional Coordinators, are thanked for facilitating the process of data collection throughout the Province.

The health information officers at district, regional and provincial levels, supported by the Health Information Systems Project (HISP) at the University of the Western Cape (UWC), are acknowledged for their role in the collation of data from lower levels of the health information system. In particular, the assistance offered by Mr Calle Hedberg, Dr Arthur Heywood and Mrs Norah Stoops has been invaluable.

The creation of each indicator value, as well as every statistical figure and graph in this report, has been made possible by the dedication of each and every nurse in all the Province's health facilities, who tirelessly compile their monthly clinic statistics, and send them to the district offices. They in turn export the statistics to the provincial ECDOH offices for final analysis to give a provincial picture of the status of PHC services, and provide feedback to reporting units. These front-line health workers - a pillar of our PHC and health information systems in the Province - are honoured and acknowledged.

Access to the Eastern Cape data set of the 1998 South African Demographic and Health Survey (SADHS) was made possible by Dr Lindiwe Makubalo of the National Department of Health (NDOH). Many thanks, Lindiwe. Ms Annie Cross of MACRO International (MACRO) and Mr Paul Hutchinson of Measure Evaluation Project are acknowledged for assisting with the analysis of the Eastern Cape data. Dr Thandi Puoane and Dr Mickey Chopra are acknowledged for providing information on the nutrition studies conducted in the Mount Frere health district.



Ms Anita Sampson, the United States Agency for International Development AID(USAID)/South Africa Health Officer overseeing the EQUITY Project since its inception in 1997, has given considerable support to the Project in general, and in particular to the development, reviewing and annual updating of the Project's indicators. Our sincere appreciation, Anita.

Many thanks to Ms Ileana Fajardo for editing the final draft report, and to Mrs Cathleen Fourie and Mrs Elrien Robson for their creative skills in the design and layout of the report, and for their many dedicated hours. Thanks also to Dr John Bennett, Mr Jean-Pierre Sallet, Dr Yogan Pillay, Mr David Bezana, Mr Peter Cross, Mr Andile Ntoto, Ms Nogqili Luphonjwana, Ms Minki Kotane, Ms Catherine Bronkenshire-Scott and to Dr Thandi Sixgashe, for their valuable comments on early drafts of the report.

Despite the improvements in the health services over the past four years noted in this report, the health status of the Province's women and children in general, particularly those in the former homeland areas, continues to be amongst the worst in the country. This publication is therefore dedicated to the women and children of the Eastern Cape Province.

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Dedicated to the women and children of the Eastern Cape Province.

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# Acronyms



AIDS	Acquired Immune Deficiency Syndrome
ANC	antenatal care
BCG	Bacillus Calmette-Guerin
BFHI	Baby Friendly Hospital Initiative
BMR (UNISA)	Bureau for Market Research (University of South Africa)
CFR	Case Fatality Rate
CHC	Community Health Committee
CHW	Community Health Worker
COHSASA	Council for Health Service Accreditation in Southern Africa
CPA	Cape Provincial Administration
DHIO	District Health Information Officer
DHIS	District Health Information System
DHS	District Health System
DMT	District Management Team
DOH	Department of Health
DOTS	Directly Observed Treatment Short-course
DPT	diphtheria, pertussis, tetanus
Dx	diagnosis
EC	Eastern Cape
ECDOH	Eastern Cape Department of Health
EC-AFS	Eastern Cape Annual Facility Survey
EDL	Essential Drugs List
EPI	Expanded Programme of Immunisation
Eth	Ethambutol
FP	Family Planning
FS	Free State Province
GP	Gauteng Province
HDI	Human Development Index
HiB	Haemophilus influenza B
HISP	Health Information Systems Project
HIV	Human Immunodeficiency Virus
HR	human resources
HRM	human resources management
HST	Health Systems Trust
НТА	High Transmission Areas
IFC	Information Education and Communication
IMCI	Integrated Management of Childhood Illnesses
Ini	injection
INTR A H	International Training in Health
INH	Isoniazid
IT	information technology
K7N	KwaZulu Natal Province
	MACDO International
MOWI	Maternal Child and Warrants Use 141
MCWH	Maternal, Child and Women's Health



MEDSAS	Medical Supplies Administration System
MP	Mpumalanga Province
MRC	Medical Research Council
MSH	Management Sciences for Health
M&E	Monitoring and Evaluation
NC	Northern Cape Province
NDOH	National Department of Health
NGO	non-governmental organisation
NP	Northern Province
NW	North West Province
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PEM	Protein Energy Malnutrition
РНС	primary health care
Pyn	Pyrazinamide
Rif	Rifampicin
RPR	Rapid Plasma Reaction
RSA	Republic of South Africa
Rx	Treatment
SADHS	South African Demographic and Health Survey
SFH	Society for Family Health
StatsSA	Statistics South Africa
STI	sexually transmitted infection
TB	tuberculosis
ТОР	Termination of Pregnancy
UFS	University of the Free State
UNAIDS	United Nations AIDS Programme
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
UWC	University of Western Cape
WC	Western Cape
WHO	World Health Organisation

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# Introduction



In 1978, a historic international conference on PHC took place in Alma-Ata where the nations represented committed themselves to providing "health for all by the year 2000". The conference defined PHC as the empowerment of communities through education concerning prevailing health problems and methods of preventing and controlling them.

South Africa under apartheid (1948 to 1994) made little commitment to providing equal access to good health care for all its people. Health services were fragmented and divided along racial lines, with the white population receiving First World health care, while black people, especially in the homeland areas, received care of a standard below many Third World countries - two worlds in one.

Since 1994, the new democratic government of South Africa has identified, as one of its main challenges, the redressing of inequities amongst the different population groups created by years of apartheid. Equity in health requires a uniform standard of PHC provided through an effective, efficient, affordable and sustainable health care delivery system for all South Africans, regardless of income, race, gender, or place of residence.

For the Eastern Cape Province, one of the two poorest and the third most populated Province in South Africa, the task of reconstructing fragmented health services created by years of apartheid has been challenging. The three administrative authorities of the so-called independent Ciskei and Transkei homelands and the Cape Provincial Administration (CPA) first

The promotion of food supply and proper nutrition, adequate supply of safe water and basic sanitation, maternal and child health care including family planning, immunisation against the major infectious diseases, education concerning prevailing health problems and methods of preventing and controlling them, appropriate treatment of common diseases and injuries and the provision of essential drugs, were described as basic elements of PHC. Governments across all continents adopted this declaration, and the World Health Organisation (WHO) called for health for all the people of the world by the year 2000. Declaration of Alma-Ata, 1978

needed to be amalgamated into one health care system, providing a uniform set of comprehensive services delivered in an integrated manner. Focus then was directed at improving the health of those who were most affected by the inequities of apartheid - black women, children and the poor in rural areas - to achieve equity in health for all the people in the Province.

This document is a status report on the health services and the health of the people of the Eastern Cape Province at the beginning of the new millennium. By making comparisons between the results of health facility surveys conducted annually in the Province since October 1997 and monthly PHC statistics for the three year period 1998-2000, the document also serves as an evaluation of the progress made towards meeting the goals of the EQUITY Project, a collaborative effort of the NDOH with USAID/SA. Information on the health status of communities in the Province is derived mainly from the SADHS conducted nationally in 1998.

Results of these surveys and the PHC data from the District Health Information System (DHIS) have been presented in workshops involving district, regional and provincial program managers throughout the Province during the first half of 2001. This report incorporates feedback and comments received from program managers during these numerous workshops and is also intended to serve the purpose of a reference document on the lessons learnt from program implementation during the first six years of the ECDOH.

# Methodology



The main sources of data for this report are the Eastern Cape Annual Facility Surveys (EC-AFS) conducted in 1997, 1998, 1999 and 2000; the DHIS for the period 1998 to 2000; and the SADHS conducted nationally in 1998 (table 1).

	1997		1	998			1999	2000	
July	Sept	Dec	May-June	Aug	Dec	-Jan	Oct-Nov	Jan-Feb	Sept
Drug Survey (Sampled 23 clinics)	<b>Clinic survey</b> (Sampled 84 Clinics)	Hospital Survey (Sampled 15 district hospitals)	<b>SADHS</b> (Sampled 3000 households in the Eastern Cape Province)	National Clinic Survey (Sampled 93 Clinics in the Eastern Cape Province)	Clinic Audit	(All Clinics)	Quality of Care Clinic Survey (Sampled 84 Clinics)	Clinic Audit (All clinics)	National Clinic Survey (Sampled 91 Clinics in the Eastern Cape Province)
OHIS – Monthly PHC forms from all clinics — HIS – Monthly PHC forms from all clinics — HIS – HIS – MONTHLY PHC forms from all clinics — HIS – HIS – MONTHLY PHC forms from all clinics — HIS – HIS – MONTHLY PHC forms from all clinics — HIS – HIS – MONTHLY PHC forms from all clinics — HIS – HI									

### Table 1 : Data Sources and Sample Sizes

Issues relating to training of field-workers, sampling methodology, data collection, data verification, data capturing, and the quality of the data are discussed under the headings for each data source. A separate document, the "Performance Monitoring Plan", developed and updated annually in compliance with USAID's reporting requirements, outlines in table - form details for each of the EQUITY Project indicators, including a summary and operational description of each indicator.

# Health Facility Surveys - 1997 to 2000 ealth Care

#### **1997 Eastern Cape Baseline Facility Survey**

In 1997 the first survey of clinics and hospitals was conducted in the Eastern Cape Province. Based on a random sample of four clinics in each of the Province's 21 health districts, and the Province's 15 district hospitals, this survey provided a baseline against which progress in the development of the health services would be measured. Information on personnel, drugs and equipment, community participation, services provided, referrals and the use of standard treatment guidelines for key illnesses was collected. The results of this survey were published in a 1998 report entitled "The Status of Primary Health Care Services in the Eastern Cape Province".

The survey tool was developed by the EQUITY Project, field-tested and revised for clarity. The entire 1997 survey was conducted by EQUITY Project staff under the direct supervision of the Project Monitoring and Evaluation (M&E) Associate and the Project Director. Each of the 84 clinics was visited without prior notice by the investigator and the nurse-in-charge answered questions as posed. Direct observation verified the accuracy of responses, and the queries involving record reviews were done directly by the investigator at the clinic.

The entire questionnaire, published as an annex in the 1998 report, formed the basis for subsequent annual surveys. Each year, the basic questionnaire was reviewed and additional questions were added in response to the requests of provincial program managers. This did not alter the basic methodology.

#### 1998 National Survey

The second facility survey was conducted in 1998 and formed part of a National Health Facility Survey initiated by the Health Systems Trust (HST) and the University of Witwatersrand (Wits), with technical support from the EQUITY Project.

In the Eastern Cape Province, the 21 newly appointed District Health Information Officers (DHIOs), each paired with a clinic supervisor from the district, were trained by the EQUITY Project on survey techniques, including sampling, interviewing skills, and how to administer the 1998 survey questionnaire. EQUITY Project staff along with the Provincial Epidemiologist supported the survey training, which lasted four days. Data collection was done by the 21 DHIOs over a two-week period. The five ECDOH Regional Health Information Officers, who had also attended training, supervised field-work in districts falling within their regions. Each completed questionnaire was checked by the Regional Information Officers, and again by the EQUITY Project Monitoring and Evaluation (M & E) Associate.

The Eastern Cape Province collected more data than other provinces in order to meet its own provincial data requirements for use in developing annual district, regional and provincial plans.

Copies of the completed questionnaires from the Eastern Cape Province were sent to Wits for capturing and inclusion in the national survey data set. The data for the Eastern Cape Province was also re-entered by the EQUITY Project and compared with the data set from Wits, as part of the data verification process.

#### **1999 Eastern Cape Facility Survey**

The same 84 clinics that were sampled for the 1997 baseline survey were revisited during the 1999 facility survey. The 1999 survey was designed to focus more on assessing quality of care, including patient-satisfaction, in addition to the data collected during the 1997 and 1998 surveys. Designing the survey instrument for 1999 involved extensive consultation with ECDOH staff at all levels, and reviewing questionnaires developed and used in other countries.

The final questionnaire comprised five sections:

- An interview with the clinic manager;
- Observations of the clinic nurse treating three sick children;
- A checklist for drugs, Information, Education and Communication (IEC) material, and equipment;
- Record reviews for tuberculosis (TB) treatment completion, diarrhoea and sexually transmitted infections (STIs) treatment, back-referral reporting, and inappropriate use of antibiotics, and;
- Exit interviews with five patients from each clinic.

Social Science graduates from outside the health services were recruited and trained to implement the 1999 survey. This was done for two reasons: firstly, the ECDOH Health Information Officers were heavily involved in training on the DHIS, introduced at the beginning of 1998; and secondly, there was a feeling that objective assessments in the nurse/patient interactions and patient exit - interviews could best be done by interviewers from outside the health services.

The 1999 survey was conducted over a period of four weeks under the direct supervision of the EQUITY Project M&E Associate, and again each completed questionnaire was scrutinised and checked by the M&EAssociate.



#### 2000 National Facility Survey

In 2000, the survey instrument was adapted for use nation-wide in a survey conducted in all other provinces by staff from the University of the Free State (UFS). In the Eastern Cape, the UFS team trained the DHIOs under the guidance of the Provincial Epidemiologist, the Provincial Surveillance Officer, and the EQUITY Project M&E Associate.

As in 1998, the survey was conducted by the DHIOs and the data checked in the field by the Regional Information Officers, and later entered into UFS computers where it was analysed. For the purpose of this report, to assure uniformity with previous years, the raw data was again re-entered in EQUITY Project computers under the supervision of the M&E Associate.

For all 4 surveys, analysis was done using Epi Info version 6.

#### **Samplings Issues and Statistical Considerations**

In the facility surveys (1997 to 2000), the sample was not corrected for variance in population. Data analysis treated each clinic as equal weight, therefore giving relatively more weight to the smaller districts and rural areas.

All four surveys sampled from the entire list of clinics and sample size varied from a low of 84 in 1997 to a high of 93 in 1998. A minimum of 4 clinics were chosen from each district and for those districts with more than 45 clinics, a 10% sample was chosen. Thus estimates of dichotomous variables (yes/no) have a province-wide confidence interval of  $\pm 6$ % when treated as a fully random sample and regional estimates could have a statistical uncertainty of up to  $\pm 12.5$ %. Thus small differences cannot be considered significant. However, time trends can be subjected to analysis of variance and where consistent over time (such as the decline in drug stock-outs or rise in Human Immunodeficiency Virus (HIV) rates in antenatal care (ANC) women) makes the confidence interval for province-wide data much smaller over the 4 years of surveys, depending upon the series,  $\pm 3-4$ %. Throughout the report we have endeavoured to point out where changes or differences are of questionable statistical significance.

#### District Health Information System - 1998 to 2000

From January 1998 the Province implemented a system of monthly reporting of services from each PHC facility - termed the DHIS. This system continues to provide monthly data on service provision and management data from all PHC facilities in the Province.

Nearly 700 facilities report on some 35 standardised data elements each month, recording services provided to some 15 million clients of PHC per year since 1998.

The percentage of clinics submitting monthly reports timeously (within 14 days after the last day of the reporting month) increased from 88.4% in 1998 to 97.4% the following year. By 2000 the Province achieved over 99% reporting of monthly PHC forms, an unprecedented level for information systems in all of South Africa.

The development of computer software to capture, validate, analyse and present DHIS data was developed by the University of Western Cape's HISP. Their dynamic program has evolved over the past three years in response to user needs in each of the Eastern Cape regions and districts as well as the Province. The HISP team has trained information staff throughout the Province and provided responsive all-hours telephone help to enable users to solve problems immediately.



This data is analysed monthly by the DHIS software and standard reports are generated for program managers; quarterly and annual reports by district and by program area are also prepared.

Now accepted as the uniform information system for use throughout South Africa, the DHIS is expanding beyond PHC data to embrace information needs for managers relating to hospitals, transport, laboratory and other routine data.

This report has utilised this extensive data set to compare to facility survey findings to validate sample observations. The comparisons are remarkably concordant.

#### South African Demographic and Health Survey - 1998

The 1998 SADHS was the first nation-wide household survey devoted to health and demographics conducted in South Africa. The survey collected information on health conditions; sexual, reproductive and women's health, adult health including measured hypertension and obesity, maternal, child and infant mortality, fertility and contraceptive use and child health including nutrition, immunisation and common childhood illness. The field-work, conducted in the appropriate spoken language of each area, was carried out between late April and July 1998. The survey utilised questionnaires for households, and women's, children's and adult health.

The survey employed a nationally representative sample based on the 1996 census. Over 12,000 households were sampled across the country. In order to be able to make comparisons between the Province's five regions, the Eastern Cape Province was over-sampled and a total of 2,756 households visited - 1,010 urban and 1,746 rural from a total of 210 enumeration area clusters from the 1996 census chosen by rigorous random sampling to reflect population weightings.

Training and supervision of the field teams were conducted by the NDOH, South African Medical Research Council (MRC) and the UFS, and monitored by the MRC, experts from MACRO, and provincial DOH officers. The data was entered into MRC computers for analysis and cleaning and initial tables were generated from standard programs used worldwide by MACRO.

Preliminary results of the SADHS were released in late 1999. Data from the Eastern Cape Province was run by MACRO as a separate analysis and made available to the ECDOH during the second quarter of the year 2000.

The methodology for the SADHS followed closely that used internationally in demographic and health surveys and is described in detail in the final SADHS report.

#### **Facility Audits**

The 1998 Facility Survey in the Eastern Cape Province was extended to all clinics in each district. By the end of the year, an audit of all clinics in the Province had been completed, providing a comprehensive database of all 650 clinics. Data entry for the facility audit was done by the DHIOs after completing a five-day training course in Epi Info version 6.

In 1999, a 2-page standard questionnaire was developed for each and every fixed facility and sent out to all clinics for completion by the clinic nurse-in-charge. The exercise was designed to repeat the 1998 audit and identify only changes that occurred in that year, such as additional integrated services, changes in staff or infrastructure, plus annual events such as new training. The resulting data was added to the DHIS database as 'semi-permanent' data under each facility, to be continuously updated in future years.

#### **Other Data Sources**

Other sources of data used in compiling this report include the annual National Human Immunodeficiency Virus (HIV) Antenatal Care Survey, the Quarterly Tuberculosis Routine Data Collection System, and a review of records from hospitals offering voluntary termination of pregnancy.

### Limitations

The survey data is of highly standard and reliable quality, though no repeat samples were taken to verify the observations and findings. Many data items are surrogates for a range of issues or findings. For example, the use of oral rehydration solution (ORS) for treating diarrhoea and the treatment of sexually transmitted infections (STIs) by syndromic management are taken as indicators of quality of clinical care. Obviously, more detailed record reviews and observations would shed more light on this important issue.

Throughout this report, the authors have endeavoured to use all available data sources to portray the trends in health conditions and PHC services in the Eastern Cape Province. The facility surveys have often sampled different clinics, and data from routine information systems or special studies may not be entirely comparable to facility survey data. Nonetheless, we have carefully scrutinised the sources and the results, and we believe they provide useful trends and comparisons. Where differences are small, caution is required in attributing significance to them.

### **Regional and District Boundaries**

In order to make comparisons across the time period covered, the boundaries of regions and districts refer to the ECDOH demarcations in force during the period 1997 to 2000. The Eastern Cape Province consisted of 78 magisterial districts, 21 health districts and 5 regions, the divisions used throughout this report (figure 1).

During 2000, the Province was demarcated into 6 district council areas, now termed "District Municipalities", and one metropolitan municipality (figure 2). The demarcation of municipal borders will change the designations used here substantially and will need to be considered in future measurements. Health subdistricts, approximately the size of current health districts, may be determined. The DHIS has been designed to enable rapid realignment of boundaries and appropriate regrouping of health facility data to conform to these new designations. Thus, DHIS data can be portrayed according to the districts and regions in force from 1994-2000, or the same data can be sorted to conform to the new municipalities and local government boundaries, thus making both historical trends, as well as future performance, available for portrayal or tabulation.







# A Profile of the Eastern Cape Province



## **Key Points**

- The Eastern Cape Province, a microcosm of South Africa, has amongst the worst health and socioeconomic indicators in the country;
- Within the Province, there are very marked inequities, with conditions in the former homelands typical of those in poor Third World countries;

Because of the rural nature of the Province, little development and high unemployment, there is an outflow of men to cities and other provinces, leaving behind vulnerable women and children who make up the majority of the population.

# **A Divided Country - Inequities Amongst Provinces**

Poverty is defined by the United Nations as the denial of opportunities and choices most basic to human development to lead a long, healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self-esteem and respect from others. In the Eastern Cape Province, poverty is far from being eradicated, especially in the largely rural former homeland of the Transkei and in informal settlements surrounding every town in the Province.

The Province, faced with backlogs from the previous fragmented and inefficient administrative systems under different apartheid governments, remains by some measures, the poorest province in South Africa. On the human development index (HDI), developed by the United Nations, based on infant mortality, literacy and income, the Eastern Cape Province has a score of 0.603, lower than the country's average HDI score of 0.697 and below that of Namibia (0.632) (figure 3). On the other end of the scale, Gauteng and the Western Cape Provinces scored 0.727, reflecting similar levels of development as the Dominican Republic in the Caribbean Islands (figure 3). Differences *within* provinces are far greater than *between* provinces, with poor areas showing HDI scores of Europe or North America.





Statistics South Africa (StatsSA) has mapped the distribution of poverty in SouthAfrica, based on data from the 1996 Census and the Income and Expenditure Survey of 1995 (figure 4). These maps show the Eastern Cape Province as the poorest province in terms of average monthly household expenditure, followed by the Free State and then Northern Province. The country's two poorest district councils, Oliver Tambo and Alfred Nzo District Municipalities, are both located in the Eastern Cape Province. The poorest magisterial districts in the country are Elliotdale, followed by Willowvale, both in the Eastern Cape Province.

Based on the 1996 Census results, the Eastern Cape Province has the lowest percent of people living in formal housing (46.9%), with access to electricity (31.3%), and with the lowest percent of households with tap water inside the dwelling (24.4%). Together with Mpumalanga Province, Northern Cape Province, Northern Province and the North-West Province, the Eastern Cape Province was amongst the provinces with the fewest average years of education for the head of a household.





Poverty affects rural communities hardest, and 63.4% of the Eastern Cape Province's population is rural. At 48.5%, the Province has the highest unemployment rate in the country (figure 5). It is also the poorest, after the Northern Province, in terms of personal disposable income.





The SADHS found that, after the Northern Province, the Eastern Cape Province had the highest total fertility rate. For the three years preceding the survey, women aged 15 to 49 years and living in the Eastern Cape Province had given birth on average to 3.5 children, compared to 2.9 children amongst women of South Africa as a whole. The total fertility rate was also found to have a negative correlation with education, with more educated women having fewer children. Literacy is lower in South Africa's rural areas. Most dramatically, poverty affects survival - more children were likely to die in the Eastern Cape Province than in any of the other provinces (figure 6). The Province has the highest infant mortality rate (61), under 5 year mortality rate (81), and the lowest childhood immunisation coverage (53%) after KwaZulu-Natal.





### A Divided Province - Inequities within the Eastern Cape Province

Within the Eastern Cape Province, the inequities in terms of socio-economic and health indicators are evident. Region A falling entirely in the former Republic of South Africa (RSA) is better off, with conditions deteriorating as one moves towards the north-east, reaching a low in Region E in the former Transkei homeland. The population pyramids of the regions clearly reflect two worlds in one.

Typical of a country in transition, the population pyramid for RegionA has a narrowing base, reflecting a lower fertility rate and a larger proportion of the population aged 15-45 years, the most productive age-group. In contrast, Region E, in the former Transkei, displays a pyramid typical of a Third World country, with children accounting for a large proportion of the population (figure 7). Noticeably, there are fewer men than women in the productive age group, and 53.8% of the population are female. The Eastern Cape Province serves as a labour reservoir for other wealthier provinces, with men leaving behind women and children whilst they seek and find employment elsewhere.



![](_page_27_Figure_0.jpeg)

![](_page_27_Figure_1.jpeg)

The population densities in Regions D and E are also the highest in the Province, with more than two thirds of the population residing in less than a third of the Province's total land area (figure 8). Only the cities of Port Elizabeth and East London have population densities comparable to or greater than these rural areas. The majority of the Province's people, of which 86.4% are black African, reside in the former homelands where poor infrastructure is reflected in poor health indicators. The poorest magisterial districts in the country are located in Regions D and E of the Eastern Cape Province where 60-80% of households subsist on R800/month or less (figure 9).

![](_page_27_Figure_3.jpeg)

# Health Services & PHC Management Issues

### **Key Findings**

- **Only 65% of doctors' posts and 50% of program managers' posts are filled. The situation is worse in Regions D and E;**
- Nurse workload varies across the Province, ranging from 31 patients per nurse per day in Region A, to 23 in Region E. The provincial figure is, however, near the national norm;
- **In 2000, about 70% of clinics had at least one nurse trained in HIV/AIDS, STIs, TB and immunisation in the 12 months prior to the survey;**
- **Regular supervision of clinics is hindered by the lack of transport.** Only 77% of clinics in 2000 were visited by a supervisor at least once a month;
- A culture of health information is slowly developing, but much work still needs to be done, to improve feedback on submitted reports by the Province and districts to lower levels.

# **Health Services Provision**

Health services in the Eastern Cape Province are provided by a network of 920 public health facilities spread across the Province (table 2). PHC services are provided by all facilities except the larger and specialised hospitals. Access to first level care is through clinics and through mobile services and satellites that provide services only on certain days.

Type of Facility	Region A	<b>Region B</b>	Region C	Region D	Region E	Provincial Total
Fixed Clinics	98	128	200	125	102	653
Mobile Clinics	39	35	34	5	11	124
Satellite Clinics	17	2	2	-	-	21
<b>Community Health Centres</b>	9	3	6	4	6	28
<b>District Hospitals</b>	11	21	13	9	10	64
<b>Regional Hospitals</b>	5	1	2	3	1	12
Specialised Hospitals	9	2	5	1	1	18
Total Public Facilities	188	192	262	147	131	920

# Table 2 : Public Health Facilities in theEastern Cape Province, by Region

Source : ECDOH

![](_page_29_Picture_0.jpeg)

	Region A	<b>Region B</b>	Region C	Region D	<b>Region E</b>	E/Cape
Average population per clinic	13,600	6,300	8,200	9,500	13,000	9,600
# Mobile Services	39	35	34	5	11	124

### Table 3 : Average Population per Clinic - 2000

The variation in population served per clinic is a measure of PHC access (table 3). Paradoxically, the mobile services which might redress this imbalance are similarly more numerous in former Republic of South Africa areas of the Province in order to reach farm workers. In Region E with remote villages, coverage by mobile services is grossly inadequate. Furthermore, the rough conditions of dirt roads in former homeland areas makes access to clinics, by clients and supervisors alike, very difficult. Due to the conditions of the roads, the effective life of vehicles is dramatically shortened where outreach is needed most. To redress these inadequacies, building of new PHC clinics and health centres has been concentrated in the former homeland areas, with almost 50 new structures built in the past five years. Similarly, rehabilitation of first level hospitals has been concentrated in Regions D and E, as well as efforts to improve hospital management in these facilities through assistance from the Council on Health Services Accreditation in Southern Africa (COHSASA), presently working in all 19 district hospitals in Region D and E.

![](_page_29_Picture_4.jpeg)

A network of over 900 Public Health Facilities provide essential health care for the people of the Eastern Cape Province.

### **Health Services Utilisation**

A total of 14,375,842 patients were reported to have visited PHC clinic and mobile facilities in 1999, an increase from 12,088,773 the previous year. In addition, some 1.5 million visits to hospital outpatient departments are reported annually. Routine reports for 2000 show over 14 million PHC visits for the entire year. Region A had the highest number of visits per capita to PHC facilities in 2000 (3.1), followed by Region B (2.4); Region C (2.4); and Regions D (2.8) and E (1.6). On average the Province had 2.2 visits per capita in 1999, and a similar level in 2000 of 2.3.

The 1998 SADHS interviewed over 3,000 adults in the Eastern Cape Province, of which 31% had used some form of modern health care in the previous month; an average of about 3.5 visits per year (including PHC and hospitals). The most commonly cited provider was a public hospital or clinic (23.7% or about 3 visits/capita/year), followed by private doctors (9.6%). No questions were asked about the types of services received or the reasons for seeking care. Approximately 12% of adults had used a private hospital, clinic or doctor in the past month. Asmall minority had used a faith healer (2.6%) or a traditional healer (1.9%).

Approximately 10% of the respondents were covered by medical aid, with the highest percentage in Region A and the lowest in Region E. Respondents in urban areas were much more likely to have Medical Aid than respondents in rural areas (20% versus 1.4%).

The SADHS enquired about client satisfaction with the care received and the reasons for dissatisfaction (figure 10). Satisfaction with private providers (94%) was higher than at government hospitals or clinics (88%). While no one reported staff being rude as a reason for dissatisfaction with private providers, 15% of those who were dissatisfied with either a government clinic or hospital cited this as a reason.

![](_page_30_Figure_5.jpeg)

Questions on client satisfaction must be treated with caution, since satisfaction is a subjective assessment. The individuals who use one type of service may be very different from those using another type of service, and therefore may have very different ideas of satisfaction. The same individual may also have very different expectations when visiting different types of providers; the level of care that might be satisfactory at one type of provider may be very unsatisfactory at another provider, particularly if the different providers involve different costs or difficulty in access.

![](_page_31_Figure_1.jpeg)

In 2000, the survey collected information on available systems for patient comments or complaints in clinics (figure 11), and found that 64% clinics surveyed had some form of system, up marginally from 60% in 1999. In 2000 Region D had the highest with 83%, and the lowest was Region B at 25%. However, only 8.3% of clinics had a suggestion box for patients to lodge a written comment or complaint. In 64.6% of clinics, patients used the clinic health committee to discuss problems.

The 1999 survey interviewed 389 patients after they had been seen by a nurse in the clinics, and asked a number of questions about their satisfaction with the care they had received. Eighty percent of these respondents were female, on average aged 36 years. Eighty-nine percent of respondents were repeat users, having visited the clinic to seek medical care in the last 12 months.

From responses provided by the patients, the average waiting time in the clinic before they were called in by the nurse for consultation was just over an hour (63 minutes), and almost all (96.1%) patients interviewed felt the consultation time was sufficient. Asked how they felt about the way the nurse treated them with regard to giving them the respect and dignity they deserved, 92.4% were satisfied and 7.6% said they were not. Regarding overall care they had received during their visit to the clinic, one in four patients (25.3%) said they were not satisfied with the care they received.

### **Human Resources**

Personnel comprise the major input in any health care system - staff costs are by far the largest part of any health care budget. The staff allocation to PHC activities is shown in table 4 :

### Table 4 : PHC Staff Working in ECDOH Public Clinics, Community Health Centres, District Hospitals and District Offices - 2000

Type of Posts	Recommended Posts	Filled Posts	% Filled	
Administration	1,897	1,205	64	
Medical Management	321	125	39	
Dental	123	33	27	
Environmental Health	280	144	51	
Doctors	441	357	81	
Para-professions	558	174	31	
Prof Nurse	4,779	3,706	78	
Nursing Assistants	5,985	5,172	86	
Technical Services	6,627	5,871	89	
Total	21,011	16,787	80	

Source : ECDOH

Note that this table includes staff working in clinics, community centres, district hospitals and district offices. These 16,787 workers comprise just over half of the health employees in the Province (total 32,436). The "recommended" level of staff is based on standard workload ratios and recent work-study analysis of actual service delivery from every facility in the Province. While all categories of staff are below recommended levels, the shortfall varies considerably between categories of staff, ranging from 17% to 97%. Furthermore, the distribution of staff between regions and even amongst facilities within regions may be extremely unbalanced, resulting in both over and under staffing. Extensive redeployment of staff to redress inequity has been long discussed and is still envisaged.

Even more disturbing, the distribution of staff between facilities is highly imbalanced, especially in the various categories of health professionals, with some institutions clearly overstaffed and others working with severe shortages. This is well illustrated by professional nursing posts where 100% recommended levels are found in Regions A, B and C, while Regions D and E are nearly 30% below the requirement (figure 12). In Region B, the number of filled posts for enrolled nurses exceeds the recommended number.

![](_page_33_Figure_1.jpeg)

The situation with management posts is even more severe with both health professionals, like medical superintendents or district nursing managers, and professional administrators extremely understaffed throughout the Province (figure 13). This has obvious negative implications for the management of health services at all levels.

![](_page_34_Figure_1.jpeg)

Personnel assigned to a facility do not always assure adequate levels of staff. Defining "absent staff" as clinic staff not in the clinic for whatever reason during the day of the survey, the baseline survey found that up to 30% of staff were absent during the 1997 assessment, with as many as 41% of the staff in Region D not present. The follow-up survey in 1999 shows a similar percentage of staff (33%) absent on the day of the survey. "Absent" staff may be attending training courses, meetings, on maternity leave or otherwise with legitimate reasons for not being at work. The clinic staffing pattern is thus not an adequate reflection of the workload for those who are available to care for patients on any given day, and the relatively high percentage of staff "absent" further aggravates the problem of recommended posts that are insufficiently filled.

### **Nursing Workload**

Productivity of health staff is hard to measure, but in the case of PHC nurses, the number of clients served per day is a useful approximation. In all regions, except Region A, the number of patients seen per nurse per work day increased between 1997 and 1999, with the figure in Region E more than doubling from 10 to 24 (the low level of 10 patients per nurse per day in the baseline survey may not have been representative). Region A recorded a decline from 33 patients to 27 patients per nurse per day. The workload in 2000 remained about constant, at 24 patients per nurse per day (figure 14). The 1997 data is based on an estimate of workload, calculated using the number of nurses present on the day of survey, while the 1999 data is based on actual nursing days from the PHC monthly report for the month prior to the survey. Data from the entire year for 1999 and 2000 validate the survey findings.

![](_page_35_Figure_2.jpeg)
While, on average, workload appears equitable across the Province, the most significant finding of the DHIS data, comparing all clinics for all months in 2000, is the substantial disparity in workloads between clinics (figure 15). This disparity is evident in the statistics that reveal a range from 4.5 patients per nurse per day in one small clinic, to an astounding 106 patients per nurse per day in the busiest clinic! These are averages calculated over an entire year. There are a substantial number of clinics in the Province, serving less than 15 patients per nurse per day, and a large number of clinics, seeing over 60 patients per nurse per day. The identification of such enormous variance in workload is useful in guiding an informed staff reallocation effort, to achieve a more equitable distribution of staff throughout the Province.



## **Clinical and Management Training for Nurses**

During the past three years, over 5,100 personnel have had their PHC clinical and management skills strengthened and upgraded through ECDOH training activities supported by the EQUITY Project. All nursing colleges are initiating community-based education activities. Tertiary institutions and universities offering nursing programs are including PHC and rural development modules in their nursing curricula.

The EQUITY Project has provided technical and financial support for clinical and management training in a broad range of subjects. Clinical areas covered include training in nutrition, expanded program of immunisation (EPI), integrated management of childhood illnesses (IMCI), advanced midwifery and various PHC clinical skills including family planning (FP), management of TB, treatment of sexually transmitted infections (STIs) and training in HIV counselling.

Significant progress was achieved from 1997 to 1999 regarding the percentage of clinics in the Province with at least one nurse that had received training in a basic PHC area in the previous year. Clinics with at least one nurse trained in antenatal care increased from 25% to 48%; child curative increased from 32% to 53%; EPI increased from 32% to 53%; IMCI from 34% to 47%; FP from 37% to 58%; and clinical diagnosis increased from 32% to 51%. The findings show similar high levels of in-service training for 2000 (figure 16). Clearly, the cumulative training in PHC over the past four years exceeds the total number of nursing staff working in clinics.







*On-site clinical and management training - a priority of the ECDOH during the past four years.* 

#### **Clinic Supervision**

The importance of clinic supervision as a monitoring tool for service provision and support for staff to ensure the effective performance of duties and quality of service delivery to patients, was emphasized in the report of the baseline survey in 1997. Since then, the ECDOH assisted by the EQUITY Project has been involved in a number of interventions to improve supervisory support to clinic staff.

Figure 17 : Monthly Clinic Supervisory Visits % Clinics A B С D Е **Province 1**1997 Baseline Survey Survey 2200 Survey Clinics actually visited by supervisor in last 30 days Clinics reporting supervisory visits once a month Source : EC-AFS

The 1999 survey revealed that 52% of clinics received a visit by a supervisor within the previous 31 days, down from 64% in 1997 (figure 17). The provincial decline between the comparative years (1997 and 1999) results from a decline in supervisory visits in Regions A, C and D; from 81% to 31%, 80% to 50%, and 75% to 44% respectively. Interestingly, supervisory visits increased in Regions B and E. The overall decline in supervisory visits throughout the Province in 1999 is most probably a reflection of the declining availability of transport, the lack of a policy on supervision and a decline in the role of regions, which have carried out much of the supervision to date. The absence of supervisory vehicles is particularly serious, and vehicles, including those provided by the EQUITY Project to each of the 21 districts, are often not used for supervisory purposes but rather to transport staff to meetings.

The 2000 survey results, based on a different question developed for the national survey, portray a different and more encouraging picture, with 77% clinics reporting that a nurse supervisor visited the facility at least once a month.

Informed by the findings of the baseline survey in 1997, which showed that only 6% of clinics in the Province were using some form of objective supervisory instrument, a two-page supervisory checklist was developed and piloted throughout the Province. The findings of the 1999 survey show that this intervention was highly successful, and written supervisory reports following a visit by the clinic supervisor increased to 42% from the baseline value of 6% (figure 18). Although 25% of Region A clinics reported in the 1999 survey that a supervisory checklist had been used during the last visit, none could produce a copy of the checklist. In the other regions, between 50% and 80% could produce a copy. Out of those that could produce a copy of the checklist, between 50% and 87.5% had allocated points for the different subject areas of the checklist, indicating appropriate use of this supervisory tool.



Figure 19 shows the variety of activities that the supervisors are expected to perform regularly. Intensified supervisory training is currently underway to address the need for regular, thorough supervision. Experience with the supervisory checklist has led to the development of the Clinic Supervisors' Manual. This manual contains checklists that assist supervisors in performing an objective evaluation of clinic management, essential drug supplies, quality of clinical care, in-depth review of priority public health programs such as EPI, TB, ANC, child health, STIs, and a series of guidelines for use by supervisors in training clinic staff to make better use of existing resources and to deliver a better quality of care. The checklists are designed to be adapted to the needs of each district, and data from them is not collected centrally. These are currently being introduced throughout the Eastern Cape Province.

Supervisors and nurse tutors, some 139 in all, have been orientated in primary and community-based health care, utilising a problem-based learning approach. Beginning in 2000 this has been supplemented by the introduction of the Clinic Supervisors' Manual.



## **Health Information Systems**

A uniform DHIS was introduced throughout the Province in 1998. Previously, the health information system in the Province was fragmented, utilising numerous different forms. In addition, once the forms were submitted, typically no feedback was received.

To address this problem, workshops on the new health information system, the DHIS, were conducted throughout the Province. By 1999 in 82% of facilities, clinic staff were analysing their own data, transforming numbers into a graphic display that visibly showed trends in services or selected conditions (figure 20). Often data displays are graphs that are hand-drawn by staff, indicating that the clinic statistics are indeed useful to the staff. Data displays on the wall provide relevant and timely visual information which the clinic staff may use to monitor and evaluate the status and progress of service provision. In the 1999 survey, interviewers asked to see a file of previous PHC monthly reports. Eighty-six percent of clinics in the Province were found to keep a file of PHC monthly reports, ranging from 75% in Region B to 100% in Region C.



Training in the DHIS has been extended beyond the regular health information officers to include clinic supervisors and program managers. The EQUITY Project has provided computer resources, and the ECDOH appointed information managers and staff to enter data in every district in the Province. Reports from over 95% of clinics arrive within 2 weeks of the close of the month, although the quality of the data reported is all too often not checked or verified by supervisors.

The 1999 clinic audit showed that 50% of clinics in all regions received feedback on monthly reports, with Region E reporting feedback from 80% of clinics. However, the survey data, which checked feedback as the <u>last monthly PHC report</u>, showed only 36% across the Province, with Region E clearly performing albeit at 63% (figure 21). Clearly, timely feedback from districts still requires improvement.



The DHIS - developed to provide reliable, relevant health information for decision-making.





During 2001 the DHIS will be extended to all district hospitals, capturing an array of data on services, diseases and outcomes. Environmental health, transport, and laboratory results will be integrated as well, providing an increasingly comprehensive statistical view of health services and management support.

#### **Some Recommendations**

- The system for feedback on patient satisfaction to the provincial health department needs to be improved and patients educated about their rights;
- Attention should be paid to the filling of key management posts, and more equitable staff distribution is needed;
- A closer examination needs to be made of the reasons for differences in nurse workloads: overstaffing and understaffing, under-utilization or over-utilization of clinics, or poor training or quality;
- The provision of transport should be a priority for clinic supervisors no transport means no primary health care services can be delivered effectively;
- **Both clinical and management training have reached nearly all clinics, but there is a need to assess the impact of this training on service provision and quality;**
- Use of data by clinics is impressive but more timely feedback from districts and greater attention by supervisors to data quality are needed.

# **Clinic Infrastructure and Equipment**



#### **Key Findings**

- Clinic infrastructure in the former homeland areas remains inferior less than two-thirds of clinics in Regions D and E in 2000 had water-borne flush toilets, and piped water was available in only 19% to 25% of clinics, respectively, in these regions;
- Basic medical equipment is available virtually in all clinics, but oxygen cylinders are in only 39% clinics, respectively, in the Province;
- Lack of electricity supply and decent accommodation for nurses in remote rural clinics is a cause of poor service access;
- Lack of refrigerators for personal use by staff in rural areas results in staff using vaccine refrigerators for storing their food;
- The disposal of medical waste and sharps is often hazardous across the whole Province.

#### Toilets

The 2000 survey found that one in every four clinics (27.5%) in the Province does not have water-borne toilets (figure 22). Open pit latrines are found in Region D (37%) and Region E (38%) clinics, while all Region A clinics have flush toilets. The percent of clinics with water-borne or flush toilets in the Province is 72%, which is lower than the national average of 90%.



#### Water

The 1999 survey indicated that piped water was found in 61% of clinics in the Province: 100% in Region A and 19% in Region E (figure 23). In the most recent survey (2000), nursing staff in 92.3% clinics surveyed reported that they had access to safe drinking water of some kind. This basic need was not available to many clinics in Regions D and E, where staff in 16% and 19% of these clinics, respectively, had no access to safe drinking water. In 13 of the 88 clinics that answered this question, nursing staff said they had to walk some distance in order to fetch water for use in the clinic. In four clinics staff had to walk between twenty and thirty minutes, and in one clinic water was difficult to access, with the staff having to walk for more than one hour to fetch the water.



*Rain tank water - the lifeline in many clinics of the former homelands.* 





#### Electricity

In the 2000 survey 82.4% of clinics had some form of electricity supply, ranging from 100% in RegionA to 71% in Region C. Seventy-seven percent were using grid electricity, 16% had solar panels, and only 6.7% were using generators. Almost two-thirds (64.8%) of these facilities surveyed reported that they had uninterrupted electricity supply in the past month. Most of the clinics in Region D were in fact referring to solar power, which is insufficient to meet power needs of most electricity, while less than one in four clinics in Region D and two out of three clinics in Region E had this power source (figure 24).



#### Privacy

The 1999 survey found that one in five clinics visited had no privacy in the consultation rooms. In such clinics, situated mainly in the former Transkei, patients often had to be examined in a room partitioned with only a curtain, and other patients awaiting consultation could hear the conversation between the nurse and patient. In many of these, there are no sheltered waiting areas, and patients crowd into a single room where privacy or even discrete conversation is not possible. It is not surprising, therefore, that sensitive personnal issues such as family planning, HIV testing, STI contacts are not discussed; as reflected in the lower performance of these services in many of the poorly resourced clinic facilities.

Accommodation is necessary mainly in rural settings where nursing staff are not part of the communities. The 2000 survey found that none of the Region A clinics surveyed provided accommodation for staff. One in four Region B clinics had staff accommodation; about half of Regions C and E clinics and 84% of Region D clinics accommodated staff on the premises. Of those clinics with staff accommodation, 32% had accommodation in poor state, according to the nurses.





#### **Equipment in Working Condition**

A further component of effective PHC delivery is the presence of essential equipment. With this in mind, survey indicators include the presence of essential equipment in working condition. Survey results show some improvement and also highlight the regions where continued efforts are required in order to ensure that essential equipment is present and functioning in all clinics.

Infant and adult scales have been available in most clinics since the baseline survey (figure 25). The few clinics, particularly in Regions D and E which did not have scales were supplied with such equipment purchased by



Basic equipment, essential for effective delivery of PHC services, are available in most clinics.

the EQUITY Project during 1999/2000. Stethoscopes and sphygmomanometers are both required for measuring blood pressure. The 1999 survey noted that a number of clinics, in Regions D and E, were without these two essential items.





With the exception of Region D, all the other regions had over 90% of surveyed clinics with working otoscopes, but problems with availability of both a light and an examination couch were experienced in all regions except Region A (figure 26). Across the Province, the 1999 survey found that only 35% of clinics had filled oxygen cylinders on site. This was essentially unchanged in 2000 (39%).





As of 2000, almost all (98%) clinics surveyed had refrigerators - confirming the improvement noted in 1999, which showed an increase from 87% in 1997, to 98% in 1999 (figure 27). The 1999 survey collected additional information for evaluation of the cold-chain maintenance. Although 98% of clinics had refrigerators, not all of the refrigerators were in working condition, as can be seen from figure 27. Seventy percent of those refrigerators in working condition had a temperature record used to monitor daily temperature reading inside the refrigerator. During 2000, the EQUITY Project purchased thermometers which were placed directly in refrigerators by the Project's regional coordinators during their field visits to clinics. In some clinics the practice of storing food and drinks in refrigerators which are supposed to be for the sole use of vaccines and other medical items, has unfortunately not stopped. The 1999 survey found that one out of every three refrigerators (33%) was not exclusively used for vaccines.





## **Disposal of Medical Waste and Sharps**

Medical waste, due to its hazardous nature, should be given special attention when handled, being transported, and treated before final disposition. Non-separation of medical from domestic waste is suggestive of poor management, as it leads to massive loads of waste needing expensive disposal methods necessary for the medical waste. Separation ensures that the additional costs of handling infectious waste does not apply to the non-infectious waste. Medical waste disposal often becomes a public health hazard. Inspections performed in



recent field visits revealed that medical waste is often thrown in a pit outside the clinic and not incinerated. The 2000 survey found that less than three in four clinics (72.5%) in the Province were incinerating medical waste (figure 28). One in ten clinics (11%) were disposing medical waste in pits or pit-latrines and 15.4% were burning waste in open fires within the facility premises. This inappropriate practice is occurring mostly in Regions D and E, where the availability of equipment and systems for waste disposal is deficient and below acceptable environmental health standards. The 1999 survey found considerable variations in clinics having a separate disposal system for domestic waste (table 5).

#### Table 5 : Separate Disposal System for Domestic Waste - 1999

	<b>REGION A</b>	<b>REGION B</b>	<b>REGION C</b>	REGION D	<b>REGION E</b>	E/Cape	
% Clinics	100	63	85	31	56	68	

Source : EC-AFS





Medical sharps include clinical items such as syringes, needles, and blades that are capable of causing penetrating injuries, thus exposing affected persons to serious infection, especially HIV and hepatitis. Medical sharps must always be incinerated in all clinics, as local burying can be too hazardous. During 2000, data on disposal of sharps was not collected in the survey. One in five clinics across the Province in 1999 disposed of sharps locally within facility premises (figure 29). The 1999 survey results also found that, on average, clinics in Regions A and B experienced a 7 day wait for medical waste and sharp collection for incineration, as compared to 18 days in Region C and just over 21 days in Regions D and E. Some clinics in Region E experienced delays of over three months. Between collection dates, 21% of clinics in the Province use refuse bags, 27% use colour-coded bags, and 38% use plastic disposal boxes to store waste or sharps. Eighty-eight percent of Region A clinics use colour-coded bags, yet no clinics in Region E have these bags available. Region E clinics use plastic disposal boxes (87.5%). Refuse bags are the primary collection containers for Region C clinics. Many of these systems are dangerous to nursing staff as well as cleaners.



#### Some Recommendations

- The backlogs of infrastructure development in the former homelands should be prioritised through a provincial integrated rural development strategy;
- There is an urgent need for improvement in clinic buildings, electricity, water supply and sanitation in Regions D and E;
- A policy on incentives for nurses working in remote rural clinics should be developed, and means (such as preference for training, promotion, housing, etc) have to be found to reward nurses serving in these areas;
- Proper systems for disposal of medical wastes and sharps should be implemented.



# **Drug Management**



### **Key Findings**

- There have been major improvements in the drug management and information system. Stock levels at depots can now be accessed directly from the provincial office;
- Unfilled pharmaceutical posts in districts remain a problem. In Region E, only one of the recommended 30 posts is filled;
  - Drug availability in clinics, especially in the former homelands, has improved considerably. This is due to improved drug distribution systems from depots and the introduction of stock control cards in clinics in 1998;
    - Drugs that are most frequently out of stock are often those that are over-used, such as antibiotics.

The availability of drugs and equipment is key to the proper functioning of health services. Without functioning facilities, diagnostic equipment, medicines and supplies, knowledge and skills of staff can make little difference. The delivery of services depends on a reliable supply of carefully chosen essential drugs, vaccines, and supplies, not only to assure high quality of services, but also to enhance staff motivation, a key factor that influences the capacity of human resources to deliver quality health care. Lack of drugs in the clinics was a chronic complaint of staff and clients alike in 1997, a fact adequately documented in the baseline survey report, which showed many drugs were out of stock on any given day. Improving this situation was a major objective of the ECDOH/ EQUITY Project.





### **Drug Management Systems**

The Eastern Cape Province has two pharmaceutical depots (one in Umtata and the other in Port Elizabeth). The office of the Deputy Director of Pharmaceutical Services is located in the ECDOH building in Bisho. All transactions processed by the two pharmaceutical depots are captured in the computerised inventory system, the Medical Supplies Administration System (MEDSAS), installed in 1995. Unfortunately this data was available only on site and not to provincial managers in Bisho. Furthermore, reports generated by MEDSAS are not easy to use and cannot be customized to suit particular needs of the manager. To make information readily available, the computer in the office of the Deputy Director was recently connected directly to both depots via the government-wide area network. A report generator, INFOMAKER ©, was installed and over 45 report templates were developed. It is now possible to produce regular and ad-hoc management reports from MEDSAS based on the most current data. All reports are fully customisable. Information on each clinic and district that was previously unavailable, can now be retrieved and circulated. These reports allow for the establishment of a relationship between consumption and cost, by identifying the top items "responsible" for a greater share of the expenditure. This system is already playing an important role in monitoring drug use and expenditures. Some of the most useful and frequently used reports are shown below:

	Frequently Used Infomaker Reports							
<ul> <li>ABC Analysis* for Each Depot</li> <li>ABC Analysis by Demander (each facility has a unique code)</li> <li>ABC Analysis by District</li> <li>Monthly Expenditures vs. Budget by Demander</li> <li>Monthly Expenditures vs. Budget by District</li> <li>Comparison of Expenditures by Similar Type of Facilities</li> <li>Service-level Summary (Quantity Requested vs. Quantity Received)</li> </ul>	<ul> <li>Stock-Out and Outstanding Order</li> <li>TB Drugs Stock &amp; Consumption</li> <li>Immunisation Program Items Stock &amp; Consumption</li> <li>Expenditure by Tender Group by Period</li> <li>Supplier Performance (lead time and partial shipment report)</li> <li>Supplier MEDSAS Payment vs. Financial Management System Payment</li> </ul>							

(ABC reports show the amount spent on items as a percentage of the overall expenditures. Typically 20% of the items account for 80% of the expenditures. This enables identification of major cost drivers and whether "non-drugs-of-choice" are amongst the top Essential Drugs).



Unfortunately, the pharmaceuticals directorate continues to be understaffed, especially at the lower levels where the filling of pharmacist posts is critical to ensure that drugs reach the clinics, and the patients for which they are intended. Disparity in filling of recommended pharmaceutical management posts amongst the regions is illustrated by figure 30, which shows Region A with two more pharmacy managers than recommended.



In all other regions, available appointed staff are far below requirements, with Regions D and E, by far, the worst with, respectively, 29% and only one of thirty recommended posts filled. Unlike most other provinces, the Eastern Cape Province does not have any regional or district pharmacists. Moreover, in the districts no staff are specifically dedicated to the supervision of drug supply management activities. This makes the implementation of any system and the follow-up very difficult.



In spite of these problems, availability of essential drugs has improved steadily over the past 4 years as shown by the monthly stock-out reports of the DHIS. Independently verified by the 2000 survey, key drugs are present in 90% of clinics. Nonetheless, Regions D and E continue to suffer stock-outs, largely because of poor inventory management at the district hospitals upon which they are dependent for resupply. The products most often out of stock tend to be those most often over-utilised, especially antibiotics. Figure 31 shows reported stock-out for the entire Province for each month in 1999, for all items reported by 10% or more of clinics. While antibiotics feature prominently, especially amoxicillin and cotrimoxazol - both broad spectrums used for adults and children - it is notable that antipyretics, anti-asthma, anti-hypertensives and even oral rehydration solution (ORS) feature on this list. In Region A none of the drugs reach 10% stock-out levels, while in Region D virtually all drugs are reported out in 10% or more of clinics each month. Interestingly, the overall consumption of these drugs has not changed significantly over the past 2 years, indicating that chronic shortfall is more a matter of stock management in the periphery than in depot supply.







With the introduction of stock control cards, shortage of drugs has been greatly decreased in many clinics across the Province.

## Figure 32 : Tracer Items Stock-out 1999 to 2000





## **Stock Control Cards & Drug Availability**

Proper inventory management at all levels is critical to support the delivery of health services. The baseline survey revealed a lack of reliable inventory control systems in health facilities. Pharmacy inventory control is based on careful record keeping by users of the quantities of drugs on hand and used to ensure that resupply is both timely and adequate in quantity. The "bin" stock card system was introduced in early 1998 to improve and promote good inventory management practices at primary health care facilities.

Training workshops on the use of the bin card and pre-printed requisition books were conducted in each district over a period of 6 months and with over 600 clinic staff members, mainly nurses. In less than two years, survey results show a remarkable increase in the use of bin cards to track drug stocks for five key items (figure 33). Clinic staff who have implemented the bin card system claim to have reduced the incidence of stock-outs to none. However, in half of clinics these cards are not yet properly used and often the staff are still struggling with some of the calculations involved in determining the proper replenishing levels.





Since the baseline survey in 1997, the availability of ten indicator drugs and items in the clinics have been measured at the time of survey. In 1998, 59% of clinics surveyed had seven or more indicator drugs available. The 2000 survey found that this had increased to 92% of clinics, as shown in figure 34 below. The improvement in drug availability can be largely attributed to the introduction and use of bin cards.

-	-	
Item #	Description	
1	Measles vaccine	
2	Benzanthine Penicillin, injectable	
3	Injectable contraceptives	
4	Cotrimoxazole liquid	
5	All TB drugs Rifampicin, Isoniazid, Pyrazinamide, Etha	mbutc
6	Ciprofloxacin tablets	
7	Oral rehydration solution	
8	Iron tablets	
9	Latex gloves	
10	Methyldopa	

Figure 34 : Percent of Clinics With 7 or More of 10 Indicator Drugs



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#### **10 Key Indicator Drugs/Items**



Further demonstration of improvement in drug availability in the Province is shown in figure 35. The 1997 survey showed that many clinics throughout the Province did not have all of the seven key drugs/items. By 2000, not only had the disparity between regions largely disappeared, but also most clinics were supplied with all seven of these essential medicines.



One of the research teams in the 1999 survey related how they were stopped by a group of women, with children on their backs, who had followed the team vehicle to the clinic, thinking it had brought drugs. The researchers, especially in Regions D and E, also witnessed distressing scenes in which mothers who had brought their sick children were sent home without any medication and told to send elder children to the clinic a week later to check whether drugs had been delivered. Thus, while drug availability is better overall, inadequacy still plagues some of the most needy areas.

The 2000 survey found that between 84% and 100% of clinics in the regions had lockable storage facilities for drugs. Despite this, there have been press reports about pilferage of drugs in all regions of the Province. In his policy speech in 2000, the Eastern Cape Provincial MEC for Health, Dr Bevan Goqwana, acknowledged the high extent of theft of medicines throughout the drug supply chain. He went on to say:

"The Department is introducing bar coding of parcels as part of the outsourcing plan, and this will reduce pilferage, which is estimated at about 15-20%, by at least 5% within the current financial year."



A proposal for the transformation of the pharmaceutical depots has been developed jointly with the head of the pharmaceutical services, a consulting firm, and the EQUITY Project. The proposal focuses on the creation of a trading account for the depots so that they have more flexibility and control over their management; increasing security control mechanisms; and outsourcing of drug distribution to the private sector, to ensure the delivery directly to the facility (or district level) in all regions. The proposal further advocates transforming the Umtata depot into a transit depot and concentrate all procurement activities at the Port Elizabeth depot. It is expected that implementation of these carefully developed management changes will further improve drug supplies.

#### **Some Recommendations**



The recruitment and training of staff to fill vacant pharmaceutical posts in districts should be given high priority;

Hospital responsiveness to drug needs of clinics dependent on them should be improved;

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The use of standard treatment guidelines to reduce over-use of commonly prescribed drugs should be intensified.

## **Basic PHC Services -Towards a Core Package**

## **Key Findings**

- Access to a full package of integrated basic PHC services has increased, with 64% of clinics providing 9 basic services 5 days a week in 2000;
- By 2000, eight of nine basic services were individually offered 5 days a week in 89-98% of clinics. Antenatal care was present in only 78% of clinics;
- Although antenatal care is widely available and generally used by most pregnant women, syphilis tests are not done for most women in Regions D and E;
- Use of family planning is lowest where fertility is highest in Regions D and E where fertility rates are 6.3 and 5.3 per woman, respectively;
- Adult health is characterised by high levels of hypertension, tuberculosis, obesity and smoking amongst men;
- Emergency transport remains a problem in most of the Province but is far worse in the former homelands, with only 17% of clinics in Region E having access to an ambulance;
- **Back-referral of PHC patients referred to hospitals or doctors remains weak across the Province.**

## **Basic Primary Health Care Services**

The need to select a package of priority PHC services to be provided at each level of the health care system has been felt by many health workers across the country. The Department of Health, following a series of



consultative workshops country-wide on the matter, has produced a comprehensive PHC package document.

In the Eastern Cape Province, the EQUITY Project helped to develop a checklist for use at each level of care, which provides a comprehensive integrated approach designed to eliminate or minimise the promotive/preventive-curative divide between former provincial services and local government services. The package is intended for use at any level of care within a district and would serve to unite the different service levels into one seamless continuation, of care for all the

population of the district. The improvement in integration of services in the Province over the last two years can be attributed to the implementation of the PHC checklist tool and the numerous workshops on integration conducted in the Province.



Since the 1997 survey, nine services have been considered as basic and indicators of integration. These services are ANC, FP, nutrition, STIs, child curative, immunisation, adult curative, chronic care, and tuberculosis treatment (including diagnosis or referral for diagnosis). Comparison of results from the same clinics surveyed in 1997 and in 1999 show an increase of 50% in provision of all nine basic PHC services, five days or more per week (figure 36). Region B is the highest, with 94% of clinics providing the nine services at least one day per week and 81% of clinics providing the nine services five days per week.

## **Functional Integration**

of primary health care within the district health system







Results of the 2000 survey show that the Province has a higher percentage of clinics providing key PHC services all weekdays than the national average. Immunisations are provided in 89% of clinics, compared to 73.7% nationally; FP in 96.7%, versus 87.1% nationally; and ANC in 78% compared to less than 60% nationally (figure 37).

Many of these services deal with the Province's two main priority areas: maternal, child and women's health and HIV/AIDS/STI, and tuberculosis. Although these services are part of the integrated package of PHC services, they will be dealt with in the next two chapters due to their importance and need for special attention.





#### **Adult health**

The findings of the annual facility surveys in 1997 and 1999, and in 2000, indicate that adult curative care on a daily basis is provided in virtually all clinics in the Province. Chronic care increased from 81% in 1997 to 91% in 1999, and the 2000 facility survey findings were confirmation of this increase in the provision of this service (figure 38). DHIS findings report that a total of 1,349,180 chronic cases were seen in PHC facilities during 1999, up from 1,005,850 chronic cases during the previous year. This accounts for 9.9% of all patients seen during the year.



## **Mental Health**

The mental health caseload for the Province is 2.6% of the total head count, ranging from 4.2% in Region A to 1.8% in Region B. This is the equivalent of 217,963 patients across the Province, an increase of 15,436 patients since 1998. Between 1997 and 1999, provision of mental health care in the clinics surveyed increased from 50% to 70%. The 2000 survey shows that 85% of clinics are now providing mental health services daily. The significant increase of both chronic and mental health caseloads in PHC facilities from 1997 to 1999 is a positive indication of an increasingly integrated package of PHC service provision at the clinic level.



## Hypertension

Hypertension is prevalent in the Province, with 15% urban adults and just over one out of every ten rural adults (12%) found to have the condition when blood pressure was measured during the 1998 SADHS (figure 39). Out of the 13.5% of adults in the Province found hypertensive, only one out of every five (19.6%) were taking medication to control this chronic condition. In Region E, the situation was worse, with only one out of every ten hypertensive adults (11%) taking medication. Thus, while 10-15% of adults are suffering from elevated blood pressure, only 1-4% of the adult population reported being under treatment.

On the whole, the figures for self-reported hypertension and hypertension as measured by sphygmomameter are very similar.



In 2000, the DHIS started collecting data on hypertensive treatment at clinics (table 6). A similar pattern to the SADHS was seen with higher treatment rates in Regions A to C, and far lower rates in Regions D and E.

## Table 6 : Hypertension Treatment - 2000

	<b>REGION A</b>	<b>REGION B</b>	<b>REGION C</b>	<b>REGION D</b>	<b>REGION E</b>	E/Cape
% Adults 45+ on Treatment	4.3	8.8	4.0	1.6	0.6	3.9

Source : DHIS





#### **Diabetes Health**

The huge contrast in availability of equipment in clinics across the Province is paralleled by the ability to treat diabetes. Glucometers are basic equipment necessary for managing diabetic patients, yet only 6% and 13% of clinics in Regions D and E, respectively, have them (figure 40). Glucostix supplies are only marginally better.

Province-wide, 1% of adults are under treatment for diabetes in public clinics, ranging from nearly 2% in Region B to a low of 0.2% in Region E. The lack of diagnostic tools can account, to a large degree, for the discrepancy.







## **Asthma and Smoking**

Based on SADHS findings, Region E has the highest percentage of adults with asthma (9.8%) and bronchitis (8.8%). All the other regions report that between 6.2% to 7.9% of the population have asthma. The incidence of asthma is higher amongst females (8.0%) than males (6.9%). The SADHS findings also reveal a prevalence of bronchitis ranging from 3.8% to 8.8% of the population.

The SADHS survey of 1998 reveals a huge problem of smoking, especially amongst males (figure 41). In every region of the Province, urban and rural, the vast majority of smokers are male. This raises high risks for men of heart and lung disease. This is particularly marked in Region E, where 40% of adult males smoke as compared with just 1% of adult females. The impact of urbanisation can be clearly seen, with a higher percentage of female smokers in Region A and the other urban regions compared to rural areas (6% province-wide).



### **Obesity**

The SADHS data regarding obesity among adults raises challenging and paradoxical questions, especially in light of the severe malnutrition and stunting identified in children of the Province. One in three women and 12% of men in urban areas were found to be obese. The percentages for rural adults were lower, at 24.8% for women and 7.8% for men. The findings on obesity correlate well with the high rates of hypertension, diabetes and arthritis, all of which are associated with obesity.



#### **Referrals and Back-referrals**

In 1999, the EQUITY Project conducted a study on referrals in the Eastern Cape Province and published a report entitled "Referrals between Levels of PHC in the Eastern Cape". The study concluded that present practices in the Province were generally appropriate and that patients being sent to higher levels represent the more difficult diagnostic or therapeutic management problems, with a heavy preponderance of trauma and obstetrical emergencies.

DHIS findings of 1999 indicate that 4.1% of all PHC cases were referred for higher level care to hospitals or doctors. The highest referral rates occur in Region A(6.7%). The other regions refer between 2.3% and 4.4% of cases.

The baseline survey in 1997 had revealed gross inequities in the access to ambulance services between clinics in the former RSA and those in the former Transkei. Two years later, the follow-up survey of the same sample of clinics showed no improvement. While access to the service was enjoyed by all clinics in Region A, the situation worsened in Region E, with fewer clinics having ambulance access. Ambulances are largely run by local authorities, district councils and transitional local councils. Region E has weak, under-resourced local councils that are unable to provide ambulances for their region.

In the 2000 facility survey, the situation had still not improved as shown in figure 42. Sixty-nine percent of Region E clinics reported no access to official emergency transport, and the only form of transport available to refer patients to higher level of care, would either be a vehicle belonging to a community member or a taxi. The figure for Region D was 59%, in stark contrast to the 6.7% Region A clinics reporting use of such vehicles for emergencies. The average distance from the surveyed clinics to the nearest referral hospital was 30.5 kilometers, with a maximum of 230 km.





Nurses in the clinics who had previously had an emergency were also asked how long they expected it would take for an ambulance or other emergency vehicle to respond to an emergency. Sixty-four percent said it would take no more than an hour for them to get help. However, when asked how long it had taken to get emergency response during their most recent emergency; 74% said response had been received within an hour, 13% reported response in more than 2 hours and in 2% of cases there was never any response at all. Two out of every five staff (43%) felt that the referral system was not efficient. The 2000 survey also found that 73.4% clinics had a telephone, but only 67% of clinics had telephones in working order (figure 43).



During data collection for the baseline survey, one clinic in the former homeland part of Region B did not have a telephone, and the two-way-radio had not been repaired, after breaking down soon after it was installed a few months before the survey in 1997. Two years later, in 1999, the clinic still had not telephone, and the radio had never been repaired since the last visit by the researchers in 1997.

A review of referral patterns for obstetric emergencies in 2000 showed problems with many districts having to phone the METRO emergency services in a district town to use an ambulance which might be situated locally.



The 1999 review of 1,642 referral case records from the 84 clinics surveyed during the baseline identified that only 8.5% had received back-referral notes (figure 44). This is a decrease from 14% in 1997, reflecting diminishing feedback to referring PHC facilities. According to 2000 facility survey findings, the majority of back-referrals (78.8%) would normally be communicated to the clinic by means of a letter, and in only 18.8% clinics did the nurse report that they were given back-referral information verbally by telephone. No information was collected in 2000 on the percentage of referrals for whom a back-referral report was received.

In 2000, some hospital boards were alerted to this problem for clinics in the hospital's catchment area, and a new checklist for hospital boards was developed to specifically look at this problem. It is hoped that continued pressure will be put on hospital staff to send back full information on patient-held records.



#### Some Recommendations

- Emphasis on integration of services should continue, in line with the national recommendations on a PHC core package;
- As part of the COHSASA quality improvement initiative at hospitals, a system to ensure backreferral notes for referred patients has to be developed;
- The management of the ambulance system in the Province as a whole needs to be given priority attention. Where ambulances are not available, innovative systems such as using contracted community vehicles to provide emergency transport have to be considered.
# Maternal, Child and Women's Health Services

### **Key Findings**

- The four services of antenatal care, family planning, immunisation and treatment of childhood illnesses are now available 5 days a week in 93% of clinics (up from 51% in 1997);
- Infant and child mortality are unacceptably high in the former Transkei area, and lack of access to safe water for households is a major threat to health;
- Management of diarrhoea in children has improved but proper integrated care for childhood illnesses needs attention;
- Immunisation coverage is improving slowly but still falls far short of expected levels;
- Poor growth and severe malnutrition are problems that persist across the Province.

With a high proportion of the population in the Eastern Cape Province comprising women and children, the provision of maternal and child health services ranks high amongst the priorities of the department's service delivery programs.

The 2000 facility survey confirms findings of the 1999 survey showing accelerated integration of the four maternal, child and women's health (MCWH) services, from 51% in 1997, to 79% in 1999 and 93% in 2000 (figure 45). This increase has largely been due to ANC being offered at least five days a week in 80% of clinics in 1999, a remarkable increase since the baseline survey when only half of all clinics were providing the service all week days. The survey also shows that provision of all four MCWH services is highest in Region D (94%) and Region E (88%), and lowest in Region C (60%).





#### **Child Mortality**

The Eastern Cape Province's infant mortality rate (IMR) of 61.2 deaths per 1,000 live births is the highest in South Africa, according to the 1998 SADHS. In rural areas of the Province, the IMR is higher at 75.3 compared to urban areas (32.8). In Region E it reaches the alarming level of 99 deaths per 1,000 live births (figure 46). The average IMR for South Africa is 45.4. In the former Transkei, children are more likely to die at birth, before reaching age one year or before reaching age five years than in any other part of the country.





#### **Integrated Management of the Sick Child - IMCI**

Five diseases - diarrhoea, acute respiratory infections (ARI), malnutrition, measles and malaria - are responsible for over 70% of childhood mortality in the developing world. Additionally, these diseases account for 75% of paediatric visits to health care facilities. South African data indicates that diarrhoea and ARI are the leading causes of childhood mortality and hospitalisation, and that malnutrition is still a major health problem.

The WHO has developed an intervention strategy - IMCI. The aim is to reduce morbidity and mortality from these diseases. The approach emphasizes promotive and preventive strategies such as breastfeeding and immunisation, and education of the mother. South Africa has adapted the guidelines to address the country's special needs and included a module on HIV/AIDS.

In the Eastern Cape Province, there has been relatively little training on comprehensive IMCI. Whilst a number of clinical staff have been exposed to short courses of usually no more than five days duration, not many have been trained in the full IMCI course, which lasts 11 days. In order to collect baseline data on the implementation of IMCI strategies in the Province, the 1999 survey instruments included observations of the clinic nurse treating a sick child. In each clinic, three such cases were observed by researchers using a checklist to identify whether key investigations pertaining to consultation, general assessment, history-taking and physical examination, and treatment of the sick child based on the IMCI guidelines, were done by the nurse.

A total of 244 observations of children being treated were done in the 84 clinics surveyed in 1999. Of these 244 children, 49 had diarrhoea. IMCI guidelines dictate that, for every child with diarrhoea, the nurse should ask about the duration of the diarrhoea, frequency of stools and whether the stools have blood. For children less than one year old, the nurse should check for sunken fontanel and pinch the child's skin on the abdomen to examine the degree of dehydration. Results of the observation revealed that, although the nurse asked the mother how long the child had had diarrhoea, in 93.8% of cases, and about the frequency of stools, in 79.2% of cases; the presence of blood in stools was questioned in less than one in four cases (22.9%). Information on the duration of diarrhoea before the child was brought to the clinic, was obtained by the nurse from the mother or guardian of the child. Three in four of the children (73.2%) had had diarrhoea for between one and two days; 7.3% for 14 days, and one child was reported by the mother to have had diarrhoea for more than one month. Of the children with diarrhoea who were less than 12 months old, the nurse did not check for sunken fontanel in two out of every five cases (41.7%), and did not pinch the child's skin on the abdomen in 37.5% of cases.



Diarrhoea



ARI



Measles



Malnutrition



IMCI guidelines further state that every sick child should have its nutritional and immunisation status assessed during the consultation. The results of observations on whether the nurses followed the guidelines on these assessments is shown in figure 47 below. These show that whilst a high percent of the nurses did ask for the child's card (or the mother presented the card), in only one in five cases did the nurse explain the growth curve on the card to the mother, or give the mother advice on nutrition related to the growth curve. In only 9.4% cases did the nurse follow all the eight steps as shown in figure 47, on assessment of nutritional and immunisation status in sick children.



Out of all children with diarrhoea that were treated by a nurse, in just over 60% of cases the nurse gave the mother instructions on how to prepare ORS using sugar, salt and water, at home. Amongst those given commercially prepared ORS sachets, one in four of the mothers was not told how to prepare the solution using the sachet. In less than 40% of cases, the mother was shown how to administer ORS to the sick child; only 5% of mothers were told to return if the child started passing stools with blood; and in less than 20% of cases the mother was told to return if dehydration danger signs appeared.

These observations have provided useful baseline information against which progress in the implementation of IMCI guidelines in the Province can be measured. It must be kept in mind that the "poor" performance of staff in following IMCI guidelines is due to the fact that IMCI training in the Province is only just starting, with very few clinic staff having been trained.

Realising that it would be some time for these 11 day courses to reach all staff in all clinics, an interim mechanism has been introduced. Five self-learning booklets on "Priorities in Child Health" have been published and distributed. These deal with comprehensive management of the sick infant and young child.



#### **Diarrhoea in Children**

The 1996 Census found alarming levels of access to safe drinking water, with less than 20% of households in most of former Transkei having such access (figure 48). Thus, it is not surprising that diarrhoea is a frequent cause of morbidity and likely the first cause of mortality among children in the Eastern Cape Province. Incidence is highest during the rainy months of December to February, and lowest around August to October (figure 49).



Source : StatsSA





Approximately 12.7% of children under age 5 years were reported to have experienced diarrhoea in the two weeks prior to the SADHS in 1998. This implies nearly three episodes per child per year, and the incidence is similar to the national average of 13.2% of children. On the other hand, the DHIS data shows that only about 20% of children seek treatment for diarrhoea each year, implying treatment for only one of every 10-15 episodes. Thus, most are treated at home. As expected, diarrhoea incidence in the last two weeks prior to the SADHS was highest in Regions B, D and E - regions that were all part of the former homelands (figure 50). The use of ORS or home solution was similar to that found in the clinic survey record reviews, at about 3 of 5 cases, with the remarkable exception of Region C where oral rehydration therapy (ORT) use was nearly 90%. Diarrhoea prevalence was higher in rural areas, but adequate treatment was also higher. In general, except for children of women with no education, children of mothers with more education were less likely to have diarrhoea and more likely to receive some form of ORT if they had diarrhoea.





In 2000, a total of 783 records of children with uncomplicated diarrhoea were reviewed. Eighty-two percent of these records reflected that the children had been treated correctly using ORS only, as recommended in the standard treatment guidelines. ORS sachets were available in 96% of clinics surveyed, and nurses' knowledge of the treatment of paediatric diarrhoea and instructions for preparation of ORS at home, was found to be high (figure 51). These results confirm the findings of the baseline and 1999 follow-up surveys conducted in the same clinics - that considerable improvement has occurred in quality of care as evidenced by the correct treatment of diarrhoea. Knowledge of correct treatment of diarrhoea and the formula for preparation of diarrhoea using home ingredients such as water, salt and sugar amongst nurses, is above 90%.



Although in 1998 ORS availability in clinics was high (89%), and knowledge of its use and of the formula for home preparation of ORS well over 90%, correct diarrhoea treatment was provided to only 41% of the children presenting diarrhoea in 1998. This increased to 82% in 2000. This is an example of the impact of training and supervision that is closing the gap between knowledge and practice, thus improving the quality of care. Two reasons can be cited for the problem of nurses not giving ORS only for uncomplicated diarrhoea. Firstly, despite the knowledge nurses had acquired, many continued to use previous practices of giving other unnecessary medication. However, this is decreasing. Secondly, nurses are often under pressure from parents of children with diarrhoea, who insist on other medications for treatment of diarrhoea. Nurses are now more confident of the correct treatment and can reassure patients.



It should be noted that with only one third of children ever presenting to clinics for treatment of diarrhoea, it appears a far greater number of cases are being treated at home (figure 52). This finding underscores the importance of home treatment.

Of the children who did receive treatment from someone outside the home, the majority received it at a clinic (33%), whereas only 1% received it from a traditional healer. Thirty-one percent received "no treatment", but many of them perhaps now receive home treatment.





#### **Immunisation Against Major Childhood Diseases**

The basic childhood immunisations include one Bacillus Calmette-Guerin (BCG) vaccination against tuberculosis; three doses of the diphtheria, pertussis and tetanus (DPT) vaccine; three doses of polio vaccine; three doses of hepatitis B vaccine (HBV) and a measles vaccine. The national schedule now includes Haemophilus influenzae B (HiB) vaccine as well.

Immunisation coverage for children born between 1993 and 1999 was collected in the SADHS either by presentation of a vaccination card or responses provided by mothers (figure 53). Fifty-three percent of children aged 12 to 24 months have been fully vaccinated against the basic childhood illnesses. The proportion of fully vaccinated children is almost twice as high in Region A (64.6%) compared to Region E (36.5%). The proportions are also higher among children of more educated mothers, those living in urban areas, and in the higher income quartiles. Overall, 96% of children have received the BCG vaccination, 68% have received DPT3, 61% have received polio 3, and 75% have received measles vaccination. The SADHS did not collect data on HBV.





The DHIS monthly reports of 1999 show that 62% of children under one year of age were immunised against measles. The highest percentage was in Region B with 98%, decreasing to a low of 37.4% in Region E. A total of 1,355 clinic child immunisation records were reviewed in 1997, revealing that 57% of children received their measles vaccination by the age of 12 months. The 1999 survey shows 72.6% of children were immunised against measles, yet only 46.1% of these children were fully immunised, based on a review of 1,508 records. These results compare favourably with the findings of the 1998 SADHS and the DHIS, which found 75% of children immunised against measles and 52.6% fully immunised. Based on record reviews, findings from the 2000 facility survey indicate that 77% of children were immunised against measles, and 69% were fully immunised. The DHIS for the same year reported 71% for measles and 68.4% fully immunised.

What is particularly striking regarding the immunisation data gathered to date is the similarity of coverage estimates that have been provided from the clinic survey immunisation record reviews, the SADHS community data and the DHIS data; which identifies the number of immunisations provided against the estimated population figures. These three independent data collection methods have resulted in a fairly consistent picture of immunisation coverage in the Province.

These results also show that the measles vaccination is not a good proxy for fully immunised children in the Eastern Cape Province. Many children receive measles yet have not completed the required schedule of earlier shots; most likely due to stock-outs of various vaccines throughout the year. Obviously, the Province has still a lot of work to do to achieve an 85% level for fully immunised children. During 2000, the BCG immunisation has been changed from percutaneous to intradermal in line with the WHO suggested policy.

Baby receiving polio drops,

being weighed,

#### Nutrition

A household survey was conducted by the UWC in Mount Frere health district to assess the nutritional status of 1,646 children aged 0-6 years in villages served by 12 randomly selected clinics. The survey revealed that 11% of children were underweight for age and 3% were wasted, meaning that they were visibly very thin as a result of their body fat and muscle tissue digested and used for energy, due to insufficient food-intake. Children of unemployed mothers had 3 times the level of wasting, but only 9% were underweight for age. Among children of mothers who had less than standard 3 level of education, 17% were underweight for age. When the main caregiver was the father or siblings, 18% and 26% of children respectively were underweight. Households that did not grow mealies (maize) had a higher proportion of children who were underweight compared to those who grew mealies: 10% versus 5%. Among 85% of children who possessed a Road to Health card, 3% were wasted, and 10% were underweight - virtually the same as those without cards, suggesting no obvious benefit from the growth monitoring activities. This study provided important information about the factors associated with young child nutritional status in rural South Africa and suggests directions for planning and targeting community-based nutrition programs.

Virtually all clinics in the Province weigh children routinely. This is an essential component of growth monitoring and nutrition services to identify children in need of additional nutrition.

The DHIS reports that 5.1% of children weighed in any month of 1999 were faltering in growth (figure 54). This is an important finding, as lack of weight gain is a dynamic measure of when nutritional intervention is required. While the figure of 5.1% indicates that the majority of children in the Province are gaining weight as expected, it implies that 1 in 20 children at any given time needs attention in order to avoid becoming malnourished. The figure for children not gaining weight decreased to 3.1% in 2000. While this may represent an improvement, it is more likely a reflection of better data.





Severe malnutrition, defined as marasmus, kwashiorkor or weight below 60% of expected weight for age, continues to be seen throughout the Province. With some 350 new cases per month, spread across the entire Province, it is an important cause for hospitalisation and mortality of young children. The incidence seems to be rising and an increasing proportion respond poorly to feeding and standardised care for Protein Energy Malnutrition (PEM); many dying in hospital in spite of therapy. Many of these are thought to be childhood Acquired Immune Deficiency Syndrome (AIDS), though few are confirmed by laboratory tests.

The clinic-based PEM feeding scheme varies considerably throughout the Province and the number of beneficiaries is over ten times the number of cases of severe PEM diagnosed, as shown in figure 55. There is also a poor correlation between number of cases and numbers being fed under the scheme, suggesting a need for more standardised admission and exit criteria and better monitoring of the use of food in this relatively costly intervention.

In Region C the number of children not gaining weight or severely malnourished is high, and this is presumably the justification for the large number receiving food supplements.





### Evaluating the Clinical Management of Severely Malnourished Children in the Mount Frere District

A 1999 study of admitted paediatric cases of severe malnutrition in Mt Frere hospitals showed that the highest number of admissions occurred during February (17%) and March (16%). Three-quarters of cases had a clinical diagnosis of kwashiorkor. The case fatality rates (CFR) at Sipetu and Mary Theresa hospitals were 28% and 50% respectively. Although weighing was supposed to be done daily, of the 81 records reviewed, only 66 had a weight recorded on admission, 33 had the lowest weight recorded, 45 had a final weight recorded, and only 39 cases had all three weights recorded. Of these, 11 lost weight and died. For the remaining 28 cases the average weight gain was very low (2g/kg/day). The average stay was 15.4 days (range 1-60). Of the 25 deaths, 13 (52%) occurred within three days of admission.

As a result of this review staff were able to recognise that many children were dying in the middle of the night long after their last feeding. More rigorous round-the-clock nursing care with particular attention to feeding three hourly, keeping children warm and early treatment of infections, led to a progressive fall in mortality. Over the past year case fatality rates in these two hospitals have fallen from 28% to 17.5%, and from 50% to 37% respectively.



#### **Breastfeeding**

The SADHS found one in four (25%) of children under age 5 years had been breastfed for between 6 to 12 months. Just over 30% had been breastfed from birth up until they were 6 months old. One in four children

(26.5%) were breastfed for 12 to 24 months of age and about 10% had never been breastfed at all. Sadly, exclusive breastfeeding was rare, occurring in fewer than 10% of infants up to age 3 months. Breastfeeding was more common in Region E, with 79% of children under 12 months being breastfed. The figures for the other regions ranged from 59% in Region A to 73% in Region C.

The Province has urged all hospitals to become certified "Baby Friendly", following international standards. In the nutrition module of the management training course, several districts developed programs to increase "Baby Friendly" hospitals and clinics.

By the end of 2000, 6 hospitals had passed international inspection and been awarded the title "Baby Friendly Hospital Initiative" (BFHI).



Mothers' breast milk the best food possible for all babies from birth until aged four to six months old.

#### **10 Steps To Successful Breastfeeding**

- 1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
- 2. Train all health care staff in skills necessary to implement this policy.
- 3. Inform all pregnant women about the benefits and management of breastfeeding.
- 4. Help mothers initiate breastfeeding within half-an-hour of birth.
- 5. Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants.
- 6. Give newborn infants no food or drink other than breast milk, unless medically instructed.
- 7. Practice rooming in allow mothers and infants to remain together 24 hours a day.
- 8. Encourage breastfeeding on demand.
- 9. Give no artificial teats or dummies to breastfeeding infants.
- 10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or health facility.



#### **Family Planning**

The SADHS found that total fertility rates are nearly three times higher and contraceptive use two-thirds lower in Region E than in Region A (figure 56). The total fertility rates were calculated for the three-year period prior to the survey and represents the number of children a woman would have by the end of her reproductive years if she were to bear children at the currently observed age-specific rates. Total fertility rate for the Province was 3.5, with Regions D and E having the highest fertility rates at 6.2 and 5.3 respectively; reflecting the low use of contraceptives, (and perhaps a lower level of female education).

The prevalence of modern contraception is approximately 60% of sexually active women, 47% of married women and 45% of all women aged 15-49. Seventy-two percent of sexually active women in urban areas and 45.9% rural women use some method of modern contraception. Contraceptive use varies by region, race, education, income and marital status. Among sexually active women, use of modern contraceptive methods is as high as 71% in health Region A, but only one-fourth that in Region E. Use of modern contraception is lower among black women relative to other racial groups, among less educated women, in rural areas, and in lower income groups.





Amongst girls aged 15 to 19 years who had ever used some form of modern contraceptive, the mother played a key role as the source of information on contraception. Forty-three percent of girls in this category reported having been informed by their mothers about contraception, followed by nurses (20.6%), and friends (15.6%). Eighteen percent of girls aged 15 to 19 years have been pregnant and 15% are mothers. Region E has the highest percent of teenagers who have been pregnant (23.7%) followed by Regions B and D (19%). The percentage for Region A is 12.5% and Region C is 9.9%.

Among sexually active women who use any type of contraceptive method, the use of condoms as the principal method is low (figure 57). Only 2.3% of women reported using condoms, an equivalent of only 16 women out of the 712 sexually active women using contraception in the sample. The principal forms of contraception are first injectable contraceptives, followed by female sterilisation oral pills.





The government is the principal provider of contraception, providing over 90% of modern methods, according to the SADHS. The private medical sector, while providing only 6.8% of modern contraception, provides over 44% of intra uterine devices. The government provides 85% of pills and 97% of injections.

Calculations from the monthly PHC data (1998-2000) provided by the DHIS shows that about 27-30% of women of child bearing age (14 to 45 years) are fully protected against pregnancy for one year. The protection percentage ranges from 42.7% in Region A to 12.8% in Region E. Region D is the second lowest at 16.2%. This figure, referred to as "women year protection", is calculated based on the number of condoms, oral pills and injectable contraceptives issued in PHC facilities.

Based on the number of injectable contraceptives administered in clinics during 1999 (658,000 doses of Nuristerate and 966,000 of Depoprovera), about 24% of women aged 15-44 were protected. The SADHS survey found that 60.8% of sexually active women using contraceptives use injectables, or 27.4% of all women aged 15-44 years. This correlates well with the estimate that government provides over 90% of modern contraceptives. Indeed, when one takes into account the services provided by hospitals, where injectables are also issued from the medical depots, the estimated protection in 1999 comes to 28% of women, remarkably the same as calculated from the SADHS.



Public health facilities are the main providers of contraceptives, providing over 90% of modern methods to sexually active women.



#### **Antenatal Care**

The DHIS found that the average number of ANC visits for each ANC client in 1999 was 3.7, up from 2.1 the previous year (figure 58). All regions of the Province, according to the DHIS had reported an increase. However, in 2000 the provincial figure fell slightly to 3.5. Regions A and C had consistently the greatest number of average attendees.



During the 1999 facility survey, 1,432 records of women who had delivered or were in their last trimester of pregnancy, were reviewed to determine whether they made at least three antenatal clinic visits prior to delivery. Fifty-eight percent of the women made the recommended three ANC visits (figure 59). The figure for 1997 was 65%.

SADHS figures for the average number of visits per antenatal client by region: A(6.4), B(5.8), C(5.4), D (4.1), and E(4.9) - were higher than those reported in the 1998 and 1999 DHIS. The average for the Province was 5.2 visits per ANC client. Black women reported 4.9 visits, while coloured and white women reported 9.5 visits during each pregnancy. The discrepancy between the reported number of visits (SADHS) and recorded visits in clinics (DHIS) is accounted for by the large number of antenatal services provided by hospitals, which are not yet captured by the DHIS.





#### **Tetanus Toxoid**

SADHS findings report that approximately 57% of women received a tetanus toxoid injection during their last pregnancy. Unusually, the percentage was lower for RegionA (49.7%) than all other regions including Region E (58.8%). Similarly, women in the highest income quartile (45.2%) and the highest level of education (38.8%) actually reported a lesser likelihood of receiving a tetanus toxoid vaccination than women in the lowest income quartile (57.4%) and those with no education (46.7%), though the latter group of women may have been more likely to have received lifetime protection through vaccinations during previous pregnancies.

The DHIS found that the coverage of pregnant women against tetanus increased from 60.6% of expected deliveries in 1998 to 72.7% the following year. It is interesting to note that the SADHS and DHIS tetanus coverage statistics are similar.



#### **Essential Tests**

Based on findings from the 2000 survey, less than one out of every three clinics (30%) are able to conduct a pregnancy test and have pregnancy test kits, and 49% of clinics take specimens for cervical cancer screening (Pap smear). This figure for cervical cancer screening is lower than the national average of 52.4% clinics. The survey also found that the Province had fewer clinics taking blood from pregnant women for syphilis testing than the national average (65%, compared to 75% nationally). These recent findings are no different from those of the 1999 survey, shown in figure 60, which very clearly illustrated the inequalities within the Province with regard to access to these essential tests for women. In Regions D and E the real problem lies with difficulty in getting blood to the few laboratories which do the Rapid Plasma Reaction (RPR) tests for syphilis.



#### **Assistance at Delivery**

According to the SADHS, less than one in ten deliveries amongst rural women were assisted by a doctor as compared to 37% of urban deliveries. Nurses or trained midwives assisted deliveries in 57% of both urban and rural cases. There is no accurate data on the number of home deliveries per region.





Use of a doctor for prenatal care and delivery assistance was positively associated with income and education, while use of a nurse or midwife for either, was negatively associated with income and education. Use of a doctor for prenatal care and delivery assistance was highest in Region A- over 40% of women - but only 10% of women in Region E used a doctor for delivery (figure 61). Over 97% of white mothers reported using a doctor for delivery assistance, as compared to only 13% of black Africans.

#### **Termination of Pregnancy**

With the promulgation of the Choice of Termination of Pregnancy Act in February 1997, giving women the choice to terminate unwanted pregnancies, the Department of Health identified 7 hospitals in the Eastern Cape Province which were provided with equipment and given the mandate to conduct this service. Over the ensuing 3 years, some 8,000 of pregnancies were terminated and as of 2001, 14 hospitals in the Province were equipped with staff trained to perform this service. During the first 3 years through 1999 the termination of pregnancy (TOP) rate for the Province was estimated at 2.1 terminations per 1,000 women per year, in comparison to an estimated 2.5 terminations per 1,000 women for all of South Africa. About 2% of all pregnancies in the Eastern Cape Province are now being terminated through this service. The age groups undergoing TOP are shown in figure 62. These correspond closely with the age groups of normal pregnancies appearing for ANC, as obtained from the annual ANC survey shown in the same figure. Thus, no particular age group is over represented and, in contrast to what many feared, young women under the age of 18 represent less than 9% of TOPs and a similar percentage of pregnancies. More than half (55%) of the terminations belong to women with one or no previous pregnancies.





Fewer than 10% of TOP users had more than 3 previous pregnancies. Some 26% of terminations were performed after 12 weeks of gestation, a situation that will have to be improved, by informing women earlier and insisting that they seek intervention during the first trimester.



Twelve percent of women undergoing TOP were married, in contrast to 32% of women in the Province who are married according to the Eastern Cape 1996 Census (figures 63). Conversely, over 88% of TOP users were single, drawn from the 68% of women in the Province who are single. Fully 96% of women gave "social or economic circumstances" as the reason for seeking to terminate pregnancy. Thus, the service is used predominantly by single women having their first or, at most, second pregnancy who feel socially or economically unable or unwilling to give birth to the child. There is no evidence of a preponderance of adolescents using the service and although data were not collected on contraceptive practices, it is possible that a proportion of these were contraceptive failures.

At present with fewer than 2% of the estimated 180,000 pregnancies per year in the Province terminated in these approved facilities, the service has leveled off and there is little or no evidence to suggest that TOP is being misused as a means of contraception or by an inappropriate or uninformed sector of the society.



The HIV status of the women seeking TOP services is usually not known. "Backstreet" terminations of pregnancy in HIV positive women can be extremely dangerous. This new hazard emphasizes the need for accessible, friendly family planning services including emergency contraception.



#### **Some Recommendations**

- A coordinated training strategy to improve the treatment of childhood illnesses, based on IMCI guidelines, needs to be implemented and fast-tracked;
- More work needs to be done in educating mothers on the benefits of breastfeeding, and on the use of home prepared ORS for infants and children with diarrhoea;
- **`** In order to avert cholera, and other water-related, epidemics, the plight of communities in Regions D and E, where access to safe water is far below acceptable standards, must be urgently redressed.

# HIV/AIDS, STIs and TB

#### **Key Findings**

- **HIV** prevalence continues to rise and reached 20.2% in 2000, but has fallen in the 15 19 years age group, a very hopeful sign;
- The most recent clinic survey in 2000 found that 44% of clinics take blood for HIV testing with an average turnaround time of 8 days (but up to a maximum of a month for some clinics);
  - Syphilis prevalence has decreased amongst ANC attenders tested, from 10.7% in 1997 to 3.3% in 2000, a success for STI management;
  - Although condoms are known and widely available, with 85% of clinics providing them freely in 2000, their use remains extremely low at fewer than 10 condoms dispensed per woman per year;
  - In 1999 the average turnaround time for TB sputum tests ranged from 6.4 days in Region A to a maximum of 30 days in Region E mainly due to poor transport in the former homelands;
    - TB is highly prevalent across the Province, but case finding and treatment is far higher in Region A. TB outcomes with 60% completing treatment, fall far short of the desired 85% cure rate.

Every year, AIDS makes new inroads. South Africa, relatively untouched only a decade ago, now has amongst the fastest growing epidemics in the world. In the Eastern Cape Province, HIV prevalence continues to increase, despite the country's less accelerated rate of increase over the last two years (figure 64).





At the end of the year 2000, 20.2% of women of child bearing age in the Province were estimated to be infected with the AIDS virus. The Provinces of KwaZulu-Natal, Mpumalanga, Free State, Gauteng and North West had the highest prevalence rates, with more than one out of every four adults infected; while the Northern Province, Northern Cape and Western Cape had the lowest prevalence rates of between 7 and 11%.

Although generally rural areas have lower prevalence rates than urban areas, the rural north-eastern magisterial districts of the Eastern Cape Province, bordering KwaZulu-Natal, have amongst the highest infection rates, estimated at over 25% (figure 65). Similar rates amongst the adult population were recorded in the more urban areas of Umtata, Mdantsane outside East London, and the Port Elizabeth metropolis. Prevalence rates are highest amongst the economically active population between the ages of 20 and 35 years, with rates of above 20%.

These statistics do not adequately convey the magnitude of the HIV/AIDS crisis facing communities and the health care system. The majority of beds (60% to 80%) in some hospitals are occupied by HIV/AIDS patients, both adults and children. Paediatricians estimate that over half the children with severe Protien Energy Malnutrition (PEM) have AIDS and therefore do not improve even with feeding. The recent review of maternal deaths identified that AIDS is the most common cause of maternal deaths at all levels of care in SouthAfrica.



HIV counselling and testing has been promoted as a strategy for prevention and for providing psychological support, especially to infected individuals. Research supported by the WHO, United Nations Aids Programme (UNAIDS) and other institutions has shown that voluntary counselling and testing can help reduce HIV risk behaviour. In one study, people who had been counselled and tested were found to have less unprotected intercourse outside their primary partnerships than people who had only received health information.

The 1999 clinic survey shows that counselling for HIV is available five days a week in 88% of clinics in the Province, ranging from between 81.3% to 93.8% across the regions. However, testing for HIV is disturbingly low, with less than half of clinics surveyed providing testing and as low as only 12.5% and 6.3% of clinics in Regions D and E, respectively, taking blood specimens for HIV testing. The most recent facility survey in 2000 found that 44% of clinics in the Province take blood for HIV testing (figure 66), with an average turn-around time of 8 days; but some clinics reporting up to a month to receive test results. The figures for the country are 56.2% and 6 days for HIV testing and turn-around time, respectively.



For countries with high rates of HIV infection, an important control strategy is to convince younger adults to abstain or delay sex. In the Eastern Cape Province, amongst adolescent women aged 15 to 19 years, 56% reported having ever had sex according to the SADHS. The percentage was slightly lower in Region E, but no difference was noted between adolescent women in urban and rural areas.

While the actual number of sexual partners may be underestimated through self-reporting, only 3.5% of adolescents reported having two or more sex partners in the past year. Just under half of young women reported that they did not have sex in the past year. Most women reported that their most recent sex was with a regular partner (78%), while only 9% reported that their last sex was with a marital partner. Only 7% of women reported that their most recent sex was with a casual acquaintance or someone they had just met, although it might be expected that women would be reluctant to report such information.

Knowledge of AIDS is nearly universal but differences exist in knowledge of ways to avoid AIDS (figure 67). Only 78% of adolescents in Region E knew correct ways to avoid AIDS compared with all (100%) adolescents in Region A. In spite of this relatively high knowledge, use of condoms reported by these same women was remarkably low, at just under 10% for the last sexual exposure.



In a study of youths living in a rural area of the Eastern Cape Province (the Amatola basin between Alice and Hogsback in the former Ciskei area, Region C), thirty of 84 boys and girls had had sexual intercourse before the age of 12 years. The average age of first sexual intercourse was 14.8 years for boys and 15.9 years for girls. In 17% of girls the partner was 5 or more years older. Girls of 11 years were having sex with men aged 19 years or more - statutory rape in South Africa. This study also showed a gap between girls who had ever had sex and those who had sex during the last year, indicating secondary abstinence. Several other studies of youth in secondary schools in the Province have all indicated good knowledge (with some persisting myths however) but poor use of prevenattive measures such as using a condom, reducing numbers of new partners, or abstinence and delay in sexual debut.





Colourful condom dispensers popularly known as "condocans" dramatically increased distribution and access to condoms in PHC facilities in the Eastern Cape Province during the past years. The ECDOH purchased over a thousand condocans and condom demonstration models and distributed them to all health facilities. As a result, access to condoms in clinics, without users having to ask for them from clinic staff, increased from 27% to 76% between 1997 and 1999 (figure 69). By the year 2000, condoms were available in the consultation rooms of 85% of clinics surveyed, confirming increased access to condoms for the sexually active population. During 2000, PHC clinics reported issuing just over 10 million condoms to clients, an average of 6.5 per women aged 15-45 years or nearly twice that number per sexually active women. This number, even if properly used, is hardly adequate to protect many women throughout the year.



In the 1999 survey, the interviewers assessed whether there was privacy in the area where condoms were placed. Results indicate that only 41% of clinics with condoms provide them in a private setting. This statistic must be read in the light of the fact that some clinics have only one room, so privacy is extremely difficult to be provided in many clinic settings. Hence, the low uptake on HIV counselling and other private matters.

The survey of household individuals (SADHS) found that 15% of sexually active women reported having ever used condoms, and only 8% had used a condom during their last sexual encounter. Married women were less likely to have ever used condoms, and condom use was highest amongst the 20 to 34 years age group. Encouragingly, of those 15% of women who had ever used condoms, 61% reported that they used them during the last sexual encounter.

Twenty-one percent of women in Region A used condoms during last sexual encounter, as compared with only 6% in Region E. Condom usage was much higher in urban areas and in higher income and education groups. Only 9.1% of urban respondents and 3.7% of rural respondents reported having used a condom during their last sexual encounter with non-spouse. This is a startling statistic in the light of the high knowledge rate reported by respondents regarding how to avoid contracting AIDS. This gap between knowledge and practice is both puzzling and alarming, and intensified efforts must be taken to achieve practice patterns consistent with the knowledge people have regarding protection against HIV infection.

Principal reasons identified among sexually active women for not using a condom in the most recent sexual encounter as shown in (figure 70) were the partner disliked condom use (27%), respondent disliked (21%), unfamiliarity with condom (14%), didn't have condom (10%), wanted children (5%), and perceived low risk of STI (5%). These reasons identified are useful in highlighting areas for intensified efforts, as they indicate the areas where increased awareness is still required. More recent community surveys in both urban and rural settings of the Eastern Cape Province have indicated a growing willingness, especially among women, to use condoms.





Thirty percent of urban respondents and 33.8% of rural respondents know that an apparently healthy person can be infected with AIDS. Twenty-four percent of urban respondents said they knew someone with AIDS, as compared with 11.6% of rural respondents. (Interestingly, the direct knowledge of someone with AIDS seems to have been a defining characteristic of the behavioural change in Uganda that has led to the decline in the epidemic there).

The SADHS revealed useful information regarding how respondents acquire their knowledge regarding AIDS (figure 71). Television was the most widely cited source of information for both urban (87.2%) and rural (76.5%) respondents. Radio was the second source for urban residents (85%) but was cited by only 39% of rural respondents. Newspaper was the second most utilised source of information for rural residents (69.8%).

In 1997, the EQUITY Project supported a radio talk show with Radio CKI, a local station with a listenership of just over 300,000. The talk show was developed to create awareness on responsible teenage sexuality amongst adolescents and young adults between the ages of 15 and 25 years. The success of the program was confirmed by call-ins and a field survey. The following year Radio Umhlobo Wenene, a Xhosa station with a listenership in excess of 3 million covering the whole country, was selected to beam practical messages and dialogue in the fight against AIDS to millions of youth. The impact of this radio program in contributing to the increase in knowledge about HIV/AIDS will be evaluated in the planned household survey in 2001/2002.



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Figure 71 : Source of Knowledge About AIDS - 1998

## UBOMI

Since 1998 the EQUITY Project has supported dissemination of a Xhosa language newspaper/ magazine illustrated with extensive photographs and stories about and by people living with AIDS in the Eastern Cape Province.

To measure the usefulness of this publication, 200 respondents from rural and urban areas were asked to complete a questionnaire of knowledge and attitudes and then, at 3 day intervals, to read the first 5 issues of Ubomi and retake the same test. Knowledge of HIV, its spread and prevention was remarkably high at the baseline with most questions answered correctly by 85-95% respondents. While the majority improved their test scores from between 5-55%, the overall impact on knowledge was hard to measure in view of the high level already existing in the population.





Respondents were almost unanimous in saying they learned useful information from the magazine, one-third even saying the information was new to them. Only 10% found the information not useful and more than 85% claimed to have changed their behaviour as a result of what they read in the magazine. All categories of respondents, adults, students, teachers and nurses felt the publication was highly relevant, useful and should be widely read.

As a result, the EQUITY Project is providing copies of Ubomi to all 6,000 schools in the Province along with guides to teachers on how to integrate Ubomi stories and messages into school curriculum at both the primary and secondary level.



#### **Sexually Transmitted Infections**

There is sound evidence that a person with an untreated sexually transmitted disease is many times more likely to pass on or acquire HIV during sex. According to current medical opinion, the risk of becoming HIV infected from a single exposure is increased 10 to 300 fold in the presence of a genital ulcer and other active lesions of the genital tract. In light of the evidence that STIs facilitate HIV transmission, attention has been focused on STI prevention and care as a means of HIV prevention.

During the last decade, the prevalence rate of serological positive syphilis amongst antenatal care attenders in the Province has increased steadily from about 7% in 1992, reaching a peak at just over 10% in 1997 (figure 72). Since then there has been a significant decrease, declining to 3.3% of antenatal clients in 2000. This decline is remarkable in the face of rising HIV prevalence in the same population over the same time. This may reflect intensive educational efforts, as well as improved STI treatment.





In 1999, over 118,000 men were treated for urethral discharge in provincial clinics, yet surveys indicate that most men use private sector health services for anonymity (estimates of 150,000 for painful urination). These two figures combined, suggest that while many men with STIs are receiving treatment, the majority are not. The DHIS reports that 2.6% of males aged 14 to 45 years were treated for urethral discharge during the year 1998, (figure 73).



In comparison the SADHS survey in the same year found 5 times that number complained of recent STI symptoms. Fifteen percent of men aged 15 years and older reported having had recent symptoms of sexually transmitted disease in 1998. Region C had the highest percentage, with almost one in five men (19%) reporting a recent STI symptom, while Region E had the lowest percentage at 8.4%. The other regions were between 11.3% and 16.3%.

Clinic provision of STI service five days a week has remained high in almost all clinics, with the lowest percentage of clinics providing this service in Region B (81%). A total of 196,803 contact slips were issued to STI clients to give to their partners encouraging them to come to the clinics for treatment. Out of these, 55.6% of partners presented to the clinic were treated. Data for the years 1998 to 2000 indicate that there has been little improvement in STI contact tracing over this time.



Further analysis of the SADHS data shows that persons who report smoking or drinking alcohol - activities which may be associated with greater social interactions and opportunities for sex partners - are more likely to report symptoms of an STI (figure 74).

During the three surveys in 1998, 1999 and 2000, nurses were asked the correct treatment for urethral discharge and penile ulcers. Correct knowledge was recorded by 83%, 96% and 87% of nurses for each of the years respectively. Figure 75 shows that there has been a steady increase in the availability of drugs for STIs. Availability of two indicator drugs for treating STIs, ciprofloxacin and benzanthine penicillin, increased from 55% clinics in 1997 to 91% in 2000, with none of the regions recording below 70% of clinics with these two drugs. The positive impact of increased levels of knowledge and drugs is reflected in the increased appropriate treatment of male STIs, according to standard treatment guidelines, which increased significantly from 54% in 1997 to 82% in 2000. All regions have over 90% of clinics treating at least one STI case by syndromic management. As is the case with childhood diarrhoea, the improved management of STIs by recommended protocols is clear evidence of the impact of training on quality of care. This may well explain the declining rate of syphilis serology in ANC women reported earlier in this chapter.


#### **Tuberculosis**

SADHS findings report that 5.8% of men and 4.3% of women in the Eastern Cape have had TB. Of those, 22% reported that they had been diagnosed within the past year. This implies a total of 35,000-40,000 cases annually province-wide. Self-reporting of TB was higher in Regions D and E, among black Africans, and in the lower income groups. Paradoxically, TB patients under treatment are far more numerous in Region A.

According to the DHIS in the Eastern Cape Province, an average of 15,012 patients received treatment for TB each month during the year 1999. Over 50% of these patients (7,797) were from Region A, 2,884 patients were from Region C, and between 1,020 and 1,600 were from the other three regions. The total for the year was 30,024 patients, while the quarterly TB reporting system recorded 35,000, (the difference is probably due to those treated in hospital and privately who are not captured by DHIS monthly reporting system). While both monthly DHIS and quarterly TB reports indicate over 30,000 new TB cases per year diagnosed in the Province, the notification system captures only 17-18,000 of these. This provides further evidence that including TB on the notification system is not only burdensome in terms of excessive paper work, but also extremely unreliable and redundant. TB treatment prevalence for the year 2000, by region, is shown in figure 76.



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Out of every 100,000 adults, 397 received TB treatment, a decrease from 429 per 100,000 population in 1998. This is one of the highest reported population prevalences in the world. The prevalence of treatment varies widely by district from under 100 to over 700 per 100,000 population. This reflects more the intensity of TB case finding and the effort at case retention than disease incidence, as can be seen in the graph of sputum examination done on a percentage of adult clinic visits. Those districts that do not screen many cases for TB, do not find many!

Ninety-two percent of clinics surveyed in 2000 were offering TB services five days a week, authenticating the comparison between the baseline and 1999 survey analysis showing a constant, though perhaps slight increase, in the provision of TB services to 89% in 1999, from 87% in the 1997 baseline survey. The 2000 Facility Survey found that 78% of clinics in the Province take sputum for TB tests (figure 77), which shows an increase from the 70% clinics in 1999 and the 1997 baseline figure of 59% clinics. Many of the clinics in Regions D and E send the patients to hospital for assessment and initial treatment of suspected TB, as collection and sending of sputum is not yet reliable. Based on the 1999 survey results, the turn around time for the results of TB sputum ranges dramatically, from 6.4 days to a maximum of 30 days due to poor transport infrastructure to carry laboratory specimens especially in Regions D and E. These findings are confirmed and remain unchanged in the year 2000, showing once again the gross inequities amongst the five regions of the Province.





The recent 2000 survey of clinics in Regions D and E found that the combination drug for treating tuberculosis, RIFAFOUR (composed of rifampicin, pyrazinamide, isoniazide, and ethambutol) was available in 70% of clinics (figure 78). Although these findings are from a survey of a different sample of clinics, they do confirm the findings of the 1997 and 1999 surveys of the same sample, indicating modest improvements in TB drug availability. The 1999 survey shows that 76% of clinics surveyed have all four drugs available for treating TB, an increase from 67% in 1997. The 25% shortfall is, however, a continuing source of concern.



101



In 1999, a total of 1,001 records of TB patients registered for treatment during the last 18 months were reviewed. Sixty percent of the patients completed the six month treatment necessary to be cured, an increase from 49% in 1997 (figure 79). The DHIS in the same period reported 68% completed treatment and 50% cured (completed treatment and had a negative sputum test to verify cure). Unfortunately, treatment interruption, treatment failure and death claimed another 22%, 2% and 7%, respectively, according to DHIS data, leaving the program far from the desired level of 85% cure rate.



In 2000, record reviews of 588 patient records showed 60% completion (figure 80), no improvement over the previous year. Fully 25% interrupted or outcome could not be determined.



Direct Observation Treatment Short course (DOTS), is the key strategy in the fight against TB, which utilizes people in the community to assist in the direct observation of patients taking their TB medication. This network support of to the TB patient in his or her community has been shown to be effective in encouraging patients to complete their TB treatment. Sixty-three percent of surveyed clinics in the Eastern Cape Province report having TB patients receiving treatment in their community through the DOTS program. The DOTS intervention is discussed in more detail in the next chapter on community participation.

#### Some Recommendations

- HIV testing capacity needs to be extended to all health facilities in the Province;
- **`** Efforts to convince the public men in particular to use condoms should be continued. Men also need to be motivated to use clinics for treatment of STI symptoms and encourage their partners to present at clinics for treatment;
- Far more adults need to be suspected of TB and have sputum examined to establish diagnosis;
- Better follow-up of TB patients is needed to accomplish higher treatment completion rates;
- **TB** should be removed from the notification system a move that will improve reporting of other conditions as well as reduce unnecessary paper work.

### **Community Participation**



#### **Key Findings**

- As of 1999, 86% of clinics had catchment area maps on their walls, signifying an understanding of the communities they serve;
- Seventy-five percent of clinics have functioning community health committees;



Community participation in health in the Eastern Cape Province has been strengthened through the process of political democratisation. In the government's health policies at National, Provincial, and District level, community involvement in health has been an integral part of all health plans. Structures have been created to allow for communities to be represented in the health services at community and clinic level and on hospital boards.

The health services are now encouraging placing people first - "Batho Pele" - by training of staff in both clinical and management skills to make all health workers aware of people as partners and to view the catchment populations "health problems as the services" problems. This approach has been reinforced by documents, posters, pamphlets and by the Patients' Rights Charter defining the relationship and responsibility for both patient and service provider.



*Educating patients about their rights - a responsibility for all health workers.* 

Mapping of catchment areas of clinics has been done in all regions (figure 81), involving health staff and community health committees. A document was published in January 1999 entitled "Mapping for Primary Health Care". Health facilities now have a "denominator" - comprising an estimate of the total population in the catchment area. With this figure, coverage and rates can be calculated for community services such as immunisation, ANC, FP and the prevalence or incidence of important conditions such as STIs, TB and childhood diarrhoea. The display of a map drawn on the clinic wall symbolises a change from clinic-based service delivery to community-oriented PHC.



Figure 81 : Clinics Displaying Catchment Area Maps on Walls





Supervision of PHC services includes providing a stimulus to enable clinics to work more closely with communities and for communities to work more closely with their health services. The supervisory tool has a module on community supervision. Community Health Committees are now functional in the majority of clinics in the Province (figure 82). Many of these were in existence for years but without clear guidelines on their role and functions and the way in which they relate to the services of the clinic activities were few. Now a new EQUITY Project publication -"Strengthening Community Participation in Health" provides helpful guidelines for committees and guides their interaction with health staff. Workshops have been held in most regions for committee members and clinic staff together, often with district program supervisors. Three tools were prepared: the first, a checklist for possible roles; the second, a checklist for assessing the services of the clinic; and the third, a list by life stages of possible communitybased activities for communities to undertake or foster themselves. In workshops, an area which needed most

thought and which aroused most interest was the composition and size of the committee: should all villages in the catchment area be represented, how are members elected, and should there be representatives for youth?



Tuberculosis, as one of the top priority problems affecting both health services and communities, has required community involvement to assure both case finding and treatment for the required six months of therapy. Patients often discontinue medication as soon as their acute symptoms subside, leaving them vulnerable to relapse. Therefore, efforts to oversee treatment at home have involved community volunteers to work with each patient, called DOTS. This involves both the clinic (history taking, sputum, drugs, training of community supporter, monitoring, registering, management) and the trained supporter who might be a relative, a traditional healer, a school teacher, an employer, a shopkeeper, or a community health worker. In Port Elizabeth, where the largest concentration of TB patients under treatment are found, virtually all are following DOTS. The number of TB patients now receiving treatment through community DOTS supporters is also rising in other regions with no less than 59% of clinics in any region reporting having patients on DOTS in 2000 (figure 83). Attempts have also been made to link these community health workers to income generating projects, in order to receive some incentives which will ensure sustainability.



Community health workers have also been identifying possible cases of tuberculosis and arranging for sputum examination, so case finding is improving. Tuberculosis often develops on a declining immunity level due to HIV infection and so the community health workers are now becoming increasingly involved in home-based care of chronic and terminal illnesses, including AIDS. Several home-based projects have started, such as the ones in Umzimkulu, Bizana, and Lusikisiki in partnership with the private sector, where home care volunteers are trained with a major focus on HIV/AIDS/TB.

Another structure which is being developed to allow more community involvement in the planning, operation and assessment of their health services is the hospital board. These are formed to allow for participation by communities so that they take an active part in helping to ensure that hospitals are an essential element of PHC and of the district health system. Materials for training hospital boards have been developed to enable hospital boards to make an optimal contribution to the care of patients and the health of their communities. An EQUITY Project publication entitled "Guidelines To Strengthen Community Involvement In District Hospitals And To Make Hospitals More District Friendly" was released during the first half of 2001.



#### **Some Recommendations**

Better use should be made of community committees to advance PHC; Support of community health workers is needed to make use of their proven potential to improve the health of communities.

### The Issue of Equity, Challenges; the Way Forward

#### The Issue of Equity

Despite some of the improvements recorded in this report, substantial inequities still exist within the Eastern Cape Province, with the Province still rated amongst the least developed in terms of infrastructure, health indicators, and health financing.

Financial allocations are a good composite indicator of total resources devoted to health, and are crucial in assessing equity. The 1999/2000 per capita health budget of R435 for the Eastern Cape Province was amongst the four lowest provincial budgets, nationally; compared to R712 for the Western Cape Province and R952 for the Gauteng Province. Since 1997, there has been insignificant increase in the per capita budget, inadequate to address the backlogs as a result of neglect by the previous apartheid government. Spending on health per person (per capita health expenditure) decreased from R545 to R520 between the 1996/97 and 1998/99 financial years, whilst the average for South Africa increased from R670 to R710 for the same periods. With the exception of Region A in 1996/97, the difference in health expenditure per capita, relative to the South African average, has widened during the years 1996 to 1999, as shown in figure 84. Of perhaps greater concern is the continued inequity of resource allocations within the Eastern Cape Province itself. The disparity between regions is great, - a fact that might have been more aggressively addressed within the Province.







Towards the end of 1999, HST published the "Equity Gauge Report", identifying a number of indicators to highlight the status of health and health care in South Africa. The Eastern Cape Province was ranked worst of all nine provinces (figure 85).



A year later, StatsSA published the "Measuring Poverty in South Africa" report. The report describes how two indices - the household infrastructure index and the household circumstances index - were constructed to measure the extent of underdevelopment in different parts of South Africa, using data from the Census '96 and calculated variables. The household infrastructure index, which points to meeting the basic needs, showed that the Eastern Cape Province was the province needing the most infrastructural development such as clean water, sanitation and electrification. The second index, the circumstances index, related to empowerment, again showed that the Province most in need of improvement of life circumstances, such as employment creation and family planning, was the Eastern Cape Province.



Within the Eastern Cape Province, the Holistic Equity Index (HEI) was developed during the year 2000 using data from the 1996 Census and the 1999 DHIS. Each magisterial district was ranked by the 10 different elements measuring quality of life as listed below :

- Access to employment
- Access to cash income

- Status of primary education completion
- Access to safe and clean water
- Access to proper toilet facilities
- Access to proper refuse disposal
- Access to electricity
- Access to telecommunication
- Access to public hospitals
- Access to public clinics



The magisterial districts with extremely low holistic equity index were all in the former Transkei, whilst those with extremely high equity index were located in regions of the former Republic of South Africa (figure 86).



Despite the disturbing position of the Eastern Cape Province and the former homelands areas in particular in terms of poverty and inequity, there have been improvements in some of the indicators developed in 1997 to measure progress towards meeting the objectives of the EQUITY Project. Table 7 on the next page shows the ten indicators that were used to construct the EQUITY Index in 1997, and updated in subsequent years.

The EQUITY Index is calculated from a series of measurements made in clinics across all regions of the Province (see baseline report). While the data collection has varied slightly over the years (2000 was done as a part of the national survey commissioned by HST, using slightly modified questions, and DHIS data was used in place of record reviews for ANC continuity (1999 and 2000) and TB completion (2000)), the overall scores calculated as the ratio of the worst to the best region reflect the disparity found in each of the indicator areas. A low ratio indicates gross disparity.

Improvements are notable in the composite indicator for the capacity of clinics to deliver PHC (1), and the indicators for the provision of integrated comprehensive PHC services as defined by nine basic PHC services offered all days of the week (2); availability of indicator drugs (4); distribution of the nursing staff workload towards the norm (7); and in the quality of care as evidenced by the treatment of uncomplicated paediatric diarrhoea using standard treatment protocol (9); and completion of TB treatment (10). Note, however, that despite these improvements, the EQUITY ratios for basic PHC services and TB treatment completion remain below 50%, a consequence of the non-provision of antenatal care weekly in facilities in Regions A and C, and TB screening, diagnosis and treatment in many clinics in Regions D and E.

While ANC continuity improved over the years in the better off regions (A and C), the average number of visits per pregnant woman in Regions D and E, decreased between 1999 and 2000. This has resulted in the decreasing EQUITY ratio for this indicator, from 84.3% in 1997 to 52% in 2000.

Transport is key to the delivery of PHC services, and the deteriorating situation in availability of transport in the former homeland regions is reflected in decreasing equity for emergency communication - from 30.1% in 1997 to a low of 14.4% in 2000 - and in monthly supervisory visits to clinics; which are now decreasing after an initial improvement during the first two years of EQUITY Project support to the department and purchase of 21 vehicles for use by the district teams.

The slow but steady rise in equity as measured by the index is surely a positive sign, but every effort is needed to accelerate this trend. An EQUITY Index of 100 is an attainable goal - nothing less should be accepted.



<sup>1</sup> Facility Capacity for PHC composite indicator for 2000 excludes catchment area mapping;

Figures in parenthesis () are drawn from the entire year DHIS data, as the record review information from many clinics was incomplete.





#### Challenges

The filling of critical posts at all levels of the ECDOH is perhaps the major challenge that the ECDOH faces. Unfilled critical and management posts impact directly on service delivery (which needs continuous supervision and monitoring) and undermines the morale of subordinate staff who need guidance and leadership.

The backlogs in the Province continue to call for attention, despite the plausible efforts of the Department in addressing them. Infrastructure, particularly in the former homeland regions, still needs upgrading and all facilities require ongoing maintenance. Many communities still do not have easy access to any health facility.

"No Transport, No Primary Health Care" is the title of a monograph/technical report published by HST in the year 2000, following an analysis of the transport system in Mount Frere Health District. Transport problems are a common feature across all districts in the Province. Inadequate transport impacts negatively on quality of care in clinics, supervision, prompt delivery of medicines in clinics, and the emergency referral of patients to higher levels of care.

An integrated approach involving other government sectors and civil society needs to be adopted, strengthened and implemented if the HIV/AIDS epidemic is to be halted from reversing the gains made by the Department and the government as a whole in improving the health of the people of the Province. The increase in HIV prevalence from 18.0% in 1999 to 20.2% in 2000 is indeed a major cause for concern, and is reflected in the rising proportions of hospital beds occupied by patients with AIDS, the increasing number of maternal deaths attributed to HIV/AIDS and the inability to curb the rising TB prevalence rate and high infant mortality rate.

The reorganisation of districts and the move of health services to local government, and the proposed separation of hospitals and PHC, pose the next series of challenges to provision of essential health services for all. Fortunately the clinics and a comprehensive package of services from well trained and dedicated staff are firmly established.

This is a good basis on which to move forward to greater equity within the Province. The Province is clear on where more resources have to be channelled.

#### The Way forward

While the data presented in this report has provided information on the status of health services and that of the health of the people of the Eastern Cape Province, there remain gaps in the understanding of the intricate relationship between program inputs and health status. Improved program inputs do not always translate immediately to improved health status of individuals. Further studies need to be done to assess the quality of care rendered in our health facilities, health-seeking behaviours, and satisfaction of the users of the health care services. Plans are also underway to conduct a household survey in the same areas as the 1998 SADHS in the Eastern Cape Province, along with a comprehensive assessment of facilities serving these household survey clusters. This will enable the linking of the two household and facility survey data sets, in order to measure the impact of program inputs on health status and health seeking behaviour, and also allow for the evaluation of specific inputs and interventions, including that of the EQUITY Project since the 1998 SADHS and the 1998 Eastern Cape Province facility audit.

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## Appendix



#### 2000 PHC Indicators for the Eastern Cape Province by Health District. \*

REGION A						
CATEGORY	INDICATOR	Albany	Graaff- Reinet	Humans- dorp	Port Elizabeth	Uiten- hage
Attendance/	Nurse workload cases/nurse/day	31.0	27.7	40.7	32.1	41.6
Utilisation	Utilisation rate visits/person /yr	3.1	3.3	2.7	3.0	3.1
year (yr)	Utilisation <5yr visits/<5yr	3.4	5.6	5.1	6.0	4.9
Tuberculosis prevalence	Suspected TB rate % of total adult patients	0.4	0.6	1.3	0.7	0.9
(prev)	TB treatment prev cases/1000 adults	2.7	3.3	7.2	5.9	7.4
Child Health	Diarrhoea inc episodes/1000 children	150.0	247.2	238.8	130.8	144.0
incidence (inc) weight rate (w/r)	Pneumonia in children <5 years % of visits < 5 years	3.3	1.6	2.5	2.8	5.6
average (avg) malnutrition	Not gaining w/r % of children weighed	3.3	2.8	3.7	1.7	2.0
(mal)	Severe m/r <5 % <5 attending clinic	0.1	0.6	0.5	0.2	1.2
malnutrition	Severe mal <5 inc/1000 0-5 years pop	0.2	1.7	1.5	0.7	3.2
rate (m/r) population (pop)	Weighing coverage avg # times/ child/year	2.4	1.9	2.1	2.1	1.8
	Chronic case load % all adult cases	22.7	17.7	16.8	7.0	24.6
Chronic Care	Diabetics prevalence/1000 adults	24.9	16.8	12.8	10.8	27.9
Childhie Cuie	Epilepsy prevalence/1000 adults	3.3	2.7	1.6	1.2	3.5
	Hypertension prevalence/1000 adults	118.3	75.2	58.4	28.7	101.8
Curative	Male ureth discharge inc/1000 men/yr	16.8	10.8	13.2	27.6	15.6
Services	STI tracing rate % of contacts treated	30.7	28.4	30.7	38.9	36.4
infection (inf) incidence (inc) urethral (ureth)	Minor aliments rate % of all visits	42.3	44.2	40.0	54.2	36.8
	Referrat to doctor % of all visits	4./	13.0	13.3	2.2	0.4
year (yr)	76 Wonting reports received	99.5	99.0	99.9	99.0	99.7
	% Fully immunised by age one	*	82.8	90.0	*	*
Immunisation	Measles coverage % of infants	*	84.1	88.1	*	*
	Immunisation dropout DPT 1-3%	12.0	4.4	10.6	7.0	12.5
Maternity	ANC cov % of exp pregnant women	135.0	93.8	88.5	76.3	86.7
and neonatal	ANC visits/client/pregnancy	3.6	4.5	6.9	5.4	5.1
services	Tetanus Tox rate % ANC clients imm	52.2	65.9	87.6	76.7	25.2
coverage (cov)	Del rate <18 years % of all deliveries	3.6	12.5	19.6	12.9	11.5
immunised	Facility del cov % expected deliveries	71.4	88.1	67.3	63.5	84.1
(imm)	Low birth weight % births	11.3	23.6	19.5	16.3	17.5
delivery (del)	Still birth rate % births	1.6	1.9	2.5	4.1	2.4
Mental Health	Mental/h case load % total adult visits	1.7	1.2	1.4	1.6	1.7
health (h) population (pop)	Psychiatric illness cases/1000 pop	5.4	3.1	3.6	5.6	6.1
	Violence women incidence cases/ 100 000 women 15-45 years	240.0	720.0	360.0	* *	120.00
Reproductive	Condom use condoms/women/year	7.4	9.9	6.1	3.3	5.9
Health	TOP ref inc women ref/15-45 years	0.0	0.1	0.1	0.1	0.1
referred (ref) incidence (inc)	Women year protection rate % women 15-45 years	46.1	34.6	21.8	44.6	48.9

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\*\* Data to calculate this indicator not available



<b>REGION B</b>						
CATEGORY	INDICATOR	Aliwal North	Cradock	Elliot	Qtn	
Attendance/ Utilisation	Nurse workload cases/nurse/day	24.6	35.3	44.9	14.8	
	Utilisation rate visits/person/year	1.8	3.1	2.9	2.4	
	Utilisation <5 years visits/<5 years	1.9	3.6	3.5	2.3	
Tuberculosis	Suspected TB rate % of total adult patients	0.2	0.6	0.4	0.2	
	TB treatment prevalence cases/1000 adults	1.4	4.2	1.4	1.4	
Child Health	Diarrhoea incidence episodes/1000 children	231.6	375.6	244.8	184.8	
incidence (inc) weight rate (w/r)	Pneumonia in children <5 years % of visits <5 years	12.6	11.2	10.8	8.0	
average (avg)	Not gaining w/r % of children weighed	3.9	9.2	1.1	3.7	
malnutrition (mal)	Severe mal rate <5 % <5 attending clinic	0.0	0.1	0.0	0.1	
population (pop)	Severe mal <5 inc/1000 0-5 years pop	0.0	0.2	0.1	0.3	
	Weighing coverage avg # times/child/year	1.6	2.0	1.9	1.5	
	Chronic case load % all adult cases	17.7	22.4	22.3	14.5	
Chronic Care	Diabetics prevalence/1000 adults	14.9	29.0	29.0	16.6	
	Epilepsy prevalence/1000 adults	3.8	5.0	4.2	3.6	
	Hypertension prevalence/1000 adults	71.0	146.8	125.9	78.3	
Constinue	Male urethral discharge inc/1000 men/year	13.2	14.4	21.6	13.2	
Curative	STI tracing rate % of contacts treated	30.5	23.7	34.2	33.7	
Services	Minor ailments rate % of all visits	37.5	45.2	43.2	54.1	
nonulation (non)	Referral to doctor % of all visits	5.5	6.0	2.6	2.7	
	% Monthly reports received	99.1	100.0	100.0	100.0	
	% Fully immunised by age one	75.6	* *	* *	* *	
Immunisation	Measles coverage % of infants	79.9	* *	* *	* *	
	Immunisation dropout DPT 1-3%	13.5	8.2	17.6	7.8	
	ANC coverage % of exp pregnant women	108.8	113.6	194.9	87.9	
Maternity and	ANC visits/client/pregnancy	3.0	4.3	2.3	2.9	
neonatai	Tetanus Toxoid rate % ANC clients imm	41.4	60.0	33.2	41.5	
services	Delivery rate <18 years % of all deliveries	33.3	16.2	137.5	6.1	
immunised (imm)	Facility delivery coverage % expected del	0.1	30.8	0.3	2.5	
deliveries (del)	Low birth weight % births	33.3	25.0	14.3	11.1	
	Still birth rate % births	* *	20.3	12.5	2.3	
	Mental health case load % total adult visits	2.7	1.3	1.5	2.7	
Mental Health	Psychiatric illness cases/1000 population	6.4	4.0	5.3	7.9	
	Violence women incidence cases/100 000 women 15-45 year	120.0	240.0	240.0	120.0	
Reproductive	Condom use: condoms/women/year	9.6	17.0	10.2	7.7	
Health	TOP ref: inc women ref/15-45 year	0.1	0.0	0.1	0.2	
incidence (inc)	Women year protection rate % women 15-	31.5	45.8	41.4	29.5	
referred (ref)	45 year					



REGION C						
CATEGORY	INDICATOR	Butter- worth	East London	Fort Beaufort	King Williams-	
		22.0	20.2	177	town	
Attendance/	Nurse workload cases/nurse/day	22.8	28.2	17.7	24.9	
Utilisation	Utilisation rate visits/person/year	1.7	3.0	2.8	2.5	
	Utilisation <5 years visits/<5 years	1.7	3.0	3.1	2.3	
Tuberculosis	Suspected TB rate % of total adult patients	0.2	0.4	0.2	0.3	
	TB treatment prevalence cases/1000 adults	2.4	2.4	2.0	1.7	
C1.114 1114	Diarrhoea incidence episodes/1000 children	153.6	139.2	200.4	115.2	
incidence (inc)	Pneumonia in children <5 years % of visits <5 years	6.5	6.1	10.0	4.0	
weigni raie (w/r)	Not gaining w/r % of children weighed	2.9	5.6	8.6	3.7	
malnutrition (mal)	Severe mal rate <5 % <5 attending clinic	0.4	0.3	0.5	0.5	
population (pop)	Severe mal <5 inc/1000 0-5 years pop	0.6	0.7	1.1	0.9	
	Weighing coverage avg # times/child/yrs	1.0	1.6	1.5	1.3	
	Chronic case load % all adult cases	10.6	11.5	17.2	11.8	
Chronic Care	Diabetics prevalence/1000 adults	7.2	20.2	23.9	15.5	
	Epilepsy prevalence/1000 adults	2.9	1.9	3.1	2.1	
	Hypertension prevalence/1000 adults	28.1	55.9	84.7	49.6	
Connetions	Male urethral discharge inc/1000 men/year	1.4	2.3	1.4	1.3	
Curative	STI tracing rate % of contacts treated	42.4	60.9	37.7	42.2	
Services	Minor ailments rate % of all visits	54.2	55.9	49.8	52.4	
nonulation (non)	Referral to doctor % of all visits	3.1	2.4	4.6	3.0	
	% Monthly reports received	99.6	100.0	100.0	99.5	
	% Fully immunised by age one	44.4	* *	91.2	70.8	
Immunisation	Measles coverage % of infants	49.8	* *	90.9	78.0	
	Immunisation dropout DPT 1-3%	7.7	1.7	-2.8	4.4	
-	ANC coverage % of exp pregnant women	71.7	95.2	81.6	80.8	
Maternity and	ANC visits/client/pregnancy	3.0	5.1	4.3	4.4	
neonatal	Tetanus Toxoid rate % ANC clients imm	46.4	116.3	69.9	61.4	
services	Delivery rate <18 years % of all deliveries	12.0	3.2	1.7	3.4	
expected (exp)	Facility delivery coverage % exp deliveries	35.4	4.6	53.4	41.5	
immunised (imm)	Low birth weight % births	10.3	1.5	21.7	8.1	
	Still birth rate % births	2.5	0.5	0.7	0.9	
Mental Health	Mental health case load % total adult visits	2.5	0.7	2.9	1.7	
	Psychiatric illness cases/1000 population	5.8	2.3	10.2	5.0	
	Violence women incidence cases/100 000	* *	* *	120.0	120.0	
	women 15-45 years					
Reproductive	Condom use condoms/women/year	5.9	7.9	7.0	15.6	
Health	TOP ref inc women ref 15-45year	0.0	0.2	0.0	0.1	
incidence (inc)	Women year protection rate % women 15-					
referred (ref)	45 year	25.1	43.4	40.6	48.4	

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<b>REGION D</b>						
CATEGORY	INDICATOR	Libode	Mqanduli	Qumbu	Umtata	
Attendance/ Utilisation	Nurse workload cases/nurse/day	17.6	28.3	17.2	17.9	
	Utilisation rate visits/person/year	1.5	2.0	2.5	1.5	
	Utilisation <5 years visits/<5 years	1.5	2.0	3.5	1.8	
Tuberculosis	Suspected TB rate % of total adult patients	0.2	0.1	0.3	0.3	
	TB treatment prevalence cases/1000 adults	1.4	0.7	1.3	1.3	
	Diarrhoea incidence episodes/1000 children	105.6	106.8	156.0	122.4	
Child Health	Pneumonia in children <5 years % of visits					
weight rate (w/r)	<5 years	2.0	2.1	3.2	4.6	
average (avg)	Not gaining w/r % of children weighed	3.0	2.4	2.7	2.4	
malnutrition	Severe mal rate <5 % <5 attending clinic	0.8	0.3	0.3	0.6	
(mal)	Severe mal <5 inc/1000 0-5 years population	1.0	0.5	0.8	0.8	
	Weighing coverage avg # times/child/year	0.8	1.0	1.8	0.8	
	Chronic case load % all adult cases	5.5	2.5	5.2	8.8	
Chronic Care	Diabetics prevalence/1000 adults	2.5	1.2	5.5	7.1	
	Epilepsy prevalence/1000 adults	1.6	1.0	2.2	2.0	
	Hypertension prevalence/1000 adults	11.8	7.8	21.2	28.1	
	Male urethral discharge inc/1000 men/year	12.0	9.6	15.6	16.8	
Curative	STI tracing rate % of contacts treated	42.2	34.2	39.4	42.1	
Services	Minor ailments rate % of all visits	62.5	69.0	57.5	55.8	
incidence (inc)	Referral to doctor % of all visits	1.8	2.1	2.4	4.5	
	% Monthly reports received	95.7	95.9	98.5	94.5	
	% Fully immunised by age one	39.6	30.0	72.0	46.8	
Immunisation	Measles coverage % of infants	43.1	46.3	97.2	48.8	
	Immunisation dropout DPT 1-3%	15.5	33.4	6.4	19.3	
Maternity and neonatal	ANC coverage % of exp pregnant women	53.5	80.1	* *	88.4	
	ANC visits/client/pregnancy	2.7	2.8	2.8	3.2	
	Tetanus Toxoid rate % ANC clients imm	45.7	55.8	53.9	52.0	
services	Delivery rate <18 years % of all deliveries	9.5	0.6	3.3	5.4	
immunised	Facility delivery coverage % exp deliveries	4.3	3.0	6.9	17.1	
(imm) expected (exp)	Low birth weight % births	8.7	1.7	5.0	6.7	
елрескей (елр)	Still birth rate % births	0.4	0.6	0.8	1.0	
	Mental health case load % total adult visits	0.9	0.6	1.5	1.6	
Mental Health	Psychiatric illness cases/1000 population	1.6	1.5	4.5	2.5	
	Violence women incidence cases/100 000	0.0	0.0	120.	120.	
	women 15-45 years					
Reproductive Health	Condom use condoms/women/year	3.2	3.6	7.1	3.9	
	TOP ref inc women ref/15-45 years	0.0	0.0	0.1	0.1	
incidence (inc)	Women year protection rate % women 15-45					
	years	14.5	16.8	32.0	14.8	



<b>REGION E</b>					
CATEGORY	INDICATOR	Kwabhaca	Mt Fletcher	Siphaqeni	Umzim- kulu
Attendance/ Utilisation	Nurse workload cases/nurse/day	21.0	20.0	25.6	19.8
	Utilisation rate visits/person/year	1.5	1.1	1.8	1.6
	Utilisation <5 years visits/<5 years	1.5	0.7	1.3	1.0
Tuberculosis	Suspected TB rate % of total adult patients	0.2	0.3	0.1	0.1
	TB treatment prevalence cases/1000 adults	1.3	1.3	2.3	1.4
	Diarrhoea inc episodes/1000 children	118.8	64.8	318.0	156.0
Child Health incidence (inc)	Pneumonia in children <5 yrs % of visits <5 yrs	4.2	1.4	8.1	2.9
years (yrs) malnutrition	Not gaining weight rate % of children weighed	1.8	3.1	2.4	3.1
(mal))	Severe mal rate <5 % <5 attending clinic	0.3	0.2	0.3	0.2
average (avg)	Severe mal <5 inc/1000 0-5 yrs population	0.5	0.2	0.7	0.5
	Weighing coverage avg # times/child/yrs	1.1	0.7	1.7	1.3
	Chronic case load % all adult cases	6.0	8.6	3.7	4.9
Chronic Core	Diabetics prevalence/1000 adults	3.6	2.2	1.0	3.9
	Epilepsy prevalence/1000 adults	1.3	1.4	0.8	1.1
	Hypertension prevalence/1000 adults	12.8	13.3	5.4	11.0
	Male urethral discharge incidence/1000				
Cruzztino	men/year	9.6	6.0	20.4	10.8
Samiaaa	STI tracing rate % of contacts treated	68.7	79.8	65.3	94.1
services	Minor ailments rate % of all visits	55.0	55.9	52.1	54.1
	Referral to doctor % of all visits	4.6	6.3	4.4	7.1
	% Monthly reports received	96.7	99.4	96.0	99.9
	% Fully immunised by age one	40.8	43.2	63.6	66.0
Immunisation	Measles coverage % of infants	50.2	42.9	68.1	49.9
	Immunisation dropout DPT 1-3%	12.2	7.4	16.1	12.5
Maternity and	ANC coverage % of exp pregnant women	65.8	50.9	103.9	74.3
	ANC visits/client/pregnancy	2.8	3.4	2.6	2.7
neonatal	Tetanus Toxoid rate % ANC clients imm	54.3	61.3	62.9	50.7
services	Delivery rate <18 years % of all deliveries	10.0	11.9	2.6	3.1
expected (exp)	Facility delivery coverage % exp del	16.5	21.3	14.0	5.2
deliveries (del)	Low birth weight % births	5.6	6.9	8.4	4.4
deliveries (del)	Still birth rate % births	2.1	1.0	0.7	1.3
Mental Health	Mental health case load % total adult				
	visits	1.2	2.3	0.8	0.9
	Psychiatric illness cases/1000 population	2.6	3.2	2.3	2.1
	Violence women incidence cases/100 000				
	women 15-45 years	* *	120.0	* *	* *
Reproductive	Condom use condoms/women/year	4.9	4.2	4.2	5.7
Health	TOP ref inc women ref/15-45 years	0.1	0.1	0.1	0.1
incidence (inc)	Women year protection rate % women 15-				
referred (ref)	45 years	16.1	10.1	12.2	12.4

### **The EQUITY Project**

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A project of the Department of Health supported by the United States Agency for International Development (USAID)/South Africa through : Management Sciences for Health

For further information regarding the EQUITY Project activities, contact :

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