

disabilities (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

4.3.3 Accidents and Injuries

In recent years, accidents and injuries have constantly been among the top five outpatient ailments. This is not only a health care problem, but also a great social problem. Table 4-40 shows the number of (outpatient) cases of accidents and injuries, and their share of total ailments from 1990 to 1995. The number of accidents and injuries grows each year, and accounts for between about 4 and 6% of total ailments.

Table 4-40: Trend in Number and Incidence of Accidents and Injuries, and Their Share of Total Ailments

Year	Accidents and injuries (no. cases)	% of Total Outpatients	Incidence (per thousand population)
1990	490,301	4.6	49.6
1991	764,045	6.2	75.5
1992	581,179	5.6	55.9
1993	651,332	5.8	60.7
1994	719,553	5.6	64.5
1995	782,507	6.1	67.9

Source: Zimbabwe National Health Profile 1995-1997 MOHCW

Accidents and injuries account for between 10 and 15% of total deaths (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: Version 2," 1997 MOHCW). The main cause of death among the accidents and injuries is traffic accidents, followed by suicide.

Table 4-41 shows hospitalizations and fatalities from accidents and injuries by age and type of injury or accident. Burns are the leading injury for hospitalizations and deaths among children under 5, accounting for 33.4% of the total. Among those over 5 years old, the leading cause of death and hospitalization was fractures, while intracranial/internal injuries were overwhelmingly the most fatal.

Table 4-41: Hospitalizations and Fatality from Accidents and Injuries by Age and Type of Injury

Type of Injury	Under 5 years		5 years or more		Total	
	Hospitalizations	Fatalities	Hospitalizations	Fatalities	Hospitalizations	Fatalities
Fractures	975	5	10,359	107	14,389	254
Intracranial / Internal injuries	142	7	1,434	55	2,793	214
Open wounds and other injuries	1,095	8	9,350	81	11,306	104
Burns	1,683	42	2,436	70	4,996	214
Poisoning and toxic effects	551	31	2,168	70	4,025	172
Others	592	11	4,276	40	5,080	51
Total	5,038	104	30,023	423	42,589	1,009

Source: Zimbabwe National Health Profile 1995-1997 MOHCW

Accidents and injuries cause 50% of all physical disabilities (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: Version 2," 1997 MOHCW). There are a large number of work related accidents, especially in the transportation, mining, and forestry industries. Moreover, suicides, rapes, and domestic violence are also on the rise.

4.3.4 Dental Ailments

Dental ailments have a high treatment rate: according to medical facility outpatient statistics, dental ailments rank in the top ten on the list of most commonly treated ailments. It was reported in a nationwide dental health survey conducted in 1995 that there were many complaints of cavities and gum disease, but few serious ailments. Although the proportion of people in need of care for gingivitis and cavities, however, is very high at 21% of the population, this means that people either have no intention of getting treatment, or intend to receive treatment but do not for some reason (figures from "National Health Strategy for Zimbabwe 1997 – 2007: Discussion Draft Document," 1997 MOHCW). This suggests that the adult population is in need of education on dental hygiene.

4.4 Epidemiological Databases

4.4.1 The Ministry of Health and Child Welfare's Periodically Updated Epidemiological Database

A clear and explicit planning and management system based on the monitoring of injuries and illnesses is necessary for the effective and efficient implementation of injury and illness control programs. The National Health Information System (NHIS) was established in 1985 for the purpose of monitoring illnesses and injuries. This program is under the MOHCW Epidemiology and Disease Control (EDC)

Department, and is run by its Health Information System Unit. Quarterly and fiscal year reports are prepared, and distributed to the district level.

The main types of data collected regarding injuries and illness are listed below.

(1) Outpatient Data Collection System

This system collects not only data on outpatient attendances, but also on growth monitoring, immunization coverage, and prevalence of immuno-preventable diseases, and maternity. Every month, a summary of data from all public health facilities is sent up the health system to the EDC.

(2) Inpatient Data Collection System

Hospital inpatient data is sent to the EDC from all public health care facilities in accordance with IDC-10.

(3) Notifiable Disease Reporting System

Data for notifiable communicable diseases are collected by health care facilities and sent every month to the EDC. Notifiable communicable diseases are cholera, diphtheria, hepatitis, epidemic cerebrospinal meningitis, the Plague, polio, rabies, tetanus, typhus, haemorrhagic fever, yellow fever, and anthrax.

(4) Weekly Sentinel Sites Reporting System

The Weekly Sentinel Sites Reporting System was established in 1994. This system is a weekly surveillance report to complement the notifiable reporting system. Every week sentinel reporting sites from around the country send data to the EDC via telephone, e-mail, or fax regarding selected diseases of importance to public health. These diseases include dysentery, malaria, measles, polio myelitis, neonatal tetanus, rabies, immune disorders, anthrax, and meningitis. This system is extremely flexible, however, and diseases can be added to the list as needed. In 1997, for instance, epidemic cerebrospinal meningitis was added after an outbreak occurred.

Every week, data is sent to the MOHCW from 601 health care facilities, including RHCs and rural hospitals (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: Version 2," 1997; MOHCW). About 41% of all health care facilities participate in this system. Moreover, data is sent from the examination sites of the 8 province and municipal governments. Recently, most data has been sent by e-mail. A total of 63 health care facilities have access to email, including all central hospitals and provincial health directorates, about half of all district hospitals, and a portion of private hospitals, mission hospitals, and hospitals run by local governments. Of these 63 facilities, 49 were actively using e-mail as of December 1996 (figures from MOHCW EDC documents, 1997). About 80% of the data is collected on

a weekly basis (figures from MOHCW EDC documents, 1997). The EDC Health Information System Unit prepares simple weekly reports based on this data which include diagrams produced from in-house software which itself was developed from D-Base/EPI-Info software. The Unit then discusses the contents of these weekly reports with managers from the EDC. This surveillance system receives support from DANIDA.

It is clear that this surveillance system has had a major impact on disease control programs due to its capability to report on outbreaks on an on-demand basis.

(5) Health Care Facility Workload Data Collection System

Collects data on number of beds and bed utilization rates from all institutions with inpatient facilities.

(6) Tuberculosis Reporting System

Because the functioning of tuberculosis treatment centers is distinct from ordinary medical facilities, a specialized system is used for tuberculosis (see chapter 5: "Health Care Programs," 5.10 "Tuberculosis Control").

(7) AIDS Reporting System

Because the AIDS prevention and treatment program began after NHIS was established, it has been difficult to add it to the existing forms. For this reason, a separate information collection system was created for reporting HIV/AIDS. This system also includes reporting from sentinel sites on HIV prevalence among high risk groups to monitor the trend of the infection (see chapter 5: "Health Care Programs," 5.10 "HIV/AIDS Control").

4.4.2 Other Databases

(1) Publication of a National Digest

The Medical Library at the University of Zimbabwe produced the digest "Current Health Information Zimbabwe" (CHIZ) in 1987, in order to provide Zimbabwean health care practitioners with health care information from around the world. The university library publishes CHIZ every quarter using information from all over the world collected by WHO's MEDLINE, and information from popular health journals³⁰.

CHIZ is not only distributed to Zimbabwe's roughly 1,200 health care practitioners, including physicians, nurses and pharmacists, but is also distributed to neighboring countries and international aid institutions such as WHO. This is a major source

³⁰ Health Policy and Planning, World Health Forum, Central African Journal of Medicine, Tropical Doctor, etc

of information for health care practitioners who live in regions far from the capital city of Harare, where information is difficult to access. In recent years CHIZ has become a model for similar journals in Ghana and Zambia.

(2) Household Surveys by WHO/AFRO 27

In 1988, 1990, and 1993, the MOHCW conducted nationwide surveys of households in all districts. In 1993, in order to monitor the health of regional populations, the MOHCW conducted interviews with 100 households from each district, using questionnaires in accordance with the 27 WHO indicators. The questionnaire included questions concerning immunization coverage, literacy rates, supply of essential medicines, adult mortality, maternal and child health services, family planning, and environmental health.

(3) Sentinel Surveillance

This surveillance is implemented by the Ministry of Public Service, Labour and Social Welfare in order to analyze the effects of the Social Development Program (SDA), which is a component of ESAP. The Ministry regularly conducts surveys of households, schools and shops in order to ascertain the social welfare, condition of public services, and availability of daily necessities. This surveillance program, which receives monetary support from UNICEF, will be implemented for the sixth time by 1996.

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5 Health Care Programs

5.1 Overview

Zimbabwe's disease control programs are based on national health care policy which prioritizes health care service. Based on this, these programs conduct surveillance, public health education, laboratory facility provision, and disease vector control with emphasis on field work for PHC. Efforts are directed towards the leading causes of death, illness, and physical disability such as communicable diseases, parasitic infections and tropical diseases. These communicable disease control programs benefit from the decentralization initiative which has shifted resources from the center to the provinces since 1985. For instance, the MOHCW has sent field staff to the provinces, stationed staff in provincial MOHCW Epidemiology and Disease Control Departments, and appointed provincial environmental health workers. Furthermore, in 1990, the transfer of staff to the district level began, and progress has been made at the district and province levels. In the future the government plans to increase decentralization to the district level, and strengthen the health care at the district level based on experience accumulated at the national level.

In recent years, changes in lifestyle and environment, as well as urbanization, have brought about cancer, cardiovascular disease, and accidents and injuries. Although new programs to combat these diseases are imaginable, they have not been realized due to low priority, and personnel, and budgetary constraints. Since chronic diseases have been uniformly integrated with PHC, it is difficult to devise immediate and effective programs given a limited budget and manpower. It is necessary, however, to put forth efforts into devising all types of campaigns and catch-up programs for each disease.

The government's goal for the year 2000, is to build a national health service at the district level in which ensures disease control programs which are effective, efficient, technically advanced and equitable.

Zimbabwe's goal for health care is stated in the "Third Evaluation of the Implementation of Strategies for Health for All by the Year 2000: Version 2,"1997; MOHCW, which is based on "Health for All by the Year 2000." The main topics of these goals are as follows:

- 1 Establish strong famine relief programs through child food subsidy programs
- 2 Improve STD programs in order to support programs for the control of HIV/AIDS
- 3 Improve and create programs for the tuberculosis control
- 4 Improve child survival programs

- 5 Establish cholera and dysentery control programs, and strengthen diarrhoeal diseases control programs
- 6 Build programs to control women's diseases, including those of pregnant women and mothers
- 7 Improve and create malaria control programs
- 8 Improve public health education
- 9 In order to promote decentralization, restructure the health care system and encourage common focus on problems within the system.

5.2 Primary Health Care

Zimbabwe adopted primary health care in 1982 in order to improve and unify health care services, as well as remedy inequity in health care. It has since become the foundation of national health care planning. Primary health care considers health care activities to be a part of socioeconomic development; as such, the goals of its policies are the expansion of access to health care services through cooperation with the participation of local communities, and sustainability at low cost. Based on these goals, the government via decentralization has shifted emphasis from a central government oriented health system to a system which depends on the self-reliance of local communities.

The key health workers in the front line of PHC activities are the village community workers (VCW). Following the adoption of PHC, training centers for village health workers (VHW) were established in every district. Village health workers filled the vital role of linking organized health care services with the community. In February 1982, Home Economics Demonstrators, who were under the authority of the Ministry of Community Development and Women's Affairs, were united with VHWs by Prime Minister's Directive, creating VCW. VCWs are active not only in the health care field, but also participate in other community based local development. VCWs are not employed by the MOHCW, but are presently under the authority of the Ministry of National Affairs, Employment Creation and Cooperatives.

Between 1988 and 1989, in line with the philosophy of "development begins with dialogue with the people," a large scale training program for approximately 7,400 VCWs was implemented with support from SIDA, UNICEF and CIDA.

The work of the VCW in the health care field is education, promotion and prevention regarding sanitation, public health, immunization, maternal and child health issues, etc. Furthermore, they give simple treatment and conduct instruction in oral rehydration therapy (ORT). At present there are about 8,000 VCWs, but only about 7,500 of these are active. After VCWs complete their training, they receive a simple medical kit and a bicycle. RHCs provide guidance to VCWs. VCWs work on a part time basis, for approximately 100 hours a month. They presently receive a monthly salary of Z\$100 although there are plans to raise this to Z\$350 in the near future. VCWs, are chosen by the community, and they are mostly female (86%) with their age ranging from 21 to 71, for an average age of 47 (figures from "VCW Updating Survey," 1997 UNICEF). The reason for the high

average age is because VCWs who were recruited in the 1980's continued working up to the present. As there are about 12,000 villages in Zimbabwe, this does not mean that there is a VCW in every village. Although the government's plan is to place a VCW in every village, this has not been achieved due to a shortage of funding (Interview with Ms. Henderson, Health Care Director for UNICEF).

One problem is that since their work is not limited to the health care field, while the scope of their work is wide, these disparate fields are poorly coordinated; other problems are poor compensation and the fact that although they are issued bicycles, no spare parts are available. This means that if the bicycle breaks-down it is rendered useless, and hinders activities.

These VCWs are stationed in the poorest communal lands, but there is limited governmental social development services on the large scale commercial farms on commercial lands and there are no RHCs or VCWs in these areas. Farm health workers are active in these areas to alleviate health care problems, but their activities are constrained by the fact that they receive little support from the farm owners. Few details are known about the activities of farm health workers due to a lack of documentation.

5.3 Immunization Programs

In 1982, the government, with support from UNICEF, began the Zimbabwe Expanded Program on Immunization (ZEPI), based on its policies of "Equity in Health" and the "Introduction of PHC." The purpose of ZEPI was to reduce deaths caused by six childhood diseases: measles, tetanus, diphtheria, tuberculosis, polio, and whooping cough.

Table 5-1, below, shows immunization coverage from 1984 to 1996. Excluding 1990, immunization has steadily risen throughout the country until 1995; in 1990, immunization fell, along with other health indices. As with other health indices, this was caused by a worsening of health care services due to ESAP, the drought, and the spread of HIV/AIDS. In addition, it is thought that the fierce opposition from a faction of the Apostolic religious groups was linked to this decline in immunization. Moreover, BCG decreased substantially in 1996. As data for this could only be obtained by fax, the reasons behind this drop are unknown.

It has also been reported that some health care facilities do not fully report all immunization, and that the actual immunization rate is higher than that reported. According to a study conducted between 1988 and 1991 based on WHO guidelines, the immunization rate was about 10% higher than what was reported (figures from Children and Women in Zimbabwe: A Situation Analysis Update 1994, 1994; UNICEF).

The government's goal is to increase the coverage for all immunization to 90% by the year 2000; as of yet this goal has not been achieved.

Table 5-1: Changes in Immunization Rate

Year	BCG	Measles	Polio ^{#1}	DPT ^{#1}
1989	87.1	79.3	83.1	83.5
1990	77.1	79.0	80.7	81.2
1991	82.6	80.7	84.6	84.5
1992	91.0	80.5	78.0	81.0
1993	88.4	77.2	71.1	70.8
1994	92.0	79.4	82.1	81.5
1995	94.0	82.4	85.9	84.3
1996	78.1	83.0	82.7	80.5

(Notes) Target is infants under 1 year, unit is %

^{#1}: Polio and DPT both require three rounds of injections

Source: 1989 – 1992: “Third Evaluation of the Implementation of Strategies for Health for All by the Year 2000 Version 2” 1997 MOHCW;

1993 – 1996: “Zimbabwe National Health Profile 1996 (abstract)” Date of Publication Unknown; MOHCW

Furthermore, according to WHO documents³¹, as of July 1997 the immunization rates were lower than the figures given by the MOHCW: for BCG it was 79%, for measles 77%, for polio (three rounds) 76%, and for DPT (three rounds) it was 76%.

Table 5–2, below, shows immunization rates by region for 1996. It is not known why some regions have immunization rates in excess of 100%. There is large regional variation of immunization rates. Overall, Matabeleland East has the lowest immunization rate.

Table 5-2: Immunization Coverage by Region

Province/City	BCG	Measles	Polio ^{#1}	DPT ^{#1}
Manicaland	83.6	76.4	76.4	74.7
Mashonaland Central	77.3	81.4	78.5	80.5
Mashonaland East	85.0	102.9	93.7	68.4
Mashonaland West	84.6	88.9	83.4	82.6
Masvingo	110.4	89.9	89.9	89.6
Matabeleland North	63.4	71.0	72.1	71.8
Matabeleland South	80.5	80.5	87.6	86.7
Midlands	78.7	75.1	75.9	77.5
Bulawayo	47.1	75.1	78.7	79.6
Chitungwiza	68.6	153.9	93.1	93.1
Harare	52.5	70.1	89.3	90.2
Nationwide	78.1	83.0	82.7	80.5

(Notes) Target is infants under 1 year; unit is %

^{#1}: Polio and DPT both require three rounds of injections

Source: “Zimbabwe National Health Profile 1996 (abstract)” Date of Publication Unknown; MOHCW

According to a 1991 MOHCW survey, 69% of immunization were performed at primary level facilities such as RHCs and clinics; 13% were performed in hospitals such as district and provincial hospitals, and 18% were performed by mobile services using automobiles (figures from “Report on Basic Survey of Infectious

³¹ Global Immunization Coverage

Diseases in the Republic of Zimbabwe,"1994; Japan International Cooperation Agency).

Immunization programs are staffed by MOHCW personnel; vaccines and equipment are supplied through the cooperation of the following aid organizations:

- UNICEF: Supply of equipment necessary for the cold chain (refrigerators, coolers, etc.), needles, syringes, etc.
- CIDA: Began support of EPI in 1986. Supplies vehicles for mobile service, and funding for surveys.
- SIDA: Supplies vaccines

Another problem with immunization programs is their over-integration under PHC. This over-integration of immunization programs caused the individual characteristics of each disease to be overlooked. Because of this, it is difficult to set individual goals, for instance for measles. For this reason, the government has been trying to take a more public health-style approach, implementing campaigns and catch-up programs, such as national immunization days, for each disease. In August and September of 1996 a 10 day immunization day campaign was implemented, yielding good results. This was proof of the government's continued strong commitment. There is no plan for such a campaign in 1997, but a measles immunization campaign is scheduled for 1998 (interview with Mr. Piyoti, Director of the Epidemiology and Disease Control Department, MOHCW).

Moreover, backup support such as cold chain equipment, vehicles, etc. essential for the immunization program was set up in the 1980's. This equipment has become old and worn with extensive use and it will be necessary to replace it in the future.

Acute Flaccid Paralysis (AFP) surveillance is included in the Epidemiology and Disease Control Department's "Weekly Sentinel Sites Reporting System."³² Data is collected from over 80% of health facilities nationwide. This system also trains health care practitioners to diagnose cases of AFP and polio, provides stool/urine sample collection kits for polio testing and assures transportation of the same to laboratories. Furthermore, it increases the ability of laboratories to diagnose polio.

5.4 Nutritional Programs

Nutritional issues such as nutritional deficiencies fall under the authority of the National Nutrition Unit, in the Maternal Child Health & Family Planning Department of the MOHCW. This unit manages all matters relating to nutrition, including coordination with other ministries.

Here are listed the specific programs implemented by the National Nutrition Unit

(1) Nutrition Surveys and Surveillance

As part of the National Health Information System, weighs children and monitors their weight; in addition, implements all types of nutritional surveys

³² See 4.4: "Epidemiology Database"

(2) Community-Based Growth Monitoring

After a study tour of the Iringa Communal Nutrition Program in Tanzania, in 1992 a child developmental survey was conducted in two wards of two districts with community support. Because of active community participation, there are plans to spread the program nationwide.

(3) Children's Supplementary Feeding Programs

Following independence, the National Children's Supplementary Feeding Program for children under 5 was started, mainly by NGOs, with the support of SIDA. This program did not simply supply food, but also conducted nutritional education. During the drought of 1991/92, with the support of NGOs, aid organizations, and others food was distributed to 1,500,000 children under 5 through about 3,000 different programs. Moreover, in the drought of 1994, food was distributed to about 1 million children under 5 (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: Version 2," 1997; MOHCW).

(4) Community Food and Nutrition Program

In 1989, the Supplemental Food Production Program started by SIDA was renamed the Community Food and Nutrition Program; the government and NGOs joined SIDA in this program. This program encourages rural residents to grow not only vegetables, but also highly nutritious plants such as peanuts and green beans.

(5) Breast Feeding Activities

The promotion of breast feeding is quite active in Zimbabwe. In 1985, breast milk substitutes (baby formula) were regulated by the public health law. The National Nutrition Unit of the MOHCW, through the establishment of "Baby Friendly Hospitals," also worked actively to promote breast feeding; By 1995, 18 hospitals had been designated "Baby Friendly Hospitals." (figures from Country Health Profile: Zimbabwe, 1995; WHO/MOHCW).

(6) Micronutrient Programs

The government began a national iodine deficiency control program, and distributed iodine capsules to Murewa district, which had a high rate of goiter.

In a 1990 follow-up survey, the rate of goiter in Murewa district had dropped since 1988 but was still 65.1% (figures from "Endemic Goitre in Zimbabwe," 1993 J.R. Mutamba).

Moreover, the iodination of all salt consumed in Zimbabwe was made obligatory by law. In 1992, the law was further modified to require from

30 to 90mg of iodine for each kilogram of salt. As Zimbabwe relies on imports for all of its salt, monitoring of compliance with the law is also being conducted.

In 1996, a survey was conducted of the iodination of salt. 62% of the salt had been iodized to the required level, but 35% was below the set level (figures from "6th Round Sentinel Surveillance for SDA Monitoring," 1996; UNICEF/GOZ).

The government's goal is to reduce the rate of goiter to 5% by the year 2000, and iodize all salt to the required level.

The MOHCW does not set national food and nutrition policy on its own, but rather does so in cooperation with other concerned ministries. This participation is accomplished through joint participation in the National Steering Committee on Nutrition established for this purpose. Moreover, the Food and Nutrition Coordinating Committee has been proposed to assure smoother cooperation between the various ministries and government agencies.

5.5 Maternal and Child Health Programs

Maternal and child health is under the control of the MOHCW Maternal Child Health & Family Planning Department; this department implements maternal and child health programs such as antenatal and postnatal care, with the goal of improving the quality of maternal and child health management before and after birth; this department also conducts tetanus immunization, and promotes childbirth at health care facilities.

5.5.1 Antenatal Care

Many surveys have been conducted as to the proportion of pregnant women who get antenatal care at medical facilities. According to data collected periodically from medical facilities by the MOHCW Maternal Child Health & Family Planning Department, 77.5% of pregnant women received antenatal care in 1995 (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: version 2," 1997 MOHCW). In contrast with this, in the 1994 DHS the rate was 93%, and in a 1991 maternal and child health survey the rate was 95% (figures from Country Health Profile: Zimbabwe 1995, WHO/MOHCW). However, the periodic report in 1991 listed a rate of 78.9%, while the 1988 DHS listed a rate of 91% indicating that there has been almost no change (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: version 2," 1997 MOHCW).

From these three surveys, it can be said in general that most mothers receive antenatal care, but many of them do so in the third trimester (28 weeks or later) which is too late to do useful screening for first time attendances which represented 38% of the total in 1995 (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW). Moreover, although all three of these surveys indicate an extremely high rate of antenatal visits, none of them give comprehensive reports as to the

content and quality of service provided. A 1992 survey³³, however, reported the following regarding antenatal care at RHCs (figures from "Safe Motherhood in Zimbabwe: A Situation Analysis Discussion Document," 1996; UNICEF/MOHCW):

- 1 100% of RHCs had functional blood pressure measuring machines
- 2 50% had adult weighing scales designed for antenatal care, while 83% had an over abundance of bathroom scales which are less accurate
- 3 31% had a haemoglobinometer, but only three out of nine centers were able to use them
- 4 24% had blood collecting tubes to facilitate full blood count
- 5 66% had adequate equipment to do urinalysis.

Moreover, according to this survey, records were incomplete, and only 30% of RHC personnel had knowledge of what constituted an at-risk pregnancy.

In 1997, the MOHCW Maternal Child Health & Family Planning Department conducted a nationwide survey of the quality and content of antenatal care. The results of this survey are scheduled to be released in the near future.

According to periodic reports by the MOHW, there is large regional variance in the rate of dissemination of antenatal care. According to figures for the proportion of pregnant women receiving antenatal care for the first time, the region with the highest rate of antenatal care was Mashonaland Central with a rate of 94.4%; the lowest was Harare with a rate of 54.1%, followed by Matabeleland North with a rate of 61.5%. Matabeleland North has the highest average distance from medical facilities; it is thought that this contributes to its low rate of antenatal care. It is thought that the reason the rate is low in Harare is that women are utilizing private medical facilities (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: version 2," 1997 MOHCW).

5.5.2 Childbirth

It is extremely important to reduce complications and the transmission of communicable diseases during childbirth in order to reduce the health risks to the mother and the child. As with antenatal care, the figures for childbirth differ among all three surveys.

According to the 1994 DHS, 69% of births were attended by a trained health care professional. This proportion is nearly identical to the 1988 DHS proportion of 70%. The only change between 1988 and 1994 was that the proportion of births attended by friends and relatives fell (from 20.3% to 10.8%), while the proportion of births attended by traditional birth attendants (TBA) rose (from 6.3% to 17.4%) (figures from DHS 1988, 1994 CSO). It is thought that one reason for the rise in the number of traditional birth attendants at childbirth is that starting in 1981 TBAs began to receive training in western medicine (for information on TBAs see the following section).

³³ A survey targeting 171 pregnant women in 30 RHCs in Matabeleland East

According to the 1992 maternal and child health survey, four out of five women gave birth at medical facilities (figures from Country Health Profile: Zimbabwe 1995, WHO/MOHCW). Although in urban areas 90% of women gave birth in medical facilities, however, in rural areas only 60% of women did so.

According to routine MOHCW data, in 1987 49.8% of births were attended by a trained health care professional, and 61.6% in 1995 (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: version 2," 1997 MOHCW).

5.5.3 Traditional Birth Attendants

There is no data for the numbers, etc. of traditional birth attendants (TBAs) in Zimbabwe, although it is estimated that there are 40,000 or more (figures from Spokesperson Zibanda of ZINATHA). Starting in 1981, the government, in order to encourage TBAs to use western medicine in childbirth, began training them in western medicine with the financial support of UNICEF, UNFPA, and others. As of December 1997, a total of 32,075 TBAs had undergone this training (figures from "Safe Motherhood in Zimbabwe: A Situation Analysis Discussion Document," 1996 MOHCW/UNICEF). From this it is estimated that a fair proportion of TBAs still have not received any training, which suggests that continued training is necessary.

5.5.4 Tetanus

A tetanus vaccination during pregnancy prevents neonatal tetanus, reducing infant mortality and disease. A woman must be vaccinated two times during pregnancy, or 5 times during her lifetime. The government has made a public pledge to eradicate neonatal tetanus by the year 2000. In 1994 the incidence was nearly zero, showing that this goal has nearly been reached (see Chapter 4: "Epidemiology," 4.3.1: "Infectious Diseases," (C): "Neonatal Tetanus"). In 1994, however, only 46% of women received the tetanus vaccine twice during pregnancy.

5.5.5 Postnatal Care

Rates of postnatal care are low. According to the 1995 periodic report by the MOHCW, only 34% of women received general postnatal care (figures from Zimbabwe National Health Profile 1995, 1997 MOHCW). In the 1994 DHS, when asked why they had not received postnatal care 34% replied that they had never heard of postnatal care, and 41% replied that they did not feel any need for postnatal care.

5.5.6 Future Programs

Because of the spread of HIV/AIDS, the Maternal Child Health & Family Planning Department is currently studying a plan to encourage not only care during pregnancy, but also HIV/AIDS screening and counseling in order to assure safe

pregnancies and births. Moreover, this Department is studying the need for a tetanus immunization program for school-age girls.

It is thought that problems with access to medical facilities are responsible for the fact that even though the rate of antenatal care is high, the proportion of births at medical facilities is low. It is difficult, especially for working women, to drop everything and go to medical facilities when they go into labor. For this reason, the establishment of "Waiting Mother Shelters" is being promoted. By 1995, there were 255 Waiting Mother Shelters nationwide (figures from Zimbabwe National Health Profile 1995, 1997 MOHCW).

It is said that not only do untrained TBAs need to receive such training, but even those who have had training need refresher training to reverse a noticeable decline in their skills. Furthermore, it is necessary to convince mothers of the importance of postnatal care through health education.

5.6 Family Planning

Zimbabwe is one of the sub-Saharan African countries that have seen the most success with family planning. Family planning services started in 1954. At that time, however, family planning was limited to white society, and contraceptives were only distributed to whites; blacks at the time relied on coitus interruptus and abstinence. The government began distributing contraceptives to blacks in 1966.

After Independence, the government established the Zimbabwe National Family Planning Council (ZNFPC) in 1984 under the MOHCW. The ZNFPC creates and implements family planning programs, together with NGOs and aid organizations. Some of the ZNFPC activities are contraceptive surgery and treatment, treatment of STDs, cooperation in treatment of uterine cancer, family planning education for medical students and health care practitioners, research on maternal health, and participation in PHC activities.

5.6.1 Use of Contraceptives

As shown in Table 5-3, in the 1994 DHS 42% of married women (between the ages of 15 and 49) had used some type of modern contraceptive. This rate had climbed 6% in 6 years, up from its 1988 rate of 36% in the same survey. Moreover, 61.7% of married women had at one time used a contraceptive; including men, the proportion of people who had experience using a contraceptive jumps to 79.7%. The total fertility rate fell from 5.5 to 4.4 between 1988 and 1994; it is thought that the increased use of contraceptives was a major cause of this.

The pill is by far the most commonly used form of contraceptive, including condoms: the pill is used by 33.1% of married women.

Table 5-3: Rate of Contraceptive Use by Method (%)

Contraceptive Method	Currently Using		Have Used in the Past	
	Married Females	Married Females/Males	Married Females	Married Females/Males
Any Method	48.1	35.1	79.7	61.7
Any Modern Method	42.2	31.1	72.0	56.1
Pill	33.1	23.6	66.4	50.4
IUD	1.0	0.60	2.7	1.9
Injectables	3.2	2.4	12.0	9.5
Implant	0.2	0.1	0.2	0.1
Condom	2.3	2.4	24.4	20.7
Sterilization	2.5	1.8	2.5	1.9
Others	2.6	4.2	28.6	20.7
Any Traditional Method	4.0	6.0	7.7	5.6

Source: DHS 1994 CSO

Moreover, it was reported that 98.8% of married women had knowledge of some type of contraceptive; including males (aged 15 to 54), the total is 97.8%. Of these, the most well known form of contraceptive was the pill at 98%, followed by condoms at 95%.

Table 5-4, below, shows the trend in use of contraceptives by married women. The use of modern contraceptive methods climbed from 26.6% in 1984 to 42.2% in 1994; in contrast, the use of traditional contraceptive methods dropped sharply, from 11.8% to 6.0%. This suggests the effectiveness of family planning programs.

Table 5-4: Changes in Level of Contraceptive Use

Contraceptive Methods	1984 (ZRHS)	1988 (DHS)	1994 (DHS)
All methods	38.4	43.1	48.1
Any modern method	26.6	36.1	42.2
Pill	22.6	31.0	33.1
IUD	0.7	1.1	1.0
Injectables	0.8	0.3	3.2
Diaphragm/Jelly/Foam	0.1	0.0	0.2
Condom	0.7	1.2	2.3
Female sterilization	1.6	2.3	2.3
Male sterilization	0.1	0.2	0.2
Any traditional method	11.8	7.0	6.0

(Note) 1984 data is based on a study conducted by ZNFPC (ZRHS)³⁴ (figures from DHS 1988).

Source: DHS 1988, 1994 CSO

Table 5-5 shows where users of modern contraceptive devices obtained those devices, by proportion. Over 81% of those who used modern contraceptive devices obtained them from public health care institutions. Private institutions provided only 12% of contraceptives.

³⁴ Zimbabwe Reproductive Health Survey

Table 5-5: Source of Modern Contraceptive Devices (1994)

Source	(%)
Public	81.4
Government hospital / clinic / RHC / mobile clinic	26.3
Rural / municipal clinic	31.9
ZNFPC clinic / distribution worker	23.2
Mission Facility	3.6
Medical Private	11.7
Other	3.2

Source: DHS 1994 CSO

The Success of family planning in Zimbabwe is due not only to the increased level of contraceptive use and fall in use of traditional methods of contraception, but is also probably due to the large drop in the total fertility rate from 1984 to 1994. Despite the spread of HIV/AIDS, however, condom use is still extremely low and this problem must be dealt with in the future.

5.6.2 The Zimbabwe National Family Planning Committee

The Zimbabwe National Family Planning Committee (ZNFC) is an 18-member committee headed by the permanent secretary of the MOHCW. The goals of this committee are the distribution of contraceptives available in Zimbabwe, training related to family planning, and providing information concerning contraception to those most in need of it. Over 50% of operational expenses are provided through support from USAID, UNFPA, British ODA, Norway, and others.

ZNFPC has its headquarters in Harare, and maintains offices in every province. Moreover, there are contraceptive surgery centers in Harare and Bulawayo which perform vasectomies and tubal ligations. In addition, there are 35 clinics nationwide.

ZNFPC is made up of 3 service support & management units, 3 technical support units and an administrative management unit. Below is a breakdown of the service support and management units and technical support units.

(1) Service Support & Management Units

- 1 Treatment & Clinical Unit: condoms, vaginal contraception, contraceptive surgery, and other contraceptive services
- 2 Community Based Distribution (CBD) Unit: distribution of the pill and condoms through rural outreach activities, public education, etc.
- 3 Youth Education Services Unit: sex education and education about contraception through schools, etc.

(2) Technical Support Units

- 1 Training Unit: mainly trains VCWs and family health workers on commercial lands

2 IEC Unit

3 Evaluation and Research Unit

The total staff is about 1,500, about 800 of whom are regional on-site female community workers.

Almost all condoms are distributed by public institutions; British ODA supports funding for this activity. USAID sells condoms to the private sales sector for Z\$3, but this amounts to less than 1% of the total proportion of condoms used.

The pill is sold for Z\$3, but is distributed free of charge to impoverished people. New users are checked by community workers according to a checklist, and are periodically checked for side effects and, utilization, etc..

ZNFPC's future goals are to maintain current programs, increase the use of modern contraception to 50%, and increase the use of condoms to fight the spread of HIV/AIDS (interview with Mr. Zinanga, Director of ZNFPC).

5.7 Malaria Control

Anti-malarial measures were started in 1948 by the National Malaria Control Programme (NMCP), and expanded to the whole country. Since 1970 the NMCP had been run by the Blair Research Institute, but in 1990 was transferred to the MOHCW Epidemiology and Disease Control Department. Despite the fact that anti-malarial programs have been in place for such a long period of time, malaria has a large socioeconomic impact on the country: at present 4 million people (40% of the population) live in areas in which there is a danger of infection. The government allocates over US\$2 million per year towards fighting malaria (figures from "National Malaria Control Programme: Five-Year Plan 1994 – 1998," 1993; MOHCW). In 1995, the government spent US\$4 million on fighting malaria (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000 Version 2," 1997; MOHCW).

Although anti-malarial programs are run by the Epidemiology and Disease Control Department, the Blair Research Institute still plays an important role in research on fighting malaria and the improvement of treatment techniques.

5.7.1 Programs to Control Vector Mosquitoes

One measure used to control mosquitoes which host malaria is the spraying of insecticide on roofs. In the past, DDT was used for this, but because of environmental considerations, Cislin³⁵ and Icon³⁶ are now used in place of DDT. DDT is spread outdoors in October and November, before the heart of the rainy season, and access to many areas becomes difficult. The effect of DDT is long lasting, and is effective through the mosquito breeding season (from February through May).

³⁵ Cislin: Commercial name of the pyrethroid insecticide Deltamethrin

³⁶ Icon. Commercial name of the insecticide Lambda cyhalothrin; imported from South Africa

Another method of fighting mosquitoes is the use of mosquito netting, but this method is not used much due to its high cost.

5.7.2 Diagnosis of Malaria

In Zimbabwe, most malaria is diagnosed through clinical symptoms rather than malaria blood slide examination. WHO disseminates the diagnosis guide "The Tree of Decisions," based on its "Guidelines for Diagnosis and Treatment of Malaria in Africa 1992," which is a guide for treating malaria.

5.7.3 Drug Treatment

The national standard treatment manual for malaria lists chloroquine as the drug of choice for treating malaria; this is because even in the case of chloroquine resistant malaria, if treatment is begun early most patients are cured. This treatment consists of 25mg/kg/day of chloroquine for 3 days. If no improvement is seen in symptoms, Fansidar is used; difficult cases are administered an injection of quinine.

Education concerning complete treatment methods for chloroquine are necessary due to the fact that chloroquine can easily be obtained from pharmacies by anyone who wants it. Despite this need, however, not much education has been conducted.

Moreover, it is recommended that pregnant women living in type A regions³⁷, as well as travelers to these regions, take chloroquine as a prophylactic.

5.7.4 Drug Resistance

Tropical malaria sporozites with resistance to chloroquine were first reported in 1984. Reports increased after this, and by 1995 it was reported that the rate of RI or RII resistance was 0 to 27%, while RIII resistance was 0 to 5%. Due to the small sample size, it is difficult to assess the accuracy of these figures; what is certain, however, is that chloroquine resistant strains of malaria exist. Because it is thought that the level of chloroquine resistance is still low, however, chloroquine is still the number one choice for treating malaria in Zimbabwe. Quinine is recommended as appropriate in serious and/or advanced cases, and in cases of complicated malaria.

5.7.5 Epidemiological Studies

In addition to existing general epidemiological studies conducted by the health statistics system, in 1989 a one week early warning disease surveillance system for malaria was initiated. Following this, in 1994 the Weekly Sentinel Sites Reporting System was established. With this weekly surveillance, the early detection of outbreaks of malaria, as well as outbreak forecasts, became possible. Following

³⁷ See chapter 4: "Epidemiology," section 4.3: "Types of Illnesses," subsection 4.3.1 "Communicable Diseases," paragraph (6) "Malaria."

this, however, studies and programs have been mired in bureaucracy, and action has been slow.

5.7.6 Province and District Level Programs

Programs for the malaria control fall under the National Malaria Control Programme (NMCP); programs such as the spraying of insecticides and blood testing are implemented under the authority of the Provincial Medical Director. The provinces have been given a measure of autonomy, but face a shortage of epidemiologists and environmental health specialists. It is very important that personnel receive training and the system be improved in order to improve the effectiveness of programs for the control of malaria.

Malaria prevention programs are implemented at the district level, under the jurisdiction of the District Medical Officer. The following staff in the District Medical Office participate in malaria control activities:

- 1 Environmental Health Engineers: assist in the spraying of insecticides, record outbreaks of malaria
- 2 Examination Room Personnel: diagnosis of malaria
- 3 Nurses: diagnosis and treatment

At present, one of the more important anti-malaria programs is case management. Some of the goals of case management are the diagnosis of patients with fevers at 90% accuracy, establishment of correct referral of serious and/or complicated cases, and proper treatment. Below are listed additional issues of case management.

- 1 Providing health education in accordance with current ecological and social changes
- 2 Early prediction of outbreaks
- 3 Timely spraying of insecticides to fight outbreaks

5.8 HIV/AIDS Control

5.8.1 Overview

The first HIV/AIDS control program began in 1995 with screening of blood transfusions. Then in 1986 an HIV/AIDS board of inquiry made up of health care experts was created. Following this, in 1987 the Zimbabwe HIV/AIDS Council of Experts was convened, and a one year Emergency Short Term Plan (STP) was initiated. The first comprehensive plan was the "Medium Term Plan for the Prevention, Control and Care of HIV/AIDS 1988 – 1993" (MTP1), which began in 1988. The goals of MTP1 were to prevent the spread of HIV and STDs, lessen the medical and psychological impact of HIV/AIDS, and enlist participation from diverse fields in order to carry out HIV/AIDS control programs.

Furthermore, the National AIDS Coordination Programme was established in 1988 to demonstrate on a national level leadership, coordination and management of programs for the prevention of HIV/AIDS and other STDs. Apart from the government, NACP received funding from such organizations as USAID, UNAID, WHO, UNICEF, British ODA, DANIDA, SIDA, and CIDA. The staff of NACP consists of 30 people, 13 of whom are specialists.

In 1990, the National AIDS Council was established in order to unify the various programs for the prevention of HIV/AIDS and STDs being supported by different organizations. However, because of weak political commitment, as of 1997 this council is not yet functioning.

In 1990, the Zimbabwe AIDS Network was established in order to coordinate the various HIV/AIDS prevention activities conducted by different NGOs into a more efficient and effective unified effort. At present, about 60 NGOs implement HIV/AIDS prevention programs. Moreover, in 1995 ZAN created a directory³⁸ of the network of all organizations conducting HIV/AIDS prevention programs, including NGOs.

5.8.2 Second Medium Term Plan for the Prevention, Control, and Care of HIV/AIDS

Following MTP1, the "Second Medium Term Plan for the Prevention, Control, and Care of HIV/AIDS 1994 – 1998"(MTP2) was initiated in 1994. MPT2 conducted a cause analysis of the spread of HIV infections in Zimbabwe, and based upon this implemented the following activities (for information about this cause analysis, see chapter 4: "Epidemiology," section 4.3: "Types of Illnesses," subsection 4.3.1 "Infectious Diseases," paragraph J) "HIV/AIDS").

MTP2 Goals

- 1 Prevention of the spread of HIV and other STDs
- 2 Alleviate the personal and societal effects of HIV/AIDS and other STDs
- 3 Lessen the socioeconomic impact of the spread of HIV/AIDS

The following activities were implemented in accordance with these goals:

- 1 Procurement and distribution of condoms; quality testing of condoms
- 2 Testing of female condoms
- 3 HIV/AIDS education through Information, Education and Communication (IEC) targeted at youth
- 4 HIV/AIDS education through IEC targeted at mothers
- 5 HIV/AIDS education in schools³⁹
- 6 Production of teaching materials

³⁸ Zimbabwe AIDS Directory – 1995

³⁹ Starting in 1992, AIDS education was included in the curriculum; starts in the fourth grade of primary school. Supported by UNICEF.

- 7 Training of school teachers and college/university students
- 8 HIV/AIDS prevention campaigns via the mass media
- 9 Counseling and HIV testing services for women
- 10 Promotion of Family Home Based Care for the care of AIDS patients by the family and the community
- 11 Care of orphans⁴⁰
- 12 Technical training of medical workers, including laboratory staff

5.8.3 Diagnosis at Testing Sites and a Safe Blood Supply

There are two central testing sites in Harare for the diagnosis of HIV/AIDS. In addition, facilities are being established at the province level for HIV testing. Moreover, a blood transfusion service center has been set up in every province with support from the Commission of European Communities (CEC)⁴¹. At present, blood transfusion service centers are being expanded to the district level. Finally, the establishment of volunteer testing centers with counseling capabilities is being considered.

5.8.4 Sentinel Surveillance System

In 1990, the HIV Sentinel Surveillance System was established in order to monitor outbreaks of HIV/AIDS, and link this information to control programs. There are sentinel sites in Harare, Bulawayo, and each of the provinces; data is collected at these sentinel sites from medical facilities such as hospitals and clinics. HIV testing is conducted when STD patients are given blood tests. Because STD patients do not form a representative sample of the population, HIV tests are also performed on blood samples taken from women during their first antenatal visit. Since, according to the 1994 DHS, more than 94% of all pregnant women receive antenatal care, this is thought to be a representative sample of the population.

Each sentinel site reports to the MOHCW. This surveillance system however, does not function quickly, and furthermore does not cover the entire country.

5.9 Control of Diarrhoeal diseases

In 1982, the government began the National Program for the Prevention, Control and Care of Diarrhoeal Diseases.

This is comprised of the following five pillars in accordance with SHO guidelines:

- 1 Appropriate treatment

⁴⁰ Over 15 NGOs are actively involved

⁴¹ The Commission of European Communities, Delegation in Zimbabwe. See Chapter 9, "International Cooperation in Health," subsection 9.2.2 "Other Bilateral Donors," paragraph (6), "CEC."

- 2 Control of outbreaks
- 3 Improved nutrition
- 4 Promotion of breast feeding
- 5 Improved environmental health

One special focus of the program is the early treatment of dehydration caused by diarrhoea through the dissemination of information concerning the preparation and use of Sugar and Salt Solution (SSS). Oral Rehydration Salt (ORS) packets, which are prescribed by WHO and UNICEF, is produced domestically by private pharmaceutical companies, but is not widely used due to its high price; for this reason, ORS was not publicly adopted for the general population. Patients whose dehydration is not severe are given SSS at home; if the dehydration is severe, the patient is taken to a hospital and given ORS. Pharmacists in most hospitals, however, do not systematically give ORS, but give intravenous fluid (IV) to cases which are not particularly severe.

According to the 1994 DHS, 99% of mothers knew of SSS, but only 79% of them had actually used it. It was reported in a 1988 MOHCW study that while 70% of children who had actual cases of diarrhoea were given SSS, only 30% of mothers knew the correct method of preparation (figures from Children and Women in Zimbabwe: A Situation Analysis Update 1994, 1994; UNICEF). Since it was reported that almost all mothers had received instruction on the preparation of SSS, this shows that further instruction concerning correct preparation methods is needed.

According to a case management survey⁴² on ARI and diarrhoeal diseases, only 44% of diarrhoea patient attendants had received proper instruction concerning SSS (figures from CDD/ARI Case Management Survey Report,"1994; MOHCW). Furthermore, while 45% of patients with dysentery were given antibiotics properly, 21% of patients were given antibiotics unnecessarily (figures from CDD/ARI Case Management Survey Report,"1994; MOHCW). As a result of this survey, the MOHCW reviewed and revised its teaching materials, and also improved the case management training of medical personnel; the results however, are unclear.

5.10 Tuberculosis Control

5.10.1 Overview

Programs for the control of tuberculosis began in 1962, during the colonial period, with the establishment of the National Tuberculosis Program (NTP). Following independence, the NTP was reorganized in 1982, adopting the PHC approach and decentralization to the district level.

In 1994, a TB manual was created to disseminate effective and efficient treatment and care of tuberculosis patients to both public and private health care institutions.

⁴² A survey implemented in 80 health care facilities (20 hospitals and 60 clinics), with support from UNICEF and WHO

The primary focus of the TB manual are the primary and secondary care levels. The focus of the National Tuberculosis Program is to ensure the adequate distribution of a two year stock of tuberculosis medication from the central medical store, and the creation of a national reporting system concerning the efficacy of tuberculosis treatments.

5.10.2 Tuberculosis Wards

Nationwide about 73 medical facilities (6 to 12 per province) with the capability to diagnose tuberculosis have been established; these facilities take referrals from primary health care facilities (figures from "Report on Basic Survey of Infectious Diseases: Republic of Zimbabwe,"1994; Japan International Cooperation Agency). There is one specialized tuberculosis hospital in Mutare⁴³, and one in Bulawayo⁴⁴. Harare has two infectious disease hospitals⁴⁵ which take tuberculosis patients, but both Harare and Bulawayo suffer from a shortage of hospital beds for tuberculosis patients (figures from "Health Facilities Report 94/95"Date of Publication Unknown, MOHCW/CSO).

5.10.3 Detection of Tuberculosis Patients

At primary level medical facilities, such as RHCs, patients showing clinical symptoms such as chest pains, weight loss, bed wetting, and coughs which last for several weeks or more are referred to one of the 73 tuberculosis diagnosis centers nationwide. It is estimated that nearly all urban residents have access to diagnosis and treatment of tuberculosis. In rural areas, however, it is estimated that about 20% of the population lives 10km or more from the closest medical facility which can diagnose tuberculosis; although they are supplied with transportation expenses to a tuberculosis diagnosis center if necessary, it is not easy for many rural residents to receive a first time diagnosis.

5.10.4 Diagnosis

Tuberculosis diagnosis centers either have physicians stationed full time, or have physicians make periodic rounds. Most diagnoses are done with expectorant tests, but cases which are difficult to diagnose and those who test positive after treatment can be sent to the National Tuberculosis Reference Laboratory in Bulawayo, where culture tests and tests for susceptibilities to medicine are conducted. Due to the limited testing capabilities of the laboratory, however, in practice only patients from the surrounding area are referred here.

Ordinarily, among those who test positive with an expectorant test the rate of actual infection is high, and thus these are the most important patients with regard to tuberculosis control programs. About 10 times as many patients tested positive

⁴³ St Joseph TB Hospital, 124 beds

⁴⁴ Mpilo Chest Hospital, 120 beds

⁴⁵ Beatrice Rd Infectious Disease Hospital, and Wilkins Infectious Disease Hospital Total of 329 beds

with a culture test who initially tested negative with a microscopic test compared with those who tested positive with a microscopic test alone. For this reason, patients who test positive with expectorant tests are the target of tuberculosis control programs. NPT is putting forth efforts to improve and disseminate expectorant testing, as well as improve the detection and treatment of positive cases.

5.10.5 Treatment

Patients diagnosed with tuberculosis are normally treated in a hospital for two months. The number of patients, however, has grown rapidly in recent years, straining the ability of hospital facilities to treat them; because of this, patients with light symptoms are being released from hospitalization in less than two months. After being released from the hospital, patients are referred to the medical facility nearest them, where they report for continuing treatment once a month. In cases where the patient stops reporting for treatments, an environmental health technician from a primary level medical facility visits the patient's home and continues treatment, however, in actuality this is difficult because of a lack of transportation.

5.10.6 BCG Vaccinations

BCG vaccinations are part of the "Zimbabwe Expanded Programme on Immunization"(ZEPI). The NTP and ZEPI periodically cooperate in implementing BCG vaccinations.

5.11 Control of Other Infectious Diseases

5.11.1 Acute Respiratory Infections (ARI)

In 1994, the MOHCW Epidemiology and Disease Control Department, which is in charge of ARI control programs, conducted a case management survey in order to improve the case management of programs for ARIs and diarrhoeal diseases (see section on control of diarrhoeal diseases). According to this survey, only 29% of bronchitis patients received proper case management (diagnosis and treatment) (figures from "CDD/ARI Case Management Survey Report,"1994; MOHCW). Moreover, while each facility had an adequate supply of antibiotics, these were administered inappropriately to patients with mild cases of ARI in 31% of cases (figures from "CDD/ARI Case Management Survey Report,"1994; MOHCW). As a result of this report, the MOHCW implemented ARI case management training for medical personnel at the Harare and Mpilo training centers, and also created ARI training videos and ARI case management flowcharts. Following this, however, there has been no report of whether there have been improvements in case management.

5.11.2 Leprosy

The program for the control of leprosy (also known as leprosy) was combined with that of tuberculosis starting in the 1990's. Tuberculosis, however, has received priority treatment due to the spread of AIDS, which has meant that leprosy control programs have tended to be overlooked.

Leprosy patients are treated at home on an outpatient basis as long as their cases are not severe. Severe cases are normally sent to either the Ngomahuru or Mutemwa Leprosy Center for Treatment.

The socioeconomic effects of leprosy are great, due to the fact that it leads to physical disability. In the future, rehabilitation of old and new leprosy patients will probably become key to tackling leprosy.

5.11.3 Schistosomiasis

The Blair Research Institute, which runs the schistosomiasis control program, conducts various research activities related to this disease. One of the successes of this research was the discovery that outbreaks of schistosomiasis are seasonal and occur in regional "hot spots." This could not be detected from health care facility statistics alone due to the fact that only severe cases are treated at these facilities. Moreover, the Institute conducts research related to chemotherapy, eradication of mollusks, community education, and improvement of the water supply.

Chemotherapy and chemical extermination of mollusks are high cost and not suited for application in Zimbabwe. The most effective measures for controlling schistosomiasis have been killing vector mollusks by non chemical means, and individualized treatment of schistosomiasis patients. At present the focus of the program is the planting of anti-mollusk vegetation in breeding grounds by means of community participation.

In the case of schistosomiasis, the goal is not to eradicate the illness but rather to reduce the number of cases. The reduction of the incidence in school children is a major goal of a schistosomiasis control program currently being conducted with project-type technical cooperation provided by the Japan International Cooperation Agency. The Program covers a pilot district from each of eight provinces.

5.12 Other Programs

5.12.1 Malignant Tumors (Cancer)

Programs for cancer control are under the supervision of the MOHCW Epidemiology and Disease Control Department. However, little activity is actually conducted due to the fact that the program has a limited staff of two and almost no budget. Statistics on the types and number of cases of cancer are based on patient records, but because diagnostic capability is not sufficiently accurate, it is estimated that the number of cases are under reported, and are actually 1.5 times higher than the number of reported cases.

The core of the MOHCW activities for cancer control have been the establishment of a cancer registration system, listing of cytotoxic medicines, radiation therapy, and supportive care to alleviate pain. In the future, however, emphasis will be placed on activities such as early detection through screening, the care of patients with cervical cancer, and health education concerning such topics as smoking, diet, and sexual lifestyle.

At present, there are only two facilities in Zimbabwe capable of providing radiation therapy. The use of morphine is the recommended analgesic, but as the physicians have not been proactive in its use, they are now being trained in its use; moreover, Island Hospice, a NGO, conducts analgesic treatment (Interview with Ms. Umusika, Director of the Non Communicable Disease Unit, Epidemiology and Disease Control Department, MOHCW).

5.12.2 Cardiovascular Diseases

In the case of cardiovascular disease, a active detection and a preventative approach such as control of smoking, diet, etc. are more important than treatment per se. The increase in the number of cases of cardiovascular disease has necessitated the establishment of control programs but as of yet none have been realized. The MOHCW as well as the government as a whole needs to increase awareness and support of programs for the control of cardiovascular disease (interview with Mr. Mudarikwa, Deputy Director of the Non Communicable Disease Unit, Epidemiology and Disease Control Department, MOHCW).

5.12.3 Mental Disorders

Treatment of mental disorders is integrated with other health care services, and patients with mental disorders may be treated at any health care facility, including RHCs. Moreover, public health institutions treat patients with mental disorders free of charge.

At present, Zimbabwe has two psychiatric hospitals⁴⁶. Furthermore, Parirenyatwa Hospital and Harare Central Hospital have psychiatric wards.

At present, public institutions have 10 psychiatrists, 6 clinical psychologists, as well as nurses and social workers specialized to handle mental disorders. There is a shortage of personnel, however, due to the increase in mental disorders in recent years, and to the flow of personnel to private institutions. The shortage of clinical psychologists is especially acute (interview with Mr. Masike, Deputy Director of the Mental Health Unit, Epidemiology and Disease Control Department, MOHCW).

The government provides technical training for patients with mental disorders in order to assist them in finding employment upon release from hospitalization. The government also provides financial support after they are released from hospitalization to enable them to practice agriculture, etc. in their home towns.

Moreover, in response to the rapid increase in the rate of alcoholism in recent years, the government observes a "National Day of Alcohol Awareness" every year, in

⁴⁶ Ingutsheni Hospital in Bulawayo and Ngomahuru Hospital in Masvingo

which it conducts education concerning the ill-effects of drinking and driving and child drinking (interview with Mr. Masike, Deputy Director of the Mental Health Unit, Epidemiology and Disease Control Department, MOHCW).

5.12.4 Control of Physical Disabilities and Accidents

The MOHCW frequently implements programs for the prevention of physical disabilities. These programs include the "Community Based Rehabilitation Program" in 1988, the "Blindness Prevention Program" in 1989, and the "National Accident and Injury Prevention Program" conducted in 1992.

Overall, access to rehabilitation has improved dramatically. It is necessary, however, to improve prevention programs for the ever increasing number of accidents, prevention of accidents during childbirth, and early detection of inner ear infections. The detection rate of vision disorders is improving with the aid of the NGO "Rotary Club International." Traffic accidents are becoming a major cause of disability; the government has responded to this by implementing accident prevention campaigns with every ministry through the Zimbabwe Traffic Safety Board. Moreover, because of the increased need of care for those with disabilities, in 1992 the government enacted a law requiring equitable treatment of persons with disabilities at schools and in the workplace. It is predicted that with the aging of the population, disabilities among the elderly will become a major problem (Interview with Ms. Umusika, Director of the Non Communicable Disease Unit, Epidemiology and Disease Control Department, MOHCW).

In order to better understand the scale of the problem and formulate appropriate counter-measures, the government's accident prevention programs are not run by the MOHCW alone, but in cooperation with such entities as the National Social Security Authority, which is responsible for the police and work-related accidents. The MOHCW is currently developing guidelines for techniques and management regarding the emergency quarters in hospitals and plans to provide instruction to the appropriate hospital personnel as soon as the guidelines are completed.

5.12.5 Health Education

The MOHCW Maternal Child Health and Family Planning Department has a Health Education Unit. The MOHCW, which is directing efforts towards health education, maintains three health education officers in its ministry headquarters, as well as three officers in each province. The Health Education Unit acts in accordance with the basic policies set forth in the 1995 "Five-Year IEC/Health Education Strategy 1995-200."

Below are listed the chief activities of the Health Education Unit.

1) Patient Education Programs

Provides preventive education to hospitalized patients concerning communicable diseases, HIV/AIDS, etc. Educational materials are

being prepared with support of GTZ, moreover, in 1996 a patient bill of rights was created as part of the patient education program.

2) HIV/AIDS

HIV/AIDS prevention programs are being implemented in cooperation with NACP. Some of the topics of these prevention programs are "HIV/AIDS and Women," "HIV/AIDS and the Workplace," and "HIV/AIDS and Youth." HIV/AIDS prevention campaigns demonstrating the dangers of HIV/AIDS and means of prevention are conducted using posters, leaflets, and television programs.

3) School Health

Trains teachers in all provinces. The main goals of this training are increasing teacher' awareness of student health, and creating more effective means of teaching health education to students. Another goal of the training is to increase awareness of living conditions of students.

4) Maternal Health

The concept of the maternal health program is relatively new in Zimbabwe, and activities are just starting. The main activities of this program are the creation of educational materials for the prevention and early detection of cervical cancer, and the creation of radio and television programs emphasizing the importance of maternal health.

5) Immunization, Tuberculosis, Acute Respiratory Infections and Diarrhoeal Disease

Production and broadcast/showing of radio programs, and films, in the Shona and Ndebele languages.

6) Production and Broadcast of Television Dramas concerning Malaria Prevention

7) Others

There are plans to conduct, with the support of GTZ, nationwide surveys of households, patients, and health personnel in order to better understand the needs of the population and health staff. At present, these surveys are in the preparatory stage.

Although the MOHCW is directing efforts into improving health education, the Health Education Unit lacks sufficient IEC materials and equipment. Because of this, the Unit produces educational materials using equipment and materials borrowed from family planning, or contracts out the production of educational materials. In the future, it will be necessary to provide the Health Education Unit with IEC materials and equipment in order to bring health education up to par (interview with Mr. Sika, Deputy Director of the Health Education Unit, Maternal Child Health and Family Planning Department, MOHCW).

5.12.6 Refugee Health

At present, there are approximately 1,500 refugees in Zimbabwe; these refugees are from Congo, Sudan, Yugoslavia, Somalia, and Liberia. About 100 are

accommodated at a transit center in Harare, but the remaining 1,400 are scattered throughout the country. Most of these refugees work in the mining industry, and due to their refugee status are eligible for free medical care and education for their children. There are no special medical facilities set up for refugees, but they may use the same medical facilities as Zimbabweans free of charge (interview with Mr. Kasale, Vice Commissioner of the Ministry of Public Service, Labour and Social Welfare in charge of refugee affairs).

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6 The Health Service Delivery System

In Zimbabwe, five types of institutions provide modern health care:

- 1 The Ministry of Health and Child Welfare
- 2 Local Government Bodies
- 3 Christian Church Missions
- 4 Private Medical Institutions
- 5 Industrial Medical Institutions

In addition to these modern health care providers, there are institutions which provide traditional health care. The vast majority of the population still makes use of traditional health care.

All of these health care providers are required by law to provide health care in accordance with government health care policy. The MOHCW runs the majority of modern health care institutions, accounting for 68% of all beds and 35% of all health care facilities (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW, and "Health Facilities Report 94/95," Publication Date Unknown; MOHCW/CSO). Below is an outline of health care providers apart from the MOHCW.

1) Local Governments

These have medical facilities in existence since colonial times. In rural areas they are run by the District Council, and in urban areas they are run by the City or Municipal Councils. Because District Councils lack major sources of income, they rely on the central government to cover most of the operational expenses of their medical facilities. Major cities such as Harare and Bulawayo have substantial sources of revenue and as a result their level of funding from the central government is low, and they maintain a high level of autonomy.

2) Christian Church Missions

These were the main source of regional health care during the colonial era; even today, they play a major role in regional health care. Following independence, however, support from church parent bodies abroad has diminished and resident churches have in turn had to rely on the government for this lost funding. The government provides support for operational expenses, including personnel expenses.

3) Private and Industrial Health Care Providers

Private medicine is authorized in Zimbabwe. A major element of private health care is health care provided by mine management to mine workers and their families. Moreover, there are many private hospitals and private clinics in the major cities. As these facilities do not receive funding from the government, they charge for services. A good example of private health care facilities which cater to a limited number of people from the privileged classes is "The Avenues Clinic" in

Harare. This clinic is fully staffed and equipped, and is efficiently managed without the congested atmosphere seen in public hospitals.

Table 6-1 shows the number and type of health care facilities in 1995. Moreover, the managing bodies for these health care facilities can be divided into the two types shown below:

- 1 Government, City/ District / Rural Councils
- 2 General Private, Mission, and Industrial (Commercial and Mining)

Among the private facilities, mission facilities receive government funding, with over half their employee wages paid by the government. 39% of primary level health care facilities or 497 are owned by local rural councils rather than the central government. In fact, of these health care facilities, which form the backbone of PHC, the central government owns less than local rural councils, with 31% or 406 of the total (see Table 6-1). Even those health care facilities, however, will be transferred to local government control in the future under the decentralization policy.

Table 6-1: Numbers and Types of Health Care Facilities (1995)

Facility Type	Facility	No.	
Hospital	Central Hospitals	5	
	Special Hospitals	13	Infectious disease hospitals; psychiatric hospitals; tuberculosis sanitariums; Others
	Provincial hospitals	7	
	Maternity Hospitals	3	Harare; Bulawayo; Midlands
	District Hospitals	48	Including mission hospitals designated as district hospitals (13)
	Missions	65	
	Private Hospitals (Total Hospitals)	25 (166)	
Primary Level (Rural Hospital, Clinics, etc.)	RHC	349 (27%)	Government-owned
	Rural Hospitals	57 (4%)	Owned by the government; no permanently assigned physicians
	Mission Clinics	60 (5%)	Owned by missions
	Council	497 (39%)	Owned by rural councils
	Municipal	102 (8%)	Owned by municipal governments, Harare 41; Bulawayo: 17; Others
	Private	208 (16%)	Owned by individuals and others and includes facilities run by commercial and mining industries
	(Total for primary level)	(1273) (100%)	
	Total	1439	

Source: "Health Facilities Report 94/95," Date of Publication Unknown; MOHCW/CSO

6.1 Health Care Facilities

6.1.1 Public Sector

Zimbabwe's public medical services are organized into a four-tiered referral system (see Diagram 2-1). The medical facilities at each level are shown below.

- Quaternary Level: Central Hospitals (not always with the title "Central Hospital"), and special hospitals⁴⁷
- Tertiary Level: Provincial Hospitals, Maternity Hospitals
- Secondary Level: District Hospitals (There are two types: rural "District Hospitals" with at least one permanently assigned physician, and "General Hospitals," with various types of physicians apart from general practitioners. Mission hospitals designated as district hospitals are also included). Other types of secondary level facilities are mission hospitals, private municipal hospitals, and hospitals related to the mining industry.
- Primary Level: RHC, rural hospitals (same level of care as RHC, but have hospital beds), rural council clinics, mission clinics, and municipal government clinics.

(1) Central Hospitals

The 5 central hospitals are listed below (the numbers in parentheses are number of hospital beds) (figures from "Health Facilities Report 94/95" Publication Date Unknown, MOHCW/CSO).

- Harare
 - Harare Central Hospital (1109)
 - Parirenyatwa Hospital (1013)
- Chitungwiza
 - Chitungwiza General Hospital (360)
- Bulawayo
 - Mpilo Central Hospital (360)
 - United Bulawayo Hospital (347)

These central hospitals are designed to provide a high level of treatment to patients referred from provincial hospitals, but because they are located in the cities, they also take referrals from private clinics and secondary level facilities. Moreover, it seems that a portion of patients come directly to the hospital for treatment without being referred. For these reasons, central hospitals end up providing more than just high level treatment. At present there are an extremely large number of patients due to the fact that patients receive all levels of care.

⁴⁷ Infectious Disease Hospitals, Sanitariums, Psychiatric Hospitals, among others

During the colonial era, Harare Central Hospital and Mpilo Central Hospital were black hospitals, while Parirenyatwa hospital and United Bulawayo Hospital were open only to whites. That distinction no longer exists, but the latter two hospitals have so-called "Private Wards," where patients may specify their physicians and nurses. The physicians and nurses are employees of the MOHCW, but the system is organized in such a way that additional fees may be collected from patients in the private wards. Parirenyatwa Hospital is the major teaching hospital.

After independence, the following new services were provided by the central hospitals:

- 1 Artificial dialysis (3 hospitals)
- 2 Cancer treatment and radiation therapy (Parirenyatwa hospital and Mpilo Central Hospital)
- 3 Open heart surgery (Parirenyatwa hospital)

(2) Specialist Hospitals

There are 13 public special hospitals. These hospitals specialize in tuberculosis, leprosy, communicable diseases in general, etc.; in Harare there are three (communicable disease, psychiatric, tuberculosis). These 13 hospitals have a total of 1,601 beds (figures from "Health Facilities Report 94/95" Publication Date Unknown; MOHCW/CSO).

(3) Provincial Hospitals

There are 7 provincial hospitals, one in each province except Matabeleland North (numbers in parenthesis are number of hospital beds) (figures from "Health Facilities Report 94/95" Publication Date Unknown; MOHCW/CSO).

Manicaland	Mutare Provincial Hospital (192)
Mashonaland Central	Bindura Provincial Hospital (120)
Mashonaland East	Marondera Provincial Hospital (263)
Mashonaland West	Chinhoyi Provincial Hospital (159)
Masvingo	Masvingo Provincial Hospital (271)
Matabeleland South	Gwanda Provincial Hospital (180)
Midlands	Gweru Provincial Hospital (368)

Bulawayo is located in Matabeleland North: for this reason, the central hospitals in Bulawayo fulfill the role of provincial hospital in Matabeleland North.

(4) District Hospitals

Mission Hospitals are designated as district hospitals in districts where there are none owned by government. Before independence, district hospital facilities were under-equipped, but in 1986, with a loan from the World Bank, district hospitals were equipped through the "Family Health Project 1."

(5) Rural Hospitals

There are 57 rural hospitals. They have from 20 to 60 beds each, but no permanently assigned physician; between five and nine nurses are stationed here. They fulfill the same role as RHCs.

(6) Rural Health Centers (RHC)

Before independence, primary health care in rural areas was provided by clinics run by the local government. These clinics provided treatment on an outpatient basis, and had one or two State Certified Nurses, or non-qualified nurse assistants.

Following independence, with the adoption of PHC, RHCs were entrusted with the role of providing general health care services at the primary level. Old clinics were converted into RHCs, and new RHCs were built and by 1987, a total of 207⁴⁸ RHCs had been established (figures from "Health Facilities Report 94/95" Publication Date Unknown; MOHCW/CSO). The goal was for all citizens to live within 10km of a RHC. The MOHCW goal is to newly establish 316 RHCs and as of 1997 a total of 283 have been completed, leaving 78 left to go of which 9 are planned for completion by the end of 1998 (figures from "Review of the Public Sector Investment Program for the Period July 1, 1996 to June 30, 1997 and the Forecast for the Period July 1, 1997 to December 31, 1998," 1997; MOHCW).

The functions of RHCs are the prevention and early detection of illnesses, and promotion of health. They also handle simple treatment and ordinary childbirth. RHCs have 2 nurses and Nurse's Aids, as well as 3 General Hands; in addition, depending on the location, environmental health technicians may also be assigned.

RHCs provide basic general services (prevention, treatment and promotion). Their chief activities concerns maternal and child health including family planning, and nutrition improvement programs, assurance of environmental health and safe drinking water, control of communicable diseases, and health education. They also conduct basic treatment, and refer patients to district hospitals when necessary. District hospitals are in charge of follow up treatment for tuberculosis patients, and the guidance of VCWs.

(7) Rural Council Clinics

Rural councils run a total of 497 clinics, the majority of which are primary level medical facilities. In the past their emphasis was on treatment, but with the adoption of PHC, their role has become similar to that of RHCs.

(8) City/Municipal Council Clinics

City councils, as with rural councils, run independent clinics, some of which are called polyclinics. At present, there are a total of 102 of these clinics under the management of city councils. These clinics have the facilities comparable to RHCs, and operate as primary level medical facilities, performing such activities related to prevention of illness, simple treatment, maternal and child health, childbirth, etc.

⁴⁸ The government built 67, the CEC built 47, the African Development Bank (ADB) built 83, and SIDA built 10.

Because Harare lacks secondary and tertiary level facilities, patients are referred to the quaternary level central hospitals.

(9) Other Clinics

In addition to the above mentioned clinics, there are resettlement clinics and prison clinics.

6.1.2 Church Mission and Other Private Health Care

(1) Mission Medical Facilities

Mission medical facilities play a major role in Zimbabwe's health care services, accounting for 24% of the country's hospital beds (figures from Zimbabwe National Health Profile, 1995; 1997, MOHCW). There are 78 mission hospitals, of which 13 have been designated as district hospitals. Moreover, there are 60 mission clinics. 30 facilities have 100 hospital beds or more; of these 7 have 200 beds or more (figures from "Health Facilities Report 94/95" Date of Publication Unknown; MOHCW/CSO).

From colonial times, mission medical facilities have conducted medical activities in rural areas and agricultural sectors (currently referred to as communal lands). Historically, missions have channeled efforts into medical care and education in addition to propagation. 96% of mission health care facilities are on communal lands; accounting for 60 to 70% of the total number of hospital beds in communal lands, their importance is readily apparent (figures from "Health Facilities Report 94/95" Date of Publication Unknown; MOHCW/CSO, and "An Evaluation of Health Financing Reforms with Special Focus on the Abolition of User Fees at RHCs and Rural Hospitals," 1996; WHO/MOHCW).

Although these are privately run facilities, almost all staff salaries are paid by the government. Mission medical facilities play an important role in PHC; in addition to implementing government health care programs, they also train traditional birth attendants. Moreover, although fees are charged for services, those who cannot afford to pay are often exempted. Mission medical facilities constantly work in cooperation with district health care facilities. For example, a mission hospital might send a physician to manage a district nurse assembly, or mission and district hospitals may assist each other when there is a shortage of medical supplies.

(2) Other Health Care Institutions

There are for-profit private hospitals and clinics in cities such as Harare. Moreover, there are mining hospitals and clinics. Including mining hospitals, there are a total of 25 private hospitals and 308 clinics. Private hospitals, because they receive no subsidies, charge for their services. "The Avenues Clinic" in Harare is a good example of the type of private health facility catering to the small number of people in the privileged class who are able to obtain medical insurance. This clinic

is fully staffed and equipped, and is efficiently managed without the congested atmosphere of public hospitals.

6.1.3 Major Medical Facilities

(1) Harare Central Hospital

This hospital was founded in 1958, when Zimbabwe was still a colony of Britain and known as Southern Rhodesia. It is located in the suburbs of the capital, Harare, accessible by car from the city center in 10 to 20 minutes. This general hospital was originally designed to accommodate 630 hospital beds, but has been expanded to hold 959 general hospital beds and 150 maternity beds (figures from "Health Facilities Report 94/95" Date of Publication Unknown; MOHCW/CSO). Harare Central Hospital is the general hospital of the largest scale in the country, with about 200 physicians and 1,000 nurses (including nurse trainees); each day it handles an average of about 1,000 outpatients, 50 to 60 childbirths, and between 250 and 300 emergency room cases (interview with Mr. Ali, Director of Harare Central Hospital).

The other general hospital of comparable scale is Parirenyatwa Hospital, but while Parirenyatwa Hospital was originally intended to serve only white patients, Harare Central Hospital was intended to serve black patients.

Following independence in 1980, both hospitals ceased to discriminate on the basis of race. Both, however, to this day maintain characteristics reminiscent of their founding circumstances. Parirenyatwa Hospital has a private ward, and is under semi-governmental management, while Harare Central Hospital has no private ward, and is 100% government-run.

(2) Parirenyatwa Hospital

Founded in 1974, Parirenyatwa Hospital had 894 general hospital beds and 119 birthing beds and ranks alongside Harare Central Hospital as one of the largest hospitals in Zimbabwe (figures from "Health Facilities Report 94/95," Date of Publication Unknown; MOHCW/CSO). Parirenyatwa Hospital is normally called the Parirenyatwa Hospital Group, since it includes an optometry hospital, maternity hospital, dental clinic, and radiation department on the same site. Located in Harare on the same grounds as The University of Zimbabwe, it also fulfills the role of a teaching hospital, and moreover, is the only hospital in Zimbabwe capable of conducting heart surgery. In addition, apart from Mpilo Central Hospital it is the only hospital in Zimbabwe capable of performing radiation therapy with patients coming from as far away as Malawi and Zambia to receive radiation therapy.

Parirenyatwa Hospital, like Harare Central Hospital, is a referral hospital, but because there are no tertiary level medical facilities in Harare, it also accepts referrals from private and city-run clinics. Moreover, there are also cases of patients who come directly, with no referral.

Originally intended as a hospital for whites during colonial times, Parirenyatwa Hospital is located in the northern part of the city, which was previously the white residential ward. Unlike Harare Central Hospital, which is 100% publicly run, Parirenyatwa Hospital is under semi-governmental management. Unlike other government hospitals, including Harare Central Hospital, Parirenyatwa Hospital does not receive its funding item by item but receives its budget in a lump sum to cover all costs. In addition to general outpatient and inpatient divisions, this hospital has a 37 bed private ward for patients with private medical insurance or those who can pay their own medical costs; patients in the private ward can specify physicians and nurses just as in private hospitals. Wages and benefits are rationed from the lump sum budget received from the government (interview with Ms. Dutch, Parirenyatwa Hospital Information Manager).

According to 1995 MOHCW statistics, there was almost no difference in hospital bed occupancy and length of stay between Harare Central Hospital and Parirenyatwa Hospital; the hospital bed occupancies of Harare Central Hospital and Parirenyatwa Hospital were 70.0%^{#1} and 65.8%^{#1}, respectively, while the average hospital stays were 5.2 days^{#1} and 5.7 days^{#1}, respectively. There was a difference, however, between medical expenses at the two hospitals: medical expenses for outpatients were on the average Z\$42^{#2} and Z\$34^{#2} respectively, while hospitalizations were an average of Z\$200/day^{#2} and Z\$80/day^{#2}, respectively (figures from ^{#1}: "Health Facilities Report 94/95" Date of Publication Unknown; MOHCW/CSO; ^{#2}: "Economics of the Health Sector in Zimbabwe," 1995; USAID).

6.2 Logistics

6.2.1 Pharmaceutical Supply through Public Sector and its Problems

(1) National Drug Policy

Following independence, the government formulated a national drug policy with cooperation from WHO. This policy was approved by the cabinet in 1987, and formally published. This drug policy set policy for the selection of essential drugs, the quantity of essential drugs, funding, purchase, storage, distribution, use, and drug quality control.

Following this, in 1995 a new "Zimbabwe National Drug Policy" (ZNDP) was announced. ZNDP was created to respond to the rise of the private sector, the steep rise in the price of medicine, and the change in the epidemiology. The goal of this policy was the improvement of the public health through the use of safe, high quality, effective and cost-efficient medicine. The main points of this policy are listed below:

- 1 All medicines used in Zimbabwe must be tested for quality and registered by the Medicines Control Council. Unregistered medicines may not be used.

- 2 Effective use of medicines listed in the Essential Drug List for Zimbabwe (EDLIZ).
- 3 Efficient procurement of non registered brands of drugs (generic drugs).

(2) Essential Drugs List

In 1985, the government created EDLIZ in accordance with WHO's Essential Drug Action Program in order to efficiently and economically distribute drugs in the public sector. This has become the bible for medical practitioners employed by public medical institutions, and contains not only a list of essential drugs, but also of average prices, and storage and treatment methods.

The list categorizes the drugs by purpose of use and in accordance with the four health care levels.

- S: for use by special hospitals
- A: for use by central and provincial hospitals
- B: for use by district hospitals
- C: for use by RHCs

Moreover, since 1994 the VEN system⁴⁹ of classification has been used in conjunction with the above mentioned system. EDLIZ was modified in 1989 and 1994; as of 1997, the 1994 version has been in effect.

(3) Procurement and Distribution of Drugs

Another goal of the National Drug Policy is the procurement of high quality drugs and drug ingredients at low prices. The purchase of all drugs is conducted by the Government Medical Store (GMS). In addition to storage facilities in Harare and Bulawayo, GMS also has four provincial medical stores.

The GMS buys drugs cheaply through open tender, and after adding a 15% processing fee, distributes them to government medical institutions at the central hospital level and below. These drug expenses topped with the 15% fee, are reported by each medical institution under one of the four expenditure items within the MOHCW budget, namely "Medical Service Expenses." Moreover, the MOHCW not distributes these drugs to medical institutions, but also to the military, prisons, parks, and the private sector at various handling fees (interview with Mr. Chidarikire, Director of the Pharmacy Services Department, MOHCW).

Because the GMS buys drugs in bulk, it can purchase them over 30% more cheaply than the private sector (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: Version 2," 1997 MOHCW). Because of poor management, however, about 2% of drugs, worth about Z\$3 million, are lost each year due to expiration and theft (figures from "Third Evaluation of the Strategies for Health for All by the Year 2000: Version 2," 1997 MOHCW). About 35% of all drugs must be imported; delays in import procedures and recording are a cause of delays in distribution (figures from "Third Evaluation of the Strategies for Health for All by

⁴⁹ V = Very Essential, E = Essential, N = Necessary drugs

the Year 2000: Version 2," 1997; MOHCW). In addition, the fall of the Zimbabwe Dollar has made foreign imports very expensive and added to the losses from poor management, and the result has been shortfalls in funding. CEC among others are providing financial support to cover these shortfalls.

The decision has been made to privatize the GMS in order to improve the efficiency of drug procurement. Until now, the GMS had received funding from DANIDA, but due to the decision to privatize, DANIDA has withdrawn funding and it is unknown whether the GMS can continue to function as before. Finally, vaccines are purchased directly by the MOHCW Maternal Health and Family Planning Department, and are distributed to health care facilities nationwide.

(4) Quality Control of Drugs

The quality control of drugs is conducted by the Medicines Control Council. Up until July of 1997 this council was called the "Drugs Control Council," but as of August 1997 it has been privatized, and its name was change to the "Medicines Control Council." (interview with Mr. Dauraman, Director of the Medicines Control Council).

The Medicines Control Council controls the quality, safety and effectiveness of medicines. All drugs sold in Zimbabwe must have test results evaluated, and be registered here. At present, about 3,500 different drugs have been registered. Moreover, a license from this council is necessary to sell or manufacture these drugs (interview with Mr. Dauraman, Director of the Medicines Control Council).

There is also, in the "Zimbabwe Regional Drug Control Laboratory" (ZRDCL) which was jointly built by the government and WHO in 1987 and serves WHO's Third African Region. This Laboratory was established to conduct quality control of all drugs in southern Africa, excluding the Republic of South Africa. It is an institution under the MOHCW and assists the Medicines Control Council in technical matters. However, due to its deteriorating facilities and shortage of personnel from the shift of engineers into the private sector and abroad, the laboratory is not fully functional and its main activities at present are testing the quality of condoms and of old medicines.

(5) Implementation of Drug Policy

In 1986, the Zimbabwe Essential Drug Action Program was adopted with support from WHO and DANIDA in order to strengthen all weaknesses associated with the implementation of drug policy. This program will not only reform EDLIZ to suit current needs, but will also provide drug training to medical practitioners, improve distribution and storage methods, etc.

In 1991, a survey was conducted on the supply situation of regularly needed at the primary health care level, and covered 56 RHCs, 9 urban clinics, and 24 district hospitals. According to this survey, the retention rate of these drugs was 78% at RHCs, 93% at urban clinics, 89% at the district hospitals, and between 76 and 80% at the five medical storage facilities (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

The standard for rural areas is 80% or more and the proportion of facilities which meet this standard improved from 30% in 1989 to 57% in 1991. Depleted stocks existed as before, but promotion of the FIFO⁶⁰ method has shortened the time period. With regard to the pharmaceutical distribution system, due to the difficulty in communication and transport between the drug distribution system and primary level health care facilities such as RHCs and district hospitals, there is a considerable time lag between order and delivery. In a 1995 survey of 67 health institutions, the average wait for ordered medicines was 62.4 days; this is up from the average of 46 days reported in the same survey conducted in 1993 (figures from "ZEDAP Survey 1995," Publication Date Unknown; MOHCW). The leading cause of the longer delay was the increase in the amount of time GMS spent on procedures and paperwork. DANIDA's support of ZEDAP is scheduled to continue until 1999.

Table 6-2, below, shows the drug retention rates by type of medical facility according to ZEDAP surveys from 1988 to 1995.

Table 6-2: Trends in Essential Drug Retention Rates at Medical Facilities

Facility	1988	1989	1990	1991	1993	1995
Central hospitals	N/A	N/A	82%	N/A	87%	86%
Provincial hospitals	N/A	N/A	N/A	N/A	83%	86%
District hospitals	N/A	N/A	N/A	89%	84%	80%
District mission hospitals	N/A	N/A	N/A	N/A	87%	79%
Urban clinics	N/A	N/A	72%–77%	93%	75%	72%
RHCs	69%	56%	80%–85%	78%	64%	70%
Average for all Facilities	N/A	N/A	81%	N/A	73%	75%

Source: Zimbabwe National Health Profile 1995, 1997; MOHCW

The acquisition status of medicines was between 30 and 40% in the 1980's but improved to about 80% by 1990. This level could not be maintained, however, and fell to 75% in 1995. Reasons given for this have been poor management of drugs by hospitals, and lack of support of urban clinics and rural health centers. A shortage of personnel, including pharmacists, has had a major influence on both of these points.

The MOHCW budget for medicines was Z\$4 million in 1980; by 1996/97, this figure had grown to Z\$250 million. Moreover, total sales at private pharmacies amounted to Z\$500 million (figures from "National Health Strategy for Zimbabwe 1997 – 2007: Discussion Draft Document," 1997; MOHCW).

6.2.2 Private Health Sector

There are three major pharmaceutical companies in Zimbabwe one of which the government is the major stockholder. Of medicine consumed domestically, about 20% of the types of medicine, and 80% of the total volume is also manufactured domestically (interview with Mr. Dauraman, Director of the Medicines Control Council). Antibiotics such as penicillin are domestically produced, but no raw

⁶⁰ First In First Out

materials are domestically manufactured⁵¹. At present, plans are underway to domestically manufacture raw materials for medicines and this is expected to have a major effect on the price and availability of drugs in Zimbabwe, and will also greatly help to resolve the problem of drug shortages.

As of 1995 there were 212 private pharmacies nationwide, almost all of which were in major cities such as Harare and Bulawayo⁵² (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW). The shortage of pharmacists is a major problem in public institutions, but there are an average of 1.3 pharmacy technicians at each private pharmacy; in addition, some private pharmacies employ nurses as well which may be one explanation of the flow of personnel into the private sector (figures from "ZEDAP Private Sector Essential Drugs Survey 1995," Publication Date Unknown; MOHCW). The government's national drug policy is to "prescribe generic drugs," but this policy is not yet fully reflected in the private sector and non-generic drugs are prescribed and sold in 52% of cases, while 69% were prescribed based on EDLIZ (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

6.2.3 Hospital Pharmacies

In Zimbabwe, every hospital has a pharmacy, where patients buy their medicine. There are no set prices, and prices vary from one hospital to the other. Normally, hospitals add about 15% to the price charged them for medicine by the GMS, but patients with monthly incomes of Z\$400 or lower are exempted. According to a 1995 survey, 86% of hospitals were following this procedure (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW). The lack of unity in pricing for medicine is recognized as a problem in the MOHCW as well, but it also is aware that 67% of patients believe they are paying a fair price for medicine (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

Medicine is free at RHCs, but due to limited stock, patients usually obtain medicine from private pharmacies and district hospitals.

6.3 Utilization of Health Services

Table 6-3 compares cities and provinces based on statistics on population and land area per health care facility, average distance to a facility, and population per bed. The government's goal of "at least one health care facility per 10,000 population" has already been met, but rapid urbanization has posed a problem to the goal of equity in health care in Harare and Bulawayo.

In the two major cities of Harare and Bulawayo, there is more than 10,000 population per health care facility, but the population to bed ratio is not large in comparison. In fact, Bulawayo's population to bed ratio is lower than any province, and from these figures alone, it cannot be concluded that urbanization has brought about a shortage in health care facilities. On the other hand, it cannot be denied

⁵¹ In all of southern Africa, the only company which manufactures raw materials is Noristan in the Republic of South Africa

⁵² 103 in Harare, 30 in Bulawayo

that the long distance to medical facilities is a problem in Matabeleland North and Matabeleland South.

Because of the large number of mission hospitals in Manicaland, Masvingo, and Midlands the shortage of beds is not too severe, however, the population to bed ratio in Mashonaland Central and Mashonaland West is very high.

Table 6-3: Population per Facility, Average Distance to Facility, & Population per Bed by Region/City

Province/ City	Population (thousands) (1995 Estimate)	Population per Facility	Area (thousand km ²)	Area (km ²) per Facility	Average Distance to a Facility (km)	Population per Bed
Manicaland	1,704	6,455	36.5	138.1	7	489
Mashonaland Central	956	8,241	28.3	244.4	9	820
Mashonaland East	1,140	6,298	32.2	178.1	8	594
Mashonaland West	1,235	7,098	57.4	330.1	10	618
Masvingo	1,359	8,138	56.6	338.7	10	470
Matabeleland North	712	7,495	75.0	789.7	16	429
Matabeleland South	653	5,442	54.2	451.4	12	498
Midlands	1,453	6,429	49.2	217.6	8	422
Harare	1,654	27,564	0.9	14.5	2	633
Bulawayo	692	25,630	0.5	17.7	2	277
Total	11,558	8,082	390.8	273.3	9	503

Source. "Health Facilities Report 94/95" Date of Publication Unknown; MOHCW/CSO

6.3.1 Perspective of Community Residents

In Zimbabwe there has not been any systematic analysis of utilization patterns for health care facilities from the perspective of community residents: in other words, there has been no comprehensive analytical research concerning medical expenditure of public and private facilities, distance, waiting time, revenue, seasonal nature of health needs, quality, preferences, etc. One clue as to utilization patterns is the hospital bed occupancy rate.

In 1994, the government conducted a survey of bed occupancy rates in general wards and average hospital stays for inpatients at public hospitals, rural hospitals, mission hospitals and clinics. According to this survey, for government facilities the bed occupancy rate was 83.3% and the average hospital stay for inpatients was 6.8 days, while for mission facilities the occupancy rate was 64.5%, and the average hospital stay was 8.3 days (figures from "Economics in the Health Sector in Zimbabwe" 1995; USAID). According to the same survey, the bed occupancy rate in maternity wards was 88.5% in government facilities and 57.3% in mission facilities. The maternity ward bed occupancy rate in all central hospitals was over 100%; in Harare Central Hospital, it was 149% (figures from "Economics in the Health Sector in Zimbabwe" 1995; USAID). It is not possible to simply compare these numbers and conclude that utilization of government facilities is higher than that of mission

facilities, but the difference in utilization patterns is at least clear. Unfortunately, no documents exist as to utilization patterns of local government and private facilities.

A survey has been conducted in the 1994 DHS on where mothers took their children for treatment for diarrhoeal diseases or ARI. Table 6-4, below, shows where mothers took their children (3 year or younger) with diarrhoea. As stated above, a simple comparison is not possible because of the large number of factors involved, but it is evident that two out of three mothers utilized public health care facilities. Moreover, one striking contrast is the fact that while there is a tendency to utilize private health facilities in urban areas the opposite is true in rural areas where there is a tendency to make use of public health care facilities.

Table 6-4: Facility Utilized for Treatment of Diarrhoeal diseases in Children.

Area	Public health care facilities	Private health care facilities	Traditional healers	Others (Stores, Relatives, Others)	Total
Urban	61.3%	32.3%	0%	6.5%	100%
Rural	66.9%	13.2%	11.3%	8.6%	100%
Total	65.9%	16.5%	9.3%	8.2%	100%

Source: DHS 1994 CSO

6.3.2 Utilization of Public and Private Medical Facilities

From the utilization patterns of health care services, it is possible to divide the population roughly into two income groups.

(1) Group with Lower Income (majority of the population)

- Utilizes health care facilities within the public health care system

Primary level medical facilities are free, and secondary level facilities and above are free for those with income below a set amount (currently a monthly income of Z\$400).

- Utilizes traditional medicine

(2) Group with Higher Income

Utilizes private health care facilities and the so-called "Private Wards" of public hospitals. Patients must pay for their treatment; in most cases the private medical insurance system is used.

In Zimbabwe, the notion of charging fees has existed at every level of medical treatment and has been a distinct characteristic of health care even before independence. There is no unified fee system even in public medical institutions with fees varying from one institution to the next. Table 6-5 shows medical fees for the main types of medical facility. In 1985, the government, in order to provide relief to those living below the poverty line, made medical services free for all citizens with a monthly income of Z\$150 or less. In 1994, however, the government

raised the minimum income line to Z\$400 per month, due to inflation and difficulties in public finance. Two out of three people in rural areas, and one out of four people in urban areas fall below this minimum income line (figures from "An Evaluation of Health Financing Reforms with Special Focus on the Abolition of User Fees at RHCs and Rural Hospitals," 1996 MOHCW). Furthermore, in April 1994 the government has made all medical services free at primary level facilities, namely at RHCs and rural hospitals.

Table 6-5: Medical Fees at Main Types of Medical Facilities (1995)

Type of Patient	Facility	Medical Fee
Outpatient	RHC; Rural Hospitals	Free
	Municipal Clinics	Z\$16
	District hospitals	Z\$17
	Provincial hospitals	Z\$26
	Harare Central Hospital	Z\$34
	Parirenyatwa Hospital	Z\$42
Inpatient (ward fees)	District hospitals	Z\$50
	Provincial hospitals	Z\$65
	Harare Central Hospital	Z\$80
	Parirenyatwa Hospital	Z\$200

Source: "Social Health Insurance Study Final Report" 1996 USAID

6.3.3 Traditional Medicine

Traditional medicine has remained in Zimbabwe even after the introduction of western medicine, and is still used by the majority of the population. According to Mr. Zibanda, Director of Information for ZINATHA, a survey by The University of Zimbabwe reported that 96% of the population utilizes traditional medicine. Traditional healers are called Nannga. In 1980, the Zimbabwe Traditional Healers Association (ZINATHA) was organized, and legalized in 1981. At this time, it was also required that all traditional healers register with ZINATHA.

At present there are 50,000 traditional healers registered with ZINATHA, but including those not registered there are about 70,000 traditional healers in Zimbabwe (figures from Mr. Zibanda, Director of Information for ZINATHA). Over 40,000 of these traditional healers are traditional birth attendants (TBA) (for information on TBAs, see chapter 5: "Health Care Programs," section 5.5 "Maternal and Child Health Programs," subsection 5.5.3 "Traditional Birth Attendants").

Traditional healers use herbs, animal skin and excrement, etc. for the prevention and treatment of sickness, as well as traditional practices and beliefs. According to traditional beliefs, there are three aspects to every sickness, all of which must be tended to. These three aspects can be summed up as "cure the body," "cure the heart," and "cure the spirit." If all three aspects of a sickness are not cured, true healing has not taken place.

The goal of the establishment of ZINATHA was to close the gap between western and traditional medicine. ZINATHA cooperates with The University of Zimbabwe on herbal research, cooperates with the MOHCW in forming HIV/AIDS education

teams, and participates in HIV/AIDS prevention programs (interview with Mr. Zibanda, Director of Information for ZINATHA).

6.4 The Medical Insurance System

Only private medical insurance exists in Zimbabwe. This medical insurance is run by non profit companies called "Medical Aid Societies." As of 1995, there were 27 Medical Aid Societies; 750,000 people have medical insurance through this system. The number of insured people has skyrocketed in recent years: in 1982 a total 245,000 people had medical insurance, 526,000 in 1990, and 750,000 in 1995 (figures from "Social Health Insurance Study: Final Report,"1996; USAID). This is about 7% of the total population. This is largely due to insurance company marketing policy which has allowed participation of lower income people. Of insured people, 17% are wage earning workers in the formal sector, and 30% are employed in small scale businesses (figures from "Social Health Insurance Study: Final Report,"1996; USAID). About one in three government employees is insured with the government reimbursing 64% of their insurance costs (figures from "Social Health Insurance Study: Final Report,"1996; USAID). Moreover, parastatals reimburse from 80 to 100% of insurance costs (figures from "Social Health Insurance Study: Final Report,"1996; USAID).

Total insurance turnover for the 94/95 fiscal year was approximately Z\$654.3 million; of this Z\$60 million was used for administration expenses, and the rest was used to pay benefits to beneficiaries (figures from "Social Health Insurance Study: Final Report,"1996; USAID). The average medical expenses per insured person were Z\$793.

25 of the 27 Medical Aid Societies belong to the "National Association of Medical Aid Societies"(NAMAS). The purpose of this organization is to protect the interests of Medical Aid Societies, and its participation is not required by law. By law, Medical Aid Societies may not engage in any other business.

The two largest scale Medical Aid Societies are CIMAS, MASCA, and Public Services Medical Aid Society, which caters to the public sector. These three companies cover 85 to 90% of all insured people (figures from "Social Health Insurance Study: Final Report,"1996; USAID).

Most people covered by medical insurance see private physicians in Harare or Bulawayo, but in the case of hospitalization often utilize public hospitals, especially the so-called private wards of such hospitals as Parirenyatwa Hospital and United Bulawayo Hospital. One problem with this, however, is that Medical Aid Societies underpay⁵³ government hospitals, and are often late in paying. In fact, as of June 1995, the total debt of government hospitals amounted to over Z\$68 million (figures from "Social Health Insurance Study: Final Report,"1996; USAID).

⁵³ Medical Aid Societies do not pay public hospitals for actual charges, but rather pay a predetermined fee.

6.5 The Emergency Medical System

The emergency departments of central hospitals operate 24 hours a day. The emergency departments accept victims of traffic accidents, household accidents (burns and poison ingestion), other types of accidents, heart attacks, and disasters. Harare has 8 ambulances to respond to the above mentioned cases, but with a population of over one million, the emergency response system is greatly strained. Each hospital has its own ambulances, but these are used for hospital transfers and in case of disasters. For normal traffic accidents and household injuries, city ambulances are used.

The Zimbabwe Red Cross has two ambulances, but due to their deterioration they are very seldom used (interview with Ms. Okwan, Representative of the Zimbabwe Red Cross).

6.6 Research Institutions

The main research institution in the health care sector is the MOHCW's Blair Research Institute. The Blair Research Institute has as its goal the improvement of the health of the Zimbabwean people and is also responsible for promoting the nation's health care policy. Topics of research are chosen according to health care policy and current needs. Moreover, the institute collaborates with and coordinates research among various departments of the MOHCW, The University of Zimbabwe, NGOs, etc. The institute cooperates not only domestically, but also with such international organizations as the WHO Schistosomiasis Research Center.

The Blair Research Institute is comprised of the Blair Research Laboratory (founded in 1939), the Health Research Unit (founded in 1981) located in Harare, the nation's capital, and the De Beers Research Laboratory (founded in 1965), located in Chiredzi, about 450km from Harare. The Institute's joint research on Bilhartzia Schistosomiasis with the historic Danish Bilharziasis Laboratory is world famous.

The Institute has seven laboratory units relating to parasitology, microbiology, immunology, cell culture, experimental animals, health technology, and research workshops and training. At present the following five research programs are being conducted:

- 1 Health Systems Research
- 2 Schistosomiasis and other Tropical Infections
- 3 Malaria and Entomology
- 4 Water and Sanitation Facilities
- 5 HIV/AIDS and other Sexually Transmitted Diseases

Field work is also an important part of research at this Institute. For instance, the development of the Blair Latrine for use as an easy-to-build, inexpensive latrine in rural areas is world famous. The Blair Latrine is designed to use air flow and sunlight to prevent the breeding of flies and remain sanitary. The dissemination of Blair Latrines is carried out through community self help efforts and financial

support from such organizations as UNICEF. Furthermore, wells are being dug in various regions in order to ensure a safe supply of drinking water.

The institute currently employs about 200 people, about 80 of whom are professional officers such as scientists and engineers, and 60 of whom are research assistants. Four of the professional officers are economists, and 2 are sociologists. The only 2 foreigners in the institute are one specialist from Holland, and one from the Japan International Cooperation Agency (figures from Mr. Chindiwana, representative from the Blair Research Institute).

The government budget for the Institute is about Z\$6 million (1996) of which 90% goes to employee wages, and recurrent expenditures and about 10% which goes to research (figures from "Director's Report 1996," Publication Date Unknown; Blair Research Institute). The Institute relies on aid from Holland, EU, Denmark, Sweden and other countries to finance the remaining research costs which amounts to about Z\$7.3 million.

Below are listed the future challenges of the Blair Research Institute

- 1 Upgrading aging research facilities
- 2 Staff (scientists, technical and support personnel) development
- 3 Formulation of a research strategy for the 21st century

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7 Health Manpower

Following independence, the expansion of medical services and training of health manpower was pursued as part of the goal of "Equity in Health." Human resource development and education curriculum based on the principle of PHC was adopted and for instance, medical students were required to spend an internship in a rural area at the end of every school year. Furthermore, VCWs started to be trained to serve as the major link between public health care services and the community (for information on VCWs, see chapter 5: "Health Care Programs," section 5.2 "Primary Health Care).

Although the number of physicians and nurses has increased, the goal of equity in health care services has not necessarily been met. The fact is, the training of personnel cannot keep up with increasing demand. What is more, there is the problem of concentration of health care professionals such as physicians and nurses in the cities, at the central level, and in the private sector as well as the brain drain overseas. Moreover, training facilities are not sufficient to foster specialized manpower in the required fields.

7.1 Distribution of Health Manpower

7.1.1 Overview

All health care professionals in Zimbabwe must be approved and registered by the Health Professions Council. Foreigners who are involved with health care in Zimbabwe must also be registered. The council is independent from the government and does not fall under the jurisdiction of any ministry. The council is made up of 27 members, 11 of whom are MOHCW ministers, including the Permanent Secretary; the remaining 16 council members are chosen from among the registered health care professionals (figures from Health Professions Council Functions and a Guide to Ethics, 1993; Health Professions Council). The MOHCW provides guidance and supervision on council policy. The council makes decisions on whether candidates are sufficiently qualified for registration on a professional and ethical basis. Moreover, the council continues to monitor health ethics and improper conduct after registration.

It follows that the council registry reflects the official types and numbers of health care professionals in Zimbabwe (Table 7-1). The numbers reflected in this registry, however, are quite different from the actual number of active health care professionals in Zimbabwe, due to the fact that it also includes health care professionals who have moved abroad or are inactive in Zimbabwe for some reason or another. At present the Health Professions Council is in the process of creating a database of physicians and nurses through the WHO Carnegie fund and when it is complete, it may be possible to get a more accurate picture of the actual number of

active health care professionals may be possible (interview with Ms. Mackenzie, Assistant Director of the MOHCW Nursing Services Department).

Table 7-1: Main Health Care Professionals Registered with the Health Professions Council

Type	1981	1985	1990	1995	1996
1. Physicians	1,189	1,058	1,320	1,603	1,387
2. Dentists	166	94	131	152	139
3. Pharmacists	304	285	347	499	441
4. Physiotherapists	N/A	N/A	N/A	164	141
5. Opticians	61	40	44	54	31
6. Psychologists	32	30	46	85	69
7. Radiographers	217	98	166	204	181
8. Nurses	8,488	9,533	12,518	14,064	14,855
9. Midwives	2,408	3,039	2,651	3,241	3,088
10. Lab Technicians	N/A	N/A	N/A	225	9
11. Environmental Health Technicians	400	360	796	878	937
12. Dental Technicians	31	14	22	33	30
13. Nutritionists	12	9	14	N/A	9

Source: Health Professions Council Documents 1997

As shown in Table 7-1, the number of physicians grew by about 35% between 1981 and 1995, and the number of pharmacists grew by 64% during the same period; the number of dentists and dental technicians, however, has not grown. The number of nutritionists has only grown by a slight amount.

The number of physicians and nurses employed by public medical facilities is shown in Table 7-2. The number of physicians and nurses has remained stable since the beginning of the decade. As mentioned earlier, this can be attributed to the flow of health care professionals to the private sector and abroad due to the better working conditions compared with the public sector. Due to the increase in population in the 1980's, the situation has not improved either in terms of the population per physician and nurse. In fact, because the number of physicians and nurses has failed to keep pace with the growth in population, in the 1990's, the fall in the quality of service in the public sector has become evident.

Table 7-2: Number of Physicians and Nurses Employed by Public Medical Facilities

Year	Physicians	Nurses	Population (millions)	Population per Physician	Population per Nurse
1983	535	5770	7.8	14579	1351
1985	535	5770	8.3	15514	1438
1990	756	8359	9.9	13095	1184
1992	763	8306	10.4	13630	1252
1994	770	8457	11.2	16617	1324
1995	674	8635	11.5	17062	1332
1996	618	8662	11.9	19256	1374

(Note) Population for 1994 and later is estimated from the 1992 National Census

Source: "Zimbabwe Health for All 2000 Evaluation and Preparation of the Situation Analysis for Zimbabwe

Strategic Health Plan Health Resources Section 4" Date of Publication Unknown; MOHCW;

"Third Evaluation of the Implementation of Strategies for Health for All by the Year 2000 Version 2" 1997 MOHCW

7.1.2 Physicians

This section describes the current state of physicians in Zimbabwe

(1) The Move to the Private Sector

The number of registered physicians in Zimbabwe grew from 1,189 to 1,387 between 1981 and 1996 (Table 7-1), but as shown in Table 7-2, only 618, or roughly 45% of these are employed by the public sector. It is estimated that the remainder of physicians, which make up the majority of total registered physicians, are employed in the private sector. This movement into the private sector is especially striking among specialized physicians. The reasons given for this concentration of physicians in the private sector are higher income and better facilities.

(2) The Concentration of Physicians at the Quaternary Level

According to a 1988 Health Professions Council report, 72% of physicians were employed at quaternary level central medical facilities, 12% were employed at the tertiary level, and 16% were employed by district and mission hospitals. Moreover, the 1995 distribution of health care professionals in the public sector shows that the majority are concentrated in quaternary level health care facilities in Harare, Bulawayo and Chitungwiza, while only 200 publicly employed physicians, or 30% of the total number, are employed at the tertiary level or below (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW). Furthermore, rural area postings are avoided by the health care professionals because of the poorer conditions of both the facilities as well as housing. The government has tried to remedy this situation by building special housing in rural areas for health care professionals and increased compensation, but this has not had much effect.

(3) Brain Drain of Physicians

There has been a flow of physicians to South Africa and the Middle East. The higher the University of Zimbabwe's Faculty of Medicine aims to provide better education, the more its graduates are in international demand.

The constant state of disrepair and shortage of equipment in Zimbabwe has also served to dishearten motivated physicians (interview with Mr. Magaya, Director of the Human Resources Development Department, MOHCW).

7.1.3 Nurses

There are two types of nurses, General Nurses and State Certified Nurses. As of 1996, there were 7,444 General Nurses and 7,411 State Certified Nurses who were registered (figures from Health Professions Council documents, 1997). In 1992 the training of State Certified Nurses was discontinued, and since then only the training of General Nurses has been conducted, while current State Certified Nurses have been promoted to General Nurse after a one year internship. Personnel shortages are also a major problem among nurses and as shown in Table 7-3, there is currently a shortage of 1,300 nurses.

There has been a large movement by nurses into the private sector and abroad, due to strenuous working conditions and poor housing conditions. The flow of nurses to England to work as geriatric nurses is especially pronounced (interview with Ms. Mackenzie, Assistant Director of the MOHCW Nursing Services Department).

In order to stem the flow of nurses into the private sector and abroad, all nurses entering nursing school after September of 1997 are required to work for three years in a government health care institution following their three years of nursing school (interview with Ms. Mackenzie, Assistant Director of the MOHCW Nursing Services Department).

7.1.4 Other Registered Health Manpower

Aside from Environmental Health Inspectors (EHI) and Environmental Health Technicians (EHT) who work for the Provincial Health Directorates, almost all other types of health care professionals are concentrated in the cities. As shown in Table 7-3, there is a major shortage of pharmacists, physiotherapists, and examination technicians.

7.1.5 Employment of Foreign Physicians

Foreign physicians are employed in the public sector on a limited term contract basis to fill shortages in physicians, especially at the district level. Apart from central hospitals, in 1995, 60.5% of the physicians employed in tertiary level MOHCW health care facilities, or a total of 112, were foreign physicians (figures from *Zimbabwe National Health Profile, 1995, 1997*; MOHCW).

Table 7-3, below, shows the proportion of foreign physicians in MOHCW health care facilities, including central hospitals. About 25% of all physicians are foreigners.

Table 7-3: Actual and Required Numbers of Health Care Professionals and the Proportion of Foreigners (1997)

Type	Number Required	Actual Number	Shortage	Number of Foreigners	Proportion of Foreigners
Physicians	773	707	66	180	25%
Pharmacists	98	67	31	8	12%
Nurses	8,451	7,151	1,300	9	0.1%
Physiotherapists	81	59	22	8	14%
Occupational Therapists	31	28	3	4	14%
Lab Technicians	95	74	21	1	1.3%

Source: MOHCW Human Resources Development Department Documents 1997

7.1.6 Mission Hospitals

There is a constant shortage of personnel in mission hospitals and they rely on foreign physicians are relied on to make up for the lack of Zimbabwean physicians. Aside from this little information is known due to the lack of detailed documentation.

7.2 Human Resource Development

7.2.1 Training System

In Zimbabwe, the following types of health care professionals are being trained (Table 7-4):

Table 7-4: List of Major Training Institutions for Health Care Professionals

Field	Training Institution	Length of Training
General Practitioner; Masters Degree in Medicine	University of Zimbabwe Faculty of Medicine	5 Years (General Practitioner) 3-4 Years (Masters Degree)
Masters in Public Sanitation	University of Zimbabwe Faculty of Medicine	2 Years
General Nursing	Central Hospital Nursing Schools; Provincial hospitals; Some Mission Hospitals; 13 Schools Total	3 Years (Diploma)
Bachelors in Nursing	University of Zimbabwe Faculty of Medicine;	3 Years
Specialized Nursing	University of Zimbabwe Faculty of Medicine; Parirenyatwa Hospital Nursing School	1-2 Years (Diploma)
Midwives	Central Hospitals; Provincial hospitals; Others; 7 Schools Total	1 Year (Diploma)
Environment Health Engineer	University of Zimbabwe Faculty of Medicine	4 Years
Environment Health Technician	4 Technical Training Schools	3 Years (Certificate)
Pharmacy	University of Zimbabwe Faculty of Medicine	3 Years
Pharmacy Technician	2 Technical Training Schools	2 Years (Diploma)
Dental Therapy/Technician	Parirenyatwa Hospital Dental Training School (There is no institution to train dentists)	3 Years (Dental Hygienist) 2 Years (Technician)
Radiography	Parirenyatwa Hospital; Mpilo Central Hospital School of Radiology	3 Years (Diploma)
X-ray Operator	Masvingo provincial hospital; Rusape General Hospital Technical Training School	1 Year (Certificate)
Physiotherapy (Bachelors Degree)	University of Zimbabwe Faculty of Medicine	4 Years
Occupational Therapy (Bachelors Degree)	University of Zimbabwe Faculty of Medicine	4 Years
Rehabilitation	Marondera Provincial Hospital Rehabilitation School	2 Years (Certificate)
Medical Laboratory Technology	University of Zimbabwe Faculty of Medicine	3 Years (Diploma)

Source: "Training Programmes Institutions and Addresses," 1994 MOHCW

7.2.2 Training Institutions for Health Manpower

(1) University of Zimbabwe Faculty of Medicine

The University of Zimbabwe Faculty of Medicine is a comprehensive medical training institution. Apart from medicine, the Faculty of Medicine offers programs in pharmacy, nursing, environmental health, physical therapy, and occupational therapy. It is well staffed, its facilities are in good condition, and it independently publishes a medical journal. Thus it is one of the key is the most prestigious medical training and research institution in all of sub-Saharan Africa excluding South Africa. The Faculty of Medicine accepts not only Zimbabwean students, but students from all over southern Africa; it also conducts various joint research programs with Europe and the United States. The admission requirement is the completion of seven years of secondary education and there are only 80 acceptances per year (figures from "Training Programmes Institutions and Addresses," 1994 MOHCW).

Since the founding of the university, the aim of the Faculty of Medicine has been to train physicians with the ability to practice even in remote areas with primitive facilities. Therefore, in line with the expansion of practical health care services to the rural areas, and the emphasis on PHC, every year internships are held in community or district hospitals in addition to those held in central hospitals. In principle, graduates are required to perform a two year rotating internship at one of the major hospitals (i.e. covers all departments by spending several months at a time in each), as well as to work for three years at a governmental health facility.

(2) Nursing Schools

Until 1992, there were two types of nursing programs: after finishing four years of secondary education, one could attend a three year general nursing program or a two year state certified nursing program. In 1992, however, the state certified nursing program was discontinued, and all programs were changed to the three year general nursing program. Following this, state certified nurses were encouraged to attend a one year internship, after which they could be promoted to general nurse (interview with Ms. Mackenzie, Assistant Director of the MOHCW Nursing Services Department).

The central hospitals are the main training institutions for nurses, but provincial and mission hospitals also train nurses. In addition to midwifery and clinical nursing, some of the specializations open to nurses are the psychiatry, anesthetics, surgery, and ICU nursing.

Table 7-5 shows the number of graduates of nurses and midwives. An increase in the number of instructors and improvement of facilities has lead to a large increase in the number of nurses since 1994, but a shortage still exists. Due to this shortage, the government's goal is to continue strengthening this field by training 950 new nurses by the year 2000 (interview with Ms. Mackenzie, Assistant Director of the MOHCW Nursing Services Department).

Table 7-5: Output from Nurse Training Schools

Year	General Nurses	Midwives
1991	446	157
1992	422	151
1993	563	161
1994	712	217
1995	761	277
Total	2,904	968

Source: "Zimbabwe Health for All 2000 Evaluation and Preparation of the Situation Analysis for Zimbabwe

Strategic Health Plan Health Resources Section 4,"Date of Publication Unknown; MOHCW

(3) Problems and Countermeasures

The following problems have been identified regarding health care professionals.

- 1 Training of new professionals has not kept pace with the demand accompanying population growth and the expansion of services
- 2 Movement of personnel from the public to the private sector
- 3 Unbalanced distribution domestically (concentration in urban areas)
- 4 For some specialized fields no domestic training institutions exist (e.g. dentistry)

In addition to this, the revision of public spending due to ESAP has resulted in large cuts in employee wages; moreover, real wages have decreased due to inflation. Due to these factors, there has been a rapid flow of qualified medical professionals to the private sector and abroad. The increase in AIDS and tuberculosis cases has contributed to worsening working conditions by straining workloads. It was reported in the local newspaper "The Herald" that between January 1996 and April 1997, 189 nurses quit their jobs at government health facilities.

The government is promoting the following countermeasures to tackle these problems:

- 1 Improve working conditions to retain employees in the public sector
- 2 Improve human resource development on a national level through such programs as the establishment of a training center in every province.
- 3 Reexamine night duty compensation; put in place a performance-based promotion system
- 4 Provide and improve accommodation
- 5 Obligate employment at government health facilities following completion of training

Of the above mentioned projects, the increase in compensation was implemented in 1996 while the improvements in working and living conditions, are being implemented although slowly through the family health project. Moreover, physicians are now required to work for three years in a government medical institution upon graduation and the same will be required of nurses, pharmacists,

and laboratory technicians who began training as of September of 1997 (interview with Mr. Magaya, Director of the MOHCW Human Resources Development Department).

(4) Increasing the Number of Health Care Professionals at the Regional Level

Following independence, as a result of the government placing emphasis on the training of health care professionals, their number, including that of physicians, increased enormously. Despite the increase in the absolute number, the disparity in the distribution of health care professionals has not diminished much between public and private sectors, as well as between urban and rural areas. In 1995, the proportion of physicians in district hospitals, provincial hospitals / health directorates, and central hospitals was 18%, 12%, and 70%, respectively (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

The same trend is evident with health care professionals other than physicians. Due the fact that most new physicians and nurses are themselves from urban areas, and living conditions are poor, the government's plans to redistribute health care professionals to regional medical systems are not going smoothly.

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7. “Zimbabwe Health for All 2000 Evaluation and Preparation of the Situation Analysis for Zimbabwe Strategic Health Plan Health Resources Section 4” Date of Publication Unknown; MOHCW

8 Environmental and Occupational Health

8.1 Environmental Health and Sanitation

The majority of illnesses in Zimbabwe are water-born illnesses such as diarrhoeal diseases, skin infections, eye diseases, and schistosomiasis. As the level of immunopreventable diseases have declined following the dissemination of immunization, these water-born illnesses have increased in relative terms.

The government, in order to improve the safety of the population's drinking water and sanitation conditions, formed the National Action Committee (NAC), comprised of concerned government bodies such as the MOHCW, the Ministry of Rural Resources and Water Development, the Ministry of Local Government and National Housing, the Ministry of Finance, and the National Economic Planning Council. NAC implements the "Integrated Rural Water Supply and Sanitation Programme"(IRWSSP).

In addition to this, the Ministry of Local Government and National Housing and NGOs implement independent programs to improve the supply of safe drinking water and latrines.

8.1.1 Potable Water

According to the 1992 national census, 77% of the population had access to safe drinking water, with 99% in urban areas, while only 64% in rural areas. Furthermore, 38% of the population had access to a supply of potable water on the premises of their residence, while 27% had such access within 500 meters, and 22% had such access within a kilometer or more. According to a survey conducted in March of 1996 covering 4,100 households nationwide, the proportion of the population with access to potable water rose to 81%, with 99% for the urban population and 70% for the rural population (figures from "6th Round Sentinel Surveillance for SDA Monitoring," 1996 UNICEF/GOZ). Even with this improvement, however, one in five people are still drinking unsafe water and this problem will probably take some time to resolve.

Safe drinking water is supplied through piping from reservoirs, by wells, and from boreholes. Table 8-1, below, shows community access to potable water by source. Almost all urban residents have safe water piped in, but 74% of rural residents with access to potable water rely on wells and boreholes.

Table 8-1: Urban vs. Rural Community Access to Safe Drinking Water by Source

Region	Supplied by pipe	Wells and Boreholes	Total
Urban	97%	3%	100%
Rural	26%	74%	100%
Total	59%	41%	100%

Source: "6th Round Sentinel Surveillance for SDA Monitoring" 1996 UNCEF/GOZ

The above mentioned figures define access to potable water as 50 people per well and 250 people per borehole: in other words, the number of people with access to potable water is calculated based on the number of wells and boreholes. For this reason, distance has not been taken into account when calculating access (interview with Mr. Luksha, Managing Secretary of the MOHCW Environmental Health Department).

Table 8-2 shows the distance in which residents must travel to gain access to potable water. While 97% of urban residents live within 0.5km from a source of potable water, only 55% of rural residents do with 45% of rural residents forced to walk 500m or more to gain access to potable water. This represents not only a problem of the great effort required, but also the greater danger of contamination during transportation or during storage at home.

Table 8-2: Urban vs. Rural Distance to Water Source

Area	Distance to Water Source from Residence				Total
	On premises	Less than 0.5km	0.5-1km	Over 1km	
Urban	86%	12%	1%	0%	100%
Rural	11%	44%	32%	13%	100%
Total	40%	31%	20%	8%	100%

Source: "6th Round Sentinel Surveillance for SDA Monitoring" 1996 UNICEF/GOZ

The drought in 1991/92 was a harsh reminder of the fact that water is the nation's most precious resource. This drought was the biggest in the nation's history and during this drought, 11% of all boreholes, 23% of all deep wells and 18% of all shallow wells dried up and became unusable (figures from "The National Rural Water Supply and Sanitation Programme: Executive Summary for 94/95," Publication Date Unknown; NAC). Moreover, it has been reported that because of damaged pumps, only 80% of all wells are usable. There is therefore a need to construct deep wells that can resist droughts, as well as to devise a system for the maintenance of pumps, etc. (figures from "The National Rural Water Supply and Sanitation Programme: Executive Summary for 94/95," Publication Date Unknown; NAC).

8.1.2 Latrines

Throughout the 1980's, the government encouraged the dissemination of the Blair Latrine, developed by the Blair Research Institute, as part of the PHC program. According to the 1992 national survey, 99% of urban residents, and 48% of rural residents had access to latrines, amounting to 66% of the total population. According to a subsequent survey in March of 1996, 100% of urban residents had

access to latrines, 92% of which were of the flushing type, while 53% of rural residents had access to latrines, 66% of which were Blair Latrines (figures from "6th Round Sentinel Surveillance for SDA Monitoring," 1996; UNICEF/GOZ). The total access nationwide was 71% (figures from "6th Round Sentinel Surveillance for SDA Monitoring," 1996; UNICEF/GOZ). One in two people in rural areas still have no access to a latrine, and usually defecates outdoors.

Regarding the government recommended Blair Latrines, by 1993/94, 284,000 had been constructed while in fiscal 1994/95, the Integrated Rural Water Supply and Sanitation Programme (IRWSSP) and NGOs constructed another 19,000, and 8,000 respectively (figures from "The National Rural Water Supply and Sanitation Programme: Executive Summary for 94/95," Publication Date Unknown; NAC).

8.1.3 Living Environment

There are no chimneys in rural Zimbabwean dwellings, but apart from June and July, the coldest months of the year, fires are made outdoors and ventilation is not a major problem. The government is promoting the installation of chimneys with the help of some NGOs, but they are not widely used because of their high cost (interview with Mr. Luksha, Managing Secretary of the MOHCW Environmental Health Department).

Activities being conducted by the MOHCW Environmental Health Department include surveys of school and prison environments. As a result of a 1995 survey of school facilities, 40% of schools were instructed to improve their environmental sanitation (figures from MOHCW Environmental Health Department documents, 1997).

8.1.4 Environmental Pollution

An inter-ministerial committee was formed under the Ministry of Mines, Environment and Tourism involving ministries for the implementation of anti-pollution measures. The MOHCW's Environmental Health Department, in addition to conducting the above mentioned programs for potable water and latrines, monitors air pollution, hazardous substances, and radiation. However, environmental regulations are only loosely enforced due to the priority on industrial development.

Table 8-3, below, shows the state of air pollution in Harare. The level of sulfur dioxide (SO₂) is shown to be high.

Table 8-3: State of Air Pollution in Harare

Pollutant	Average Concentration (ug/m ³)	Acceptable Level (ug/m ³)
SO ₂ (Sulfur Dioxide)	88.7	70
SPM (Suspended Particles of Matter)	46.8	60
NO _x (Nitrogen Dioxide)	33.3	100

Source: "Annual Report 1995," Date of Publication Unknown; Environmental Health Dept. MOHCW

Legislation concerning environmental health is gradually improving. In 1995 four laws were created pertaining to environmental health, two of which were promulgated (figures from "Annual Report 1995," Date of Publication Unknown; MOHCW Environmental Health Dept.). The response of private organizations and government bodies has been poor and there is still only limited awareness regarding environmental pollution.

8.2 Occupational Health

In Zimbabwe 1.2 million people are employed in the formal sector, and 2.8 million people are employed in the informal sector. Major industries include mining, manufacture of agricultural chemicals, manufacture of insecticides, and food processing. The occupational health and safety of employees in these industries does not fall under the jurisdiction of the MOHCW, but rather the National Social Security Authority (NSSA), a semi-governmental organization. The NSSA is responsible for national planning, development and implementation of the relevant programs in occupational health and safety. Policies are decided by the Occupational Health and Safety Council, organized by the Ministry of Public Service, Labour and Social Welfare, industry management, and NSSA.

NSSA's Occupational Health and Safety Division employs about 150 people, including 21 inspectors, 3 physicians, and 30 nurses. Below are listed the NSSA's activities.

- 1 Training of safety officers in the public and private industry
- 2 Health screening of workers
- 3 Surveillance
- 4 Assisting social reinstatement of rehabilitated workers
- 5 Workplace inspections

The main work-related ailments are pneumoconiosis, chemical mishaps from handling agricultural chemicals and insecticides, and physical accidents such as falls.

Table 8-4 shows the trend in occupational accidents for 1986, 1990 and 1995. However, these figures are taken from the "Worker Work-related Accident Compensation Scheme," and under-represent the actual numbers. Unfortunately, the figures also disguise work-related ailments.

Work-related deaths and injuries are on the rise: in 1995 there were about 20,000 injuries from work-related accidents, and 252 deaths; this is 1.3 times the 1986 level. The most work-related fatalities occur in the agricultural and forestry industry, with just under 28% of total fatalities, followed by the mining industry at 20% of the total. The cause of work related fatalities in the agricultural and mining industries include traffic accidents, tractors flipping over, falls off trailers, etc. Moreover, fatalities from lightning strikes and animal attacks were 5 each. The highest fatality was in the transport and storage industry.

Table 8-4: Occupational Injuries by Industrial Sector

Industry	1986		1990		1995		
	Injuries	Fatalities	Injuries	Fatalities	Injuries	Fatalities	Fatality
Agriculture and Forestry	2,797	44	2,670	57	3,014	70	2.3%
Mining and Quarrying	2,592	43	2,841	32	2,936	51	1.7%
Manufacturing (non-metal)	2,613	16	3,383	18	3,918	22	0.6%
Manufacturing (metal)	1,905	6	2,509	10	2,739	2	0.1%
Electricity Production	192	2	401	5	549	2	0.4%
Building and Construction	966	15	1,732	17	1,932	22	1.1%
Commerce and Distribution	917	13	1,078	13	1,203	14	1.2%
Transport and Storage	721	19	975	37	1,075	43	4%
National Railways of Zimbabwe	1,539	3	804	6	385	2	0.5%
Communication	94	0	109	2	152	3	2.0%
Finance, Insurance and Business Services	86	3	95	1	180	2	1.1%
Community, Social and Personnel Services	923	30	1,428	21	1,778	19	1.1%
Total	15,345	194	18,025	219	19,861	252	1.3%

Source: Annual Analysis of Preliminary Occupational Injury and Accident Statistics 1995 NSSA

Table 8-5 shows the ratio of injuries and fatal accidents by industry.

The incidence of accidents is highest in the mining and electricity industries; the highest fatality from work-related accidents was in the transport and storage and mining industries.

Table 8-5: Ratio of Injuries and Fatal Accidents (1995)

Industry	Insured Labor Force	Injuries		Fatality	
		No. Injuries	Incidence Rates	Fatal Injuries	Incidence Rates
Agriculture	357,137	2,406	6.7	67	18.8
Forestry	9,871	608	61.6	3	30.4
Mining and quarrying	61,367	2,936	47.8	51	83.1
Food, drink and tobacco processing	67,590	1,330	19.7	10	14.8
Textile and leather	61,074	513	8.4	1	1.6
Wood and wood products	28,483	892	31.3	4	14.0
Paper, printing and publishing	16,016	256	16.0	3	18.7
Chemicals and petroleum products	25,682	441	17.2	1	3.9
Non metallic mineral	13,618	486	35.7	3	22.0
Basic metal production	14,622	683	46.7		0.0
Fabricated metal products and machinery	89,063	2,028	22.8	2	2.3
Other manufacturing	2023	28	13.8	0	0.0
Electricity production	11,233	549	48.9	2	17.8
Building and construction	76,991	1,932	25.1	22	28.6
Commerce and Distribution	121,911	1,203	9.9	14	11.5
Transport and storage	35,586	1,075	30.2	43	120.8
National Railways of Zimbabwe	13,210	385	29.1	2	15.1
Communication	8,928	152	17.0	3	33.6
Finance, insurance, real estate and business services	45,862	180	3.9	2	4.4
Local authorities	31,486	867	27.4	8	25.4
Personnel services	94,896	911	9.6	11	11.6
Total	1,186,649	19,861	16.7	252	21.2

(Note) Ratio: Per 100,000 population

Source: Annual Analysis of Preliminary Occupational Injury and Accident Statistics 1995 NSSA

Despite the above mentioned NSSA activities, Zimbabwe's industry has a very low level of awareness of occupational health and safety. Below are excerpts from a NSSA evaluative report⁶⁴.

- 1 75% of all companies did not know of their legal obligations with regard to occupational health and safety
- 2 89% of all companies had no emergency action plan
- 3 79% of all companies did not fulfill the minimum legal requirements for the handling of chemicals
- 4 54% of all companies did not act in accordance with legal safety policies regarding the handling of machinery
- 5 70% of all companies did not act in accordance with legal safety policies regarding accidents
- 6 90% of all companies did not fulfill government requirements regarding noise pollution
- 7 93% of all companies had sanitary facilities

⁶⁴ Comprehensive Analysis of Health and Safety Management in Zimbabwe Assessment in 1997

As is shown above, most companies do not obey the law, however, this also reflects the lack of penal regulations. The government still applies the occupational health law instated during colonial times and although the government started to reform the law in the early 1990's, there is still much work to be done (interview with Mr. Nkube, Director of the NSSA Occupational Health and Safety Department).

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2. “Third Evaluation of the Strategies for Health for All by the Year 2000 Version 2”1997 MOHCW
3. “6th Round Sentinel Surveillance for SDA Monitoring”1996 UNICEF/GOZ
4. Annual Analysis of Preliminary Occupational Injury and Accident Statistics 1995 NSSA
5. “The National Rural Water Supply and Sanitation Programme Executive Summary for 94/95” Date of Publication Unknown; NAC
6. “Annual Report 1995,” Date of Publication Unknown; Environmental Health Dept. MOHCW
7. “Comprehensive Analysis of Health and Safety Management in Zimbabwe Assessment in 1997,”Date of Publication Unknown;

9 International Cooperation in Health

9.1 Request Procedures and Cooperation by Donors

The flow of a cooperation request is shown below.

(1) Technical Cooperation and Grant aid

Requests for aid are sent from concerned ministries to the Ministry of Finance. The Ministry of Finance discusses the request with the National Economic Planning Commission, which is under the direct control of the president, then decides whether the request should be authorized. Requests are sent from the Ministry of Finance to each foreign embassy (see Diagram 9-1).

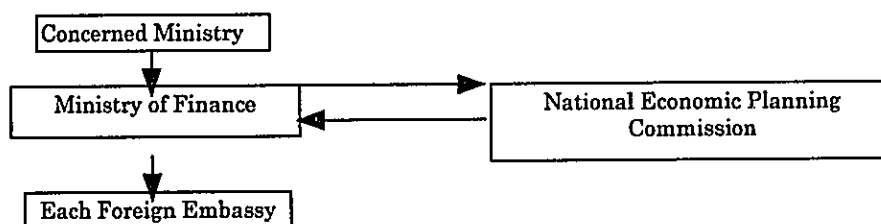


Diagram 9-1: Flow of Requests for Request for Technical Cooperation/ Grant Aid

(2) The Japan Overseas Cooperation Volunteers

Requests for the Japan Overseas Cooperation Volunteers are sent to each foreign embassy in Zimbabwe through the Ministry of Public Service, Labour and Social Welfare (see Diagram 9-2).

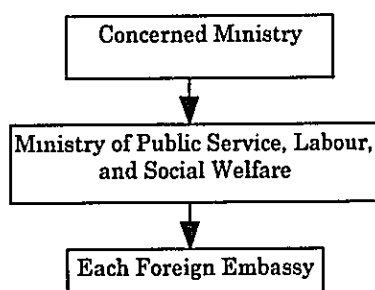


Diagram 9-2: Flow of Requests to the Japan Overseas Cooperation Volunteers

Source: "Country Specific Assistance File: Zimbabwe," 1996; Japan International Cooperation Agency
Cooperation by Other Donors

In 1995, aid from international organizations totaled US\$148.6 million while bilateral aid from the DAC nations totaled US\$347.7 million. In 1994, grants were more than double the amount of loans. Technical cooperation accounted for 30% of total grants. Among international organizations, the CEC became the leading donor in 1995 (US\$60.3 million), replacing IDA, whose assistance fell by a large amount.

Among the DAC donors, in 1995 Japan surpassed the UK's US\$45.9 million of support to become the leading donor (US\$65.6 million). (see Table 9-1).

Table 9-1: Trends in ODA by Major Source

	1993	1994	1995			
International Organizations (total)	190.6	284.0	148.6			
1 st	IDA	62.4	IDA	101.1	CEC	60.3
2 nd	CEC	51.0	CEC	96.8	IMF	50.7
3 rd	IMF	42.4	IMF	47.8	IDA	14.6
4 th	UNDP	7.1	UNHCR	10.4	UNICEF	5.6
5 th	UNICEF	6.5	UNICEF	5.2	UNTA	2.9
Others		21.3		22.9		14.5
DAC Member Countries (total)		310.1		280.3		347.7
1 st	Germany	59.8	Britain	37.8	Japan	65.6
2 nd	Sweden	35.8	USA	34.0	Britain	45.9
3 rd	Holland	28.4	Sweden	34.0	Germany	42.1
4 th	Japan	28.2	Holland	28.1	Holland	35.7
5 th	Denmark	27.6	Germany	25.9	USA	29.0
of which Japan		28.2		25.7		65.6

Unit: US\$ million

Source: "Japan's Official Development Assistance, Annual Report" 1997;
Association for Promotion of International Cooperation

Table 9-2: ODA Support by Type of Aid

	1991	1992	1993	1994
Loan Assistance (net)	63.5	265.5	190.9	181.5
Grants	329.8	527.1	309.2	380.2
(of which Technical Cooperation)	(113.8)	(191.4)	(158.1)	(116.4)
Total ODA (net)	393.3	792.6	500.1	561.7

Unit: US\$ million

Source: Geographical Distribution of Financial Flows to Aid Recipients 1996 OECD

9.1.2 International Organizations

(1) WHO

WHO's Zimbabwe office was established in 1980, following independence. In the 17 years since its establishment in 1980 to the present, WHO has continuously provided technical and financial support, as well as information.

WHO Zimbabwe consists of the following three departments:

- 1 The country program department, which carries out programs in Zimbabwe
- 2 The inter-country project department, which provides technical support to not only Zimbabwe, but all nations in southern Africa
- 3 The management support division, which supports the WHO Zimbabwe office

The activities of the country program department and inter-country program department are listed below.

A) Country Programs

General development programs; human resource development in health; control of disease and injury; maternal and child health and family planning; PHC; information and education related to health care; nursing; emergency preparedness and response; community water supply and sanitation; Drugs Action Program; research on trends and status of health care; immunization; and HIV/AIDS

B) Inter-Country Programs

Control of diarrhoeal diseases; the health care research system; immunization; emergency preparedness and response; women's health and development; malaria control programs

The main areas of technical support that WHO Zimbabwe provides to the MOHCW are in health sector reform, including decentralization, cost effectiveness, and rationality. At present a total of 11 programs are being implemented: 9 from the ordinary budget, and 2 from the special budget (emergency preparedness and response and control of diarrhoeal diseases). The 9 programs from the ordinary budget are listed below.

■ Health Manpower

Financial support for the training of health manpower, publication of CHIZ, and health research

■ Situation and Trends in Health

Support for the creation of a district level health care database

■ Integrated Disease Control and AIDS

Human resource development, as well as technical and logistical support for the MOHCW Epidemiology and Disease Control Department

Dissemination of HIV/AIDS education in all provinces to promote appropriate preventive action by women and youth

■ PHC

Training of health care professionals; running the Best District/Provincial/Central Hospital Competitions; implementing pilot health development projects in two provinces

■ Health of Women and Children

Training of nurses, midwives, and VCW coordinators at RHCs, financial support for provincial and district surveys, implements women's development programs in four districts

■ Health Education and Information

Support for the creation of school health programs and competitions, formulation of patient education programs at all provincial and central hospitals, support for postgraduate training for health education officers, and implementation of SCOP

■ Community Water Supply and Sanitation

Improvement of water facilities at RHCs, training of environmental health officers and technicians, promotion of regional community health competitions, expansion of the Africa 2000 Project

■ General Program Development

Implements field tests at RHCs in relation to the decentralization of rural health services; reorganization of the MOHCW and Provincial Health Directorates

■ Technical Cooperation with other Donors (WHO office)

Technical, administrative and logistic support of WHO technical cooperation programs; management of the ordinary and special budgets; improvement of information collection and report preparation

The total budget for these 9 programs (the two year budget for 96/97) was US\$2,388,000 and consists of the following:

Table 9-3: Programs on the Ordinary Budget

	Program	Budget (2 year budget for 96/97)(US\$ thousands)
1	Health Manpower	450
2	Situation and Trends in Health	10
3	Integrated Disease Control and AIDS	310
4	PHC	300
5	Health of Women and Children	368
6	Health Education and Information	80
7	Community Water Supply and Sanitation	150
8	General Program Development	50
9	Technical Cooperation with other Donors	670
	Total	2,388

Source: "A Proposed Plan of Work for WHO Cooperation with Zimbabwe," 1996; WHO

(2) UNICEF

UNICEF began support for Zimbabwe in 1981. UNICEF's support for Zimbabwe, however, fell to about half its real original level in the ten years between 1981 and 1991. The reason for this was the relatively good development shown by Zimbabwe in comparison with its neighboring countries. Following 1991, however, UNICEF became comparatively more active due to the drought, socioeconomic adjustment, and the spread of AIDS.

UNICEF fills a major role in promoting the policies of decentralization and efficiency being pursued by the Zimbabwe government. "The Programme of Cooperation 1995 – 2000" between the Government of Zimbabwe and UNICEF was created in response to changing circumstances such as social sector adjustment following ESAP, the spread of HIV/AIDS and the drought, as well as the "National Plan of Action for Children" (NPA). The main focus of the plan is HIV/AIDS control, and the reduction of mortality of children under 5. UNICEF's current health related programs based on these policies are listed below.

A) Health

■ Child Health

Support is mainly for immunization, nutrition, control of diarrhoeal diseases, and the health information system

■ Women's Health

■ Health Care Management and Finance

■ Community-Level Health Care

VCW training

B) Control of HIV/AIDS

■ Training of School Teachers

Training for teachers pertaining to HIV/AIDS education and student guidance

■ Creation of Educational Materials for Youth

■ Training of Candidates for Teachers

■ Dissemination of Information on HIV/AIDS Prevention

■ Financial Support for NGOs

■ Support for NACP

The core of the program is the schools program and emphasis is placed on student and teacher education. Educational programs for sex workers, truck drivers, etc. are not conducted.

C) Water and Environmental Sanitation

■ Construction of Facilities for Safe Drinking Water; Dissemination of Latrines

■ Health Education

- Hygiene Education
- Regional Development

The above mentioned programs are currently being implemented jointly with NGOs such as Afri Care and Mvur Amanzi.

In addition to its health care activities, UNICEF Zimbabwe implements the following programs not directly related to health care:

- Education
 - Elimination of sexual discrimination against girls in primary and secondary education; adult literacy
- Social Policy and Development
 - Support for orphans, financial support for social welfare activities
- Women
 - Women's Rights Project
- Children
 - Child rights program, care of orphans

The total budget for UNICEF's five year health care-related programs from the year 1996 to the year 2000 is US\$50.4 million, of which US\$8.4 million comes from the ordinary budget and US\$42 million comes from the special budget. Of this, US\$13.5 million goes to health, US\$12.4 million goes to the control of HIV/AIDS, and US\$9.6 million goes to water and environmental sanitation (figures from documents provided by UNICEF, 1997)(interview with Ms. Henderson, head of the UNICEF health care division).

(3) UNFPA

UNFPA commenced assistance for Zimbabwe in 1981 with the "First Country Program," involving support for the 1982 National Census. Support for ZNFPC began in 1982. UNFPA's support for the MOHCW was not until 1988, and financial aid not until 1991/92. UNFPA's support remains centered around ZNFPC. UNFPA provides direct support to The University of Zimbabwe and NGOs, as well as other institutions.

The "Second Country Program 1988 – 1993" was extended for two years, ending in 1995, and the "Third Country Program 1996 – 1999" began in 1996. The "Third Country Program 1996 – 1999" consists of the following three components: "Reproductive Health," "Population and Development Strategies," and "Advocacy." The content of these three components are listed below:

A) Reproductive Health

Distribution of contraceptives; support for NGOs involved with maternal health; financial support for NACP and UNAIDS; support for HIV/AIDS education for mothers; support for IEC programs related to family planning; support for population education in schools; surveys related to induced abortions; training related to reproductive health for MOHCW employees

B) Population and Development Strategies

Support for policy making of the National Economic Planning Commission regarding population development; support for population education at the University of Zimbabwe; education of NGOs concerning population and sex related problems

C) Advocacy

Cooperation with members of parliament, concerned committees, etc. concerning population development; support for NGOs regarding reproductive health and population and family planning; support for regional IEC activities being implemented by the Ministry of Education, Sports and Culture relating to reproductive health and population and family planning

The total budget for the "Third Country Program 1996 – 1999" is US\$8.9 million; of this, (1) US\$6.9 million goes to reproductive health, (2) US\$1.2 million goes to population and development strategies, and (3) US\$0.8 million goes towards advocacy (figures from UNFPA documents, 1997).

(4) UNAIDS

UNAIDS is funded by UNDP, WHO, UNICEF, UNFPA, UNESCO, and the World Bank; starting in 1996, UNAIDS began to support government activities for the control of HIV/AIDS.

UNAIDS is not an organization, but rather a coordinating body which coordinates cooperation from all participating UN institutions; its efforts are directed at the control of HIV/AIDS through the National Aids Coordination Program. The main UNAIDS programs are listed below:

- Support for NACP planning and coordination
- Support for the purchase and distribution of condoms for women
- Support for home nursing of AIDS patients.
- Support for immunology relating to HIV/AIDS
- support and promotion of health education and information gathering relating to HIV/AIDS
- Program monitoring and evaluation

At present, the 1997 budget is US\$788,000 (figures from UNAIDS documents, 1997).

(5) UNDP

UNDP does not provide direct assistance in the health field, but indirectly supports HIV/AIDS control programs through UNAIDS. Moreover, it implements programs related to health care, such as poverty reduction programs, as well as the Rural District Council's Capacity Building Programme, as part of decentralization.

(6) The World Bank

The World Bank's support for the MOHCW and ZNFPC began in 1988 with the Family Health Project, 1988 – 1993. This Project was evaluated by specialists at the World Bank, and subsequently the Second Family Health Project 1992 – 1997 began based on this evaluation. Moreover, the Sexually Transmitted Infection Prevention and Care Project 1993 – 1998 commenced in 1993.

The activities of the First Family Health Project included (1) nurse training and IEC activities for the dissemination of family planning; (2) manager training for capacity building at the MOHCW headquarters, province and district levels; (3) enhancing the function of district hospitals, RHCs and rural hospitals.

The Second Family Health Project promotes the following six areas:

- **Family Planning**
Training; improvement of facilities and expansion of services in regional areas; improvement of IEC, evaluation, surveying, research and management capacity building
- **Maternal and Child Health**
Training of midwives; supply of obstetrics equipment; school health education; research
- **Nutrition**
Improve food nutrition; provide micronutrient supplements
- **Regional Health Services**
Enhance the function and improve the facilities of 16 district hospitals and 72 RHCs; provide employee housing; provide communication infrastructure
- **Training of Health Care Professionals**
Institution building, curriculum improvement, and district training facility improvement
- **Improve Operational Management in Health Care**
Training in finance, improvement of equipment and stock control, support for health planning

In addition, the Sexually Transmitted Infection Prevention and Care Project emphasizes the following areas:

- **Promotion of Condom Use**
Encouraging the use of condoms through IEC
- **Sexually Transmitted Disease Programs**
Supply pharmaceuticals and testing equipment to STD programs
- **Treatment of HIV/AIDS related illnesses**
Supply of pharmaceuticals for the treatment of HIV/AIDS related illnesses such as tuberculosis

- HIV Testing

Supply of blood testing equipment for the testing of HIV

- Support for HIV/AIDS Workers

Supply of gloves, disinfectants and syringes to medical workers who handle HIV/AIDS patients.

The budget (loan assistance) for the First Family Health Project was US\$52.5 million; for the Second Family Health Project it is US\$40 million; and for the Sexually Transmitted Infection Prevention and Care Project, it is US\$64.5 million (figures from "Staff Appraisal Report Sexually Transmitted Infections: Prevention and Care Project," 1993; The World Bank, and "F.H.P Status Report," 1997; MOHCW) (interview with Mr. Jacet, from the World Bank Human Development Department).

9.1.3 Other Bilateral Donors

(1) SIDA

SIDA (The Swedish International Development Authority) began its support for the Zimbabwe Government following independence in 1980; support for the health sector began in 1981. On providing its assistance, SIDA signs an agreement with the Government of Zimbabwe every three years by sector.

Health care programs conducted from 1993 to 1996 are shown in Table 9-4, below.

Table 9-4: SIDA Health Care Programs from 1993 to 1996

Program	Budget
Immunization	18.0
Water and Sanitation	12.0
Community Rehabilitation	7.5
Farm Health Workers	4.5
HIV/AIDS Control	15.0
Second Family Health Project	24.0
·Nutrition	(13.0)
·Human Development	(1.0)
·Maternal & Child Health	(7.0)
·Planning and Evaluation	(2.0)
·Support for NGOs relating to HIV/AIDS Control	(1.0)
Total	81.0

Unit: SWK million (1 SWK = US\$0.13)

Source: SIDA Documents 1997

The budget for the current program, which will run from 1997 to 1999, is SWK50 million. The goals and content of the program are listed below. The overall goal of this program is to improve the quality of and access to health care services in rural areas, especially among the vulnerable groups. Immunization support was ceased as of 1996 because the government learned to execute immunization programs on its own and hence, it has been excluded from the 1997 program and onwards. (1 SWK = US\$0.13)

A) Objectives of the 97 – 99 Program

- Improve health care for the disabled
- Improve availability of water/sanitation, and health education
- Improve health and sanitation conditions of workers at commercial farms
- Prevention of the spread of HIV/AIDS, and reduce its medical and psycho-social effects
- Improve the quality of life of marginalized groups by reducing the under- and malnutrition and diet related diseases

B) Specific Programs for 97 – 99

- Community Based Rehabilitation (CBR)

Promoting care for the disabled by the community through the cooperation of not only the MOHCW, but also the Ministry of Education, Sport and Culture, the Ministry of Public Service, Labour and Social Welfare, and NGOs.
- HIV/AIDS NACP

Support for NACP in the following areas:

 - Program management
 - Counseling and social support
 - Community home based care
 - Youth in and out of school
 - “AIDS and the workplace” programs
- Nutrition

Reduce prevalence of Protein Energy Malnutrition, micronutrient deficiencies and diet related chronic diseases.
- Farm Health Workers (FHW)

This program was initiated in 1989. The goal of the program is to supply FHWs with training and necessary equipment (bicycles, first aid kits, etc.) in order to improve the health of farmers and farm workers on commercial farms
- Health, Water and Sanitation and Blair Research

Support for construction of Blair Latrines and wells, human development, and research conducted by the Blair Research Institute
- Maternal Health Care / Reproductive Health

Cooperation with the MOHCW Maternal Child Health & Family Planning Department is being considered, but as of yet no concrete plans have been implemented
- Planning and Evaluation

Planning and evaluation for programs supported by SIDA

Table 9–5 shows the budget for each program

Table 9-5: Budget for 97-99 Programs

	Program	Budget
1	Community Based Rehabilitation	10.0
2	HIV/AIDS NACP	12.0
3	Nutrition	7.0
4	Farm Health Workers	6.0
5	Health, Water and Sanitation and Blair Research	6.0
6	Maternal Health Care / Reproductive Health	7.0
7	Planning and Evaluation	2.0
	Total	50.0

Unit: SWK million (1 SWK = US\$0.13)

Source: SIDA Documents 1997

SIDA plans to phase-out funding for Zimbabwe in the health sector after the 97-99 program. This is not due to budget cuts of the Swedish Government, but is instead a policy move towards more support for public administration and irrigation as of 1999 (interview with Ms. Halvawan, Health Care Officer at SIDA).

(2) DANIDA

DANIDA (Danish International Development Agency) began cooperating with Zimbabwe in health care in 1984. For the past ten years, most cooperation in the health care field has been with ZEDAP. Also, cooperation with the Family Health Project and NACP was initiated in 1993.

In December of 1996, an agreement was made with the Zimbabwe Government on the "Danish Health Sector Programme Support" (DHSPS) to support MOHCW health sector reforms. This is a three year plan designed to support the following eight areas relating to the government-backed decentralization:

- Support to district level health care
- Support to provincial health services
- Support to central MOHCW including the Strategic Development Unit
- Development of a gender strategy for HSPS/MOHCW
- Support for NACP programs for the control of HIV/AIDS centered around home nursing at the district level
- Support to and integration of the Zimbabwe Essential Drugs Program (ZEDAP) (will be ceased in 1999)
- Support to and strengthening of decentralized laboratory facilities
- Support to the National Health Information System (NHIS)

The Danish ambassador is the director of DANIDA in Zimbabwe; the consul is the vice director. The Danish ambassador to Zimbabwe is also the ambassador to Angola and Botswana, but no assistance is being conducted in these countries because the framework for cooperation has not yet been agreed upon. Six health care specialists are presently stationed, and there are plans to continue the project into its second phase after the end of the three years. Thus, Denmark plans to continue close cooperation in the health sector.

The budget for the 96 – 99 program is shown below

Table 9-6: Budget for DANIDA's 96 – 99 Programs

Program	Budget
Support for District Health Services	54,815
Support for Provincial Health Services	8,334
Support for Central MOHCW (Strategic Development)	8,256
Development of Gender Strategy; Control of HIV/AIDS	9,000
Support for ZEDA	7,605
Support for Laboratory Facilities	23,801
Support for NHIS	2,985
Auxiliary Budget	15,000
Total	129,629

Unit: DKK thousand (1DKK =US\$ 0.15)

Source: DANIDA Documents 1997

(Interview with Mr. Petersen, Danish Consul)

(3) NORAD

NORAD (The Norwegian Agency for Development Cooperation) began its cooperation in the health care field in the mid 1980's, with support for the Family Health Project. NORAD does not use this name in Zimbabwe; instead, NORAD employees from Oslo work in the embassy, and conduct activities under the name of the embassy. The current Norwegian ambassador was also appointed by NORAD. At present two aid officers are in charge of development support while the ambassador is responsible for overall coordination of development activities.

Norway's parliament made the decision to devote over 20% of the development budget to PHC, primary education and water and sanitation. For this reason, social projects are given priority in development support in Zimbabwe as well, especially for health care, and rural water and sanitation focusing on the Family Health Project. Because NORAD has its hands full with these two fields, it has not conducted any educational programs in Zimbabwe.

Support for the Family Health Project started in the very first phase at NOK90 million. For the Second Family Health Project NOK83 million was allocated to the normal budget and NOK40 million to the special budget, for a total of NOK123 million. The Second Family Health Project is scheduled to end in 1997, but discussions are currently under way with the MOHCW to extend the project for one year. (1 NOK = US\$0.14)

In the past, NORAD also dispatched specialists, but this was ceased because of difficulty in continuity and the burden on the host country. At present support is conducted in the form of financial support and contracting out to consultants. Health programs in progress are listed below.

- Second Family Health Program
- Child Supplementary Feeding Program

Introduced during the drought in 1992, this child relief program will end in 1997.

- **Programs for the Control of Malaria**

An emergency budget of NOK6 million (NOK1 = US\$0.14) was allocated to fight the spread of malaria in 1996, but as of yet concrete aid programs have not materialized to implement this budget.

- **Nutrition Policy Programs**

The Norwegian National Nutrition Council provides support for policy making on nutrition, with a budget of NOK6 million (NOK1 =US\$ 0.14).

Direct support is not provided to NACP for HIV/AIDS control, but financial support is given to local NGOs which implement HIV/AIDS control programs. In the future, NORAD plans to increase cooperation for social services (interview with Ms. Evensen, First Secretary of the Norwegian Embassy).

(4) DFID–UK (Formerly British ODA)

DFID (Department for International Development UK) (formerly British ODA) has been supporting health care in Zimbabwe since independence. Development support for Zimbabwe is under the authority of the Central Africa Development Bureau of the British Government. In 1997, British ODA was changed to DFID due to an organizational change in the British government.

DFID's support for the health care field is centered around the following four areas: emergency assistance; communicable diseases such as HIV, malaria, and tuberculosis; maternal and child health; and health sector reform. The following programs are currently being implemented in accordance with these four foci:

- **Sexual Health Project**

Training of medical personnel such as physicians and nurses, supply of testing equipment, etc. for STD prevention programs

- **Health Policy Development and Planning Department**

Support for upgrading the MOHCW Health Policy Development and Planning Department

- **Everyone's Child: an African Film and Education Program**

Create films to increase and disseminate awareness on problem of orphans among families, communities and concerned government agencies, in order to respond to the growing number of orphans. Conducted in cooperation with Plan International, Oxfam, SIDA, Anglo-American Corporation, etc.

- **Community Based Malaria Control Project**

Support for malaria prevention health education for school teachers, students, and rural health workers. Support is not only directed towards the MOHCW, but also for NGOs and Save the Children UK. Plans are also in place to implement GIS to determine under which vector mosquitoes breed.

- **Social Marketing of Condoms**

This is a joint project with USAID, and involves promotion of private sales of condoms, as well as encouragement of the use of condoms through television and the radio. Condoms are sold for Z\$3 per package.

- **Social Marketing of Treated Mosquito Nets**

This is a pilot project being implemented in Mashonaland Central selling 15,000 mosquito nets treated with insect repellent at Z\$80 each.

Budgets for ongoing programs are shown below.

Table 9-7: DFID Programs and their Budgets

	Program	Budget
1	Sexual Health Project	9,000
2	Health Policy Development and Planning	750
3	African Film and Education Program	243
4	Community Based Malaria Control Project	80
5	Social Marketing of Condoms	2,000
6	Social Marketing of Mosquito Nets	270
	Total	12,313

Unit: Thousand Pounds (1 Pound = US\$1.6)

Source: DFID Documents 1997

The health care field is DFID's top priority for development support to Zimbabwe, and as such receives the greatest proportion of its budget. DFID will decide future aid priorities pending the finalization of the "National Health Strategy for Zimbabwe 1997–2007" by the MOHCW (interview with Mr. Miller, first secretary to the British Embassy).

(5) USAID

USAID (The United States Agency for International Development) has been implementing development support for Zimbabwean health care since independence in 1980. Family planning is USAID's main focus and over the 15 years since 1980, it has given 50 million dollars of support to ZNFPC. In 1989, support for HIV/AIDS programs was added to the support for family planning with formal support for NACP beginning in 1993. Below are listed the objectives of the family planning and HIV/AIDS control programs:

A) Family Planning Program

- To make MOHCW family planning projects self-sustainable
- To lower the total fertility rate to 4.0 by the year 2000

B) HIV/AIDS Control Program

- To reduce the number of HIV incidence
- Expand HIV/AIDS prevention programs to the national level

The following activities are currently being conducted in relation to the two programs mentioned above:

- Promotion and quality improvement of family planning in the private sector
 - Improving family planning through consulting firms such as JSI, MSH and AVSC
- Supply of contraceptives and improvement of logistics
 - Financial support and social marketing for the supply of condoms
- Policy improvement
 - Support for NACP policy making for DHS, and for health care financing
- Strengthen NGO HIV/AIDS control activities
 - Support for local NGOs through the American NGO, PACT
- Promotion of behavioral changes to control HIV/AIDS
 - HIV/AIDS education conducted by the NGO AFRICARE in the workplace, by UNICEF for teachers and at universities; support for counseling and testing

The yearly USAID budget for the two programs mentioned above is about Z\$44 million. The budget for the 1997 and 1998 fiscal years is shown below.

Table 9-8: USAID Budget for the 1997 and 1998 Fiscal Years

Fiscal Year	Family Planning Program	HIV/AIDS Control Program
1997	4.0	4.2
1998	3.5	3.5

Unit: US\$ million

Source: USAID Documents 1997

USAID plans to phase out all development support to Zimbabwe, including support for health care, by the year 2002 due to budget cuts by the U.S. Congress, as well as the fact that the Zimbabwean government is not sufficiently democratic, and there is apparent misuse of funds. While the USAID Zimbabwe office will be closed in the year 2003, USAID plans to continue to provide assistance for other African nations in greater need, such as Malawi, Mozambique, Zambia and Angola (interview with Ms. Servajio, Officer in Charge of Health, Population and Nutrition for USAID).

(6) CEC

CEC (The Commission of European Communities, Delegation in Zimbabwe) began its support for health care in Zimbabwe in the early 1980's, with a "Microproject Program" whose goal was to enhance the function of RHCs. Since 1993, the CEC has been implementing projects such as the improvement of RHC water supply facilities, construction of housing for physicians in district health care facilities, and the supply of drugs and equipment to these facilities. Moreover, CEC implements the National Blood Transfusion Service Program, which focus on upgrading laboratories of the blood transfusion centers in Harare and Mutare.

In December of 1996 the "National Indicative Program" (NIP) was developed with the Zimbabwean government, which set CEC cooperation guidelines during the five years from 1998 to 2002.

The health care guidelines for NIP are listed below:

- **Microproject Program**

- A continuation of the Microproject Program for five more years, after which it will be terminated

- **Sector Support**

- Will delineate specific aid priorities in accordance with the "National Health Strategy for Zimbabwe 1997–2007," when it is finalized by the Zimbabwean government

The budget for the Microproject Program is ECU3.8 million; the budget for Sector Support is ECU22 million (interview with Mr. Montalban, CEC Technical Advisor). (1 ECU = US\$1.10)

(7) GTZ

Support for Zimbabwe from the German government began in 1980 based on technical cooperation planning; so far a total of about DM728 million has been provided. Of this total, DM274 million has been in the form of support through GTZ (Deutsche Gesellschaft Für Technische Zusammenarbeit). The remainder has been provided by the German Government to other aid organizations and NGOs. (DM1 =US\$ 0.56).

GTZ supports the following 3 programs in the health field:

A) IEC, Family Planning and Health Education Program

The goals of this program are the prevention of HIV/AIDS and STDs, as well as the promotion of positive health behavior for family planning. Some of the current activities for this program are: training of personnel from the Zimbabwe Family Planning Council, the MOHCW Maternal Health & Family Planning Department, and the Health Education Unit in order to improve IEC techniques; workshops; surveys and studies; provision of equipment; and employment of local specialists and consultants. This program was scheduled to run from 1987 through 1998, with a total budget of DM14.6 million, but will be extended upon the request of MOHCW (1 DM = US\$0.56).

B) Health Systems Research for Reproductive Health, and Health Care Reforms in the Southern African Region

This program is being implemented in the following two areas:

- Provides technical support for health systems research by the Blair Research Institute, and training for Institute staff in research methods, in order to improve reproductive health
- Organizes meetings of Southern Africa Development Community (SADC) nations and supports network building in order to promote health care reform

in southern Africa. This project is scheduled to run from 1989 to 1998, with a total budget of DM7.8 million (DM1 = US\$0.56).

C) District Health Improvement Program

This is a health improvement program covering a total of one million people in 12 districts of Manicaland and Masvingo.

This program provides equipment and supplies to the 15 German physicians (volunteers) deployed through the German Development Agency (GDA).

This project is scheduled to run from 1991 to 1998, with a total budget of DM 2 million.

The GTZ development support to the Zimbabwean government prioritizes irrigation, education, and forestry. Although health care is not a priority per se, GTZ plans to continue its support to this sector. Until now, GTZ has not provided direct assistance for the control of HIV/AIDS, but has included HIV/AIDS control in its latest support agenda based upon the "National Health Strategy for Zimbabwe 1997-2007," currently being prepared by the MOHCW (interview with Ms. Ryk, Project Coordinator and Mr. Essdeltz, Resident Representative of GTZ).

(8) Italian Cooperation (The Italian Embassy)

Through its embassy, Italy began its support for health care in Zimbabwe in 1988, with the Mashonaland West Health Project. The goal of this project, which is still ongoing, is the improvement of health care service at the province level. The activities of this project include the reconstruction of mission hospitals; capacity building of RHCs; training for health care professionals in epidemiology relating to acute respiratory infections and diarrhoeal disease; technical support for provincial hospital physicians; and health education. These activities are conducted in cooperation with the Italian NGO, COSV with five specialists (physicians) deployed from COSV. Another similar project was initiated in Mashonaland East in 1997.

The 1997/98 budget for the Mashonaland West Health Project is US\$2.5 million, and US\$600,000 for the Mashonaland East Health Project.

The Italy has placed priority on support for economic development in Zimbabwe, and thus, there is no plan to expand development support for health care beyond the two projects currently being implemented (interview with Mr. Gabrieli, Manager of the Italian Cooperation Health Project).

(9) Dutch Cooperation (The Dutch Embassy)

Through its embassy, the Netherlands began development support for Zimbabwe following independence. Health cooperation is provided in the following three areas:

- HIV/AIDS and Tuberculosis Programs
- The National Health Systems Research Program with WHO
- Financial Support for the Purchase of X-ray machines

A regional health advisor who is stationed in Harare coordinates Dutch health cooperation with the Governments of Zimbabwe, Angola, South Africa, Namibia, Swaziland, Botswana, Lesotho, and Mozambique. The regional health advisor also supports mutual cooperation among these countries in the areas of health, population and nutrition.

Table 9-9 shows the projects supported in Zimbabwe.

Table 9-9: Projects Supported by the Dutch Government

Project	Implementing Organization	Project Term	Budget
Southern Africa HIV/AIDS Information Dissemination Service	HIVOS (Dutch NGO)	1995 – 1996	1,206
HIV/AIDS Project Support Group	University of Zimbabwe	1996 – 2000	436
Matabeleland AIDS Committee	HIVOS	1994 – 1997	727
National Tuberculosis Control Program	MOHCW	1995 – 1999	2,602
Control of Tuberculosis	DGIS	1995 – 1999	266
HIV/AIDS Prevention Project	UNICEF	1995 – 2000	7,432
Budget Support	MOHCW	1996 – 1999	5,650
Total			18,320

Unit: Thousand Nf1 (Nf1 = US\$0.50)

Source: Dutch Embassy Documents 1997

(10) CIDA

CIDA (The Canadian International Development Agency) has no country office in Zimbabwe; instead, it has a regional office for the SADC nations in Harare.

Although CIDA's support for the health sector is limited because of the sector's low priority in the overall aid program, the following projects are, however, being implemented (figures from CIDA documents, 1997). (C\$1 = US\$0.72)

■ Southern Africa HIV/AIDS Program

The budget for the program aimed at SADC nations is C\$23 million; of which 3 to 5 million is designated for Zimbabwe.

■ Research on Breast Feeding and HIV

Joint research by McGill University and the University of Zimbabwe on HIV infection through breast feeding. The budget is C\$5 million

■ Harare Central Hospital Pediatrics Ward

Rebuilding the Harare Central Hospital pediatrics ward. The budget is C\$5 million.

9.1.4 NGOs

Roughly 46 NGOs are active in the health field in Zimbabwe (figures from documents provided by Ms. Zibanda, Assistant Director of the MOHCW Support Unit). NGOs are allowed to operate in Zimbabwe, only after they register with the Ministry of Public Service, Labour and Social Welfare. They are not required, however, to register with the MOHCW. Because these NGOs operate at the province and district level, the central MOHCW has little idea as to what their activities are (interview with Ms. Zibanda, Assistant Director of the MOHCW Support Unit). The MOHCW Finance Department Aid Division only happened to have recently surveyed each province on the number of active NGOs and their names, and was thus able to provide this information.

As stated above, due to the fact that NGOs operate on the provincial and district level, the MOHCW does not have a detailed understanding of the NGOs which are active in the health field. Presented below is information collected via interview on two NGOs.

(1) The Zimbabwe Red Cross Society

The Zimbabwe Red Cross Society was established in 1981, and recognized by the International Red Cross in 1983. The goal of the Zimbabwe Red Cross is to improve the lives of those who are most vulnerable and a decentralized system of providing service is the most conducive for this purpose. Therefore, there are over 280 branches nationwide, each conducting its own independent activities. The number of staff is 105 nationwide, and the overall budget amounts to roughly Z\$9 million.

Funding for programs comes from other Red Cross Societies such as Canada, Denmark, and Norway, but the central office expenses are covered by the rent obtained from leasing of buildings owned by the Zimbabwe Red Cross Society.

The Zimbabwe Red Cross Society implements the following two programs:

A) Health and Social Services Program

This program is comprised of the following four projects:

- The Community Based Health Project

- Health education, nutritional guidance, promotion of nutritious gardens, funding for the construction of latrines and wells (labor provided by the community), etc.

- Integrated HIV/AIDS Project

- Promotion of home-based care for AIDS patients with the support of the Danish Red Cross, training for the family in nursing, teenage HIV/AIDS education, etc.

- Community Based Rehabilitation

- Detection of persons with physical disabilities and hospital referrals, with the support of the Norwegian Red Cross

- Blood Donor Service

Support for the nation's blood supply, especially through field work when providing outreach services

B) Disaster, Development and Youth Programs

Projects include disaster prevention, preparedness and relief; regional development; afforestation, creation of first aid teams by youth, etc.

Home-based care of AIDS patients has become a trademark of the Red Cross, and has been well received. For this reason, the Zimbabwe Red Cross plans to expand this program in the future.

Emergency medical care has not been active since the Red Cross has only one ambulance each in Harare and Bulawayo, both in virtually useless condition (interview with Ms. Okwana, Representative of the Zimbabwe Red Cross).

(2) World Vision International

World Vision International began operating in Zimbabwe in 1973 providing assistance to children's homes. A Zimbabwe office was established in 1977, and since then has been very active. Some of the projects being implemented at present are community development, emergency relief, and child sponsorship. The organization's main target is children, but agriculture, irrigation, health and sanitation are covered under an integrated regional development program.

At present a total of 44 projects are being implemented nationwide. In the health care field, immunization outreach clinics are run with the cooperation of the MOHCW: the MOHCW supplies vaccines, and World Vision International supplies vehicles and staff.

World Vision's central office has a staff of 25 people with 28 more active in seven district development projects. The yearly budget of this organization is about US\$4 million, almost all of which comes from World Vision International overseas representations.

Since each region has different priorities, the PRA⁵⁵ method is applied in deciding appropriate activities (interview with Ms. Mushapaitse, Spokesperson for World Vision International).

9.2 Japan's Cooperation

Japan began support for Zimbabwe in 1980 immediately following independence with grant aid for road construction and increased food production. Support has continued to the present in various forms of loan assistance, grant aid and technical cooperation.

Zimbabwe has been given priority with regard to Japan's assistance due to the following factors: there is stable politics under a democratic system of multiparty elections; relative to other Countries, in the region, Zimbabwe has favorable terms for economic development such as a rich endowment of mineral and agricultural

⁵⁵ Participatory Rural Appraisal. method of surveying resident needs through resident participation

resources, and a strong infrastructure foundation ; Zimbabwe carries much weight in southern Africa; it is beneficial to further friendly relations between Japan and Zimbabwe. It is also Japan's policy to realize in the context of Zimbabwe, the DAC New Development Strategy in the form of specific activities.

In June of 1996 a high level mission was dispatched from Japan to conduct policy dialogue with the Government of Zimbabwe regarding grant aid and technical cooperation. In addition to explaining Japan's ODA policy, the mission discussed economic trends and the development plans of Zimbabwe and the future direction of Japanese assistance. The mission praised Zimbabwe's economic structural adjustment efforts, and both sides agreed to focus cooperation on the following areas: raising living standards in rural areas; the environment; health. The Japan International Cooperation Agency (JICA) office was opened in Harare around the same time in April 1996.

Table 9-10: Japan's ODA Record

Year	Grants			Loan Aid		Total
	Grant Aid	Technical Cooperation	Total Grants	Gross	Net	
1992	38.04 (76)	4.24 (9)	42.28 (85)	9.23	7.57 (15)	49.85 (100)
1993	16.11 (57)	6.81 (24)	22.92 (81)	7.99	5.28 (19)	28.20 (100)
1994	16.63 (65)	8.66 (34)	25.29 (99)	3.32	0.37 (1)	25.66 (100)
1995	54.77 (-)	12.35 (-)	67.12 (-)	1.71	-1.49 (-)	65.63 (-)
1996	33.31 (71)	11.71 (25)	45.02 (96)	4.46	1.69 (4)	46.70 (100)
Total	267.97 (69)	61.61 (16)	329.57 (84)	75.78	61.62 (16)	391.18 (100)

Unit: US\$ million ; the numbers in parentheses () are the proportions of total ODA for each type

Source: "Japan's Official Development Assistance, Annual Report" 1997;

Association for Promotion of International Cooperation

9.2.1 Loan Assistance

Although loan assistance to Zimbabwe has been mainly in the field of economic infrastructure such as communications, none has yet been provided for health.

9.2.2 Grant Aid

Apart from aid for increased food production, grant aid to Zimbabwe has been provided for the environment and the creation of basic infrastructure such as roads in order to improve basic social infrastructure such as agriculture, health care, etc. Moreover, in 1996 a total of ¥11.5 billion of nonproject grant aid was provided in support for Zimbabwe's structural adjustment efforts. Cultural grant aid and grass-roots grant aid are also actively implemented.

Below are listed grant aid projects in the health field to present:

■ FY 1982: Provision of Medical Equipment

Provided the MOHCW with medical equipment necessary for the medical equipment program which aims to improve medical services.

Total amount provided: ¥160 million.

- FY 1983: Rural Water Supply Project
Total amount provided: ¥800 million.
- FY 1988: Rural Water Supply Project
Total amount provided: ¥524 million.
- FY 1991 & 1992: Project for the Rehabilitation of the Medical Facilities of the Central Hospital
Provided funds necessary for acquisition and transportation of equipment for surgery and surgical facilities at Harare and Mpilo Central Hospitals.
Total amount provided: ¥1.34 billion.
- FYS 1995 & 1996: Construction of the Pediatrics Facilities of the Harare Central Hospital
Total amount provided: ¥970 million.

Grassroots grant aid in health care has been provided to the "O'Hare Memorial Hospital Expansion Plan" in 1996.

9.2.3 Technical Cooperation

Japan's technical cooperation has been centered around the acceptance of trainees in fields such as planning, administration, communication, transportation, and health care, development studies for the mining industry, and the dispatch of Japan Overseas Cooperation Volunteers. Regarding health experts, three were dispatched to Zimbabwe in 1995. Project-type technical cooperation in the health care field was initiated in 1996.

(1) Project-type Technical Cooperation

At present, the only project-type technical cooperation being implemented in Zimbabwe is the "Zimbabwe Infectious Disease Control Project." The project was requested to the Japanese Government in order to strengthen the capacity of the MOHCW Epidemiology and Disease Control Department and public sanitation laboratories in conducting epidemiological surveys and diagnostic analysis of major communicable diseases (malaria, tuberculosis, schistosomiasis, HIV/AIDS, acute respiratory infections, etc.).

Upon receiving this request, the Japanese Government conducted a series of preliminary surveys and held discussions with the Government of Zimbabwe leading up to the signing of the Record of Discussions (R/D) in April 1996. After this the Zimbabwe Infectious Disease Control Project began in July 1997 with a plan to last until 2001.

The goal, expected outcome and activity content agreed upon in the R/D are listed below:

A) Project goal and expected outcome

The goal of the project is to build the capacity of the organizations responsible for infectious disease control within the MOHCW thereby contributing to Zimbabwe's Infectious Disease Control Program.

B) Project Cooperation Activities

- Planning and performance evaluation of the annual national plan on the control of malaria and schistosomiasis
- Basic and evaluative surveys, health education, seminars, and local staff training, involved in establishing a disease control system in the model areas.
- Implementation of epidemiological surveillance and control of malaria and schistosomiasis in the model areas.
- Advice for the regional health care system involved in the control of infectious diseases
- Suggestions to other ministries, WHO and NGOs relating to control of infectious diseases
- Supply and compilation of educational materials for health education
- Creation of an accurate and effective information network system for epidemiology and control of infectious diseases
- Support for activities relating to safe water and sanitation (control of schistosomiasis)

In March 1997, an agreement was reached between MOHCW and a JICA mission to select one district from each province as model areas, where the activities listed below will be conducted.

- Malaria Control
 - 1 Survey the impact of the MOHCW malaria control program in order to gain clearer insight on the actual prevalence of malaria.
 - 2 Improve methods of malaria diagnosis, and study tolerance of malaria to treatment
 - 3 Control of mosquitoes through insecticides and mosquito nets.
 - 4 Diagnose and study the frequency of severe malaria cases
 - 5 Study the effect of malaria on pregnant women
 - 6 Study the relation of malaria to sickle cell anemia and Duffy antibodies
- Schistosomiasis
 1. Survey current prevalence
 2. Implement treatment methods using chemotherapy, and the like.
 3. Measure the effect of control measures
 4. Study of diseases such as cancer of the urinary bladder caused by schistosoma

A project office has been established in the MOHCW Epidemiology and Disease Control Department and as of October 1997, four long-term experts and one short-term expert have been stationed here.

(2) Japan Overseas Cooperation Volunteers/Trainees

Japan Overseas Cooperation Volunteers were first dispatched to Zimbabwe in July of 1989. By 1996, a total of 214 people had been dispatched (figures from "Japan's Official Development Assistance, Annual Report"1997; Association for Promotion of International Cooperation). However, none had been dispatched in the medical field until 1997, when one physical therapist was sent. According to the JICA Zimbabwe Office, it is difficult to send medical practitioners such as nurses from Japan due to differing qualification systems between the two countries.

Training in Japan for Zimbabweans first began in 1981 and by 1996, a total of 266 trainees had been accepted (figures from "Japan's Official Development Assistance, Annual Report"1997; Association for Promotion of International Cooperation). By 1995, a total of 25 trainees in the health care field had been received by Japan (figures from "Country Specific Assistance File: Zimbabwe," 1997; Japan International Cooperation Agency).

References for “9: International Cooperation in Health”

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JICA