

CHAPTER 16

HEALTH

INTRODUCTION

16.1 Health remains an integral part of the pillars of the long-term vision of Botswana - Vision 2016, whose overall goal is to have a healthy nation that is fully involved and can contribute meaningfully to the country's development. Human resource is one of the most important resources for pursuit of national goals and objectives. In this regard health sector policy will anchor on Vision 2016 pillar of a compassionate, just and caring society, which formed the basis for the Ministry's Corporate Strategic Plan.

16.2 Provision of health care will remain the shared responsibility of the Ministries of Health and Local Government – a system that has been running smoothly. The former Ministry will continue providing policy direction and leadership, while the latter continues its role of delivery of primary health care services at the district level.

16.3 The Primary Health Care Services are mainly provided by the Ministry of Local Government (District/Town Councils) through the Council Health Departments (District Health Teams) with a current network of 243 clinics, 340 health posts and 810 mobile stops.

Network of Health Care Facilities

16.4 The public health system, which is a referral system in Botswana, comprises all government health facilities owned or supported by Government and facilities open to the

public such as mine hospitals. The Ministry currently administers 3 Referral Hospitals, 6 District Hospitals, and 16 Primary Hospitals, and provides running costs to 3 Mission Hospitals. Debswana has entered into agreement with Government to open the Orapa and Jwaneng Mine hospitals to the public as its contribution to public welfare. The BCL Mine in Selebi-Phikwe is the only one that has confined its services to its employees and their relatives.

The Nature of Health Problems in Botswana

16.5 At the beginning of NDP 8, the pattern of ill health in Botswana indicated a decline in the importance of childhood immunisable diseases and an increase in non-communicable diseases. Infant Mortality Rates (IMR) stood at 37.4 per 1000 and 37.0 per 1000 in 1988 and 1996 respectively [Botswana Family Health Survey (BFHS) III of 1996]. The Survey also reported a decrease in Under-fives Mortality Rate (UMR), from 53.4 per 1000 in 1988 to 45.0 per 1000 in 1996.

16.6 The country has also experienced a resurgence of diseases such as tuberculosis, which at the beginning of NDP 8 period were showing evidence of decline. HIV/AIDS related infections are now the main course of hospital admissions. This reversal of events has necessitated a re-look into the provision of health services during NDP 9.

REVIEW OF PERFORMANCE DURING NDP 8

16.7 The Ministry's goals during the National Development Plan 8 were: to improve efficiency and cost-effectiveness of health care delivery; to ensure equitable distribution of services; to improve quality of care; to retain appropriate skilled health personnel; and strengthen primary health care programmes.

16.8 These goals hinged on the health sector's three main objectives of sustainability, quality and appropriateness. On the basis of the foregoing, the Ministry had set the following priorities for NDP 8:

- Human resource development;
- Health sector reform, by strengthening of health policy and introduction of innovative management systems;
- Strengthening of health services: especially secondary and some improvements in tertiary facilities; and
- Strengthening support to different levels of the health care service.

Human Resource Development

16.9 Human Resource Development remained top priority during NDP 8. Most health facilities are still faced with problems of staff shortages, both in numbers and skills to enable them to carry out the intended health care services at an acceptable quality. Staff housing for Gaborone and Francistown IHSs of the Phase I were designed at the end of NDP 8 and construction will spill over to NDP 9.

16.10 Phase II, which comprises construction of new Institute of Health

Sciences as well as staff housing in Molepolole and Serowe started in 2001. Construction started towards the end of NDP 8 and will spill over to NDP 9. This will facilitate increased intake and introduction of new subjects in the IHSs.

Enrolled Nurse/General Nurse Upgrade Programme

16.11 The programme is at the completion stage. The last group of part time students will complete their programme in May 2003.

Curriculum review and development

16.12 A lot has been done in this area in an effort to meet the ever-changing needs in the health care delivery system. Curricula being reviewed include those of General Nursing, Midwifery, Community Health Nursing, Family Nurse Practice and Family Welfare Educator. Curricula development for new programmes such as Ophthalmic Nursing has started. Community Mental Health Nursing curriculum has been reviewed, approved and is in its first year of implementation.

Training

16.13 **Pre-service training:** - Local Health Training Institutions have trained 2979 health workers in different disciplines since 1997. Health Education programme, which was discontinued during NDP 8 period, has been restarted at Gaborone I.H.S with an annual intake of 15. The Midwifery programme was introduced at Lobatse and Molepolole Institutes of Health Sciences in January 2002.

16.14 In order to ensure relevance and improvement in the quality of

services provided, Bachelors and Masters Degrees in Nursing were introduced at the University of Botswana in 1996 and 1999, respectively.

16.15 Efforts to establish a Medical School in collaboration with the Ministry of Education are continuing. With the advent of the Faculty of Health Sciences at UB, programmes such as Biomedical Engineering, Medical Records and Rehabilitation can be incorporated into the already existing programmes such as General Engineering, Computer Science and Social Work respectively. An assessment to explore the possibility of offering other allied health programmes like Physiotherapy, Pharmacy, Occupational Therapy, Environmental Health etc currently offered externally will be made.

16.16 An effort to increase the training intakes of Biomedical Engineers in the external Universities, more especially in South Africa, has been made. Since 1997, about 92

health professionals have graduated in various health disciplines from the universities abroad.

16.17 World Health Organisation (WHO) assisted by providing twenty (20) scholarships for human medicine in Ghana. By 2001 all the 20 were placed but five (5) have withdrawn for various reasons. Efforts to replace the five (5) are continuing.

16.18 **In-service training** - Institutes of Health Sciences have trained about 1463 health personnel since the beginning of the plan period, while about 153 have graduated from universities abroad. This post-basic training has, on the other hand, increased problems of staff shortages at facility level due to absenteeism as a result of study leave. The problem is further compounded by trainees' reluctance to come home after completion of training. Table 16.1 reflects training target and achievements.

Table 16.1: Ministry of Health Training Needs and Training Targets

Personnel	NDP 8 Training Targets	NDP 8 Training Achievements	NDP 9 Training Targets
Medical and Dental Specialists	10	5	26
Medical Officers	45	21	39
Dentists	5	12	17
RNs	855	2,060	1,650
Midwives	131	361	1,000
FNPs	47	34	60
Nurse Anaesthetic	30	14	18
Psych. Nurses	120	67	60
Theatre Nurses	12	4	15
Ophthalmic Nurses	12	9	75
Orthopaedic Nursing	12	0	20
Paediatric Nursing	12	3	10
Intensive Care Nursing	12	4	10
ENT Nursing	2	0	3
Neonatal Nursing	6	2	10
A & E Nursing	12	0	15
Oncology Nursing	2	0	3
Neuro Surgery Nursing	2	0	2
Physiotherapists	14	11	47
Occupational Therapists	5	1	15
Radiographers & X-Ray Technicians	10	8	57
X-Ray Assistants	0	0	0
Pharmacists	18	13	41
Pharmacy Technicians	50	58	137
Med. Lab. Technology	8	9	31
Med. Lab. Technicians	60	65	180
Dental Therapists	23	33	30
Bio Med. Engineers	6	5	18
Medical Equipment Technicians	12	0	12
Dieticians/Nutritionists	9	10	28
Social Workers	29	8	226
Hospital Administrators	32	1	30
Medical Records Officers	25	2	23
Dental Technologist	6	0	6
Speech Therapy/ Audiology	17	1	15
Family Welfare Educators	15	217	1,038
Other Professionals		53	

Source:Ministry of Health, Health Manpower Department

16.19 Several problems were encountered in achieving planned training targets. These included, among other things, problems associated with:

- placement in the external training institutions, more especially within the region.

- Length of training for most health professions
- Unattractive pay structures and unclear career paths that make trainees to stay abroad after completion of their studies.
- High turnover of Lecturers in our local training institutions

16.20 Recruitment efforts locally and externally were strengthened during this plan period. These efforts for the Ministry of Health are frustrated among other factors by:

- Difficulty to acquire candidates in highly specialized areas
- Candidates who are offered employment but fail medical examinations
- Candidates who decline offer of appointment after waiting for a long period of time
- High turnover of staff due to resignations, deaths, retirement and non-renewal of contracts. e.g. between January 2001 and January 2002, a total of 73 nurses have resigned, of whom 45 were locals.

16.21 In responding to the problem of staff attrition, initiatives of developing a retention strategy have started. The review of the current pay structure is also ongoing. The continuing implementation of performance improvement initiatives such as PMS, WITS and TQM is expected not only to improve on performance, but also to raise the morale of employees and productivity levels.

16.22 An extensive exercise on the development of staffing methodologies and norms for all health professions within all levels of the referral structure was carried out. This effort attempted to synchronise human resources with their utilisation, as well as assessing the scope of function at each level of the referral chain, skills and numbers required to perform those functions. The outcome of this exercise is the Human Resource Plan that does not only reflect personnel required to staff health facilities and services, but also details the necessary recruitment and training strategies.

16.23 A review and balance of human resource demand and supply is continuing in order to keep pace with the ever-changing health care needs. The implementation of this plan, in as far as acquiring additional budget (posts) is concerned, is being hampered by the current vacancy situation.

Health Sector Reform

16.24 During NDP 8 period, the Ministry undertook a restructuring exercise which was expected to promote a sustained process of policy development and institutional arrangements, health sector reform, designed to improve the functioning and performance of the health sector and ultimately the health status of the population.

Strengthening of Health Policy

16.25 In order to strengthen the health policy, a series of studies were undertaken, aimed at establishing the patterns of health expenditure (public and private), the ability and willingness of Batswana to pay for medical care as well as to formulate new policies that would guide and sustain the health care services.

16.26 The following policies and acts were formulated in NDP 8:

- National policy on blood transfusion and its guidelines.
- Botswana National Drug Policy and its five-year implementation plan.
- Health Care Technology Policy (Equipment Policy):
- The Review and Amendment of the Control of Smoking Act

and the Development of its Regulations:

- The Revision and amendment of the Public Health Act.
- The development of Chemical Substances and Products Act.

16.27 An information system including a national chemical database on chemical awareness programme has been developed and is being implemented.

- The national Environmental Health Policy is under development.
- The Clinical Waste Management Policy on management of clinical waste was produced in collaboration with the NCSA.

User Fees and Health Insurance Studies:

16.28 Public health care in Botswana is mainly financed by taxes via public budgets and to a lesser extent, revenue from user fees. When first introduced in the early 70's, user fees accounted for 7% of the recurrent budget expenditure, but this has been declining over the years to less than 0.1% by 1993.

16.29 Several studies undertaken by the Ministry on user fees reveal that the existing user fee system is disorganized, weak and highly inefficient in providing revenue to the government.

16.30 To provide information on health financing reforms a study on health insurance in Botswana is being undertaken. Its general objective is to determine the performance of the

existing medical aid system regarding efficiency, equity, and sustainability of the health sector.

16.31 Information from this study together with other relevant studies will guide in deciding on a suitable health financing system to choose for the future, and hence on how the costs of providing health services shall be shared between individuals and the government. The process of introducing full cost recovery on medical costs started in June 2002 with foreigners being charged full medical costs. With time, the process is intended to also cover citizens.

National Health Accounts

16.32 Increasing demand for quality health care with limited resources has made it necessary to review resource allocation and efficiency within the country. As a means of monitoring use of resources, the Ministry is undertaking a project on National Health Accounts. Information on the distribution and use of resources in the country will be obtained to assist policy makers in making informed decisions.

Strengthening of Health Services: Secondary Health and Improvements in Tertiary Facilities

Hospital Services

16.33 The construction of Lobatse Mental, Scottish Livingstone, Sekgoma Memorial, Maun and Mahalapye Hospitals started towards the end of NDP 8 period and will be completed in NDP 9.

16.34 The renovation/upgrading of Jubilee to a Psychiatric Unit for the Northern Botswana has not been achieved. The project was at design

stage at the end of NDP 8. Capacity constraints at DABS delayed the project.

16.35 CT Scans were provided at Princess Marina and Nyangabgwe Referral Hospitals.

16.36 Neurosurgery and Oncology services have been introduced at Princess Marina and Nyangabgwe Hospitals. As a cost-saving measure, patients requiring radiography are now being referred to the Gaborone Private Hospital.

16.37 Networking has been done as part of the computerization of Medical Records and support services at Referral Hospitals. Some computer hardware and software have also been purchased. Maun and Sekgoma Hospitals also benefited under the ARV computerization programme.

Primary Health care

16.38 At the beginning of NDP 8, the Ministry managed to complete the construction of four hospitals at Masunga, Sefhare, Gweta and Hukunti. Consultants were engaged to produce New Primary Hospitals Design Guide and an architectural brief for construction of new hospitals at Shakawe, Tonota and Moshupa as well as upgrading of Gumare, Palapye and Kasane primary hospitals, whose construction will spill-over to NDP 9. Construction of the new Ghanzi Primary Hospital will also spill-over to NDP 9 as construction started during the last year of NDP 8.

Family Health

(i) Maternal, Child Health and Family Planning (MCH/FP) and Reproductive Health Programme

16.39 Fertility - There is evidence of continuing decline in fertility over time as shown in BFHS III (1996). The fertility stood at 4.3 births in 1996 as compared to 5.5 births in 1988, showing success in the achievement of this indicator in NDP 8. The decline can be attributed to changes in economic and social development such as improvement in primary health care, increased participation of women in the labour force etc. Some women may also be opting not to have children as a result of HIV/AIDS.

16.40 Teenage pregnancy - Teenage pregnancy has also experienced a decline during this period, even though it continues to remain high. The use of family planning services remains low in this age group as compared to older population groups. Access to health service for adolescents and youth continues to be a major constraint as the current health services are meant for all age groups. Although this is the case, the target of reducing teenage pregnancy from 24% to 18% for NDP 8 has been achieved. Teenage pregnancy was reduced from 24% in 1988 to 19% in 1991 and 16.6% in the BHFS III of 1996.

16.41 **Family Planning** - this is one area where NDP 8 target has not been achieved and therefore more effort will be required in NDP 9 to ensure success. The NDP 8 target was to increase contraceptive prevalence to 50% and only 42% has been achieved as revealed by both the BHFS III

(1996) and Botswana Multiple Indicator Survey 2000. The stagnating contraceptive prevalence is attributed to the recent increase in condom use, which clients do not associate with contraceptive use but only associate it with HIV/AIDS prevention.

16.42 Safe motherhood - during NDP 8 Safe motherhood program aimed at reducing Maternal Death from 200 deaths to 150 deaths per 100,000 live births. This is a major undertaking that the programme could not achieve because of manpower constraints and technical expertise in this area. Furthermore, it needed a national survey for the program to determine whether the indicator has been achieved or not.

Cervical cancer screening

16.43 This programme ensures early detection of cancer of the cervix among women of reproductive age. There is currently no national screening programme for cancer of the cervix due to manpower constraints.

New programmes introduced in NDP 8

16.44 In order to respond to the HIV/AIDS scourge, two new programmes were introduced whose main focus was the prevention of HIV/AIDS. The major challenge for this programme is poor acceptance by pregnant women.

Prevention of Mother – to - Child Transmission of HIV/AIDS

16.45 This programme was implemented first as a pilot in Gaborone and Francistown in 1999 and up – scaled to other districts in 2000/2001.

Reorientation of the MCH/FP programme to a more comprehensive Sexual and Reproductive Health programme

16.46 This programme defines the broader scope of reproductive health and the inclusion of men in reproductive health. It also outlines issue of gender, fertility, reproductive cancers and focuses largely on adolescent sexual and reproductive health, as these were not emphasised in MCH/FP program. Also during NDP 8, Adolescent Sexual and reproductive health program was developed and training of trainers done in order to address the health needs of adolescents.

Introduction of the Female condom

16.47 In the era of HIV/AIDS, new programmes and innovations should be tried in order to improve the prevention of the spread of the disease. The female condom introduction was done with the aim of both increasing the family planning method mix as well as to empower women with a female - specific method of HIV/AIDS prevention

Table 16.2: Reproductive health Indicators (including Targets for NDP 9)

INDICATOR	NDP 8 TARGETS	ACHIEVED TARGET IN NDP 8	NDP 9 TARGETS
Total fertility	4.0	4.3	3.5
Percentage of teenagers who are mothers	18%	16.6%	10%
Family Planning Knowledge And Use			
Percentage of all women knowing a method	-	95%	99%
Percentage of all women knowing a source	-	96%	99%
Percentage of women ever using any modern method	-	69.8%	80%
Contraceptive Prevalence Rate	50%	42%	60%
Utilisation of MCH Service			
Percentage of births receiving antenatal care	95%	94.1%	99%
Percentage of births having medically supervised deliveries	90%	87%	95%
Percentage of births receiving postnatal care	85%	85.2%	90%
Percentage of clinics transformed to provide Youth Friendly Health services	-	-	30%

Source: Ministry of Health, Family Health Division

Control of Diarrhoeal Diseases Programme (CDDP) and Integrated Management of Childhood Infection (IMCI)

16.48 Control of Diarrhoeal Diseases Programme (CDDP) and Acute Respiratory Infections projects (ARI) implemented training of health workers to improve on the case management skills. It is a strategy that aims at reducing child mortality. IMCI strategy was introduced during NDP 8. The strategy encompasses a range of interventions for the prevention and management of major childhood illnesses, both in health facilities and in the home. Health workers and child

minders are given knowledge and skills to manage all problematic childhood diseases. 342 health workers have so far been trained on this strategy.

Training of Health Workers

16.49 Since the introduction of IMCI, it has been difficult to continue supporting the districts that are still implementing CDD/ARI due to manpower shortage. According to the Multiply Indicator Survey (MIS 2000), there has been an improvement in the care of children with diarrhoea in hospitals and communities.

Infant and under-five mortality rate

16.50 Botswana Family Health Survey III (BFHS 1996) reports infant mortality rates of 37.4 per 1000 in 1988 and 37.0 in 1996. Under-five Mortality was reported to be 53.4 in 1988 and 45.0 in 1996 (BFHS III). The situation has now been reversed by the advent of HIV/AIDS. The Multiple Indicator Survey (MIS) of 2000 recorded IMR and UMR of 57 per 1000 and 75 per 1000 respectively. Life expectancy at birth has also declined from 65 years to 55.7 years.

(ii) Expanded Programme on Immunisation

Elimination of Neo Natal Tetanus (NNT) and Measles

16.51 During NDP 8 there were no laboratory confirmed cases of NNT and measles cases implying possible elimination of these diseases. Botswana is still awaiting confirmation of her status by WHO. The country continues to implement WHO/UNICEF strategies for elimination of both diseases.

Polio Eradication

16.52 For 10, years the country has not reported Polio. Botswana met the target of being polio free by the year 2000 but we can only be certified polio free as a region together with our neighbouring countries that are still reporting polio. The Ministry, however, continues to implement strategies for polio eradication.

Immunization coverage

16.53 The programme achieved the target of increasing routine immunization coverage to 80%.

Studies that were planned for NDP 8 that were to look at community compliance and attitudes to immunizations were not conducted, primarily because of shortage of manpower and mainly because supervision and monitoring revealed more problems that interfered with immunisations to be on the service delivery side not on the consumer/beneficiary side. It therefore became critical to address service delivery problems.

Cold Chain Maintenance

16.54 The monitoring of cold chain system revealed the following major problems:

- Some health facilities having no fridges at all or not functioning
- Some old fridges (10 years) are not functional or have not been replaced
- Immunization service is not rendered daily

16.55 These problems will be addressed in NDP 9.

(iii) Health Promotion and Education

16.56 Good health as a major determinant of quality of life should be a right for all irrespective of their socio-economic and cultural background. Health Promotion and Education aim at helping individuals and the community to achieve optimum state of health through their own actions and initiatives. This strategy has been one of the pillars of the health sector during NDP 8.

Community Participation and Involvement

16.57 In line with the 1997 Rural Development Council, a Community Based Programme Strategy (CBPS) for rural development the Ministry of Health has continued to use Village Health Committees and Home Based Groups as a tool for community participation and involvement.

Participatory Methodology

16.58 In support of CBPS, the Ministry of Health has started an initiative to change health care service provision orientation so that participatory methodologies become the standard of practice. Hygiene, sanitation and water are being used as the entry points for the initiative. The Ministry started Participatory Hygiene and Sanitation Transformation (PHAST) pilot projects in five (5) project sites to test the method before scaling it up to other districts.

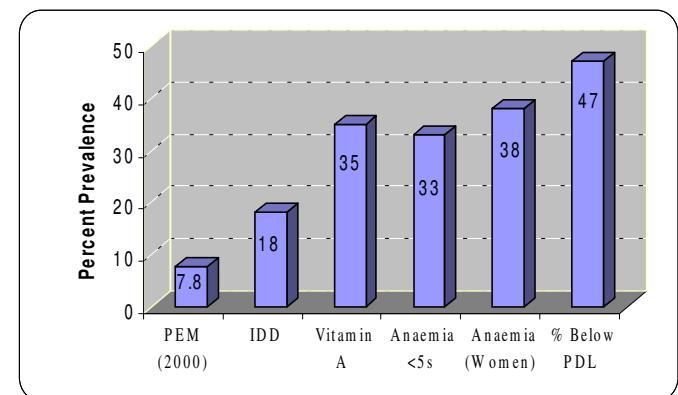
(iv) Food and Nutrition

16.59 Good Nutrition is the foundation of survival, health, educability, productivity and national development. The provision of the Food and Nutrition Services in the country has been among the priority strategies of Primary Health Care (PHC). The national targets set in the National Plan of Action on Children and the 1996 World Food Summit guided the nutrition services during NDP 8.

16.60 Overall, there was improvement in the nutritional status of the under-fives during NDP 8. However, the HIV\AIDS pandemic has had a negative impact on the health and household food security of the

affected households. On the other hand, there has been an escalation of diseases of affluence, the Chronic Non-communicable diseases such as diabetes, hypertension, heart diseases and some cancers. The main risk factors for these diseases (obesity, high blood fats, high cholesterol, high animal fat diets, physical inactivity, alcohol abuse) are preventable as they are related to diets and lifestyles.

Chart 16.1: Nutritional Problems



Source: Ministry of Health, Nutrition Unit

Note: PEM (Protein Energy Malnutrition)
IDD Iodine Deficiency Disorder
PDL Poverty Datum Line

The National Plan of Action for Nutrition (NPAN)

16.61 The National Plan of Action for Nutrition (NPAN), which embodies the country's efforts to enhance multi-sectoral collaboration and cooperation in improving the food and nutrition situation of Batswana, was finalized through two consultancies (WHO and FAO) to incorporate emerging issues of HIV/AIDS, Micronutrient (vitamins and minerals) deficiencies and Integrated Management of Childhood Illness (IMCI). This plan will form the basis for provision of nutrition services during NDP 9.

Monitoring the Nutritional status

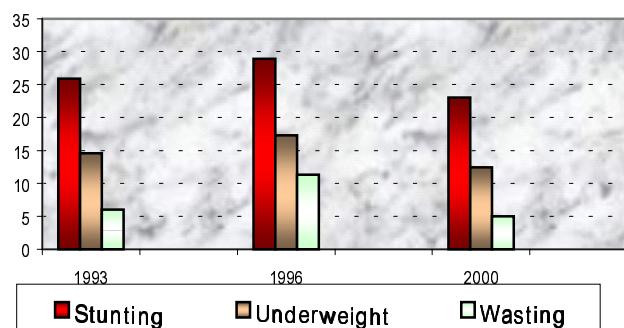
16.62 Monitoring of the nutrition situation in the country continued through the Growth Monitoring and Promotion Programme (GMP), Drought Assessment Tours and periodic population based surveys. Basing on these, mapping of the magnitude and trends of the main nutritional problems was accomplished.

16.63 Using the Botswana National Nutrition Surveillance System (BNNSS), information collected monthly from the 1,085 health facilities continue to be analysed and disseminated. A new gender specific growth chart using the National Centre for Health Statistics Reference was developed and introduced in 1998. Two districts, Kgalagadi and Gumare were supported in conducting nutrition surveys in order to establish the causes of malnutrition by locality.

16.65 Despite the sub-optimal attendance by children at Child Welfare Clinics, (average of 60 to 70%), information generated from the BNNSS, has been very instrumental in monitoring malnutrition trends and influencing major national decisions and policies regarding household food security. The emphasis during NDP 9 will be to decentralise this process to district and community levels to improve efficiency of the system.

16.66 **Moderate Protein-energy malnutrition (PEM)** among children aged 0 to 5 years old, as indicated by low weight for age, decreased from 15% in 1995 to 7-9% between 2000/2001. However, the prevalence of severe malnutrition rate increased from 0.5% in 1996 to about 2% during the year 2000.

Chart 16.2: Trends in prevalence of Protein-Energy Malnutrition.



Source: Nutrition Unit

16.67 Moreover, Inter- and intra-districts variations exist in malnutrition prevalence rates. Districts with remote area dwellers and settlements, notably Kgalagadi North and Ghanzi, have persistently shown highest malnutrition prevalence levels. It is noteworthy that, even in these districts, some improvements have been observed. For example, in Kgalagadi North moderate underweight rate has dropped from about 25% in 1995 to about 15-16% since June 2000.

16.68 Given the trends in prevalence of protein-energy malnutrition among children, achieving the 50 percent reduction of levels of malnutrition (from 15% in 1995 to 7% by 2003) as targeted in the NPA is likely.

Infant and Young Child Nutrition

16.69 Adequate and safe infant feeding practices especially breastfeeding; contribute to prevention/reduction and control of childhood illnesses and malnutrition. Four main areas of support to infant and young child feeding were adapted\strengthened during NDP 8. The **Baby and Mother Friendly Hospital Initiative (BMBFI)** has been introduced in most hospitals and to date 7 hospitals have been designated

as BMBF. Maternal Protection law that provides one-hour break for breastfeeding-working mothers was adopted. The National Breastfeeding Authority was formulated to oversee the efforts to protect, promote and support breastfeeding.

16.70 The regulations on the Marketing of Breast Milk Substitutes have been revised to suit the Botswana situation and to incorporate the current issues on HIV/AIDS and infant feeding/breastfeeding.

16.71 Breastfeeding continued to be practised by the majority of mothers. However, the HIV pandemic and the risk of transmission of the virus through breast milk have emerged as a major constraint to optimal infant feeding. In order to minimize this MTCT risk, the government provides free infant formula to children of HIV positive mothers for up to one year. Infant Feeding guidelines in the context of MTCT were developed and distributed to health workers. A Training of Trainers (TOT) workshop for 22 health workers on Lactation Management and HIV counselling was conducted in 2000. All MTCT counsellors have also been oriented on the infant feeding guidelines. Gaps exist between the training and the feasibility to practically communicate correct information on infant feeding to mothers. As such a study to evaluate infant feeding practices was commissioned in July 2001 and the findings will be used to revise the infant feeding guidelines and development of national infant feeding policy.

16.72 Two nutritionally fortified food products were developed for the Vulnerable Group Feeding Programme. These include *Tsabana*, a sorghum based complementary food

product for children up to 36 months and *Fortified Maize Meal* for older children and the other vulnerable groups (medically selected groups like pregnant and lactating mothers, and tuberculosis patients).

16.73 The food basket for primary schools was reviewed in 2001, with the aim to improve the nutritional quality and adequacy of meals offered to these school children. The other food baskets reviewed /developed during this period were for the orphan, destitute and Home Based Care programmes.

16.74 Quality and safety assurance of the Vulnerable Group Feeding Programme (VGFP) food commodities was carried out regularly through monthly factory inspection for compliance to hygiene standards and food production procedures. Regular laboratory analysis of food commodities for nutritional and microbiological quality was done. In addition review of tender and contract specifications for VGFP food commodities, training and monitoring of health workers and depot managers on management of VGFP food commodities, and participation in development of food legislation was done.

Prevention and control of nutrient deficiencies and other diet related diseases/disorders.

Vitamin A Deficiency (VAD): -

16.75 The strategy adopted to address VAD involved the short-term approach of universal supplementation with vitamin A for mothers after delivery and all children aged 0-36 months. This approach was piloted in Kweneng District during 1999 and using the lessons learnt, it was up-scaled to all the 23 Health districts. Since 2000,

preschool children aged 0-36 months have been receiving high-dose vitamin A capsules with their immunization (measles and immunization boosters) and GMP. In addition, approximately 85% of under-fives received the capsules during the Measles Campaign, in May 2001.

Iodine deficiency Disorders:

16.76 Botswana has adapted the global strategy of eliminating iodine deficiency disorders, the most common cause of preventable mental deficiency, through universal Salt iodisation. Botswana Soda Ash, the sole major producer of salt, has voluntarily been iodating salt but the Regulation that will mandate the universal iodisation of salt has been drafted and gazetted. Regional harmonization of salt iodisation levels was effected at the Inter-country Salt Iodisation Meeting held at Francistown, August 1999. Indications are that progress is being made as the 2000 MIS survey revealed a 66% percent level of usage of adequately iodised salt by households as compared to 41% in 1994.

Iron deficiency Anemia:

16.77 Routine iron and folic acid supplementation of pregnant women continued throughout the country.

Food Based approaches:

16.78 Horticultural activities in clinics have also been promoted during training of health workers. Major millers have been sensitised on fortification of foods with vitamins and minerals.

Nutrition Education and Training

16.79 Nutrition Education and Training aims to design, implement, and evaluate pre and in service training in food and nutrition for various cadres including extension workers, NGOs, etc as well as the development of IEC materials/ Nutrition Advocacy. Various nutrition training seminars and workshops were conducted on nutrition and HIV\AIDS, school health, breastfeeding, vitamin A supplementation schedules, Growth Monitoring and Promotion and Vulnerable group Feeding.

Epidemiology

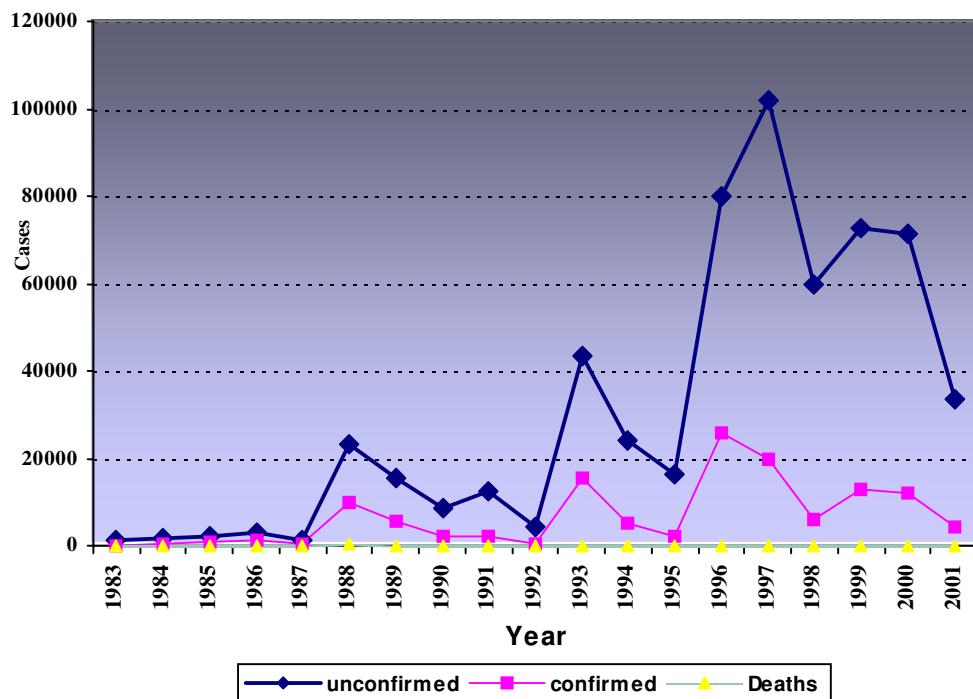
Malaria Control.

16.80 As with other parts of the African continent, Botswana experienced an increase in malaria morbidity and mortality in the 1990's. Severe epidemics were recorded in 1993, 1996, and 1997. Management of severe malaria cases was identified as a priority following the 1996 epidemic, and extensive staff training in the management of severe malaria formed a major component of the Accelerated Malaria Programme launched with World Health Organization support in 1997.

16.81 Significant developments in NDP 8 include the following;

- decentralisation of malaria vector control activities to districts (1997),
- maintenance of a low malaria case fatality rate (0.3 – 0.7 % among confirmed cases, and 0.03 – 0.13% among all cases) despite increases

Chart 16.3 Malaria Notifications 1983 - 2001



Source: Ministry of Health Epidemiological Units

in average malaria morbidity levels,

- expansion of the programme of government-subsidised insecticide impregnated mosquito nets as a malaria control intervention to six additional high burden districts from 1997. Relatively low population coverage levels (estimated to be less than 15%) were achieved in all districts except the Chobe districts.
- improvement in public awareness and knowledge about malaria.

16.82 A comprehensive malaria programme review was conducted in 1999 confirming case management as one of the programme strengths. Malaria vector control in the form of residual house spraying and the use of insecticide impregnated nets were

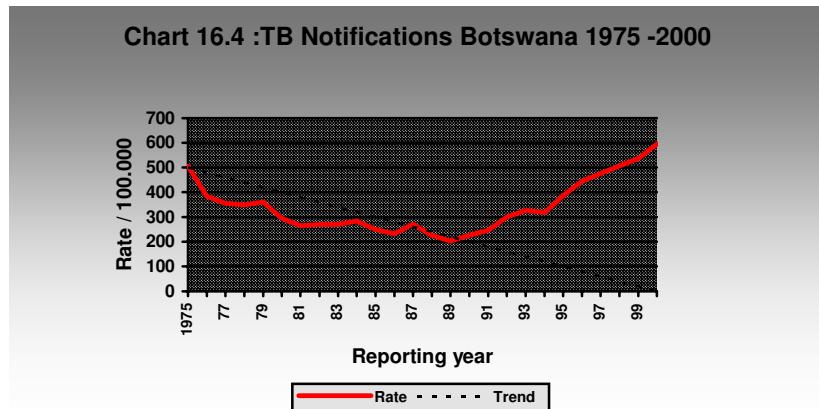
identified as areas that required further strengthening to improve the population coverage and impact in targeted districts.

16.83 Malaria epidemic preparedness and response capacity at both district and national levels was improved with the establishment of a national committee and development and implementation of a national malaria epidemic contingency plan from 1998.

16.84 Core elements of the malaria control strategy were effective case management, vector control using residual house spraying with insecticide, use of insecticide impregnated mosquito nets, epidemic forecasting, preparedness and response, prophylaxis to high risk groups, and community mobilisation. The programme moved from the use of

DDT to pyrethroid insecticides for residual house spraying following demonstration of high levels of susceptibility of the local vector population to pyrethroid insecticides.

national surveys of resistance to anti-TB drugs undertaken in 1996 and 1999. Significant findings of these reviews were that the programme continues to have a sound scientific basis with good access to TB services,



Source: Epidemiology Unit

16.85 Botswana launched the Roll Back Malaria (RBM) initiative in Botswana in April 2001, developed its strategy for RBM implementation, and endorsed the SADC Malaria Plan of Action as part of its commitment to regional malaria control efforts.

Tuberculosis

16.86 Tuberculosis cases have continued to rise as a result of the severe HIV/AIDS epidemic being experienced by the country. The annual notification rose from 444 cases per 100,000 population in 1996 to 595 per 100,000 in 2000 an average increase of 8% per annum over 4 years. During this period the total case burden has more than doubled and if the current trend is maintained it will be in excess of 11,000 cases per annum by 2003. TB has been shown to be the leading cause of death among AIDS patients.

16.87 A Major programme review was undertaken in 1999, and two

and has maintained a low rate of multi-drug resistance in the face of a growing disease burden.

16.88 Significant achievements during NDP 8 include:

- Review of the programme to address TB control challenges associated with HIV/AIDS,
- Carrying out several operational research studies as part of the Government of Botswana/CDC USA collaboration (BOTUSA) the results of some of which have already positively influenced TB control policy,
- Establishment of improved TB diagnostic capacity with the development of a TB reference laboratory with drug resistance capacity.
- Strengthening TB surveillance capacity by the development and implementation of a national computerised TB register.

- Addressing the impact of the HIV/AIDS epidemic on TB by the inclusion of TB management issues in HIV/AIDS service delivery at different levels, and implementation of pilot programme to provide preventive therapy for TB among HIV positive persons, which is expected to go to scale following the pilot evaluation.
- Carrying out the assessment of TB transmission in health care facilities including congregated areas such as prisons
- Pilot testing the Isoniazid TB Preventive Therapy (IPT) for people living with HIV/AIDS
- Evaluation of the operational feasibility of IPT with the intention of rolling it out to all districts.

Schistosomiasis

16.89 Surveillance of the prevalence of schistosomiasis among school children in the North West district continued, confirming the maintenance of a low rate of infection from 80% in NDP 5, 8% in NDP 7, to a low of 1.5% in NDP 8 (2001). This has been achieved through a combination of factors including public education, safe human waste disposal, provision of safe drinking water, and effective case management.

Leprosy

16.90 A survey of leprosy was conducted in 1999 in districts known to have leprosy cases, which detected only one new case. However a review of the progress of cases previously treated demonstrated that due to poor treatment compliance a total of 49 patients required treatment. This figure is below the WHO target of leprosy elimination (less than 1 case per 10,000 population) by the year 2000.

vi) Oral Health

16.91 The (1983-2000) National Dental Health Plan (NDHP) has been evaluated and the results will be used to formulate a new plan for the next 10 years.

Infrastructure

16.92 The delay in completion of the construction of the Gaborone Dental Clinic, and the upgrading of the existing Hospitals has had negative impact on the delivery of oral health services.

HIV/AIDS

16.93 The first case of HIV related illness was discovered in 1985. From that time on, the virus that causes AIDS spread rapidly from urban and peri-urban areas to rural areas, leaving no district spared by the epidemic. The HIV Sentinel Survey among pregnant women carried out in all the 22 districts of the country showed prevalence rates ranging from a minimum of 23.3% in Ghanzi to a maximum of 51.1% in Tutume. The HIV trends during 1993-2001 for all age groups apart from those aged 15 to 19 and 20 to 24 years increased gradually and have reached in 2001 at least twice the prevalence in 1992.

16.94 Based on 2001 HIV Survey it is estimated that 38.6% of the adult population is infected with HIV, the worst affected age group being 25-29 years with a prevalence rate of 48.4%. Median prevalence rate among the 15-19 years was 24.1%. The major significance of the latter age group is that it indicates the rate of new infections for that year.

16.95 Factors believed to have facilitated the spread of HIV are

among others; multiple sexual relationships coupled with lack of/inconsistent condom usage, presence of other Sexually Transmitted Infections, relatively good road network which facilitates population mobility, and the nature of the virus that causes AIDS in Botswana. The virus that is predominantly responsible for AIDS in Botswana is HIV-I subtype C, which is believed to be more easily transmissible than other subtypes.

The National Response to HIV/AIDS

16.96 The response to HIV/AIDS in Botswana has evolved over time, from being predominantly health sector based to being multilevel and multisectoral, with strong political leadership and government commitment.

16.97 The earlier response to the epidemic largely focused on:

- Raising awareness among both health workers and members of the public.
- Blood safety
- Management of opportunistic infections.

16.98 The disease then was largely silent resulting in denial at all levels of the society.

16.99 The response to the epidemic has undergone a major transformation in line with the Botswana National AIDS Policy of 1993 and the Second Medium Term Plan (MTP II) for HIV/AIDS (1997 – 2002), which advocate for an expanded multisectoral response to HIV/AIDS. Sectors other than health (governmental, non-governmental, private and parastatal) are increasingly assuming greater responsibility for HIV/AIDS.

Coordination Structures:

16.100 Coordination structures have been established as follows:-

- National AIDS Council (NAC)
- National AIDS Coordinating Agency (NACA)
- Sectoral AIDS Subcommittees of the NAC
- Parliamentary Select Committee on HIV/AIDS
- District Multisectoral AIDS Committees (DMSACs)
- NGO Coordination Networks.
- Botswana Network of AIDS Service Organisation (BONASO)
- Botswana Network of People Living with AIDS (BONEPWA)
- Botswana Christian AIDS Intervention Program (BOCAIP)
- Botswana Business Coalition on AIDS (BBCA)

Major Challenges

16.101 Botswana has responded to the epidemic by putting in place several programs to both (i) prevent HIV transmission and (ii) mitigate impacts of HIV/AIDS. Challenges that the country encountered include the following:

- Burden of HIV/AIDS and stigma—Botswana is among the worst affected countries of the world. Magnitude of HIV/AIDS is such that the country cannot manage on its own to address it adequately.
- Shortage of trained human resources.
- Botswana is classified as a middle-income country and thus does not qualify for development aid. This places Botswana at a disadvantage

of not receiving much external assistance despite being among the worst affected by HIV/AIDS, which threatens to reverse all the development gains of the past as well as slow down both human and economic development.

HIV/AIDS Programmes

a) Prevention Programs

Information, Education and Communication (IEC)

16.102 The critical role played by IEC in the response to HIV/AIDS is well recognized. Efforts are being made to strengthen this component.

Achievements

- Over 90% of population is aware of HIV/AIDS
- Condom usage has increased.
- IEC Strategy has been developed
- National IEC Committee established
- Serial radio drama being aired and its popularity is increasing.
- AIDS at the workplace program established both within the public service and private sector.

Challenges

- Targeting the difficult to reach areas
- Strengthening of grass-root level structures
- Closing the gap between knowledge and practice

Control of other Sexually Transmitted Infections (STIs)

16.103 Prevention and improved management of other Sexually

Transmitted Infections is being done as one of the strategies for reducing HIV transmission. HIV prevalence rate among male STD patients is over 50%. STI prevention and care activities are integrated into health services at all levels of the health care system. STI services are backed up by a National STI Referral, Training and Research Centre.

Isoniazid Preventive Therapy (IPT)

16.104 Tuberculosis is the most common opportunistic infection and major cause of mortality among HIV infected persons in Botswana. Studies carried out show that:-

- 75% of T.B. patients are co-infected with HIV
- About 40% of AIDS patients die of T.B

16.105 In recognition of this, a program to prevent T.B. among HIV infected persons was started as a pilot in 2000. Pilot evaluation results show that implementing IPT in Botswana is operationally feasible. There is a plan to roll out IPT.

Prevention of Mother-To-Child Transmission (PMTCT) of HIV/AIDS

16.106 The PMTCT programme was established in September 1998 with the aim of improving child survival through the reduction of HIV related morbidity and mortality. The program was launched in April 1999 in the two main cities, Francistown and Gaborone as pilot projects. Rolling out was completed in November 2001. The main objective is to reduce annual incidence of HIV infections in children occurring through mother-to-child transmission of HIV by at least 50%. By the end of 2001, 2,245 women had

received AZT, 1,653 infants were given AZT and 1,595 infants given infant formula for PMTCT. Nationally, 80% of women are counselled on PMTCT. 57% of those counselled are tested for HIV and 58% of those tested positive receive Zidovudine.

16.107 Different strategies are in place to raise awareness on PMTCT in communities: IEC materials, including three PMTCT videos, have been developed and distributed. Radio jingles are aired on national radio stations, newspapers and magazines educate the community on PMTCT. To improve availability and quality of counselling, the training curriculum has been developed and 60% of health workers trained, 200 porta cabins are being distributed to provide additional space for counselling. Program monitoring has been strengthened through integration of PMTCT data into MCH registers.

16.108 During NDP 9, the program will aim at increasing the uptake from 28% to 75%. Different strategies have been identified and will be the focus of the PMTCT action during the coming years:

- IEC will be strengthened through community awareness and dialogue. Community leaders and men groups will be targeted to promote support of women enrolled in the program and create an enabling environment. TCM, PLWHAs and community support groups will be sensitized on PMTCT and involved in community mobilization for PMTCT. Education through media and material distribution will continue.

- Counselling availability and quality will be improved through the involvement of well-trained lay counsellors and regular counsellor debriefing meetings at facility, district and national level.
- The quality of infant feeding counselling will be improved through training of health workers on Breastfeeding and HIV Infant Feeding Counselling. More warehouses will be sought to ensure easy access of infant formula to the consumers.
- Follow-up of clients will be the responsibility of lay counsellors and Family welfare educators at the facility level.

b) Care and Support Programmes

Community Home Based Care (CHBC)

16.109 The program was established in 1995 in response to increased illnesses due to HIV/AIDS. The program aims at ensuring quality care at all levels from health facility to home level. The Ministries of Health and Local Government jointly run the programme.

Achievements

- o Community Home Based Care operational guidelines have been developed.
- o Training guide with modules developed.
- o Developed assessment guide for CHBC clients and families, which includes discharge plan.
- o Directory of CHBC providers has been developed and disseminated to stakeholders.

- CHBC staff training was in counselling, participatory methodologies
- Income generating projects for CHBC Volunteers are operational.
- CHBC logistical materials such as bedpans, napkins, gloves are given to caregivers at home.
- Conducted study on stigma to determine the causes of stigma and the form it takes.
- Evaluation of Community Home Based Care pilot project was done and the results informed the program expansion.

Challenges

- Retention of volunteers
- Reducing burden of care by families and communities
- Reducing stigma related to HIV/AIDS
- Sustaining community's participation in CHBC
- Shortage of manpower
- Shortage of transport
- Poverty alleviation
- Development of caring for carers program

Antiretroviral Therapy (ARV)

16.110 In the year 2000, Government decided to introduce ARV therapy in a phased manner. Four initial sites (Gaborone, Francistown, Serowe and Maun) were identified. Critical to this programme are manpower, infrastructure, training, data capturing, drugs and other supplies.

16.111 The programme started in Gaborone in January 2002 and was rolled out to other three sites in July 2002. More sites will be included in NDP 9.

Counselling

16.112 The aim of the counselling program is to develop capacity for counselling at all levels to deal with the emotional and psychosocial aspects of the epidemic. Since the beginning of NDP 8, the counselling program has been reinforced by provision of Voluntary Counselling and Testing Services through the Botswana/USA (BOTUSA) HIV/AIDS program of support.

Achievements

- National Counsellor Training guide has been developed to standardize counselor training.
- Counsellor Trainers have been trained to facilitate training at district level.
- Over 1,000 counsellors have been trained.
- Directory for Counselling services has been developed and disseminated to stakeholders.

Challenges

- Retention of trained counsellors
- Expansion of VCTs to cover the whole country
- Establishment of emotional and psychosocial support program for health workers.
- Provision of ongoing supportive counselling

Clinical Management of Opportunistic Infections

16.113 Infections and tumours are common clinical problems confronting health providers caring for patient with HIV related diseases. Treatment of these infections and tumors are of great importance as it decreases the suffering and prolongs life.

16.114 The goals of providing clinical care are as follows: -

- Reduce HIV related mortality and morbidity
- Improve the quality of the life of PLWA
- Improve the survival of PLWA

16.115 The Clinical Management Program has endeavoured to achieve the above goals by doing the following:

- i) Reviewing guidelines for clinical management of HIV related illnesses.
- ii) Reviewing guidelines on ARV treatment.
- iii) Training of trainers in the districts to provide quality services.
- iv) Continuing medical/clinical education/training of health workers.

Challenges:

- o Inadequate numbers of trained personnel
- o Sustaining expensive programs

c) The Impact of HIV/AIDS on the Health System

16.116 The HIV/AIDS epidemic is beginning to take its toll on the health system. The problem is that the impact has not yet been formally studied, therefore the information given is from routine data collected from 20 hospitals in 1998 and most likely an underestimation. Other than the increase in direct costs, the major impact felt so far is at the service delivery point. This comprises overstretching of hospital services due to increased number of AIDS patients in these facilities. This has resulted in increased admissions and bed

occupancy and also longer hospital stays.

16.117 On average, 55% of admitted patients had HIV related conditions and up to 80% in some medical wards and about 33% of paediatric wards had HIV related conditions.

16.118 Occupancy rates of general wards were 97% and greater than 100% for female and medical wards and 72% for all male and female wards. The average length of stay was 9 days for AIDS patients and 5 for all patients. Hospital expenses on drugs and other items have increased by about 40%.

16.119 The HBC system, which is the cornerstone of the health system's response to the epidemic, is being stretched beyond its means. The high number of patients and the high number of unskilled volunteers are among its shortcomings.

16.120 Other important factors relate to lack of human resources at all levels to respond to the needs. The chronic lack of manpower has been amplified by increased needs at facility level and also loss of lives and chronic absenteeism of health care workers due to AIDS. Projections indicate that 16-18% of health care workers may have died of AIDS by 2005.

16.121 Other impacts include indirect costs such as medical aid costs, and claims for disability and death benefits.

d) Future Course of Action

16.122 For NDP 9 the Ministry of Health aims at developing the following within the Health Sector.

16.123 Training of 900 professional and 500 lay counsellors.

- To train 60 supervisory counsellors.
- To expand voluntary counselling and testing centres from 10 to cover all the districts.
- To introduce 6 alternative models of care i.e. respite homes and to continue training officers.
- To facilitate the formation of psychosocial programmes

16.124 The STD centre, which has since been opened, will facilitate/strengthen training in STD syndromic approach.

HEALTH SECTOR POLICY AND PLANNED DEVELOPMENT STRATEGY FOR NDP 9

16.125 The development and delivery of health services in Botswana shall continue to be based on the principles of primary health care in line with the National Health Policy approved in 1995. Health promotion and disease prevention will continue to be key priorities in NDP 9. Development of health service infrastructure, supported by **appropriate technology**, will be driven by the need to ensure **equitable access** to essential health services as well as **improvement in the quality** of health service delivery. These are planned to be achieved through implementation of quality initiatives such as Total Quality Management (TQM), and the development and implementation of policy standards for all key service areas and disciplines.

16.126 In order to foster decentralisation and improve the efficiency of the health service, as well as increasing participation of the private sector in the economy, partnership with or hiving-off suitable services to the private sector in

selected and appropriate service areas will be undertaken.

16.127 The Ministry of Health will continue to provide policy direction and leadership in the health sector, working in partnership with the Ministry of Local Government, which will continue its role of delivery of primary care services at district level.

16.128 Significant increases in health expenditure during NDP 9 will be occasioned by an expanded health service response to HIV/AIDS, as well as efforts to address the resurgence of communicable diseases such as tuberculosis, diarrhoea, malaria, and the increase in non-communicable diseases such as hypertension, diabetes, injuries and malignant disease.

16.129 The **sustainability** (with respect to the system and finance) of health service provision will be a key concern; hence cost-effectiveness, improved efficiency, and implementation of cost-containment initiatives including equitable and sustainable methods of cost-recovery will be priority issues.

16.130 Sustainability will be further addressed through the effective implementation of the Performance Management System (PMS), which will continue to be central to health service planning and strategy development.

16.131 To this end the Ministry of Health developed a Corporate Performance Plan that reflects the strategic direction of the Ministry in the next 5 years.

16.132 The Vision, Mission and Values proposed in the Corporate Plan are a starting point for a new direction

that builds upon the Ministry's strengths and recognises its weakness, takes advantage of the opportunities and guards against threats. In this context, the Ministry of Health is committed to addressing the common desires of the people by way of designing concrete and implementable strategies that will make Vision 2016 a reality.

Linkage between the ministry strategic plan and vision 2016

16.133 Health remains one of the integral parts of the pillars of Vision 2016 because the ultimate aim of this long-term vision is to have a healthy nation that is fully involved and can contribute meaningfully to development. Most importantly health derives a lot from Vision 2016 pillar of 'Building a Compassionate, Just and Caring Nation'. It is therefore right to infer that the Ministry of Health's Strategic Plan has a strong linkage with Vision 2016, as well as the National Development Plan 9, with its Vision, Mission and Values as expounded in the Strategic Plan. The Ministry identifies its core business as provision of:

- Comprehensive, preventive, promotive, curative and rehabilitative health care services anchored on the principles of Primary Health Care.
- In addition, the Ministry of Health is responsible for health policy formulation and facilitating the implementation of health policy.
- Maintains a surveillance system on the quality of health care delivered by all agencies.

16.134 The Ministry further identified its Key Result Areas as to:

- Improve Health Status of the Nation
- Customer Satisfaction
- Organisational Efficiency and Effectiveness
- Human Resources Development/Management.

16.135 These will be achieved through the Ministry's Strategic goals as indicated in their Strategic Plan and further elaborated through Annual objectives and activities; the latter are spelt out in the Ministry's Annual Performance Plan. The health sector policy goals are:

- a) To provide quality health services to Batswana in order to improve their health status.
- b) To improve life expectancy of Batswana through implementation of the PHC strategy.
- c) To provide customer focused health services in order to increase customer satisfaction.
- d) To improve quality service delivery through development and implementation of comprehensive health policies and standards by end of NDP 9.
- e) To enhance the Ministry of Health's efficiency and effectiveness through the implementation of innovative performance improvement initiatives.
- f) To review existing HRM health plans in order to come up with a comprehensive plan consistent with the current health needs of the country.

g) To facilitate combating of the HIV/AIDS pandemic in the country

16.136 Health status of the nation will be improved through health promotion and education initiatives directed at empowering the nation to take greater responsibility for their health at the individual level and to address the leading health challenges of HIV/AIDS prevention and care, the resurgence of communicable diseases significantly affecting child welfare and survival, and non-communicable diseases. These challenges will also be addressed through the inter-sectoral collaboration with the education, water and sanitation and agricultural and social welfare sectors.

16.137 Special emphasis will be given to the health needs of vulnerable groups in the design and delivery of health services including those living with disability, the mentally ill, children and adolescents, pregnant women, orphans and the elderly.

16.138 Success will be measured using social development indicators significantly influenced by health services such as the infant mortality rate, under five mortality, and reproductive health indicators such as maternal mortality, contraceptive prevalence, fertility rate, as well as general and age-specific HIV prevalence rates.

16.139 Customer satisfaction is a critical measure of the quality of service delivery. The Ministry of Health will strive to improve public perceptions of health service delivery through quality initiatives such as regular quality audits of health services, and improvement of service quality through the documentation and

implementation of policy standards through the use of guidelines and treatment protocols, and improvement of skills and attitudes of service providers.

16.140 Establishment of partnerships with the community in the management and planning of health services through appropriate forums at community, facility, district and national level will ensure accountability and improved ownership of the service. Organisational efficiency and effectiveness will be achieved through the implementation of the performance management strategy in all levels of service planning, monitoring of effectiveness and implementation of productivity initiatives such as Work Improvement Teams (WITS).

16.141 An organisation and management review of the Ministry of Health undertaken will re-align the organisational structure and functions of the Ministry so as to address the health challenges the country will face in NDP 9. It will also improve its capacity for intersectoral collaboration with key partners.

16.142 Partnership with the private sector in selected and appropriate service areas will be undertaken to improve the efficiency of service delivery in line with the national policy of increased participation of the private sector in the economy. Suitable service areas for privatisation such as laundry, catering, and maintenance services will be hived off as and when necessary during the course of NDP 9.

16.143 Effective human resource development will be central to the ability of the health services to cope with growing health needs and to sustain health service quality.

16.144 In recognition of the central role that traditional medicine plays in meeting the health needs of the nation, better collaboration will be fostered between the formal health sector and traditional practice, as well as provision of a regulatory framework for its practice.

16.145 Health problems are becoming complex and the required resources to meet the resultant challenges are scarce and finite. This situation necessitates vigilance and prudence in the use of resources for optimising their utility and maximising output.

16.146 In this regard, the Ministry will continue pursuing the objectives of sustainability; quality and appropriateness with a view to achieving the following goals: to improve efficiency and cost-effectiveness of health care delivery; to ensure equitable distribution of services; to improve quality of care; to retain appropriate skilled health personnel; and to strengthen primary health care programmes.

16.147 In the light of these, the priorities for NDP 9 period will be:

- Human resource development;
- Health sector reform, by strengthening of health policy and introduction of innovative management systems;
- Strengthening of health services: especially secondary and some improvements in tertiary facilities; and
- Strengthening support to different levels of the health care service.
- Information technology.

Health Manpower

16.148 The five-year Human Resource Strategic Plan will be fully implemented through the attempt to address its priority area of Human

Resource Development. The following goals and objectives will be pursued:

- The provision of adequate and competent human resource through proper management strategies
- Development, review and update of curricula for the various health programmes in order to capture the current epidemiological trends, more especially now with the advent of HIV/AIDS pandemic.
- Implementation of performance improvement initiatives such as PMS, WITS, TQM, etc in order to effectively and efficiently improve the delivery of health care services.

16.149 The above goals and objectives will be achieved through the implementation of various activities and projects as indicated in the thumb nail sketches.

16.150 The possibility of introducing new programmes such as Intensive Care Unit (ICU), Accident and Emergency (A&E), and Theatre Nursing will continue to be explored, either at diploma and degree levels; as well as the upgrading of some existing diploma programmes to the degree level; and increasing the intakes of some of the existing programmes.

Primary Health

16.151 Government will pursue its objective of providing accessible health care to all communities, with construction of additional health facilities and staff houses during NDP 9.

16.152 Pursuant to the National Policy for care of People with Disabilities objective of combating the incidence of disability and to promote the quality of life for people with disabilities, the National Rehabilitation Programme of people with Disabilities will be

implemented, with special emphasis on Community Based rehabilitation. National Medical Rehabilitation Centre will be established in Gaborone and Rehabilitation Technicians will be trained to man this facility.

16.153 The demand for oral health services continues to increase as the population's knowledge and expectation on health care increases. 24 portable dental units will be purchased and Kanye Dental Clinic will be completed during NDP 9. Dental units will be provided in all the district and primary hospitals that will be constructed during NDP 9.

Hospital services

16.154 Construction of upgraded hospitals and provision of staff houses and other projects to be under hospital services included the establishment of teaching hospital are indicated in the thumb nails sketches.

Technical Support

16.155 The construction of a new Central Medical Stores depot at Francistown is essential to develop capacity for the implementation of the National Drug Policy to ensure regular availability of affordable drugs of acceptable safety, efficacy and quality and contribute to the achievement of the National Health Policy and Vision 2016. The depot will cater for drug supply needs of health facilities in Northern Botswana.

16.156 An independent National Drug Quality Control Laboratory shall be established in order to ensure that drugs produced, distributed, exported and used in Botswana are tested for conformity to international standards of quality. This laboratory shall test drug samples for the public and private sectors and shall function as a

reference laboratory for local drug manufacturers and distributors as well as serve as a reference laboratory by the Botswana Bureau of Standards.

16.157 Several other projects, detailed in the thumbnail sketches, will also be undertaken during NDP 9 in order to achieve the stated objectives of the Ministry.

Computerisation

16.158 In order to improve the Ministry's ability to respond to all situations including emergencies as well as improving patient record management, an integrated health communications system will be developed. Several health facilities will be computerized and software developed as indicated in the thumb nail sketches. The Ministry will expand its utilisation of information technology and patient data management, management of the national health information system, and will actively explore greater use of information technology in its diagnostic services.

Fleet Development

16.159 As a result of HIV/AIDS pandemic, the Ministry's activities and roles increased tremendously during NDP 8, resulting in an increased demand for transport services. Experience in NDP 8 has shown that shortage of transport causes waste and delays in the provision of essential health services.

16.160 The Ministry will purchase all types of vehicles required by the health sector including vehicle related equipment, ambulances and mobile units, to cater for all departments and facilities during NDP 9.