

# Health Sector Profile

## Republic of Zimbabwe

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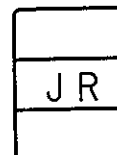
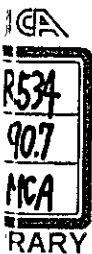


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# 1 Country Profile

## 1.1 General Information

Table 1-1 Basic Data of Zimbabwe

Formal Name	Republic of Zimbabwe
Date of Independence	April 18, 1980
Former Ruler	United Kingdom
Form of Government	Parliamentary Democracy
Name of Head of State	President Robert Mugabe (Assumed office December 1987; Reelected in March 1996 for a third term; Term of office 6 years)
Location and Size	Latitude: 15.5°S – 22.5°S; Longitude: 22.5°E – 33.0°E
Capital	Harare
Ethnic Groups, etc.	Shona: Mainly live in Mashonaland (Area in Northeast centered around Harare) Accounts for 75 to 80% of the population Ndebele: Live in Matabeleland (Area in Southwest centered around Bulawayo) Accounts for 15 to 20% of the population
Official Language	English
Religion <sup>a</sup>	Mix of Christian and indigenous beliefs (50%): Christianity (25%); Indigenous beliefs (24%); Other (1%)
Calendar	<Time difference with Japan> -7 hours  <Holidays> (1997) Jan. 1st New Year's Day Mar. 28 – 31 Easter Apr. 18 Independence Day May 1 May Day May 25 OAU Anniversary Aug. 11 – 12 Heroes' Day Dec. 25 – 26 Christmas

Sources: <sup>a</sup>: [The World Factbook Page on Zimbabwe 1997](#) CIA Publications (Internet)  
Others: "Health Sector File" International Cooperation Agency

Table 1-2 Overall Population and Health Indicators of Zimbabwe

Category	Subcategory	Index	Category	Subcategory	Index
Population	Total Population	10.4 million	Births	Crude Birth Rate	34.5/1,000 population
	Male	5.1 million		Total fertility rate	5.9
	Female	5.3 million	Deaths	Crude death rate	9.5/thousand population
Sex Ratio	Male / Female 100	95		Infant mortality rate (1990)	66/thousand births
Urban/Rural Population	Urban	3.2million (31%)	Average Life Expectancy	Average life expectancy (1990)	61 years
	Rural	7.2million (69%)	Maternal Mortality	Deaths during childbirth	395/100,000 births
Land Area,	Land area	390,700 km <sup>2</sup>	Population Growth	Natural population growth rate	2.5%
Population Density	Population density	26.7/km <sup>2</sup>		Yearly population growth rate	3.1%
Population by Age	15 or under	45%	Households	Household population	4.8 / household
	15 – 64	52%			
	65 or over	3%			
Marital Status (15 or over)	Single	33%			
	Married	57%			
	Divorced	5%			
	Widowed	5%			
Race	Black	99%			
Education (Percentage of population 5 years or over)	Not enrolled	17%			
	Enrolled	34%			
	Completed school	49%			

(Note): Based on 1992 National Census data

Source: Census 1992 Zimbabwe National Report 1994 CSO

Table 1-3: Trends in Principle Economic Indicators

Year	1992	1993	1994	1995	1996 <sup>#1</sup>
GDP(Z\$ million) <sup>a</sup>	23,536	31,091	39,775	49,032	62,370
Per capita GNP(US\$) <sup>b</sup>	570	520	500	540	N/A <sup>#1</sup>
Real GDP growth rate(%) <sup>a</sup>	-5.8	0.9	7.4	-3.2	6.0
Consumer price index(%) <sup>c</sup>	42.1	27.6	22.3	22.6	21.4
Unemployment rate (%) <sup>d</sup>	N/A	N/A	N/A	N/A	N/A
Trade revenue (US\$ million) <sup>c</sup>	-254.5	122.1	157.6	N/A	N/A
Exports (FOB) <sup>c</sup>	1,527.6	1,609.1	1,961.1	2,217 <sup>a</sup>	2,525 <sup>a</sup>
Imports (FOB) <sup>c</sup>	1,782.1	1,487.0	1,803.5	2,128 <sup>a</sup>	2,232 <sup>a</sup>
Current account balance (US\$ million) <sup>c</sup>	-603.7	-155.7	-424.9	-425 <sup>b</sup>	N/A
Foreign debt (US\$ million) <sup>a</sup>	4,006	4,210	4,411	4,885	4,988
Debt repayment ratio (%) <sup>a</sup>	32.2	30.7	25.4	26.5	23.4
Foreign currency reserve (US\$ million) <sup>b</sup>	404	628	585	888	N/A

Fiscal Year <sup>#2</sup>	Currency (Nov. 11, 1997) <sup>a</sup>	Chief Trade Partners <sup>a</sup>
Jan. 1 – Dec 31	Unit of currency: Zimbabwean dollar (Z\$)  US\$1 = Z\$13.45	Exports (1996) <sup>#3</sup> : Britain (10.1%)  Imports (1996): South America (38.3%)

Principal Traded Goods (US\$ million) <sup>a</sup>	#1	#2	#3
Exports (1996)	Tobacco (730)	Gold (300)	Alloyed steel (170)
Imports (CIF) (1996)	Machine parts and transport machinery (1126)	Manufacturing machinery (455)	Chemicals (366)

(Notes) <sup>#1</sup>: EIU Estimate; <sup>#2</sup>: Changed as of 1998; <sup>#3</sup>: Leaving out gold, <sup>#1</sup>: N/A = not available

Sources: <sup>a</sup>: Country Report Zimbabwe 4<sup>th</sup> Quarter 1997 EIU

<sup>b</sup>: World Development Report 1994, 1995, 1996, 1997 The World Bank

<sup>c</sup>: International Financial Statistics Yearbook November 1997 IMF

<sup>d</sup>: Year Book of Labor Statistics 1996 ILO

### **1.1.1 Land Profile**

Zimbabwe is located in southern Africa, at 15.5°S – 22.5°S latitude and 22.5°E – 33.0°E longitude. It shares borders with Zambia to the north, South Africa to the south, Botswana to the west, and Mozambique to the east. Its total land area is 391,000 square kilometers.

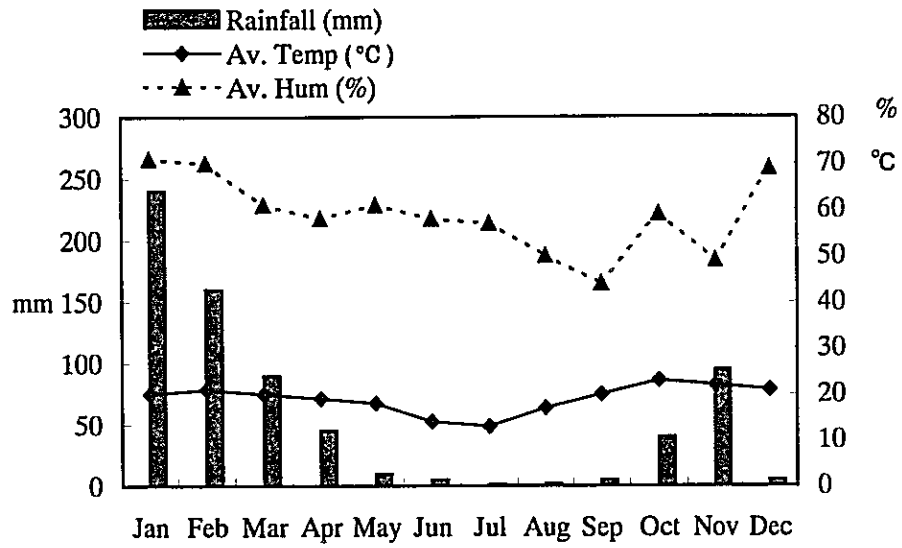
Zimbabwe is situated in Southern Africa's high plateau. The so-called high veld, which runs from the southwest to the northeast, is a plateau of from 1,200 to 1,500 meters in altitude. The high veld is bordered by the Zambezi, Limpopo, and Sabi rivers; the population is concentrated in this area. On both sides of the high veld is the middle veld, which is a plateau 900 to 1,200 meters in altitude. A low veld of 900 meters or less is found on the northern and southern borders. There is a mountainous region on the eastern border with Mozambique which surpasses 1,800 meters in altitude; Mt. Inyangani, in the Inyanga mountains, is the nation's highest mountain at 2,592 meters. Rivaling Mt. Inyangani is Mt. Sabi in the Chimanimani mountains (2,436 meters). Both mountain regions have been designated as national parks (figures taken from Heibonsha documents, 1989).

### **1.1.2 Climate**

Because of its land-locked location between 16 and 22°S latitude, Zimbabwe has a dry subtropical climate. Zimbabwe has two seasons: the rainy season, which lasts from November to March, and the dry season, which lasts from May to August. July is the coolest time of the year, while October is the hottest. The high veld, which is the coolest part of the country, has a monthly average temperature of between 13 and 22°C, while the low veld, located in the Zambezi river valley, is the hottest part of the country, with a monthly average temperature of 20 to 30°C. Over 90% of the country's precipitation falls during the rainy season. Yearly changes in the seasons are more pronounced as one travels southwest, but on the average, the eastern mountains, which get the highest amount of rainfall, receives over 1,200 millimeters of precipitation per year; the high veld in the northeast receives 800 to 900 millimeters; the southwest receives between 500 and 600 millimeters; and the Limpopo lowlands receive the lowest amount of rainfall, at 300 to 400 millimeters per year (figures taken from Heibonsha documents, 1989).



Diagram 1-1: Average Temperature, Precipitation, and Humidity of Harare



Sources: Rainfall; Humidity: "World Atlas 7<sup>th</sup> Ed." 1993, Tokyo Shoseki

Average Temperature: "Humidity of Harare" 1994 Meteorological Department GOZ

### 1.1.3 Brief History

Table 1-4: Chronological History of Events

Year	Month	Events
1851		*Livingston explores Zambezi River
1888		*Cecil Rhodes negotiates concession of mining rights from the Ndebele King Lobengula in Matabeleland; King Lobengula also hands over the territory under his rule to British sphere of influence
1889		*C. Rhodes founds the British South Africa Company (BSAC)
1902		*C. Rhodes dies. Following his death, the surrounding area is named Rhodesia.
1922		*BSAC gives up governing rights
1923		*Birth of Southern Rhodesia as self-governing colony of Britain
1953		*Federation of Rhodesia and Nyasaland is created. Southern Rhodesia enters federation.
1963		*Federation dissolves following independence of Zambia and Malawi; Southern Rhodesia reverts to self-governing British colony.
1965	Nov.	*White political leader Smith makes unilateral declaration of independence from Britain.
1966	Dec.	*United Nations Security Council requests economic sanctions be placed on Southern Rhodesia. *United Nations Security Council adopts comprehensive economic sanctions against Rhodesia
1978	Mar.	*Prime Minister Smith agrees on "internal settlement" with black leaders such as Muzorewa
1979	Jun.	*"Zimbabwe Rhodesia" established (no international recognition received)
	Aug	*At a British-lead meeting of federation leaders, proposal was adopted for the peaceful resolution of the Rhodesia problem
	Sep	*Council convenes to form constitution for Rhodesia; agrees on peaceful resolution to Rhodesia problem
1980	Feb	*Election takes place for black representatives in lower house of parliament
	Apr.	*Nation becomes independent; takes the name of Zimbabwe
1981	Mar	*Meeting of Zimbabwean supporting nations convenes
1982	Jul.	*Name changed to the Republic of Zimbabwe
	Jun.	*Second general Zimbabwean elections held
1987	Dec.	*Prime Minister Mugabe is newly elected as president
1990	Mar.	*Third general Zimbabwean elections held; President Mugabe reelected
	Jul.	*State of emergency terminated
1995	Apr.	*General elections held
1996	Mar	*President Mugabe reelected

Source: "Country Report: Zimbabwe" 1990; Japan International Cooperation Agency

"Country Outline of the Republic of Zimbabwe" 1993; Japan Foreign Ministry

Country Report: Zimbabwe 1st, 2nd, 3rd quarter 1995; EIU

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

Association for Promotion of International Cooperation

## **1.1.4 Ethnic Groups, Language, Religion and Culture**

### **(1) Ethnic Groups, Etc.**

The Shona people, who are part of the Bantu, form the large majority of Zimbabwe's population at over 70%; they live in the northeast part of the country, including the city of Harare. In addition, Ndebele, who make up about 20% of the population, are dispersed in the southwest, including the city of Bulawayo (figures from Heibonsha 1989). Following independence, whites began to leave Zimbabwe in large numbers, shrinking from 200,000 to their present day numbers of 120,000. Moreover, some Asians also reside in Zimbabwe, albeit in small numbers (figures from EIU documents, 1994).

### **(2) Language**

The official language is English, but Shona and Ndebele are also widely used.

### **(3) Religion**

A mixture of Christianity and traditional indigenous beliefs has spread throughout Zimbabwe; 50% of the population are followers of this hybrid religion. Of the remainder, 25% are Christians, while 24% adhere to indigenous religions. Finally, although their numbers are small, Muslims and Hindu followers are found among the Asian residents (figures from The World Factbook Page on Zimbabwe 1997 CIA Publications, Internet).

### **(4) Culture**

Many types and sizes of stone dwellings are dispersed throughout Zimbabwe; among these the Ruins of Great Zimbabwe, near Masvingo, are quite famous. Zimbabwe means "stone house" in one of the local languages. It is said that the Ruins of Great Zimbabwe were built by Shona and Rozvi.

In addition to eight "Bird Pillars,"<sup>1</sup> large amounts of clay pottery, ceramics, objects made of gold, and glass beads have been excavated from the Ruins of Great Zimbabwe. The clay pottery is comprised of red clay pottery with dots and lines carved in them, as well as featureless black clay pottery. Moreover shards of Islamic porcelain and Chinese Sung, Yuan, and Ming Dynasty blue porcelain have been excavated in large amounts. These items, as well as the beads, however, are foreign imports. About 300 ruins of stone dwellings of the same type as the Ruins of Great Zimbabwe are found throughout Zimbabwe and Botswana; this is said to be part of Zimbabwe's culture, and is the source of the country's name (figures from Heibonsha documents, 1989).

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<sup>1</sup> Stone pillars approximately 1.5 meters high, the top of which are carved in the shape of a bird

## 1.1.5 Society

### (1) Education

Zimbabwe's educational system, which is modeled on that of England's, is as follows:

#### A) Primary Education

Children enter school at seven years of age, and continue for 7 years from grades 1 through 7. In 1986, this became compulsory.

#### B) Secondary Education

Children enter at the age of 14, and choose from a 4-year or 7-year course. The four year course is aimed at those entering technical schools, while the seven year course is designed for students who will go on to college. Those wishing to continue on to higher education must pass the O level or A level qualifying exam, respectively.

#### C) Higher Education

In addition to colleges, teacher training schools and vocational and technical schools make up Zimbabwe's higher education system. Moreover, Zimbabwe University also has a graduate school.

In 1986, primary and a portion of secondary education was made free, but according to the Five-year Economic Structural Adjustment Programme (ESAP)<sup>2</sup>, in 1992 cities began to charge tuition for all primary and secondary education because of budgetary difficulties.

In the 1980s, the government placed strong emphasis on projects to provide adequate education and health care; to this end, it worked vigorously to build schools, train teachers, etc. As a result, the enrollment rate for primary school has topped 100%. Enrollment in secondary school has also increased significantly, from 8% for males and 7% for females in 1980 to over 50% for males and 40% for females. Enrollment in higher education has also risen, from 1% to 6% (see Table 1-5).

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<sup>2</sup> The Five-Year Economic Structural Adjustment Programme (ESAP): In the past the government placed strong emphasis on social development programs such as education and health care, but with the decline in economic growth it became increasingly difficult to ensure the coverage and quality of educational and health care services. In October 1990, the government announced the ESAP with the support of the World Bank and the IMF. The program was aimed to spur economic development through a move from a state-led economy to a free market economy and expanding exports and investment. Specifically, it called for a reduction in government spending, regulation of foreign exchange, abolition of subsidies, and control of inflation.

Table 1-5: Changes in School Enrollment Rates

Type		Enrollment Rate <sup>#1</sup>	
Primary School <sup>#2</sup> (1980)  (1993)	(1980)	Boys	65% <sup>#4</sup>
		Girls	57% <sup>#4</sup>
	(1993)	Boys	123%
		Girls	114%
Secondary School <sup>#2</sup> (1980)  (1993)	(1980)	Boys	8% <sup>#4</sup>
		Girls	7% <sup>#4</sup>
	(1993)	Boys	51%
		Girls	40%
Higher Education <sup>#3</sup> (1980) (1993)	(1980)		1%
	(1993)		6% <sup>#4</sup>

(Notes) #1: The reason some overall enrollment rates are over 100% is that students above and/or below the standard grade-level age also enrolled.

#2: Percentage of population of the standard age for that grade-level who enrolled (by sex)

#3: Percentage of population between the ages of 20 and 24 who enrolled.

#4: Figures taken from outside the specified year.

Source: World Development Report 1997 The World Bank

Table 1-6 shows changes in school enrollments, number of schools, and number of teachers. School enrollments, number of schools, and number of teachers have all increased, but the student-teacher ratio has remained the same.

Table 1-6: Changes in Primary School Enrollments; Number of Schools; Number of Teachers

Year	No. Schools	No. male students (thousands)	No. female students (thousands)	Total (thousands)	No. Teachers	Student-teacher ratio
1985	4234	1143	1074	2217	56619	39:1
1987	4439	1146	1105	2251	57120	39:1
1989	4504	1127	1106	2233	58370	38:1
1991	4559	1168	1126	2294	58436	39:1
1993	4578	1258	1178	2436	60959	40:1
1995	4633	1260	1223	2483	63475	39:1

Source: "Zimbabwe Basic Facts on Education" 1996 UNICEF

As of 1995, the secondary education system was comprised of 1,535 middle and high schools; the higher education system was comprised of 2 national universities, 2 private universities, 15 teacher training schools, and 10 vocational and technical schools (figures from "Zimbabwe Basic Facts on Education," 1996; UNICEF).

The budget for primary and secondary education accounted for 13.4% of the nation's 96/97 annual expenditures (figures from Budget Estimates 96/97 MOF).

The adult illiteracy rate is 10% for males, and 20% for females, for an overall rate of 15%. This is substantially lower than the average rates for sub-Saharan Africa and Africa as a whole (see Table 1-7).

Table 1-7: Comparison of Illiteracy Rates (1995)

Sex	Zimbabwe	Sub-Saharan Africa	All of Africa
Male	10%	33%	33%
Female	20%	52%	54%
Total	15%	43%	44%

Source: African Development Indicators 1997 The World Bank

One problem area within the educational system is that, due to budgetary problems following ESAP, the number of teachers has not grown at a high enough rate to keep up with the rapidly growing number of students; this has led to problems such as a decline in quality of education and a high dropout rate. According to a March 1996 nationwide survey of 274 primary schools, 17% of the teachers were not accredited; in rural areas, this rate jumped to 32%. Furthermore, although the enrollment rate of children up to 12 years old was 97%, the rate drops to 78% for children between the ages of 12 and 17, showing a high dropout rate (figures from "6<sup>th</sup> Round Sentinel Surveillance for SDA Monitoring" 1996 UNICEF/GOZ).

## (2) Gender and Development

Turning to indicators relating to gender, according to the UNDP Gender-related Development Index (GDI)<sup>3</sup>, Zimbabwe ranks higher than the average for sub-Saharan Africa, but is average among developing nations in general, with a global ranking of 109<sup>th</sup> out of 175 nations. On the other hand, the Gender Empowerment Measure (GEM)<sup>4</sup>, which serves as an index of women's progress in society, ranks Zimbabwe considerably higher than the average for developing nations, close to the world average: it has a global ranking of 45<sup>th</sup> out of 175 nations (figures from Human Development Report 1997; UNDP). (See Table 1-8)

<sup>3</sup> Gender-related Development Index: the Human Development Index (an index which shows a country's achievement level in terms of longevity, educational attainment, and income) adjusted whose goal is to show the inequalities between men and women. As the gap between men and women widens, the GDI becomes smaller.

<sup>4</sup> Gender Empowerment Measure: a measure which shows the extent in which women participate actively in economic and political life. Measures the social inequalities between men and women in the areas of politics and economics, focusing chiefly on participation in politics and the economy, and role in decision-making concerning politics and the economy. As women's role in society becomes more active, the GEM becomes larger.

Table 1-8: Gender Indices

Category		Zimbabwe	Sub-Saharan Africa	Developing Nation Average	World
Average life expectancy (1994)	Female	50.1 years	51.5 years	63.5 years	65.4 years
	Male	48.1 years	48.5 years	60.6 years	61.8 years
Literacy rate (1994)	Female	79.0%	44.4%	60.3%	70.8%
	Male	90.2%	64.3%	78.4%	83.5%
School enrollment rate (1994)	Female	64.0%	38.4%	51.6%	57.1%
	Male	72.0%	46.6%	60.3%	63.9%
GDI (1994)		0.503	0.374	0.555	0.637
Percentage of women in managerial positions (1990)		15.4%	N/A	10.0%	14.1%
Percentage of women in the labor force (1990)		44%	42%	39%	40%
GEM index (1994)		0.429	N/A	0.367	0.418

Source: Human Development Report 1997 UNDP

Soon after independence, a system and an administrative organization were set up to further women's liberation. First, in 1980, the "Ministry of Women's Affairs" was created; its main goal was to promote the participation of women in national development by removing all legal, cultural, and socioeconomic barriers to the participation of women. The first Minister appointed to this ministry was the first black woman ever appointed minister in Zimbabwe. Under this Minister's direction, the Ministry of Women's Affairs worked towards improving the situation of women in such areas as the ownership of farmland, exclusion from acquiring effective agricultural techniques; the lack of skills and formal employment opportunities for women; the excessive burden of labor placed on women; and the lack of legal rights such as to asset ownership and inheritance.

The legal adult age was abolished, and men and women 18 years or older were legally recognized as adults<sup>5</sup>. A marital claims law was also established, granting women the right to divorce and custody of their children. Moreover, the "Law on Abolishment of Gender-biased Qualifications" was enacted, sex discrimination in the workplace was prohibited, and maternity leave was granted.

Thanks to this kind of post-independence legal reform, women's rights, especially those of black women expanded greatly. In addition, qualified black women started to be employed in large numbers mainly in the government and public sector when

<sup>5</sup> Before independence, only white women 21 years or older were recognized as adults; black women were treated as under-age dependents throughout their lives.

most of these jobs passed from whites to blacks following independence. At present, a considerable number of women occupy managerial positions in government. Whereas before independence there were no women in parliament, at present 14.7% of parliament is made up of women (figures from Human Development Report 1997; UNDP).

In this way following independence, discrimination of women in the legal system is on its way to being eradicated. In agricultural communities, however, the view of women as "minors" is still deeply rooted; in these areas, the excessive burden of labor for women, as well as gender inequalities in employment, social life, etc., remain. At present, the ministry in charge of women's affairs is the "Ministry of National Affairs, Employment Creation and Cooperatives."

### **(3) Poverty**

A look at household incomes divided by income level shows that the highest 20% of households earns 62.3% of the nation's income, while the lowest 20% of households earns 4.0% of the nation's income (see Table 1-9). The Gini Index<sup>6</sup> is 56.8 (figures from World Development Report 1997; The World Bank).

According to a special article on October 17, 1997 by the local newspaper "The Herald" concerning the UNDP International Day for the Eradication of Poverty, 46% of the population live below the Food Poverty Line (FPL)<sup>7</sup>, while those below the Total Consumption Poverty Line (TCPL)<sup>8</sup> made up 61% of the population. Breaking down the data into urban and rural areas, 75% of the population in rural areas was below the FPL, while in urban areas 39% of the population was below the TCPL (figures from Ministry of Public Service, Labour and Social Welfare's "Poverty Evaluation Survey" 1997).

Following independence, some Africans have moved into the higher income brackets, but these cases have been very rare; in rural areas, over half the population lives below the absolute poverty line. The nation's health condition also displays an urban-rural gap.

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<sup>6</sup> Gini Index shows inequality in income distribution within an economy by comparing income and the portion of the population earning that income. A Gini Index of 0 shows that income is distributed in a completely equal fashion, while a Gini Index of 100 shows that income is distributed in a completely unequal fashion

<sup>7</sup> Food Poverty Line: Percentage of the population whose monthly income is not sufficient to buy enough food (cost: a total of Z\$ 495) to feed the average household (4.6 people).

<sup>8</sup> Total Consumption Poverty Line: Percentage of the population whose monthly income is not sufficient to meet the monthly living expenses (cost: a total of Z\$817) of the average household (4.6 people).



Table 1-9: Income Distribution of Household Income

Percentage of total income earned by each income group (1990) <sup>#1</sup>	(%)
(Highest 10%)	(46.9)
Highest 20% <sup>#2</sup>	62.3
Fourth quintile	17.4
Third quintile	10.0
Second quintile	6.3
Lowest 20% <sup>#3</sup>	4.0
(Lowest 10%)	(1.8)

(NOTE) <sup>#1</sup>: Refers to expenditure shares by percentiles of persons; Ranked by per capita expenditures

<sup>#2</sup>: Figures for "highest 20%" include those for "highest 10%"

<sup>#3</sup>: Figures for "lowest 20%" include those for "lowest 10%"

Source: World Development Report 1997 The World Bank

#### **(4) Democratization, Etc.**

The constitution was ratified on April 18, 1980, and was partially reformed during 1987 to 1990. In the constitutional reform of 1987, the office of Prime Minister was terminated, and its powers were consolidated with those of the president. In the constitutional reform of 1990, the election of the president shifted from parliamentary elections to direct elections by the people; in addition parliament was changed from a bicameral to unicameral system.

The legislative branch is a parliament directly elected by the people. The office of supreme commander of the military is shared by the president and the president's appointed cabinet (the vice president, cabinet ministers, and secretaries). Moreover, judiciary power is entrusted to an independent judiciary branch.

In the elections of March 1990, the Zimbabwe Africa National Union Patriotic Front (ZANU-PF) won 117 out of 120 seats in parliament (figures from Kyodo Newswire documents, 1996). President Mugabe, who was reelected in the same elections, began to actively campaign for a single party system, saying that "the people support a single party system." Intellectuals, influential church members, and economic circles criticized this, however; moreover, the ZANU-PF itself could not reach a consensus, and in the end, acknowledging reality, ZANU-PF renounced its drive for a single party system. The following year president Mugabe, on a visit to Nigeria, announced his support for the renouncing of a doctrine of single party rule, and in favor of Africa moving towards a multi-party system. The Zimbabwean constitution maintains a special provision including the freedom of political affiliation and assembly; at the systemic level, Zimbabwe employs a multi-party system.

## **1.2 General Government**

### **1.2.1 Central Government**

The form of government is a republic. The head of state is the president, who is directly elected for a term of 6 years (Kyodo Newswire documents, 1996). The president appoints the cabinet ministers of his government. Moreover, the president has the power to create laws and appoint Supreme Court and High Court judges; in addition, the president serves as supreme commander of the national defense, and thus has great authority. Finally, there is no limit to the number of times the president can be reelected.

The parliament is unicameral, and shares legislative power with the president. The parliament has 150 seats, and members are elected for five year terms. Out of the 150 seats 120 are elected by local elections, 8 are filled by the 8 provincial governors, 10 are filled by traditional chiefs, and 12 are appointed by the president (figures from EIU documents, 1996).

The president has administrative power, and appoints the vice president, cabinet ministers, and secretaries. Local government is broken down into 8 local

government districts comprised of the 8 provinces; the provincial governors are appointed by the president.

There are three judiciary systems comprised of the Supreme Court, the High Court, and Magistrate's Court. The Magistrate's Court has jurisdiction over the district, but as there is generally no permanent court at the district level, Magistrate's court convenes when necessary when cases are referred to it from the province level. The High Court's jurisdiction is the province. The Supreme Court only handles appeals from lower courts. Finally, there is also a Community Court, but this court does not handle criminal proceedings.

In the last general elections conducted from April 4<sup>th</sup> through 9<sup>th</sup> 1995, the seats were won by two political parties in the following numbers (figures from Europa Publications documents, 1996):

- Zimbabwe African National Union–Patriotic Front<sup>9</sup>: 118 seats
- ZANU–Ndonga<sup>10</sup>: 2 seats
- Total: 120 seats

Diagram 1–2 shows the national administrative structure.

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<sup>9</sup> Zimbabwe African National Union–Patriotic Front: ZANU–PF

<sup>10</sup> Zimbabwe African National Union–Ndonga: ZANU–Ndonga

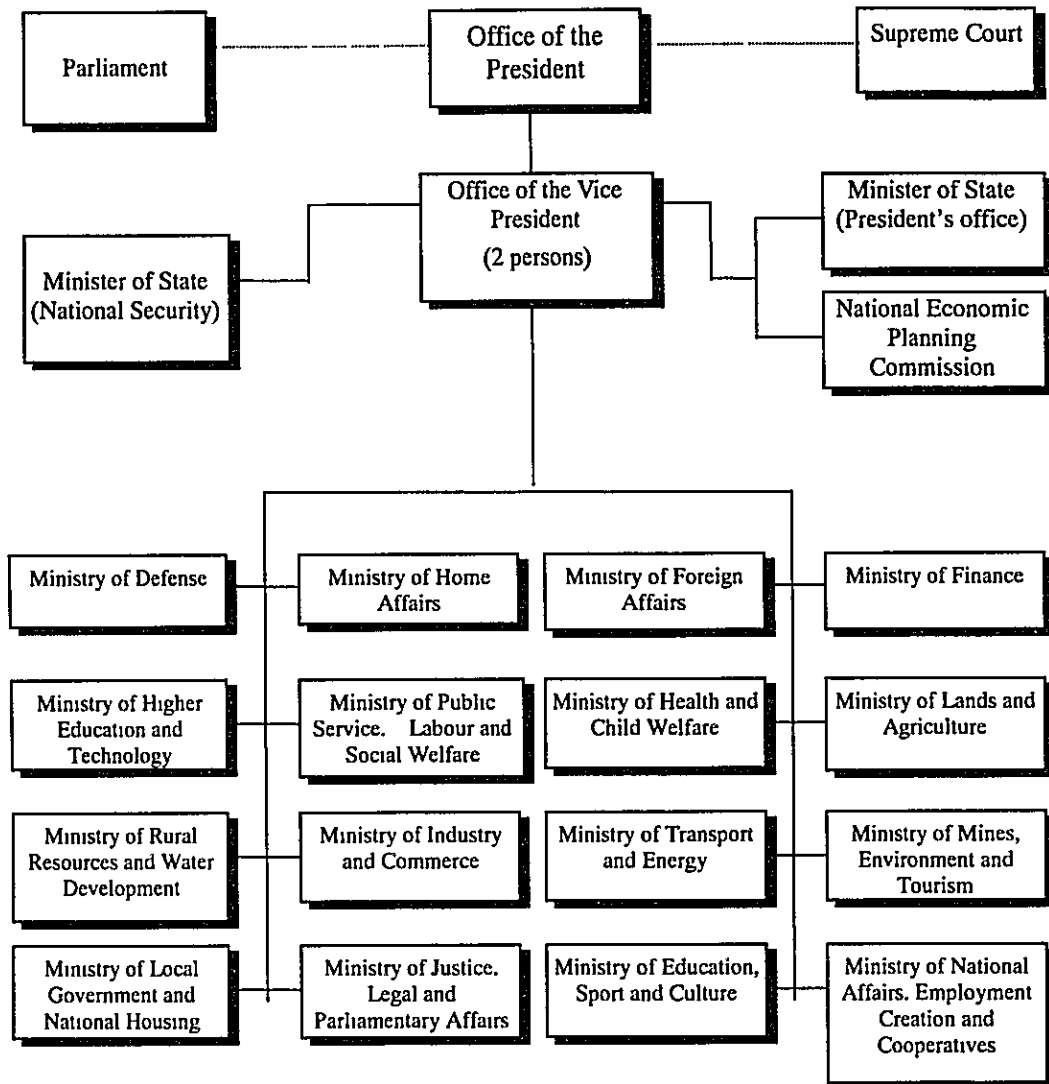


Diagram 1-2: National Administrative Structure.

As of October 1997

Source: Ministry of Finance Documents 1997

## 1.2.2 Local Government

Zimbabwe's local government is divided into provinces, districts, cities, municipalities, and wards.

Table 1-10: Administrative Units

Administrative Unit	Number
Province	8
District	57
City	5
Municipality	12
Ward	1377

Source: Ministry of Local Government and National Housing documents 1997;

*Children and Women in Zimbabwe A Situation Analysis Update 1994*, 1994 UNICEF

### (1) Provinces

Zimbabwe is divided into the following 8 provinces (See national map of Republic of Zimbabwe).

- Manicaland
- Mashonaland Central
- Mashonaland East
- Mashonaland West
- Matabeleland North
- Matabeleland South
- Midlands
- Masvingo

Moreover, the two large cities, Harare and Bulawayo, are sometimes treated as provinces from the standpoint of government administration.

Provincial governors, who are appointed by the president, also fill the role of head of provincial council. The role of vice governor is filled by the secretary who is that province's provincial secretary from the Ministry of Local Government and National Housing, which is known as the office of provincial administration. This provincial secretary is also the head of the province development commission. The provincial council is made up of the heads of district and city councils.

#### Districts and Wards

The provinces are further divided into 57 districts. Each district is divided into two types of areas: communal land and commercial land. Communal lands are communal agricultural areas, while commercial lands are large scale commercial agricultural areas. Before the Rural District Council Act 1994 was enacted, communal lands had a "District Council" chosen through public elections, while commercial lands had a "Rural Council" chosen by the land owners. With the

enactment of the Rural District Council Act in 1994, these two councils were unified into a single District Council. The council members are publicly elected by adult men and women 18 years or older, and the council leader is chosen from among the elected council members.

Districts are further subdivided into wards; one District Council member is elected from each ward. Each District Council manages the schools and medical centers within its area. There are also cases where the management of road maintenance, water supply, and beer halls is implemented by the District Council. Their budget comes from property taxes, automobile taxes, and subsidies from the central government.

## **(2) Cities and Municipalities**

Cities have city and municipal councils as part of their autonomous government structure. Five cities have city councils, including Harare, Bulawayo, and Mutare. 12 municipalities have municipal councils; the members of the city and municipal councils are publicly elected from among the local residents. The council head is also the city or municipality mayor.

Some of the main activities of city and municipal councils are the upkeep of roads, the supply of water and electricity, the control of the sewer system, primary health care, ambulances, the control of fire prevention and fire fighting, garbage collection, and the supply of affordable housing. Their budget comes from estate taxes, permit fees for such things as car, motorcycle, dog and store licenses, utility fees, rents, etc. Public and/or private investments are collected for large scale development projects.

The two large cities, Harare and Bulawayo, are treated as provinces from the point of view of government administration, and are not within the jurisdiction of any provincial council.

## **(3) Decentralization and Organization of Development Planning**

After independence, every central government ministry united their efforts towards the development of rural areas. Seeing the need to set up development projects in various areas, the government established development commissions at every level. Representatives from each ministry participate in provincial and district development commissions; the representative from the Ministry of Local Government and National Housing serves as commission head. In the case of the Ministry of Health and Child Welfare, the head of each provincial health office serves on the provincial development commission, while the head of each district health office serves on the district development commission. Moreover, the development commission supports the council in the areas of planning and technology.

In order to ensure that the development needs of villages are reflected in district councils, ward development commissions and village development commissions were also established. Commission members were publicly elected, but the process became too political: in order to reflect the opinions of the villages and change the

structure of the commissions to allow the participation of traditional chiefs, this system was abolished in the governmental reforms of 1993. At present this system has not been reinstated. It is thought that from the point of view of development of the agricultural sector and solving health care problems, the development councils are an important factor (Interview with Assistant Director Chihambakwe, of the Local Government Advancement Bureau, Ministry of Local Government and National Housing).

### **1.3 Outline of the National Development Plan**

The Second Five Year National Development Plan (1991–1995) was based on economic reforms aimed at structural adjustments for social and regional development. The results of this plan have not been reported. There is no third five year national development plan; instead, a medium range development plan (Vision 2020) and a five year plan focusing mainly on the macroeconomy (ZIMPREST) are currently being formulated (Interview with Director Chigundu of the National Development Plan Commission).

## References for “1: Country Profile”

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## **2 Public Health Administration and plan**

The service of the health care system during the colonial era was characterized by its inequality. This inequality existed on two dimensions: the division of society into two tiers through racial discrimination, and the inequality between urban and rural areas.

Following independence, those who had not received the benefits of health care services, especially people living in rural areas, were given priority; with this aim, a policy based on primary health care (PHC) was hammered out. Below is the basic outline of this policy:

- 1 Reorganize the health care system to create a 4-level referral system (introduction and transfer system) at the national, province, district and village levels.
- 2 Rebuild or repair medical facilities destroyed or damaged during the war for independence, and return them to operational status.
- 3 Construct rural health centers (RHC) in rural areas, make health care facilities available to the majority of citizens
- 4 Improve existing medical care centers so that they can provide comprehensive PHC service.
- 5 Incorporate the basics of PHC into the training of health care professionals, and include internships in rural areas in the training of all health care professionals, including physicians.
- 6 Introduce a new program of health care measures, and expand programs concerning maternal and child health training, water and hygiene, health education, control of malaria, schistosomiasis, diarrhoeal diseases and acute respiratory infection, and expand the distribution of essential medicines.

As a result of the policy, various health care services were expanded, focusing on the building of health care infrastructure, the training of health care practitioners, and primary health care. As a result, Zimbabwe's level of health care has made large improvements since the colonial era.

### **2.1 National Health Administration and Plan**

#### **2.1.1 National Health Administration Organs**

The Ministry of health and child welfare's public health policy is divided into four levels, as shown in Diagram 2-1.

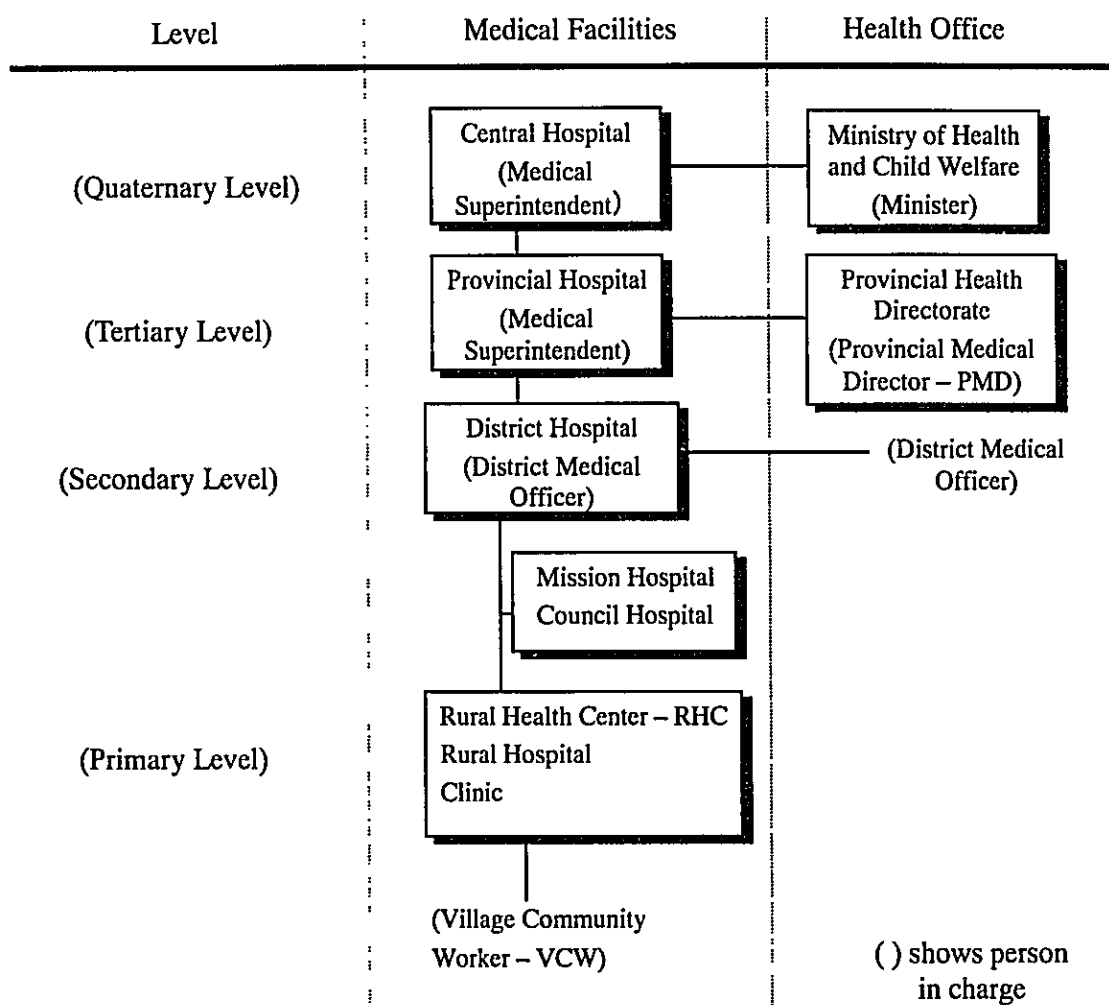


Diagram 2-1: Health Administration

Source: Ministry of Health and Child Welfare Documents, 1997

Health care is divided into four steps, comprised of prevention, treatment and rehabilitation. The referral system runs from primary level that includes rural health centers (RHC) and rural clinics, to district and provincial hospitals and provincial health offices, and finally up to quaternary level Ministry of Health and Child Welfare and the central hospitals. The referral system was created in 1984, and refers patients in need of higher level of health care service to higher levels in the health care system, where they can receive this service.

National health administration is responsible for the quaternary level of health care, and consists of the Ministry of Health and Child Welfare, the central hospitals, and specialist hospitals.

There are 2 central hospitals in the capital city of Harare, 3 in Bulawayo, and 1 in Chitungwiza. Furthermore, there are 11 specialist hospitals such as hospitals for optometry, infectious diseases, mental disorders, etc. (figures from "Health Facilities Report 94/95," Publication Date Unknown, MOHCW/CSO). These

central hospitals are the highest level in the referral hospital system, and take referrals not only from provincial hospitals, but also accept patient referrals from the major cities, where there are many private hospitals. Moreover, as teaching hospitals they serve not only to train personnel, but also provide a wide range of specialized medical care.

Although this referral system cannot be said to be entirely sufficient at present, it is functional. Below are listed some of the problems with the system:

- 1 Since sufficient authority is not passed from the higher to the lower levels, and since funding does not flow between levels, the chain of referrals from lower levels is broken midway.
- 2 Due to the fact that the lower levels are understaffed, they cannot provide sufficient service.
- 3 Since the lower levels lack sufficient equipment and medicine, incidents of bypassing the referral system have occurred.

The structure of national public health institutions of the Ministry of Health and Child Welfare (in 1992 the Ministry of Health was changed to the Ministry of Health and Child Welfare) is shown in Diagram 2-2.

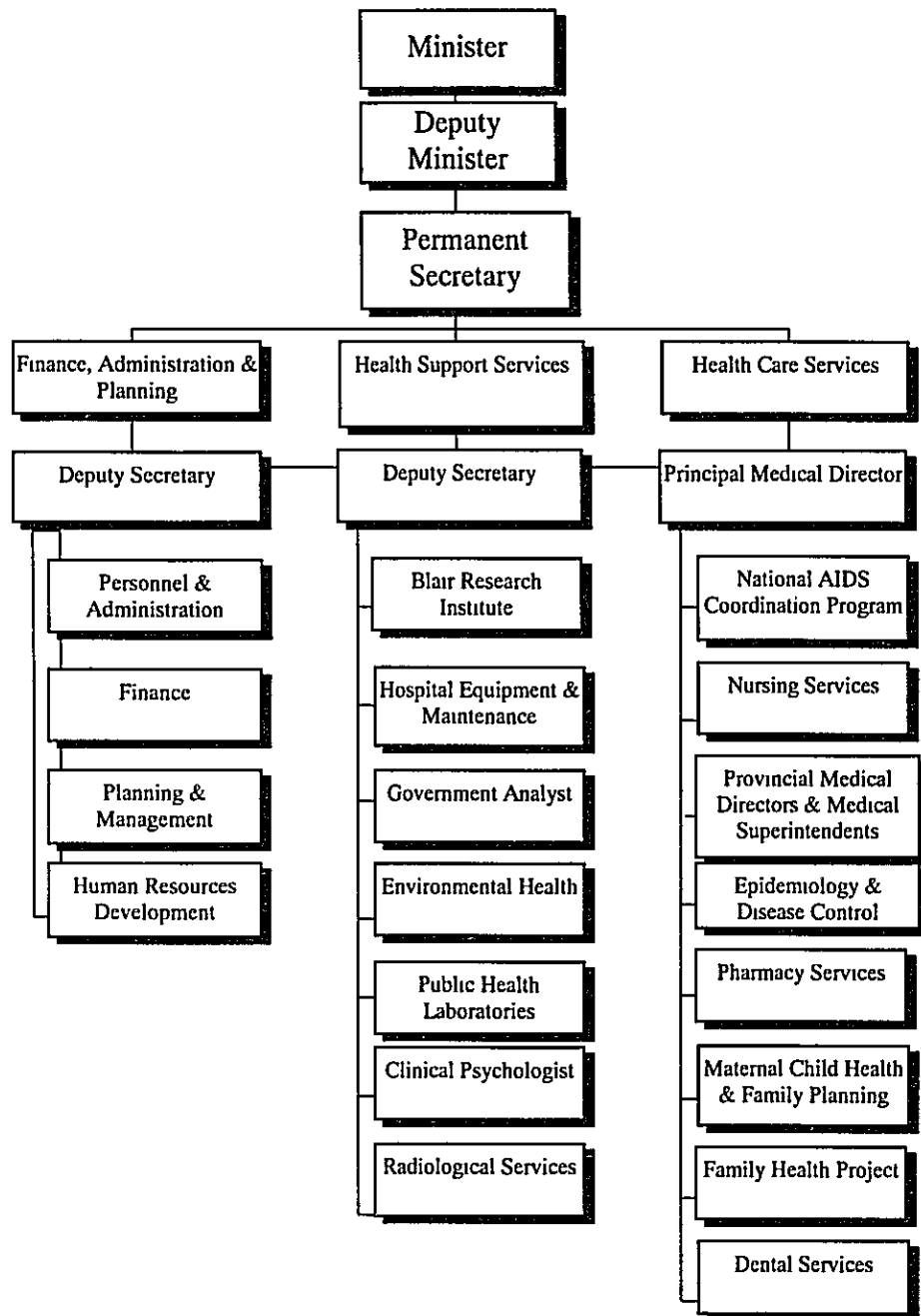


Diagram 2-2: Organization of the Ministry of Health and Child Welfare

As of October 1997

Source: Ministry of Health and Child Welfare documents, 1997

The Minister, Deputy Minister, and Permanent Secretary must by law be physicians (as of 1997, white physicians). Under the Permanent Secretary are three divisions: Finance, Administration and Planning, Health Support Services, and Health Care Services; these are managed by a deputy secretary, and principal medical director, respectively.

### **(1) Finance, Administration and Planning Division**

The Finance, Administration and Planning division, under a deputy secretary, has four departments, and operates in the following areas: creation of the budget; management of funds including that received from aid organizations; personnel, human resource training; intra-ministry administration; and finally, setting health care policy.

### **(2) Health Support Services Division**

The Health Support Services division controls and manages the Blair Research Institute and Public Health Laboratories, controls hospital equipment, and provides environmental health and radiology services.

### **(3) Health Care Services Division**

The head of the Health Care Services Division is called the Principal Medical Director. This division is responsible in the following areas: maternal & child health; HIV/AIDS control; control of epidemics; management of provincial medical offices and central hospitals; pharmacy; dentistry; nursing; and facilities planning and infrastructure provision. The Health Care Services Division is made up of the following departments:

#### **A) Epidemiology and Disease Control Department**

Plans, implements and monitors health programs as well as improves and disseminates health statistics in order to lower mortality and morbidity rates.

#### **B) Maternal Child Health and Family Planning Department**

Proposes, implements, promotes, and monitors maternal & child health programs in order to lower mortality and morbidity rates and improve the nutritional status of mothers and children.

#### **C) Nursing Services Department**

Creates proposals regarding education of nurses, health workers, and midwives. Also educates them and trains instructors.

#### **D) Pharmacy Services Department**

Sets national policy on medicine, purchases medicines and distributes them nationwide.

#### **E) Dental Services Department**

Provides human resource training for dentistry, school dentistry, and preventive dental care.

## **F) Family Health Project**

With support from the World Bank and other sources, creates infrastructure mainly for district hospitals and rural health centers (RHC).

## **G) National AIDS Coordination Programme**

Established in order to strengthen coordination among ministries and aid donors with the goal of controlling HIV/AIDS and STDs and reducing their adverse effects on society.

# **2.1.2 National Health Plan**

## **(1) Policy**

At the time of independence in 1980, a comprehensive health care policy covering all citizens did not exist. Following independence, the Zimbabwe government clearly recognized the idea that “health is a human right” and placed high priority on improving the overall level of health care. The government conducted an analysis on the nation’s current health situation, and based on this created a national health care policy “Planning for Equity in Health” in 1984. The meaning of the key phrase “equity in health” is the provision of health care to all regardless of race, tribe, poverty, rural or urban communities.

This health care policy, was built on the three pillars of community participation, decentralization, and integration of treatment and prevention. The goal is to allow all community residents fair and equal access to health care. Making health care provision to the poor population an urgent priority, the concept of primary health centers (PHC) was adopted. The concept of “equity in health” which emerged at the time of independence has since become the foundation of Zimbabwe’s health care policy.

With the adoption of the Five Year Economic Structural Adjustment Program (ESAP) in 1990, however, government expenditures in the health sector dropped; as a result health care burdens on patients rose, making the promotion of “equity in health” very difficult. Because of this, the Ministry of Health and Child Welfare revamped the health care system in order to deal with the increased costs to patients caused by decreasing budgets from the government. Moreover the “Social Dimensions of Adjustment Programme” (SDP) was created; in order to protect the poorest of the poor from ESAP, the SDP established the “Social Development Fund” (SDF), which provided free medical care to the poorest people.

## **(2) Priority Topics and Strategy**

Following ESAP in 1990, the budget for health care shrunk considerably. Because of this, it became necessary for the Ministry of Health and Child Welfare (MOHCW) to improve the effectiveness and efficiency of health care service. Under these conditions, MOHCW created a strategy to create “health care for all” and “equity in health,” prioritizing the following issues:

### **A) Priority issues**

- 1 Maternal and child health

- 2 Nutrition
- 3 Family planning
- 4 HIV/AIDS prevention programs, strengthening of Information, Education and Communication (IEC)
- 5 Environmental health such as water and sanitation
- 6 Prevention of illness and injury, especially malaria, tuberculosis, cancer, rheumatic heart disease, accidents and injuries, and eye illnesses, and improving health care of the elderly

## **B) Strategy**

### **1) Funding and fund management of health care**

Recognizing the limitations of health care funding from the government, the Ministry of Health and Child Welfare devised the following strategy:

- 1 More effective management and control of available funds
- 2 Procure funds from community residents
- 3 Cost recovery
- 4 Insurance

### **2) Improvement of the Planning and Management System**

The main weakness of the current health care system is the extremely poor planning and management at all health care facilities and levels: ministry, provincial, district and health centers. Recognizing this, the MOHCW put forth efforts towards training managers; to this end the ministry is receiving support from the World Bank and British ODA. Moreover, the MOHCW plans to create a new Planning and Management department; it is expected that WHO, DANIDA, and British ODA will provide technical cooperation in this area.

### **3) Improving the Quality of Health Care and Targeting Service**

Up until now, the goal of the MOHCW has been to provide the same level of health care service to all citizens, but this has become impossible due to limited funding. The ministry must therefore target its health care service and improve its quality.

### **4) Effective Management of Human Resource Training and Personnel**

The MOHCW, being acutely aware of the fact that personnel expenses account for two thirds of its budget, recognizes the necessity of human resource training for high quality human resources, and effective use of personnel through targeted assignment

## **5) Inter-departmental Cooperation**

The MOHCW is attempting to conduct its health care services in a more effective and efficient manner not only by fostering cooperation between departments within the ministry, but also by cooperating with other ministries and the private sector.

### **(3) Health Sector Reforms**

In 1995, in light of the economic situation of Zimbabwe, the Ministry of Health and Child Welfare, in order to promote more efficient health care, announced the "Health Sector Reform Initiative" along the lines of the government's sector reform plan. This sector reform plan is comprised of the following five items:

- 1 Promoting decentralization
- 2 Adjustment of health care finance
- 3 Strengthening health care management
- 4 Commercializing public health care facilities
- 5 Regulating private health care institutions

The thrust of these plans was to transfer provincial hospitals and below to local authorities as part of the decentralization initiative. It is hoped that through decentralization, regional medical care will become more efficient, and furthermore will be able to provide more fine-tuned and high quality care.

### **(4) Future Policy**

With funding from UNDP, the government has formed a new commission independent of the Ministry of Finance, called the National Economic Planning Commission (NEPC). After the second five year national development plan, the NEPC has been in the process of setting policy for a medium range development plan (Vision 2020).

This plan, which holds as a prerequisite the equitable and uniform health care for all citizens, gives priority to the most underprivileged. In addition the plan calls for improving communication between government, mission, and local government health care institutions, placing particular emphasis on the following areas related to PHC:

- 1 Strengthening programs for potable water, sanitation, and environmental health
- 2 Improve regional medical care by strengthening RHCs; improve communication with regional ministry offices for programs such as nutrition
- 3 Strengthen preventive health services such as home care for HIV/AIDS patients; strengthen sex education and instructional activities
- 4 Continue support of existing programs of public institutions regarding immunization, family planning, and prevention of infectious diseases

(Interview with Director Chigundu of the National Economic Planning Commission)



Moreover, the Ministry of Health and Child Welfare is currently preparing its strategic plan which takes effect in 1997: the "National Health Strategic Plan, 1997 – 2007." This strategic plan will analyze the accomplishments of health care activities since independence, as well as their current situation; further, it will create a strategic health care plan that extends past the year 2000.

The National Health Strategic Plan, 1997 – 2007 plans to create a strategy whose main points are the following new health care sector reforms:

**A) Renew the PHC Approach**

- 1 Improve the socioeconomic status of the people
- 2 Personal responsibility
- 3 Strengthen and support primary level facilities (decentralization)

**B) Development of Partnerships**

- 1 Regulate private health care institutions
- 2 Cooperation between public and private health care institutions
- 3 Community participation
- 4 Division between health care providers and recipients

**C) Development of Mutual Understanding**

- 1 Cost sharing
- 2 Equitable distribution of resources

**D) Systemic and Structural Development**

- 1 Decentralization
- 2 Downsizing
- 3 Business management to prevent the loss of human resources and the "brain drain"
- 4 Development of general management
- 5 Human resource planning
- 6 Setting and reforming laws pertaining to health care

**E) Quality and Management of Health Care Services**

- 1 Beneficiary satisfaction
- 2 Provide health care service commensurate with needs of the region
- 3 Public relations to improve the image of the MOHCW
- 4 Health care system research and development

**F) National Health Service Finance**

- 1 Social security
- 2 Health care costs

### 3 Better flow of funds to health care providers

Moreover, "National Health Strategic Plan, 1997 – 2007" plans to clarify problem areas in disease control through epidemiological analysis, and in the future prioritize the following categories of disease control:

Table 2-1: Priority Health Problems

Category	Content	Category	Content
Communicable Diseases	HIV/AIDS/STD	Lifestyle	Substance abuse i.e. alcohol, drugs
	Tuberculosis including respiratory diseases		Sexual behavior including rape
	Malaria		Stressful environment
	Diarrhoeal diseases	Environmental Issues	Housing
	Skin diseases		Air /water pollution
Reproductive Health	Perinatal conditions	Food safety	
	Maternal deaths	Physical Environment	
	Abortion	Others	Rabies
	Adolescent Health		Plague
Non Communicable Diseases	Nutritional deficiencies	Anthrax	
	Cardiovascular	Bilhartzia	
	Accidents and injuries		
	Cancer		
	Metabolic diseases		
	Eye problems		
	Dental conditions		
	Mental illness		

Source "National Health Strategy for Zimbabwe 1997 – 2007 Discussion Draft Document,"

1997 MOHCW

In order to create this national health strategy plan, it is necessary to receive the opinions of all concerned parties, including international institutions and donor organizations; moreover, it is necessary to give consideration to the progress of health sector reforms including decentralization. For this reason, it may be some time before the final version of this plan is announced (opinion of the author).

### 2.1.3 National Level Health Sector Finance

The expansion of health care services was a major goal after independence. When the economy faltered, however, financially sustaining these expanded services became a problem. In 1982 tax revenues already stopped increasing, after which the use of foreign loans for funding has increased. Furthermore, the issue remains on how to accommodate the increasing need for health care expansion. As of 1987, the government has been receiving loans from the World Bank, mainly for providing facilities. The early 1990s brought ESAP, the drought of 1991/92, and inflation which further exacerbated finance. As a result, means of financial management and diversifying sources of revenue are being considered.

## (1) Total Health Care Expenditures in the Public and Private Sectors

The source of financing for Zimbabwe's overall health care expenditures is shown in Table 2-2.

Table 2-2: Source of Financing for Health Care Expenditures

		(Fiscal Year 86/87 and 94/95)			
Sector	Source of Financing	Fiscal Year 86/87		Fiscal Year 94/95	
		Expenditures	% of Total	Expenditures	% of Total
Public	MOHCW; other ministries	310	49%	1238	34%
	Local governments	25	4%	194	5%
	Donors	74	12%	450	12%
	(Public Total)	(409)	(65%)	(1882)	(51%)
Private	Individual direct payments <sup>#1</sup>	64	10%	1119	30%
	Health insurance benefits	105	16%	432	12%
	Mines, Commercial Farms	51	8%	208	6%
	Mission, other NGOs	7	1%	33	1%
	(Private Total)	(227)	(35%)	(1792)	(49%)
<b>Total</b>		<b>636</b>	<b>100%</b>	<b>3674</b>	<b>100%</b>

Unit of Expenditure: Z\$ million

(Note) <sup>#1</sup> : Includes payments to Medical Aid Society

Sources: "Improving the Implementation of Cost Recovery for Health: Lessons from Zimbabwe" 1992  
The World Bank, "National Health Strategy for Zimbabwe, 1997 - 2007 Discussion Draft Document"  
1997 MOHCW

Government Expenditures, including those by the Ministry of Health and Child Welfare's expenditures were 49% of overall health care expenditures for fiscal year 86/87, but in fiscal year 94/95 this had shrunk to 34%. The lost portion was made up by increasing the burden on individuals, including private health insurance; in the 86/87 fiscal year the portion was just 10%, but by the 94/95 fiscal year this number had jumped to 30%. Funding from international aid institutions was 12%; this is on the low side compared to other developing nations (see Table 2-2).

## (2) Budget and Expenditures of Ministry of Health and Child Welfare

Changes in the budget of the MOHCW and the government as a whole are shown in Table 2-3. Some capital expenditures for equipment and minor repairs are included in the budget, but it mainly reflects ordinary operating expenses. The MOHCW budget is divided into four types of expenses: administrative and general expenses, medical care service expenses, prevention expenses, and research expenses. Administrative and general expenses are the operating costs of the MOHCW itself. About 35% of the medical care service expenses are operating costs for the central hospitals: the remaining 65% is for provincial hospitals or lower (figures from documents provided by Ministry of Health and Child Welfare Finance Department, 1997). Prevention expenses are for operating costs of public sanitation activities at the provincial health care office level or lower. Finally, research costs are for the Blair Research Institute's operating expenses. Moreover,

due to the fact that following the 97/98 fiscal year the fiscal year will run from January to December starting in 1998, the budget from July 1997 to December 1998 will cover 18 months.

The MOHCW budget for the 97/98 fiscal year is 5.4% of the total government budget, continuing in the same way as in the past. Out of the four types of budgetary expenses, it is clear that after ESAP, the budget for managerial expenses has shrunk dramatically. Moreover, due to the spread of HIV/AIDS the cost of health care service has risen.

Table 2-3: Trends of the MOHCW Budget and Fiscal Budget

Fiscal Year	Fiscal Budget	MOHCW Budget #2				Total	% of Fiscal Budget
		Admin. & General	Medicare Service	Preventive Service	Research		
85/86	3678.4	17.5 (8.8%)	153.6 (77.0%)	27.3 (13.7%)	1.2 (0.5%)	199.6 (100%)	5.4%
88/89	6148.0	41.0	260.8	54.0	2.3	358.1	5.8%
91/92	12693.7	98.5 (14.7%)	499.5 (74.5%)	69.1 (10.3%)	3.0 (0.5%)	670.1 (100%)	5.3%
94/95	25668.0	25.7	905.6	129.6	6.0	1066.9	4.1%
95/96	33440.3	32.3	1357.1	169.6	5.9	1564.9	4.7%
96/97	33152.0	43.2	1572.4	186.7	7.9	1810.2	5.5%
97/98 (18 mo.)	70607.0	185.9	3186.7	427.2	18.2	3818.0	5.4%
97/98#1 (12 mo.)	47071.3	123.9 (4.9%)	2124.5 (83.5%)	284.8 (11.2%)	12.1 (0.4%)	2545.3 (100%)	5.4%

Unit: Z\$ million

(Note) #1: Calculated based on monthly average of 18 month period

#2 Types of budget expenses are: Administrative & General, Medical, Preventive, Research

Source: Documents provided by MOHCW Finance Department, 1997;

Budget Estimate 97/98 1997 MOF

The MOHCW budget for normal operating expenses is shown in tables 2-4 and 2-5. The majority of this budget is comprised of "salaries, wages and allowance," "grants," and "supplies & services." These 3 items accounted for 88.0% of the MOHCW normal operating expenditures in fiscal year 95/96, and 86.8% in FY 97/98.

Grants are provided to the following organizations:

- 1 Local Authority Health Care Facilities
- 2 Mission Health Care Facilities
- 3 Parirenyatwa Hospital
- 4 National Family Planning Council
- 5 Government Medical Stores (GMS)
- 6 Health Professions Council

Among these Parirenyatwa Hospital receives the largest portion of subsidies, with 29% of the total share of subsidies. At the time of independence, these subsidies

accounted for over half the MOH budget at 56.2%; this figure has gradually been decreasing, however, until by the time of the 978/98 fiscal year it had gone down to 22.2% of the total budget (figures from Budget Estimate 97/98 MOF; documents provided by MOHCW Finance Department 1997). The lost revenue from subsidies has been made up by passing on costs to users of these services in the form of higher fees.

“Salaries, wages and other allowances” was a low 26.8% of the total MOHCW budget at the time of independence, but started to grow in the mid-80’s; by FY 97/98 it accounted for 41.3% of the total budget (figures from Budget Estimate 97/98 MOF; documents provided by MOHCW Finance Department 1997).

“Field operation expenses,” which are for PHC activities, have grown but still account for only 4.3% of the total budget (see Table 2–5).

Table 2-4: MOHCW Budget for Recurrent Expenditures by Item

(FY 95/96 – FY 97/98)

Budget Item	FY 95/96	FY 96/97	FY 97/98 (18 mo.)	FY 97/98 (12 mo.) <sup>#1</sup>
Salaries, wages and allowances	569.1	632.5	1576.7	1051.1
Subsistence and transport	66.0	56.1	100.4	66.9
Incidental expenses	16.8	31.9	60.7	40.5
Supplies and services	360.8	507.4	890.4	593.6
Field operations	60.5	72.1	164.6	109.7
Grants	447.9	455.0	848.8	565.9
Gov. related patient expenses	0.2	0.2	0.1	0.1
Non-governmental organizations	10.0	8.0	14.3	9.5
Furniture and equipment	31.6	39.0	157.0	104.7
Capital equipment	2.0	8.0	5.0	3.3
<b>Total</b>	<b>1564.9</b>	<b>1810.2</b>	<b>3818.0</b>	<b>2545.3</b>

Unit: Z\$ million

(Note) <sup>#1</sup>: Calculated based on monthly average of 18 month period

Source: Budget Estimate 96/97, 97/98 MOF

Table 2-5: MOHCW Budget for Recurrent Expenditures by Item: Proportional

Budget Item	FY 80/81	FY 86/86	FY 89/90	FY 95/96	FY 97/98
Salaries, wages and allowances	26.8	41.9	42.2	36.3	41.3
Subsistence and transport	2.2	2.6	3.0	4.2	2.6
Incidental expenses	0.5	0.8	0.7	1.1	1.6
Supplies and services	10.2	10.4	15.3	23.1	23.4
Field operations	1.2	2.6	3.1	3.9	4.3
Grants	54.6	35.2	33.2	28.6	22.2
Gov. related patient expenses	0.9	0.1	0.2	0.1	0.0
Non-governmental organizations	2.1	1.8	1.4	0.6	0.4
Furniture and equipment	1.7	4.8	0.9	2.0	4.1
Capital equipment	0	0	0	0.1	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Unit: %

Source: Children and Women in Zimbabwe 1990, 1990; UNICEF

Budget Estimate 96/97, 97/98 MOF

The Ministry of Health and Child Welfare gets its funding from the government and support from foreign aid institutions. Diagram 2–3 shows changes in the

proportion of the MOHCW's funding that has come from foreign aid institutions. The proportion grows rapidly starting in FY 93/94, surpassing 20% in FY 94/95 (see Diagram 2-3).

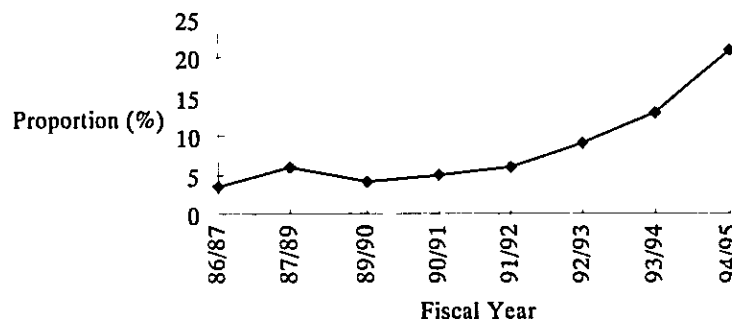


Diagram 2-3: Trend in Proportion of Funding from Foreign Aid Institutions

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

Following independence in 1980, government health care expenditures grew faster than inflation in the 1980's; from 1979 to 1987, MOHCW real expenditures grew 94% after adjusting for inflation, while per capital real expenditures grew by 48%. As of 1990, however, the government was faced with budgetary problems; it adopted ESAP in 1991 attempting to reduce its budgetary deficit by cutting back public expenditures and charging fees for services. As a result, the MOHCW was forced to face radically different operational conditions. Following the adoption of ESAP the health care budget remained the top priority, but because of high inflation and population growth, after adjusting for inflation the MOHCW per capita expenditures peaked in FY 90/91, then over the following two years fell by 30% (see Diagram 2-4). About Z\$55 in FY 90/91 is worth Z\$200 in 1997 (figures from "Third Evaluation of the implementation of Strategies for Health for All by the Year 2000, Version 2," 1997 MOHCW).

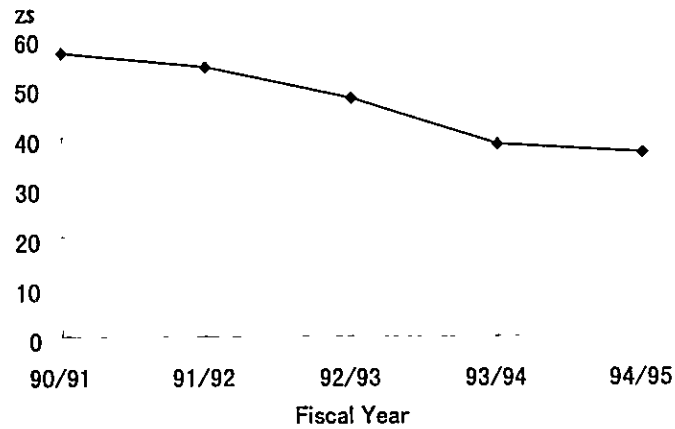


Diagram 2-4: Trend in MOHCW Per Capita Real Expenditures  
(FY 90/91 – FY 94/95)

Source: "Economics of the Health Sector in Zimbabwe" USAID 1995

Diagram 2-5, below, shows health care expenditures as a proportion of GNP.

% of GNP

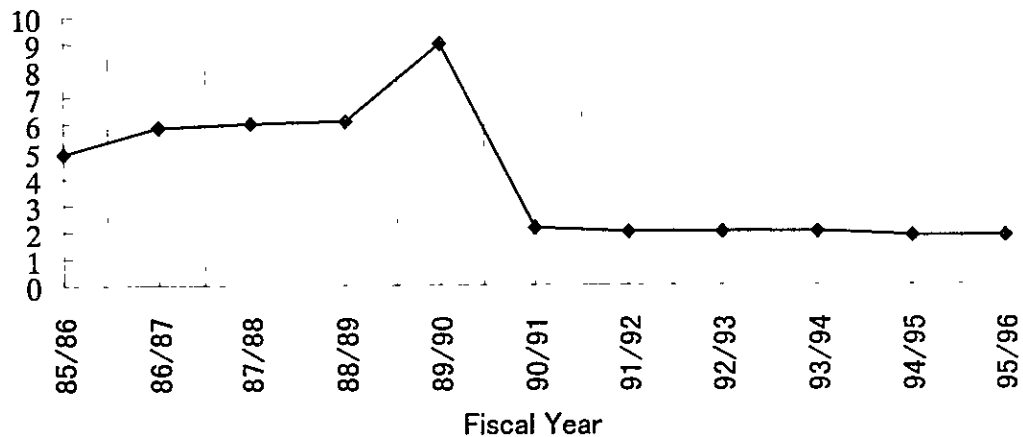


Diagram 2-5: Health Care Expenditures as Proportion of GNP (%)

Source: "Third Evaluation of the Strategies for Health for All by the Year 2000, Version 2"

1997 MOHCW, "Social Health Insurance Study Final Report" 1996 USAID

Until fiscal year 89/90, the MOHCW budget's expansion was also reflected in an increasing share of GNP. Following 1991, however, due to such factors as the ESAP, an annual inflation rate of over 20%, and a 3.1% population growth rate, the budget fell to less than 2% of GNP. Figure 2-6, below, shows the total expenditures per capita for each type of service.

Table 2-6: Per Capita Expenditures by Service Type (FY 95/96)

Service	Per Capita Expenditures (Z\$)	Proportion (%)
Parirenyatwa Hospital	10.7	9.4
Harare Central Hospital	27.6	24.2
Provincial hospitals	12.8	11.2
District hospitals	22.8	20.0
RHC; rural hospitals; clinics	10.8	9.5
Local government-owned health facilities	8.2	7.2
Preventive services	12.8	11.2
Others	8.3	7.3
<b>Total</b>	<b>114.2</b>	<b>100</b>

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

Out of a total of Z\$1,124.2 per capita of health care expenditures, roughly 34%, or Z\$38.3, goes to operational expenses for Harare Central Hospital and Parirenyatwa Hospital; per capita spending for preventive services was a mere 11%, or Z\$12.8.

### (3) Capital Expenditures Related to Health Care

Capital expenditures related to health care fall under the following four categories:

- (1) MOHCW domestic funding (a portion of the above mentioned budget) – Equipment and small scale repairs and construction
- (2) MOHCW funding from international aid – Equipment, construction, immunization, etc.
- (3) Ministry of Construction and Housing domestic funding – Major repairs and construction
- (4) Ministry of Construction and Housing funding from international aid – Major repairs and construction

In addition to the above mentioned types of health care expenditures, the expenditure of the Ministry of Rural Resources and Water Development on waterworks and environmental sanitation can be regarded as health care related expenditures.

### (4) Sources of Funding for Health Care

Sources of funding for health care are shown in Table 2-7 below. The government is the largest source of funding at 70%, or roughly two thirds, but this proportion is slowly but steadily decreasing. In fiscal year 90/91 international aid was 5.5% of the total, but grew to 14.1% in FY 93/94, and by FY 94/95 had grown to 13.5% of total health care funding.



Table 2-7: Sources of Funding for Health Care

Fiscal Year	Government		International Aid		Local Governments		Missions		Total
	Total	%	Total	%	Total	%	Total	%	
90/91	527.6	79.8	35.9	5.5	52.8	8.0	44.3	6.7	660.6
91/92	585.9	77.5	64.3	8.5	55.0	7.3	51.0	6.7	756.2
92/93	722.8	75.2	104.6	10.9	59.3	6.2	74.2	7.7	960.9
93/94	923.2	73.5	176.6	14.1	69.5	5.5	86.2	6.9	1255.6
94/95	1160.1	72.4	215.6	13.5	105.0	6.5	121.6	7.6	1602.2

Total Unit: Z\$ million

Source: Documents Provided by MOHCW Finance Department, 1997

## 2.2 Regional Public Health Policy and Health Care Plan

### 2.2.1 Organization of Regional Public Health Administration

Before independence in 1980, extreme discrimination in terms of race, social class and region existed in Zimbabwe's health care. Human and material health resources were concentrated in private urban hospitals, and served only a small privileged class. Regional facilities were limited to mission and business-run facilities.

After independence, the government in 1984 announced its national health care policy, "Planning for Equity in Health." Part of this plan was the creation of a regional medical system in order to do away with the types of discrimination just mentioned in matters of health. The major issues actively addressed by the government under this medical policy were as follows:

- 1 Appropriate distribution of medical facilities at the regional level
- 2 Establishment of a referral system among facilities with different levels of care
- 3 Increase and improve health manpower at the regional level

It is thought that the improvement in the level of health observed in the 1980s was largely due to this effort to improve regional health care. This system, however, is still not fully functional.

Zimbabwe's regional health care institutions are under the jurisdiction of the Principal Medical Director of the Ministry of Health and Child Welfare. As stated above, these consist of tertiary level consisting of Provincial Health Directorates and Provincial Hospitals; below this the secondary level consisting of District Hospitals; the District Medical Officer is in charge of district level health care. Finally, below this is primary level, consisting of rural health care centers, which serve as the front line health care in rural areas. Moreover, Village Community Workers (VCW) are stationed in these areas to serve as liaisons between the RHC and community residents (For more information on VCW, see chapter 5 "Health Care Programs," 5.2 "Primary Health Care").

## **(1) Tertiary Level**

Tertiary level health care is the provincial level, and it exists between the policy setting level of the central government and the implementation level at the district. The main activities of tertiary health care are listed below:

- 1 Consolidate plans and formulate provincial policies and programs.
- 2 Support, supervise and upgrade the health activities in the entire province
- 3 Monitor and evaluate progress and performance of programs in the province
- 4 Give medical treatment at provincial hospitals to patients referred from district hospitals

Aside from Matabeleland North, all remaining 7 provinces have provincial hospitals. Most of these were created by expanding the function of pre-existing hospitals. Provincial hospitals not only practice general medicine, but also provide clinical training to medical students and training for physicians and nurses.

Unlike district hospitals, which are headed by the district medical officer, provincial hospitals are run by a medical superintendent rather than the provincial medical director. In addition to the medical superintendent, surgeons, pediatricians, and obstetricians are ordinarily also stationed in provincial hospitals.

Apart from provincial hospitals, provinces have Provincial Health Directorates, which are managed by the Provincial Health Care Performance Department. This department is made up of the Provincial Medical Officer, who is the head of tertiary level health care in the province, the Provincial Medical Services Administrator, the Provincial Nursing Officer, the Provincial Environmental Health Secretary, the Provincial Pharmacist, the Provincial Health Education Officer, and the Provincial Nutritionist. The Provincial Health Care Performance Department periodically holds meetings with health care teams. This department exchanges opinions on such matters as the implementation status of health care plans, health policy, and management problems.

The provincial development commission is comprised of the provincial secretary from each ministry and representatives from public corporations, but the seat for the health care sector is filled by the Provincial Medical Officer, who is also the director of the health and social welfare commission; the Provincial Medical Officer works in cooperation with the other ministries.

## **(2) Secondary Level**

Secondary health care is at the district level. The district is the basic unit for planning and implementing health care services. The secondary health care level is comprised of district hospitals, mission hospitals, and general hospitals in the large cities. These facilities take referrals from RHCs. Below are listed the main activities of the secondary health care level.

- 1 Plan PHC activities in the district.
- 2 Support, supervise and upgrade the PHC activities in the entire district.
- 3 Provide district hospital care, mainly for patients referred from the RHCs.

The District Health Care Performance Department, which is responsible for managing district health care services, meets monthly to propose, supervise,

monitor and study these activities. The District Health Care Performance Department is formed by the District Medical Officer, who is in charge of secondary health care, the district nursing secretary, the district health monitoring secretary, the district health care service secretary, and the district pharmacist.

The District Health Care Performance Department regularly holds meetings for all the health care providers in the district, where those activities are improved. These members are called "District Health Care Teams," and are made up of the following personnel:

- 1 The members of the above mentioned District Health Care Performance Department
- 2 Representatives of all health care providers in the district (including regional government medical institutions, mission medical institutions, industrial medical institutions, and private medical institutions).
- 3 A representative from the district council
- 4 The district administrative secretary

Every district has a "District Development Committee" comprised of the district secretary from each ministry. The representative from the MOHCW is the District Medical Officer; in addition to representing the health care sector in the district development commission, the District Medical Officer is also the director of the health and social welfare minor commission.

The district health care facilities consist of the district hospital. Some districts do not have district hospitals, as the hospitals of neighboring districts are sufficiently close. Moreover, some district hospitals are normal hospitals with expanded capabilities, and in some cases mission hospitals fill the role of the district hospital. The District Medical Officer is the head of the district hospital; in addition to the District Medical Officer, physicians, x-ray technicians, medical technicians, pharmacists and nurses are also stationed at the district hospital. Moreover district hospitals are equipped with outpatient facilities, emergency rooms, surgery rooms, examination rooms, outpatient dental facilities and pharmacies. The main activities of district hospitals are listed below:

- 1 Provide medical care at the secondary level
- 2 Manage all medical institutions in the district, including private medical institutions
- 3 Conduct the planning, adjustment and monitoring of regional medicine within the district. Conduct the planning, adjustment and monitoring of mother and child health, immunization, hygiene education, and family planning within the district
- 4 In addition, also support and monitor primary level health care.

### **(3) Primary Level**

The primary level is the lowest level in Zimbabwe's referral system. Primary level facilities consist of rural health centers (RHC) and rural hospitals, which have hospital beds (For more information on RHC and rural hospitals, see chapter 6, "The Health Care Service Distribution System," 6.1 "Health Care Facilities," 6.1.1 "The Public Health Sector").

#### (4) Problems with the Referral System

According to Director Magaya of the MOHCW Human Resources Development Department, the referral system between different level of medical facilities still does not function adequately.

The "Report on Basic Survey of Infectious Diseases: Republic of Zimbabwe," (1994, Japan International Cooperation Agency) uses the following chart to explain the limitation of the referral system. The survey upon which Table 2-8 is based was conducted in 1991, so the situation may have improved, but the Table shows the distances traveled by patients from their residence to 4 different hospitals. This survey shows that the higher the level of medical facility, the more likely it is to be used by patients living in nearby areas. Although the central hospitals, which are in urban areas, also fill the role of secondary and tertiary health care, it is an indicator that the referral system itself does not function adequately.

Table 2-8: Patient Residence and Distance from Hospital

Name of Hospital	Level of Hospital	10 km or Less	31 km or More
Karoyi	District hospital	32.6%	35.0%
Chihoyi	Provincial hospital	36.7%	38.5%
Harare	Central Hospital	59.3%	30.5%
Parirenyatwa	Central Hospital	54.6%	25.8%

Source: Unknown

Moreover, according to another survey conducted at the same time, two central hospitals, namely Harare Central Hospital and Parirenyatwa Hospital, were also used for primary and secondary health care. The rate at which they were so utilized is shown in Table 2-9.

Table 2-9: Rate of Utilization for Primary and Secondary Health Care

Hospital	Rate for Primary Health Care	Rate for Secondary Health Care
Harare Central Hospital	11.0%	67.8%
Parirenyatwa Hospital	50.9%	42.4%

Source: Unknown

Thus the central hospitals are swamped with mild to medium cases, and for this reason their ability to fulfill their original purpose, namely the treatment of critical cases, is diminished. It is thought that this is the major cause of the limitation of the referral system.

### 2.2.2 Regional Public Health Care Planning and Budget

The government of Zimbabwe, decided to decentralize health care services based on the "Health Care Sector Reforms," in order to provide more health care services for and fulfill its responsibility to regional communities. At the district level, this decentralization means that the district, which is the local governing body, is responsible for providing health care services at the district level.

Specifically, the following are to be implemented:

- 1 The District Council will be responsible for district health care services, and holds all district resources, including facilities and personnel

- 2 The hospital's board of regents will control central and provincial hospitals, and will be responsible for the hospital's management
- 3 The district health council will manage the district health services; the hospital's board of regents will manage the central and provincial hospitals
- 4 The Provincial Health Directorate will support the MOHCW by proposing health care policy, managing and monitoring health care activities, and managing finances
- 5 The MOHCW will support the District Councils and District Hospitals with their operational management

Moreover, the Health Sector Reform is based on the following guidelines:

- 1 Improve the health of the people and increase their satisfaction by improving the quality and efficiency of health care services
- 2 Bring about equity in health by providing underprivileged residents with high quality health care
- 3 Provide highly cost effective service by effectively distributing resources to high priority activities

This decentralization plan is currently under preparation with the support of DANIDA, and implementation of legal reforms to renew the powers of the district councils is planned for next year. (Interview with Director Magaya, MOHCW Human Resource Development Department)

As shown in "2.1.3: National Level Health Sector Finance," the budget for regional public health accounts for 65% of the MOHCW medical services budget, and preventive services expenses, which are passed to the province level and below. In the FY 96/97 budget, out of a total budget for operating expenses of Z\$1,810.2 million, the MOHCW passed Z\$1,208.8 million, or roughly 67%, on to regional health care at the province level or lower (see Table 2-3).

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## 3 Demography

### 3.1 Overview

#### 3.1.1 Outline

Following independence, national censuses were conducted in 1982 and 1992. The 1982 population of 7.5 million had grown to 10.4 million by 1992. This puts the yearly population growth rate at a high 3.1%; if this growth rate continues, the population will double in 23 years. The government estimates that the population in the Year 2000 will be 13.2 million, and 16.5 million by the year 2007 (figures from Population Projections 1992 – 2007 Census 1992, 1995 CSO). This estimate, however, does not take into account the effect that the spread of HIV/AIDS will have on the population.

A look at the age and sex distribution for the population from the 1982 and 1992 census data shows that there have not been any major changes (see Table 3-1). The proportion of males in the population is quite low with 96 males per 100 females in 1982, and 95 males per 100 females in 1992. As is shown by the age distribution data in Diagram 3-1, the population is comparatively young. The population can, however, be seen to have aged slightly since 1982 (see Table 3-1). The Dependency Ratio<sup>11</sup> was 93.7 in 1992, dropping from 104.2 in 1982 (figures from 1982 Population Census Main Demographic Features of the Population of Zimbabwe, 1985 CSO, Census 1992 Zimbabwe National Report, 1994 CSO).

Table 3-1: Population Ratio by Age

Age	% of Population	
	1992	1982
Child population (0 – 14 years)	45.1%	47.9%
Working Age Population (15 – 64 years)	51.3%	48.9%
Elderly Population (65 years or over)	3.3%	3.2%
Unknown	0.3%	0%
Total	100%	100%

Source: 1982 Population Census Main Demographic Features of the Population of Zimbabwe  
1985 CSO, Census 1992 Zimbabwe National Report 1994 CSO

<sup>11</sup> Dependency Ratio: Number of people under 15 or over 65 as a ratio of the working age population.

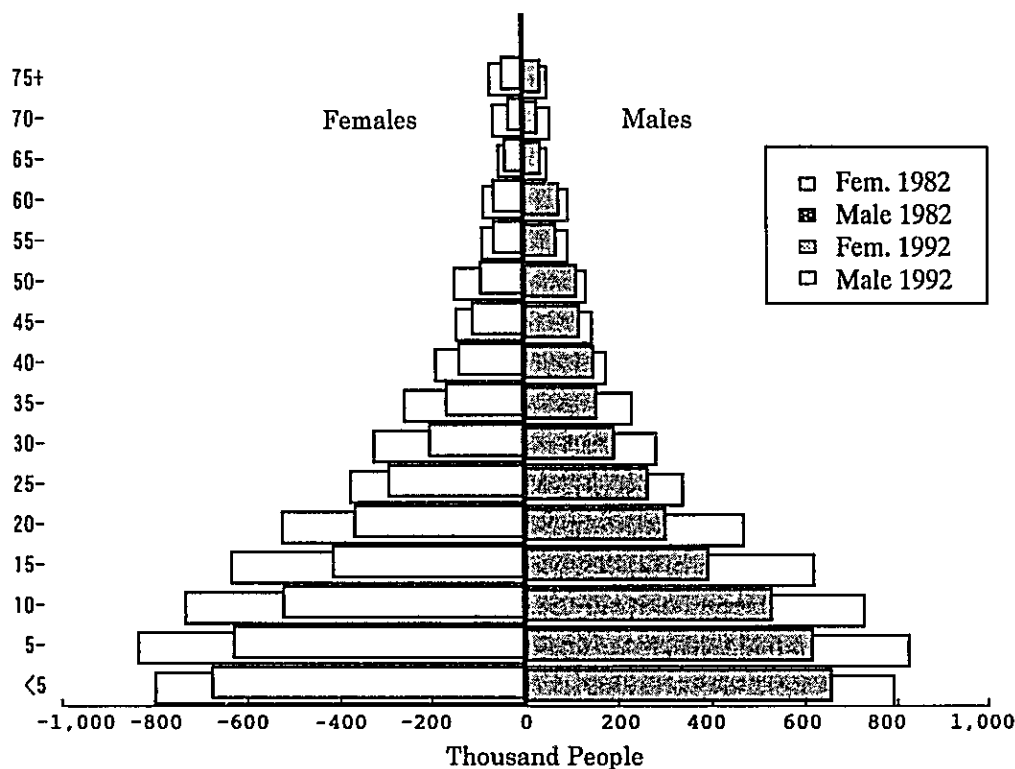


Diagram 3-1: Population Pyramid

Source: 1982 Population Census Main Demographic Features of the Population of Zimbabwe  
 1985 CSO, Census 1992 Zimbabwe National Report 1994 CSO

### 3.1.2 Regional Population Distribution; Labor Force

As of the 1992 Census, Zimbabwe's urban population was 31% of the total population. The so-called high veld, a high plateau in the center of the country, is the center of the nation's economy; as such, most of the cities, roads, railroads, commercial farms and mines are concentrated here. Zimbabwe's two major cities, Harare and Bulawayo, are located here as well. The lower elevation middle veld is where most communal land is concentrated; consequently, the population density in this area is extremely high.

The two major cities, Harare and Bulawayo, account for 65% of the nation's urban population; in 1992 their populations were 1,190,000 and 620,000 respectively. Harare has a satellite city, Chitungwiza, whose majority of residents work in Harare and if its population is added to that of Harare, the total is 1,490,000 (see Table 3-2).

The urban population is growing at a rapid pace, with a high growth rate of 3.6%; in particular, the population growth rate of the capital city Harare is quite remarkable. Harare's population was 650,000 in 1982; in the space of 10 years it



had grown to 1.8 times its former size (figures from Census 1992 Zimbabwe National Report, 1994 CSO).

With this extremely rapid urban population growth, city infrastructure and maintenance and construction has become an urgent matter. The increase in unemployment raises fears of growing slums, and the spread of communicable diseases due to worsening sanitation and hygiene.

Table 3-2 shows the regional population distribution. Leaving out the cities of Harare and Bulawayo, the Province of Manicaland has the highest population, as well as the highest population density. Moreover, this Province has a high death rate, and the nation's lowest life expectancy. Because of its large land area, Manicaland's health care is not fully accessible to all its inhabitants, causing it to lag behind the other provinces in terms of health care.

Table 3-2: Regional Population Distribution (1992)

Provinces and Cities	Population (thousands)	% of total	Area (thousand km <sup>2</sup> )	Population Density (person/km <sup>2</sup> )
Manicaland	1537	14.8	36.5	42.2
Mashonaland Central	857	8.2	28.3	30.2
Mashonaland East	1034	9.9	32.2	32.1
Mashonaland West	1113	10.7	57.4	19.4
Masvingo	1223	11.7	56.6	21.6
Matabeleland North	641	6.2	75.0	8.6
Matabeleland South	592	5.7	54.2	10.9
Midlands	1308	12.6	49.2	26.6
Harare (Including Chitungwiza)	1486	14.3	0.9	1703.7
Bulawayo	622	6.0	0.5	1298.0
<b>Total</b>	<b>10413</b>	<b>100.0</b>	<b>390.8</b>	<b>26.7</b>

Source: Census 1992 Zimbabwe National Report, 1994; CSO

In rural areas, 51% of the population lives on communal lands. Conversely, about 13% of the population lives on commercial lands; most of these inhabitants are agricultural workers and their families who live on large scale commercial farms. Among these are many people who were brought in as labor in the early 1940s from Malawi and Mozambique, and stayed on; consequently, they do not own any land. The pattern of leaving home to earn money in the cities still persists from colonial times; for this reason, the proportion of women and children in communal lands is higher than in the cities. Incidentally, according to the 1992 census, males accounted for 46% of the population on communal lands, and females 54%. Moreover, heads of households are 33.2% female overall, but a higher 41% in rural areas. The percentage of foreigners is only 1% overall, but 3% in the cities; in rural areas, it is close to 0%.

Zimbabwe's population structure based on the labor force according to the 1992 Census is shown in Diagram 3-2. The employable population is 62% of the total population; 78% of this employable population is employed. Moreover, 30% of those employed are peasants engaged in semi-subsistence farming on communal lands.

Statistically, the labor force is the population over 15 years of age; as in many other African countries, however, many children under the age of 15 work: the majority of

these are engaged in agriculture on communal and commercial lands. According to the 1992 Census, 39,000 children between the ages of 10 and 14, or 3% of the total of this age group, were employed. Of these 15,000 were wage laborers; the rest were unpaid family workers (figures from Census 1992 Zimbabwe National Report, 1994; CSO).

The unemployment rate of 22%, or 760,000 people, does not take into account those working in small scale business or seasonal workers; consequently, the actual unemployment rate is probably higher than this (interview with Statistician Katzluzzer, from the Central Statistics Office).

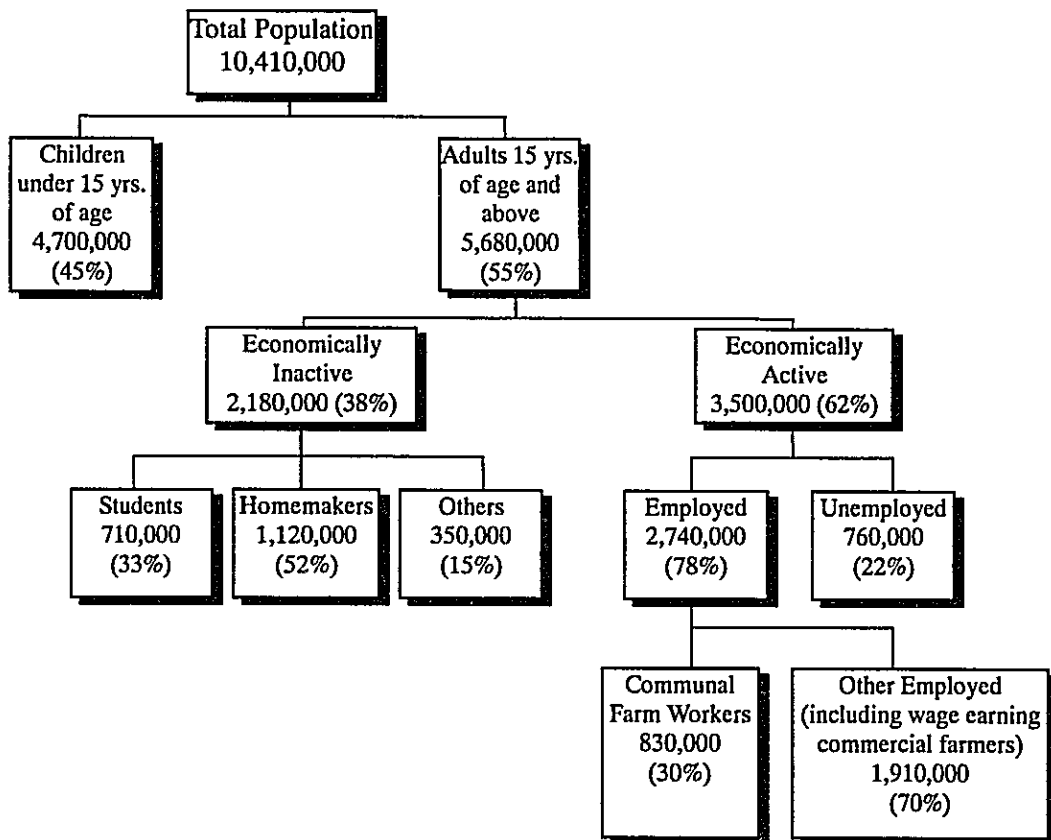


Diagram 3-2: Zimbabwe's Population Composition and Labor Force Status (1992)

Source: Census 1992 Zimbabwe National Report 1994 CSO

## 3.2 Births and Deaths

Zimbabwe's chief index on births and deaths, based on UNICEF's "The State of the World's Children," is shown in Table 3-3. The figures for Zimbabwe are favorable when compared to sub-Saharan Africa, including the surrounding countries. When compared to developing countries in general, however, mortality rates apart from infant mortality and mortality of children under 5 are high. There is still a considerable gap between Zimbabwe and the industrialized nations.

The general trend has been a large reduction in infant mortality and mortality of children under 5; in spite of the significant improvements in children's health, however, it appears that maternal health has not improved significantly; moreover, the total fertility rate, which is higher than the average for developing countries, is thought to be responsible for the rapid population growth.

Table 3-3: Main Birth and Death Indicators

	Crude Birth Rate <sup>#1</sup>		Crude Death Rate <sup>#1</sup>		Infant Mortality Rate <sup>#2</sup>		Mortality of Children under 5 <sup>#2</sup>		Maternal Mortality <sup>#3</sup>	Total Fertility Rate <sup>#4</sup>
	1970	1996	1970	1996	1970	1996	1970	1996	1970	1996
Zimbabwe	50	38	16	14	109	49	181	73	570	4.8
Sub-Saharan Africa	48	43	21	15	154	105	257	170	980	5.9
Developing Countries	38	26	14	9	137	66	216	97	470	3.2
Industrialized Nations	17	12	10	9	31	6	37	7	13	1.7
Japan	19	10	7	8	31	4	40	6	18	1.5

(Note) <sup>#1</sup>: per thousand population

<sup>#2</sup>: per thousand live births

<sup>#3</sup>: per 100,000 live births

<sup>#4</sup>: per female

Source: "State of the World's Children 1998," 1997; UNICEF

The main statistics concerning Zimbabwe's birth and death rates are from the national census and DHS. The figures from their indices differ from UNICEF's "The State of the World's Children," above; However, in Zimbabwe both surveys are thought to be highly reliable (interviews with MOHCW, USAID, WHO, and other parties concerned with health care).

Table 3-4 shows trends in the crude birth rate, crude death rate, and total fertility rate based on DHS data.

Table 3-4: Trends in the Crude Birth Rate, Crude Death Rate, and Total Fertility Rate

Year	Crude Birth Rate <sup>#1</sup>	Crude Death Rate <sup>#2</sup>	Total Fertility Rate <sup>#3</sup>
1982	39.5	10.8	6.2
1988	N/A	N/A	5.5
1992	34.5	9.5	5.9
1994	31.6	N/A	4.3

(Note) <sup>#1</sup>: per thousand population, <sup>#2</sup>: per thousand population, <sup>#3</sup>: per female

Source: 1982 Population Census Main Demographic Features of the Population of Zimbabwe  
1985 CSO, Census 1992 Zimbabwe National Report 1994 CSO, DHS 1988, 1994 CSO

As shown in Table 3-4, the crude birth rate dropped from 39.5 in 1982 to 31.6 in 1992, a total reduction of 20%. The total fertility rate also dropped from 6.2 in 1982 to 4.3 in 1992, for a total reduction of 31%. Moreover, the crude death rate dropped from 10.8 in 1982 to 9.5 in 1992: a 12% reduction.

Table 3-5, below, shows the total fertility rate according to urban versus rural areas and level of education. A comparison of urban and rural areas shows that the birth rate in urban areas is an extremely low 3.1; in rural areas, however, the number jumps to 1.6 times this amount, or 4.9. Moreover, the relation between women's education level and their fertility rate is shown clearly in Table 3-5; the fertility rate of women with no education is 5.2, 1.6 times the rate of women with secondary education.

Table 3-5: Total Fertility Rates According to Urban vs. Rural and Education Level

Subject	Type	Total Fertility Rate <sup>#1</sup>
Residence	Urban	3.1
	Rural	4.9
Education	No education	5.2
	Primary education	4.7
	Secondary education	3.3
Total		4.3

(Note) <sup>#1</sup>: per female

Source: DHS 1994 CSO

The total fertility rate of women with secondary education is 3.3; it is estimated that since those with secondary education have a high employment rate, in the future the total fertility rate will drop even more, to 3.69 by the year 2002 and 3.4 by the year 2005 (figures from DHS, 1994; CSO).

Table 3-6 shows the birth rate by age for 1988 and 1994. While the birth rates for the older age groups have fallen dramatically, those of the younger age groups, particularly those between 10 and 19 years old, have barely fallen. This clearly shows future focal points for family planning and HIV/AIDS education.

Table 3-6: Birth Rates by Age for 1988 and 1994

Age	1988	1994	Rate of Decline
15 – 19	103	99	4%
20 – 24	247	210	15%
25 – 29	247	194	21%
30 – 34	219	172	21%
35 – 39	160	117	27%
40 – 44	86	52	40%
44 – 49	36	14	61%
<b>Total Fertility Rate</b>	<b>5.5</b>	<b>4.3</b>	<b>22%</b>

(Note) Birth rate by age: per thousand females; total fertility rate: per female

Source: DHS 1994 CSO

Diagram 3-3 shows changes in average life expectancy. Life expectancy rose from 57 years in 1978 to 62 years in 1988 due to decreases in infant and child mortality; in 1990, however, life expectancy fell to 61 years.

A comparison of the life expectancies in rural and urban areas shows that in 1990 the average life expectancy in urban areas was 63, while it was 60 in rural areas (figures from Census 1992 Zimbabwe National Report, 1994; CSO). The life expectancy is lowest in Manicaland, at 57 years, and highest in Bulawayo, at 67 years. Incidentally, in terms of the crude death rate, Manicaland had the nation's highest at 11.6, while Bulawayo had the nation's lowest, at 6.7 (figures from Census 1992 Zimbabwe National Report, 1994; CSO).

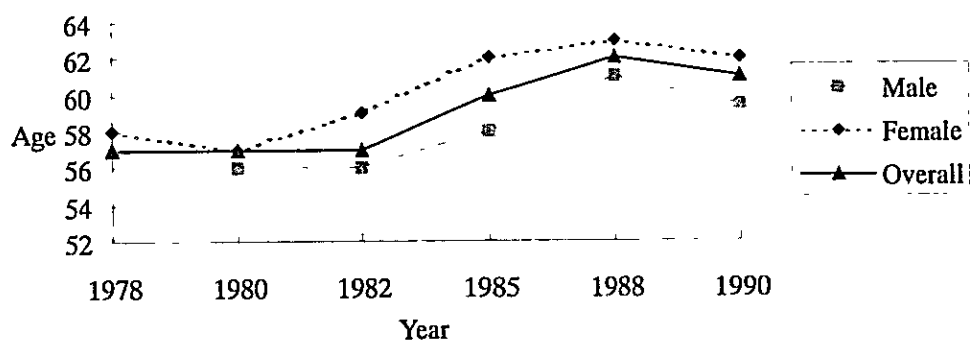


Diagram 3-3: Trend in Average Life Expectancy

Source: 1982 Population Census Main Demographic Features of the Population of Zimbabwe  
1985 CSO, Census 1992 Zimbabwe National Report 1994 CSO

In 1969, the population density was only 13/km<sup>2</sup>; By 1982 this number had grown to 20/km<sup>2</sup>, and by 1992 was a high 27/km<sup>2</sup> (Figures from Census 1992 Zimbabwe National Report 1994 CSO).

## **3.3 Population Migration**

### **3.3.1 Emigration**

In the 1980's, immigration from Mozambique was a large factor in Zimbabwe's population figures. With the stabilization of the political situation, however, most of the refugees returned, and in the 1990's there is almost no immigration to Zimbabwe. In recent years the number of young people emigrating to South Africa and Botswana in search of work has increased.

### **3.3.2 Domestic Migration**

Zimbabwe is still basically an agricultural nation. The urban population was 26% of the total population in 1982, and 31% in 1992; unlike other countries in southern Africa, there has not been a huge influx of population into the cities (Figures from Census 1992 Zimbabwe National Report 1994 CSO). The 5 point rise in urban population in the space of ten years, however, has been criticized as being an underestimation. In the first place, out of seasonal laborers and temporary workers who live most of the year in the cities only a portion of them are included in the urban population. Second, cities were defined in a more strict sense in the 1992 census than in the 1982 census, meaning fewer areas were counted as urban in 1992: in 1982, the definition of a city was a populated area with 2,500 or more inhabitants, but in 1992 the condition was added that 50% or more of the residents be employed in industries outside of agriculture.

Out of the 31% of the total population designated as urban in the 1992 census, 46% of these lived in Harare and 19% lived in Bulawayo (Figures from Census 1992 Zimbabwe National Report 1994 CSO). The MOHCW claims that the decentralization policy will mitigate the growth of the urban population.

## **3.4 The Effect of HIV/AIDS**

Much research has been undertaken to determine the effects that the spread of HIV/AIDS will have on the future makeup of the population, but as of yet the results of this research are not clear. It is expected, however, that the contraction of young people with HIV/AIDS will have the effect of reducing the country's labor force and increasing the number of orphans. It is also predicted that the population between the ages of 25 and 45 will decline. Despite the fact that HIV/AIDS will put upward pressure on the death rate, there is no doubt that the population will increase on the whole in the next 20 years.

Assuming that there will not be a large influx of immigration in the next 20 years, in the worst case the direct and indirect effects of HIV/AIDS will cause the crude death rate to become 23 per thousand in 2005, a rate 1.3 times greater than that of 1992. Moreover, putting the total fertility rate at 3.4 and the crude birth rate at 30

per thousand, the population growth rate is predicted to be 0.7%<sup>12</sup> (Figures from "HIV/AIDS in Zimbabwe Background Projects, Impact Intervention," 1997; NACP MOHCW).

### 3.5 Infant and Child Mortality

Table 3-7 shows changes in the infant and child mortality rates. The infant mortality rate fell from 1978 to 1980; this is thought to be the result of the spread of immunization programs, as well as anti diarrhoeal, nutrition, and maternal and child health programs. Towards 1990, however, this downward trend in the infant mortality rate began to falter. The spread of HIV/AIDS is thought to be a major factor in the rise in the infant mortality rate from 1988 to 1990. Furthermore, the mortality rate of children under 5 has not changed from 1988 to 1994. This is mainly due to the spread of HIV/AIDS, but owes also to the fact that the health care policies of the 1980's were only concerned with overall numbers, and did not take into account the individual background of each person (e.g. poverty, etc.); thus, the downward trend in mortality rates stagnated. Large regional differences in infant mortality rates exist.

The infant mortality rate for children under 1 month is 25 per thousand live births, and the infant mortality rate for children between 1 and 11 months is 26 per thousand live births (figures from DHS 1994; CSO).

Table 3-7: Trend of Infant Mortality and Mortality of Children Under 5

Year	Infant Mortality Rate <sup>#1</sup>	Mortality of Children Under 5 <sup>#1</sup>
1978	83	N/A
1988	61	75
1990	66	N/A
1994	51	76

(Note) <sup>#1</sup>: per thousand live births

Source: Census 1992 Zimbabwe National Report 1994 CSO, DHS 1994 CSO

Table 3-8 shows the infant mortality rates by region for 1990. The difference in mortality rate from region to region is clearly evident, with Manicaland's being the highest. From these figures it appears that the MOHCW's promise of "Equity in Health" has not been met (opinion of the author).

<sup>12</sup> 30 - 23 = 7, for a population growth rate of 7/thousand population per year

Table 3-8: Infant Mortality Rates by Region(1990)

Province/City	Infant Mortality Rate <sup>#1</sup>
Manicaland	85
Mashonaland Central	78
Mashonaland East	64
Mashonaland West	72
Masvingo	75
Matabeleland North	49
Matabeleland South	40
Midlands	67
Harare	54
Bulawayo	42

(Note) <sup>#1</sup> : per thousand live births

Source: "Thrd Evaluation of the Implementation of Strategy for Health for All  
by the Year 2000 Version 2" 1997 MOHCW

Table 3-9, below, shows the mortality rates of infants and children under 5 according to urban versus rural residence and mother's education level. It is clear that mortality rates are higher in rural areas than in urban areas: the infant mortality rate is 1.2 times higher in rural areas, and the mortality rate of children under 5 is 1.3 times greater. Since living conditions have a greater effect on the mortality rate of children under 5 than infant mortality, these figures are thought to indicate the difference in living conditions between rural and urban areas.

From the data shown here it can be inferred that the mother's education level has a major impact on her children's chances of survival. The mortality rate of children under five is 1.6 times greater for children of mothers with no education than for children of mothers with secondary education. It is thought that this difference is due to the increased knowledge of nutrition and sanitation among mothers with secondary education, as well as their increased participation in health care services.

Table 3-9: Mortality Rates of Infants and Children Under 5 According to Urban vs. Rural Residence and Mother's Education Level (1994)

Category	Subcategory	Infant Mortality Rate <sup>#1</sup>	Mortality of Children under 5 <sup>#1</sup>
Urban vs Rural	Urban	44.3	63.0
	Rural	53.6	80.3
Mother's Education Level	No Education	61.6	93.1
	Primary Education	53.9	78.7
	Secondary Education	38.6	56.6
Total		51.2	75.9

(Note) <sup>#1</sup> : per thousand live births

Source: DHS 1994 CSO



## 3.6 Population Database

The collection of data relating to population falls under the jurisdiction of the Central Statistics Office (CSO). The CSO not only conducts surveys regarding population, mortality and births, but also conducts surveys relating to education, sanitation, and waterworks. The CSO conducts two periodic surveys: censuses and Demographic and Health Surveys (DHS). There are two types of census: a national census of the entire population every 10 years, and an inter-census demographic survey between these 10 year periods which is based on a 10% sample of the population. Furthermore, Zimbabwe has a registration system for births, deaths, and marriages.

### 3.6.1 The National Census

The CSO conducts a national census every 10 years, and between these 10 year periods conducts an inter-census demographic survey. In 1982 the first national census since independence was conducted; in this census all citizens regardless of where they lived were counted in one day, and all citizens were given the same questionnaire.<sup>13</sup> For the first time not only was the composition of Zimbabwe's population clarified, but also the education, health care, and labor status came into light, and this information formed the basis for subsequent policy related to development planning.

The mid-term census conducted in 1987 was based on a 10% sample of the population. After this, in 1992 the second national census was conducted, 10 years after the first national census in 1982. In this census, just as in the first national census, all citizens were counted in one day on a "De Facto Basis."<sup>14</sup> The data from this census formed the basis of indicators related to population and health care.

In August of 1997 the second mid-term census was conducted based on a 10% sample of the population. At present this data is still being analyzed; it is scheduled to be announced sometime in 1998 (Interview with Mr. or Ms. Katwalza, statistician from the Central Statistics Office).

### 3.6.2 Vital Civil Registration

Zimbabwe has had a system of Vital Civil Registration since before independence. Every district, province and city has a Ministry of Home Affairs Registrar's Office, where all citizens must register births, deaths, marriages and changes of address. Moreover, obstetric and other hospitals also register births.

Due to problems such as insufficient personnel and ignorance among the population, however, it is not possible to get an accurate picture of the population from Vital Civil Registration. Only about 15 to 20% of the total population is

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<sup>13</sup> Conducted on August 18<sup>th</sup>, 1982

<sup>14</sup> Conducted on August 17<sup>th</sup>, 1992

reflected in these records (Interview with Mr. or Ms. Katwalza, statistician from the Central Statistics Office).

### **3.6.3 DHS (Demographic and Health Survey)**

The Central Statistics Office, receiving financial assistance from USAID and technical cooperation from the private US company "Macro International Inc.," conducted a DHS (Demographic and Health Survey) in 1988 and 1994, in cooperation with the Zimbabwe Family Planning Committee, MOHCW. This survey focused on knowledge and activities relating to birth, marriage, family planning, maternal and child health, nutrition and HIV/AIDS and made use of a KAP<sup>15</sup> survey. The 1988 survey covered women in 4100 households; the 1994 survey covered about 6,000 women nationwide, as well as 2,200 men. Both surveys were conducted in the form of oral interviews. Moreover, in the 1994 survey, height and weight was measured of mothers of children 3 years and younger (born after January 1991). The birth rate and total fertility rate which was calculated through this survey was subsequently used to formulate and implement policy regarding family planning and maternal and child health. Future DHSs are planned for 1999 and 2002 (interview with Ms. Servajio, Health, Population and Nutrition Officer for USAID).

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<sup>15</sup> KAP: Knowledge, Attitude and Practice

## References for “3: Demography”

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## 4 Epidemiology

### 4.1 Overview

#### (1) Outline

Following independence in 1980, the government reformed its discriminatory medical system, placed special effort into assuring basic education and primary and secondary medical care at the regional level, and developed its medical services in proportion to its economic strength. Unlike other African nations, medical centers, immunization, wells, and basic sanitary facilities such as toilets, as well as preventive medicine in the form of health education are quite common in rural areas. The entire population lives within an average range of 9 km of some kind of primary level medical facility, including RHCs and rural hospitals; 81% of the population has access to safe drinking water. In the 1980's the nation's level of education and health improved unimpeded in statistical terms as well (figures from Health Facilities Report 94/95" Publication Date Unknown; CSO/MOHCW, and "6<sup>th</sup> Round Sentinel Surveillance for SDA Monitoring," 1986 UNICEF/GOZ).

In the early 1990's, however, the health standard fell due to such problems as the spreads of HIV/AIDS and tuberculosis, as well as the famine of 1991/92.

Leprosy, polio, and neonatal tetanus have almost been eradicated; measles, however, has been spreading for 5 straight years, and countermeasures against it are an important issue. Outbreaks of cholera, dysentery, and malaria still periodically occur in the 1990's; furthermore, in recent years accidents and non-communicable diseases such as heart disease, eye illnesses, and cancer have become new problems. Listed below are the particular characteristics of illness and accidents in Zimbabwe which distinguish it from other countries in similar economic situations (interview with Director Chihanga, Planning and Management Department, Ministry of Health and Child Welfare):

- 1 Over 80% of children have received vaccinations, and aside from tuberculosis, immuno-preventable diseases<sup>16</sup> are not as grave a problem as in neighboring countries.
- 2 Perhaps because of a tendency towards obesity and a salty diet, so-called "developed nations' diseases" such as diabetes, hypertension, and strokes are becoming a problem.

#### (2) Statistics on Cause of Death

Statistics on cause of death are reported every two years based on the number of patient deaths reported by hospitals which is considered the most reliable data.

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<sup>16</sup> Polio, diphtheria, whooping cough, tetanus, and measles

This data covers roughly 75% of patient deaths in medical facilities, including rural hospitals. In addition, it is thought that quite a few deaths among infants and small children occur from causes other than illness, but as there has been no survey relating to this, no data is available. Another source of information is the Vital Civil Registration system. However, only 15 to 20% of all deaths are recorded under this system, furthermore, it takes about 2 to 3 years to process this data. For this reason, there is no recourse but to rely on hospital death statistics (figures from Country Health Profile Zimbabwe, 1995 WHO/MOHCW).

Table 4-1 shows yearly changes in number of hospitalizations, number of deaths, and fatality for all hospitals combined. Aside from 1989, the fatality was between 2 and 3%, but after 1992 climbed to between 4 and 5%. It is thought that this is due to the hospitalization and subsequent deaths of AIDS patients.

Table 4-1: Trend in Number of Hospitalizations, Number of Deaths and Fatality

Year	No. Hospitalizations	No. Deaths	Fatality (%)
1987	451,927	11,194	2.5
1988	469,006	12,008	2.6
1989	352,090	17,103	4.9
1990	344,099	9,617	2.8
1991	405,470	11,577	2.9
1992	400,488	15,844	4.0
1993	411,316	17,128	4.2
1994	419,614	16,604	4.0
1995	504,746	20,906	4.1

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

Table 4-2, below, shows the major causes of deaths for hospitals nationwide; Table 4-3 shows the trend in major causes of death. The spread of HIV/AIDS caused the increase in deaths from tuberculosis, acute respiratory infections and intestinal infections such as dysentery and diarrhoeal diseases, surpassing malaria. Deaths from dysentery and diarrhoeal diseases are becoming a major cause of death, killing not only children but adults as well. Malaria has been a major cause of death throughout the 1990's because an effective manner of combating malaria has not yet been found. This is due to the fact that epidemiological studies of malaria are difficult to conduct, malaria is greatly effected by climate, and moreover, drug resistant strains of malaria have been found.

Table 4-2: Top Causes of Mortality (1995)

	Illness	No Deaths	%
1	Pulmonary Tuberculosis	2,654	12.7
2	ARI (lower tract)	2,164	10.4
3	Intestinal Infections	2,071	9.9
4	Malaria	1,356	6.5
5	Perinatal Conditions	1,226	5.9
6	Nutritional Deficiencies	1,071	5.1
7	Other Viral	1,050	5.0
8	Internal Injuries	1,010	4.8
9	ARI (upper tract)	645	3.1
10	Others	685	3.3
	Total	20,906	100.0

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

Table 4-3: Trend in Top Causes of Mortality

	1983	1993	1995
1	Diseases of respiratory system	Tuberculosis	Pulmonary tuberculosis
2	Perinatal conditions	Intestinal Infections	ARI (lower tract)
3	Measles	Malaria	Intestinal infections
4	Intestinal infections	Acute respiratory infections	Malaria
5	Nutritional deficiencies	Viral diseases	Perinatal conditions
6	Transportation accidents	Diseases of pulmonary circulation	Nutritional deficiencies
7	Homicide and injury	Diseases of digestive system	Other viral
8	Pulmonary hemorrhaging and other heart diseases	Hypertension	Internal injuries
9	Cerebrovascular disorders	Diseases of endocrine system	ARI (upper tract)
10	Pulmonary tuberculosis	Diseases of nervous system	Others

Source: Country Health Profile Zimbabwe 1995 WHO/MOHCW

### (3) Hospital Statistics

Regarding statistics on accidents and illnesses there is little choice but to rely on hospital outpatient and inpatient data. However, because some hospitals implement separate monitoring systems for cases such as HIV/AIDS, hospital statistics are not necessarily comprehensive. Moreover, because central hospital data is also incomplete for outpatient statistics, only a portion of central hospital data appears in the statistics of the MOHCW Epidemiology and Disease Control Department. For this reason, the numbers below only represent a portion of the central hospital outpatient data.

Table 4-4 shows major illnesses based on nationwide hospital outpatient records. Incidence of acute respiratory infections (ARI) is extremely high, followed by skin diseases and sexually transmitted diseases. The spread of STDs including HIV/AIDS is a major cause of illness.

Table 4-4: Major Outpatient Illnesses and their Proportion (1995)

	Illness	No. Outpatients (thousands)	%
1	Acute respiratory infections	3,431	28.0
2	Skin diseases	985	8.0
3	STDs	873	7.1
4	Injuries	782	6.4
6	Diarrhoea	716	5.8
5	Malaria	715	5.8
7	Eye diseases	409	3.3
8	Dental conditions	265	2.2
9	Bilharzia	240	2.0
10	Others	3,829	31.3
	Total	12,245	100.0

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

Table 4–5 shows the trend in the top five major illnesses by the MOHCW based on number of outpatients for hospitals nationwide from 1991 to 1995. Acute respiratory illnesses were among the top ranked illnesses throughout this period; in 1995, tuberculosis was added to the list for the first time, due to the spread of HIV/AIDS. Malaria has constantly been among the top ranked illnesses since 1993.

Table 4-5: Trend in Top Five Illnesses

	1991	1992	1993	1994	1995
1	Other illnesses	ARI	ARI	ARI	Tuberculosis
2	Respiratory infections	STDs	STDs	Skin diseases	Malaria
3	STDs	Accidents and injuries	Malaria	Malaria	STDs
4	Accidents and injuries	Diarrhoeal diseases	Diarrhoeal diseases	STDs	ARI
5	Skin diseases	Skin diseases	Accidents and injuries	Accidents and injuries	Viral infections

Source: MOHCW Epidemiology & Disease Control Department Documents 1997

## 4.2 Epidemiology by Sex and Age

### 4.2.1 Major Illnesses Among Children and Infants

#### (1) Cause of Death

Following independence, the health of infants and children improved, and the mortality rates of infants and small children fell. As is shown in Table 3–7, the infant mortality rate went from 83 per thousand live births in 1978, to 66 per thousand live births by 1990. Starting in the 1990's however, problems such as the famine of 91/92, ESAP, and the spread of HIV/AIDS had a major slowing effect on this downward trend in death rates. The infant mortality rate for 1994 is 51 per thousand live births, while for children under five it is 76 per thousand live births (see Table 3–7). The government's goal is to reduce the infant mortality rate to 40 per thousand live births and the mortality rate of children under 5 to 58 per thousand live births by the year 2000.

Table 4–6 shows changes in the major causes of death of infants and small children (from 1 to under 5 years old) designated by the MOHCW. Measles, which was a major cause of infant death in 1993, was replaced by tuberculosis due to the spread of HIV/AIDS. For small children as well, measles was the leading cause of death in 1983, but by 1993 had fallen off the list of top illnesses. This was due to the dissemination of EPI. Nutritional deficiencies, which is related to socioeconomic development, was a major cause of death in 1983 as well as 1993. It is thought that the impact of the famine of 91/92, as well as ESAP, had on those living below the poverty line was a major cause of this.

Table 4-6: Trends in Top Causes of Mortality Among Infants and Small Children

Infant Mortality 1983		1993	Mortality in Children (1-4 years) 1983		1993
1	Perinatal conditions	Perinatal conditions	1	Measles	Nutritional deficiencies
2	Intestinal infections	ARI	2	Nutritional deficiencies	Intestinal infections
3	Respiratory infections	Intestinal infections	3	Intestinal infections	Malaria
4	Measles	Nutritional deficiencies	4	ARI (lower tract)	Viral diseases
5	Meningitis	Viral diseases	5	Meningitis	Endocrine, metabolic and immunity related diseases
6	Congenital anomalies	Malaria	6	ARI (upper tract)	Tuberculosis
7	Nutritional deficiencies	Diseases of nervous system (meningitis; encephalitis; brain fever; others)	7	Malaria	Other respiratory diseases
8		Tuberculosis	8	Pulmonary tuberculosis	Diseases of nervous system (meningitis; encephalitis; brain fever; others)
			9		Diseases of digestive system
			10		Diseases of blood-forming organs

Source: Country Health Profile Zimbabwe 1995 WHO/MOHCW

Tables 4-7 and 4-8 show changes in the proportion of deaths from major illnesses, and the number of deaths among infants and small children (1-4 years), based on hospital statistics. Since 1992, perinatal conditions have been a major cause of death, but the proportion of deaths from perinatal conditions has gradually decreased, to be replaced by an increase in respiratory infections and tuberculosis caused by the spread of HIV/AIDS. Adding together upper tract, lower tract, and other types of respiratory infections, starting in 1994 they surpassed perinatal conditions to become the leading cause of death. The total number of deaths from respiratory infections was 1,453, which was 34.8% of total deaths. Nutritional deficiencies continued to be a leading cause of death among small children since 1992; in 1995 it caused 758 deaths, or 27.4% of the total number of deaths. Moreover, intestinal infections such as dysentery and diarrhoeal diseases have accounted for 15 to 20% of deaths every year. It is thought that impoverished living conditions are a major cause of this.



Table 4-7: Trends in Top 10 Causes of Infant Mortality

Illness	1992	1993	1994	1995	
	%	%	%	No. Deaths	No. Deaths
1 Perinatal conditions	35.2	32.3	30.3	1,095	1,151
2 ARI (lower tract)	22.3	22.4	28.2	1,017	1,041
3 ARI (upper tract)	7.4	6.4	6.2	223	412
4 Intestinal infections	9.3	10.0	8.7	315	315
5 Nutritional deficiencies	3.5	4.8	3.7	134	183
6 Nervous system	2.1	2.2	1.7	62	99
7 Pulmonary TB	1.0	1.9	3.0	109	98
8 Other viral	2.6	3.1	3.2	114	88
9 Malaria	1.2	2.7	2.0	72	60
10 Others	15.4	12.0	13.0	471	716
Total	100.0	100.0	100.0	3,612	4,173

Source: 1992 – 1994 : “Annual Report 1994” Date of Publication Unknown MOHCW/CSO;

1995: Zimbabwe National Health Profile 1995 1997 MOHCW

Table 4-8: Trends in Top 10 Causes of Child Mortality (1-4 years)

Illness	1992	1993	1994	1995	
	%	%	%	No. Deaths	No. Deaths
1 Nutritional deficiencies	28.3	29.0	23.7	524	758
2 Intestinal infections	16.4	19.9	20.4	451	505
3 ARI (lower tract,)	13.2	16.2	13.4	297	316
4 Viral infections	5.5	4.8	8.2	181	112
5 Malaria	1.4	5.0	6.9	153	130
6 Pulmonary TB	3.8	4.3	6.3	138	120
7 ARI (upper tract)	2.4	6.5	3.8	83	130
8 Blood forming organs	2.0	2.0	2.0	44	31
9 Nervous system	2.1	0.0	1.7	38	88
10 Others	24.9	12.3	13.6	299	578
Total	100.0	100.0	100.0	2,208	2,768

Source: 1992 – 1994 : “Annual Report 1994” Date of Publication Unknown

MOHCW/CSO, 1995:Zimbabwe National Health Profile 1995 1997 MOHCW

## (2) Illnesses

Table 4-9, below, shows trends in the top 10 illnesses among children under 5 created by the MOHCW, based on outpatient numbers. Acute respiratory infections are constantly at the top of the list of major illnesses, and increase year by year. In 1995 there were a total of 1,347,000 cases, for 46.6% of the total illnesses. Moreover, the proportion of skin ailments keeps growing each year.

Table 4-9: Trend in Cases of Major Illnesses and Accidents among Children Under 5

Illness	1992	1993	1994		1995	
	%	%	%	No. Cases (thousands)	%	No. Cases (thousands)
1 ARI	34.3	30.4	45.6	1,182	46.6	1,347
2 Skin diseases	6.3	7.2	9.9	258	10.9	314
3 Diarrhoea	8.1	9.9	7.9	203	8.3	239
4 Malaria	3.3	6.5	5.6	146	4.7	136
5 Injuries	4.2	4.6	3.0	77	4.1	119
6 Eye disease	4.0	4.5	3.8	99	3.8	111
7 Nutritional deficiencies	3.7	2.7	1.5	39	1.4	40
8 Others	36.1	34.2	22.7	589	20.2	582
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>2,593</b>	<b>100.0</b>	<b>2,888</b>

Source: 1992 – 1994: "Annual Report 1994" Date of Publication Unknown; MOHCW/CSO;

1995: Zimbabwe National Health Profile 1995 1997 MOHCW

### (3) Causes of Death, Illnesses and Injuries among Zimbabwe's Children

Below are listed some of the causes cited for death, illness and injury among Zimbabwean children (based on UNICEF documents<sup>17</sup>):

#### A) Reduction in Health Care Expenditures due to ESAP

The MOHCW budget was dramatically cut due to ESAP which was announced in 1990; as a result, programs aimed at improving existing health care services have had to be cut back.

#### B) Reduction in Quality of Health Care Services

Because of the reduction of MOHCW funding, employee wages and compensation have gone into arrears; because of this, physicians and nurses have moved into the private sector and abroad. As a result, health care facilities are facing a shortage of manpower, causing the quality of health care service to decline.

#### C) Drought and Food Shortages

Many families in Zimbabwe do not have access to enough food to live for one year. Food shortages occur between the start of the rainy season in September and October, until harvest time in February and March. Food shortages are especially frequent in parts of Matabeleland, Midlands, Masvingo, and Manicaland, which are the drier areas of the country. Moreover, the famine of 1991/92 was the worst in Zimbabwean history; almost all food supplies in rural areas were exhausted, leading to an extreme food shortage.

<sup>17</sup> Children and Women in Zimbabwe: A Situation Analysis Update 1994

#### **D) HIV/AIDS**

The spread of HIV/AIDS has led to an increase in tuberculosis and other AIDS-related diseases. Furthermore, the number of orphans has increased greatly; it is estimated that in 1996 there were 60,000 orphans.

#### **E) Living Conditions**

With the high cost of living in urban areas, it is difficult to acquire dwellings for small numbers of people, hence living conditions are extremely crowded. Dwellings in rural areas are small, and many are made from mud and have poor ventilation. On the average, between five and six people live in rural dwellings.

#### **F) Environmental Health**

According to a survey conducted in 1991, two or more families were using the same toilet on 67% of commercial land. The differing levels of hygiene between households, is a factor in the spread of communicable diseases from family to family.

#### **G) Occupational Environment of Mothers**

Women in rural areas work from dawn to dusk; because of their extremely long work hours, the time women can spend tending to their children is limited. As a result, at night children are sometimes given cold, unsanitary leftovers which becomes a cause of the spread of communicable diseases among children. Moreover, demands on the limited time of women such as long work hours are a cause of inadequate feeding of nursing infants.

Moreover, many mothers who work in agriculture do not leave their children at home, but rather carry them into the fields on their backs; this places a great physical strain on the mothers. Maternal health has a large effect on the health of the children especially in the case of pregnant women.

### **4.2.2 Epidemiology of Women**

One way to determine the state of pregnant women and maternal health is the maternal mortality rate which is the deaths of mothers (while giving birth, to 42 days of giving birth) to the number of live births. Table 4-10, below, shows maternal mortality based on deaths in health care facilities.

Table 4-10: Trend in Maternal Mortality According to Health Care Facilities

Year	No. Deaths	Maternal Mortality (per 100,000 live births)
1987	117	73.6
1989	164	68.7
1991	242	94.6
1993	335	134.4
1995	353	144.5

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

The maternal mortality according to the 1992 national census and the 1994 DHS was 395 and 283 per 100,000 live births, respectively; this is quite different from the MOHCW figures given above. One major reason for this discrepancy is the fact that in Zimbabwe, roughly 30% of women still give birth at home, or at locations other than health care facilities (figures from DHS 1994). It is thought that because the MOHCW statistics only account for births in health care facilities, they are substantially less than the actual number of births.

Whatever the case may be, it is clear that the maternal mortality has not improved and, in fact, according to MOHCW statistics it started to increase beginning in the 1990's. The cause of this increase is not clear, but listed here are several factors having strong correlation with maternal mortality according to UNFPA, WHO, and UNICEF documents:

#### **A) Induced Abortion**

In Zimbabwe, induced abortion is illegal except in the case of rape or when the mother's life is at risk. It is said that death caused by complications during induced abortions are the leading cause of death among mothers.

According to 1993 MOHCW statistics, death due to induced abortion is extremely low, at 66 deaths out of 20,248 induced abortions (figures from "Programme Review and Strategy Development Report Draft" 1996, UNFPA). According to a 1994 UNICEF report, however, every year from 60,000 to 80,000 induced abortions are conducted outside designated health care facilities; the death rate for these is substantially higher than the MOHCW statistics (figures from Children and Women in Zimbabwe: A Situation Analysis Update 1994, 1994; UNICEF).

#### **B) Pregnancies between the Ages of 10 and 19**

The proportion of females between the ages of 10 and 19 who become pregnant is high: according to the 1994 survey, 20% of females between the ages of 15 and 19 had been pregnant; furthermore, that same year 50% of first-time mothers were between the ages of 10 and 19 (figures from "Programme Review and Strategy Development Report Draft" 1996, UNFPA).

#### **C) High Birth Rate in Rural Areas**

In 1994, the total fertility rate in urban areas was 3.1, while it was 4.9 in rural areas. In addition, 67.7% of women of child-bearing age lived in

rural areas. Furthermore, 38.5% of births in rural areas were without the accompaniment of a trained medical professional. Incidentally, in urban areas 91% of all births were accompanied by a trained medical professional (figures from DHS 1994, CSO).

#### **D) Female Labor**

Women in rural areas have a heavy workload: in addition to ordinary chores such as child rearing and cooking, they must gather fire-wood, carry water, and work in the fields. Moreover, more than half of women who work in urban areas care for their children while working. It is thought that the heavy work load is harmful to the health of mothers.

#### **E) HIV/AIDS**

The number of cases of HIV/AIDS among women and pregnant women grows every year. It is thought that HIV/AIDS is also a factor in maternal mortality.

#### **F) Traditional Practices**

Although practices differ from tribe to tribe, traditional practices relating to childbirth exist in some regions such as "spreading the vagina during labor using glass, fingernails, etc." and "during labor, carrying a heavy rock on the back to the health care facility in order to avoid giving birth on the way." Among these traditional practices is the use of herbs some of which have been scientifically proven to be effective, but there are others thought to be harmful to maternal health.

In Zimbabwe, circumcision is not practiced except in some tribes around Bulawayo, so this is not a factor in maternal mortality.

According to 1995 MOHCW statistics, the major direct causes maternal deaths were hemorrhage (21.5%), puerperal sepsis (17.7%), hypertension/eclampsia (15.2%), malaria (10.1%), and other types of septicaemias (10.1%) (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW). According to a survey conducted by the Matabeleland South health care team in 1993, eclampsia was caused by poisoning, septicemia, bleeding, and placental residue brought on by an herb<sup>18</sup> used in traditional medicine.

Table 4-11, below, shows maternal mortality by region. Manicaland, Mashonaland East and Mashonaland West continue to show a high regional difference. Moreover, it is thought that Harare's high maternal mortality rate is due to high rates of pregnancy among females 10 to 19 years old, and illegal induced abortions.

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<sup>18</sup> Muthi

Table 4-11: Maternal Mortality by Region (1992)

Province/City	No. Maternal Mortality	Maternal Mortality
Manicaland	241	447
Mashonaland Central	126	399
Mashonaland East	154	449
Mashonaland West	197	516
Masvingo	151	374
Matabeleland North	79	328
Matabeleland South	58	280
Midlands	163	355
Harare	200	404
Bulawayo	50	241
Nationwide	1,419	395

(Note) Mortality During Labor: per 100,000 live births

Source: Census 1992 Zimbabwe National Report 1994 CSO

Poor nutrition among mothers is also a problem. The proportion of under-weight newborns (2.5 kg or lower) is an indicator of nutritional deficiencies among mothers. The proportion of under-weight newborns in 1992 and 1993 was high, at 8.4% and 8.6%, respectively. It is thought that the famine of 1991/92 influenced this.

There is a large regional variation in proportion of under-weight newborns: according to the 1994 DHS, Harare's was 1%, while Matabeleland's was 11%. Because poverty plays such a major role in the nutritional status of mothers, it is thought that this large regional variation reflects the nation's gap between the wealthy and the poor. Table 4-12 shows the trend in the proportion of babies born under-weight.

Table 4-12: Trend in Proportion of Under-weight Newborns

Year	Proportion of Under-weights (%)
1987	4.9
1989	5.6
1991	6.0
1993	8.6

Source: "Programme Review and Strategy Development  
Report Draft" 1996 UNFPA

### 4.2.3 Epidemiology of Adults and the Elderly

Table 4-13 lists major illnesses and accidents among the population of 15 years and older.

A major difference in illnesses among adults and that of children is the high incidence of venereal disease in the former group, accounting for 12.5% of total patients.

Table 4-13: Major Illnesses and Accidents among the Population 15 Years and Older

	Illness/Accident	No. Outpatients (thousands)	%
1	ARI	1,342	19.4
2	STDs	860	12.5
3	Injuries	437	6.3
4	Malaria	419	6.1
5	Skin diseases	404	5.8
6	Diarrhoeal diseases	249	3.6
7	Dental conditions	227	3.3
8	Eye diseases	210	3.0
9	Bilharzia	98	1.4
10	Others	2,676	38.6
	<b>Total</b>	<b>6,922</b>	<b>100.0</b>

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

Zimbabwe's urban population is relatively high, at 31%. Living conditions such as diet and sanitary conditions vary greatly between urban and rural residents; the profile of major illnesses and injuries among urban residents is beginning to resemble that of developed nations, with a transition from communicable diseases to adult diseases. The number of patients who suffer from hypertension and diabetes is rapidly growing; this is influenced by a high salt and sugar diet, and lack of access to expensive medicines. This shift in major illnesses among the urban population rapidly surfaced following independence, and statistics related to adult disease in illness and accident rates are yet to be compiled. Furthermore, according to 1995 hospital statistics, there were 989 deaths from cardiovascular disease, accounting for 14% of the total deaths among those 5 years or older; there were 367 deaths from cancer, for 2.6% of total deaths; and there were 145 deaths from diabetes, for 1.0% of total deaths among those 5 years or older (figures from Zimbabwe National Health Profile, 1995, 1997; MOHCW).

### 4.3 Types of Illness

#### 4.3.1 Infectious Diseases

##### (1) Immuno-preventable Diseases

During the 1980's, diseases preventable by immunization greatly declined. Cases of diphtheria have not been reported since 1986. Although there had not been any confirmed cases of polio since 1990, confirmed cases were again reported in 1993. Moreover, measles, whooping cough and neonatal tetanus were reported due to reductions in EPI in the 1990's; cases of measles have since risen markedly.

##### A) Polio

The government has made a public commitment to eradicate polio by the year 2000 along the lines of WHO policy.

Table 4-14, below, shows changes in the number of polio cases. By 1990 the incidence of polio had been greatly reduced, and between 1991 and 1992 not a single case of polio was reported. As a result of improved surveillance of acute flaccid paralysis (AFP), cases of polio have been reported in 1993, 1994, and 1995 (see Table 4-14). (see Chapter 5, "Health Care Programs," 5.3 "Immunization Programs").

Table 4-14: Trend in Incidence of Polio

Year	Confirmed Cases of Polio	Year	AFP Cases	Confirmed Cases of Polio
1981	28	1989	0	1
1982	8	1990	0	0
1983	3	1991	0	0
1984	4	1992	0	0
1985	63	1993	11	1
1986	92	1994	14	2
1987	5	1995	35	12 <sup>#1</sup>
1988	4	1996 <sup>#3</sup>	N/A	3 <sup>#2</sup>

(Notes) <sup>#1</sup>: 2 cases were confirmed as Polio; 10 cases were lost on follow up

<sup>#2</sup>: 2 cases were confirmed as Polio; 1 case was lost on follow up

<sup>#3</sup>: from January to October

Sources: Country Health Profile Zimbabwe 1995 WHO/MOHCW, "Third Evaluation of the Implementation of Strategies for Health for All by the Year 2000 Version 2" 1997; MOHCW,

1996: MOHCW Epidemiology & Disease Control Department Documents 1997

Of the 12 confirmed cases of Polio for 1995, 3 were in Manicaland, 2 were in Mashonaland West, 6 were in Matabeleland North, and 1 was in Matabeleland South (figures from Zimbabwe National Health Profile 1995 1997 MOHCW).

## B) Measles

Table 4-15 shows the trend in incidence and fatality of measles. The government's goal is to have 8,000 cases or less of measles by 1996, but this numerical goal has not yet been achieved.

In Zimbabwe measles spreads in cycles of approximately 5 years; as can be seen from Table 4-15, outbreaks of measles occurred in 1983, 1988/89, and 1994 and 1996. Moreover, in recent years there has been an increase in the number of children over 5 who have contracted measles.



Table 4-15: Trend in Incidence and Fatality of Measles

Year	Under 5 years	5 years or more	Total	Incidence (per 1000 population)	No. Deaths	Fatality
1987	N/A	N/A	16,707	1.9	19	0.1%
1988	N/A	N/A	50,565	5.5	84	0.2%
1989	N/A	N/A	48,279	5.1	73	0.2%
1990	6171	7487	13,658	1.4	99	0.7%
1991	11470	13054	24,524	2.4	113	0.5%
1992	7543	9803	17,346	1.7	102	0.6%
1993	14763	17524	32,287	3.0	156	0.5%
1994	17034	20751	37,785	3.4	49	0.1%
1995	3885	4607	8,492	0.7	33	0.4%
1996 <sup>#1</sup>	17095	19737	36,832	3.1	81	0.2%

(Note) <sup>#1</sup>: from January to October

Source: Zimbabwe National Health Profile 1995 1997 MOHCW,

1996: MOHCW Epidemiology & Disease Control Department Documents 1997

The fatality of measles is low: since 1987 it has been below %1 (see Table 4–15). This is due not only to an improvement in health care, but also to the fact that the age of patients has risen. Incidence is high in the eastern and northern provinces which are geographically close to Mozambique and Zambia.

The “Report on Basic Survey of Infectious Diseases in the Republic of Zimbabwe,” (1994; Japan International Cooperation Agency), lists the following factors for the as yet high rate of measles in Zimbabwe:

- 1 There are cases where the Schwartz Vaccine<sup>19</sup> has not been effective in Zimbabwe
- 2 Children receive vaccination at 9 months or older, but there are cases of infection before immunization.

### C) Neonatal Tetanus

Table 4–16 shows changes in the number of neonatal tetanus cases.

Table 4-16: Trend in Neonatal Tetanus Cases

Year	No. Cases	Year	No. Cases	Year	No. Cases
1987	11	1991	28	1995	18
1988	21	1992	23	1996 <sup>#1</sup>	18
1989	58	1993	12		
1990	16	1994	19		

(Note) <sup>#1</sup>: from January to October

Sources: Country Health Profile Zimbabwe 1995 WHO/MOHCW

1995: Zimbabwe National Health Profile 1995 1997 MOHCW;

1996: MOHCW Epidemiology & Disease Control Department Documents 1997

In 1994, there were 23 cases reported, for an incidence of 0.05 per thousand live births (figures from Zimbabwe National Health Profile 1995 1997 MOHCW).

<sup>19</sup> vaccine recommended by WHO

## D) Diarrhoeal Diseases

Diarrhoeal diseases are a major illness among children: among children under 5 it is the third most common outpatient illness, and the second leading cause of death; moreover, among children between the ages of 1 and 5 it accounts for roughly 18% of deaths (figures from Zimbabwe National Health Profile 1995 1997 MOHCW). Furthermore, based on the 1994 DHS survey, it was reported that 23.5% of children 3 years or younger had had diarrhoeal disease in the last 2 years; 3.3% of them had had diarrhoeal disease resulting in hemorrhage.

Table 4-17 shows trends in diarrhoeal diseases and dysentery based on nationwide health care facility outpatient records. It is reported that since these statistics are based on health care facility records, the actual number of cases nationwide exceeds this.

The number of cases of diarrhoeal disease has not greatly decreased since 1990; since 1992, there have been 500,000 or more constant cases per year.

Table 4-17: Trend in Diarrhoeal Diseases and Dysentery

Year	Diarrhoea Cases	Dysentery Cases
1990	421,912	Included in diarrhoea cases
1991	489,846	Included in diarrhoea cases
1992	549,567	Included in diarrhoea cases
1993	736,850	Included in diarrhoea cases
1994	614,682	154,516
1995	562,999	153,161

(Note) There are no patient statistics for dysentery from 1990 to 1993

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

Diagram 4-1 shows the number of cases of diarrhoea and dysentery for 1995 by month. It is immediately evident that cases of diarrhoea and dysentery peak at the start of the rainy season in October and November, and are lowest during the dry, cool period of April to August.

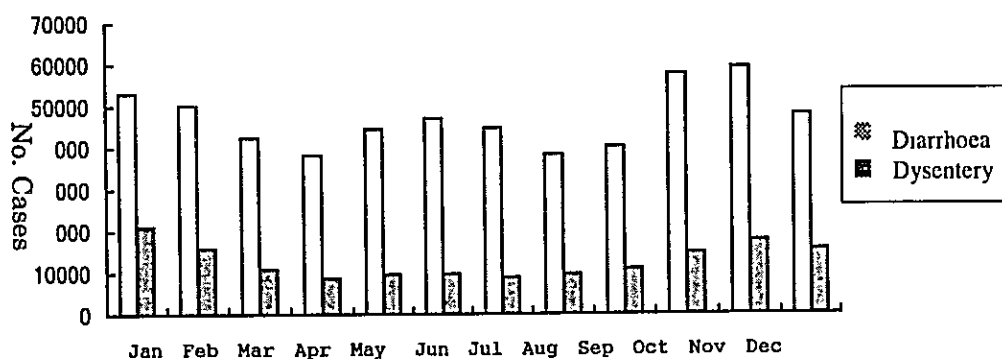


Diagram 4-1: Cases of Diarrhoea and Dysentery by Month (1995)

Source: Zimbabwe National Health Profile 1995, 1997 MOHCW

Table 4-18 shows incidence of diarrhoea and dysentery by region. There is no great regional variation for diarrhoea and dysentery: these occur at about the same rate nationwide, including the two cities Harare and Bulawayo.

Table 4-18: Number and Incidence of Diarrhoea Patients (1995)

Province/City	Diarrhoea		Dysentery	
	No. Cases	Incidence (per 1,000 population)	No. Cases	Incidence (per 1,000 population)
Mamicaland	80,983	49.1	23,472	14.2
Mashonaland Central	51,494	55.8	17,747	19.2
Mashonaland East	57,157	51.7	17,427	15.8
Mashonaland West	72,596	60.8	20,991	17.6
Masvingo	97,142	74.0	27,111	20.6
Matabeleland North	36,648	53.5	6,629	9.6
Matabeleland South	26,879	42.5	4,785	7.6
Midlands	69,906	49.8	22,535	16.1
Bulawayo	11,539	16.7	3,691	5.4
Chitungwiza	11,830	40.0	1,524	5.2
Harare	46,825	36.0	7,249	5.6
Nationwide	562,999	50.3	153,161	13.7

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

### E) Acute Respiratory Infections (ARI)

Acute respiratory infections (ARI) are the most common inpatient and outpatient maladies in medical facilities. Incidence is especially high among children: in 1995, 46.6% of outpatient children 5 years or younger were treated for ARI, while 25% of inpatient children 5 years or younger were treated for ARI (figures from Zimbabwe National Health Profile 1995 1997 MOHCW).

Table 4-19 shows trend in cases and incidence of ARI seen on an outpatient basis at medical facilities. Incidence had been dropping until

1993, but started to rise again in 1994. In addition, the incidence of children under 5 is 3.3 times that of children five years or older.

Table 4-19: Trend in Cases and Incidence of ARI

Year	Under 5 years		5 years or more		Total	
	Cases	Incidence	Cases	Incidence	Cases	Incidence
1990	1,069	664	1,295	159	2,364	242
1991	1,155	695	1,404	167	2,559	254
1992	975	569	1,207	139	2,182	210
1993	841	475	1,196	133	2,037	190
1994	1,125	663	1,745	185	2,870	258
1995	1,347	766	2,084	213	3,431	298

(Note) No. Cases: thousands; Incidence: per thousand population

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

In 1995 there were 45,761 hospitalizations for ARI; of these 51.5%, or 23,575, were children 5 years or younger. Moreover, the number of deaths for all ages was 2,803; 57.6%, or 1,614 of these were among children 5 years or younger (figures from Zimbabwe National Health Profile 1995 1997 MOHCW). According to 1995 hospital statistics, the fatality of ARI among children aged 5 or younger was 6.8% (figures from Zimbabwe National Health Profile 1995 1997 MOHCW).

Furthermore, according to a 1989/90 ARI inpatient survey for children aged five or younger conducted in Harare, the fatality of ARI was 15%; among these the fatality of those infected with HIV was especially high, at 25%. In addition to infection with HIV, contributing factors in increasing the fatality of ARI are nutritional deficiencies, diarrhoeal diseases, etc. (figures from Children and Women in Zimbabwe: A Situation Analysis Update 1994, 1994; UNICEF).

## F) Tuberculosis

Tuberculosis poses the greatest threat to Zimbabwean health: as shown in Table 4-20, tuberculosis is the single leading cause of death in Zimbabwe.

Table 4-20 shows changes in number of cases, incidence, death rates and fatality of tuberculosis. During the 1980's both the number of cases and incidence for tuberculosis dropped, but then skyrocketed beginning in the early 1990's. The incidence for tuberculosis in 1995 is 4.7 times higher than it was in 1980, and the death rate is 6 times higher. Furthermore, the fatality of tuberculosis dropped in the mid to late 1980's but again rose in the 1990's. The number of cases for 1996 has not been made public, but has been determined to be 35,835 (figures from MOHCW Epidemiology and Disease Control Department, 1997).

According to 1994 data, males accounted for 14,088, or 58.8% of total cases, while females accounted for 9,871 cases. Among the 3,549 deaths from tuberculosis, 2,103, or 59.3% were males, while 1,446, or 40.7%, were females (figures from Country Health Profile: Zimbabwe 1995, 1997 WHO/MOHCW).

Table 4-20: Trends in Cases, Incidence, Deaths and Fatality of Tuberculosis

Year	No. Cases	Incidence	No. Deaths	Fatality (%)
1980	4,057	57	488	12.0
1985	4,759	57	139	2.9
1990	9,132	97	1,303	14.3
1992	15,237	146	1,091	7.2
1994	23,959	215	3,549	14.8
1995	30,831	268	2,955	9.6
1996	35,829	N/A	N/A	N/A

(Note) Incidence: per 100,000 population

Source: Zimbabwe National Health Profile 1995 1997 MOHCW,

1996: Annual Report 1996 Date of Publication Unknown NACP MOHCW

Table 4-21 shows the details of cases of tuberculosis from 1993 to 1995, and test results.

Roughly 15 to 18% of cases of tuberculosis were non pulmonary tuberculosis. The proportion of these patients who tested positive with an expectorant test was extremely low, at between 30 and 40%.

Table 4-21: Breakdown of Tuberculosis Cases and Test Results

	1993	1994	1995
No. Cases	20,125	23,959	30,831
Non Pulmonary Tuberculosis	3,535 (17.6%)	3,549 (14.8%)	5,040 (16.4%)
Pulmonary Tuberculosis	16,950 (82.4%)	18,310 (76.4%)	25,256 (81.9%)
No Examination	0	2,100 (8.8%)	535 (1.7%)
+ Expectorant test	5,331 (31.5%)	6,724 (36.7%)	9,702 (38.4%)
- Expectorant test	11,259 (68.5%)	11,586 (63.3%)	10,934 (61.6%)

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

Table 4-22, below, shows changes in the number of tuberculosis infections by age. The incidence for children between the ages of 5 and 14 was low; the highest incidence was in the 30 to 54 age group, followed by the 55 and over age group. This high incidence in the higher age groups follows the same trend as HIV/AIDS incidence. The incidence in the 15 to 29 age group is the fastest growing in the country, growing 2.6 times higher between 1990 and 1991.

Table 4-22: Trend in Tuberculosis Incidence by Age

Age	1991	1992	1993	1994	1995	Growth Rate from 1991 to 1995
Under 5	87	89	130	135	185	113%
5 - 14	24	24	29	32	38	58%
15 - 29	120	162	204	230	314	161%
30 - 54	254	317	425	509	638	151%
55 or over	239	264	274	300	329	38%
Total	114	146	187	230	277	143%

(Note) Incidence: Per 100,000 population

Source: "TB Annual Report 1995" Date of Publication Unknown; MOHCW

There is no great regional variation in cases of tuberculosis; tuberculosis occurs in the same patterns nationwide. One exception is the incidence among urban males, perhaps due to the spread of HIV/AIDS: in urban areas, the males infected with tuberculosis outnumber females two to one (in the case of Harare). This proportion is high when compared to the national average of 1.4 males for every 1 female infected with tuberculosis (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

The rate of tuberculosis patients testing positive in the expectorant tests is quite low, ranging from 17 to 55%, with a national average of 31.5%, signifying a need for diagnostic capacity building and laboratory support (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

Reporting of treatment result are a part of the tuberculosis program, but have not been conducted in all districts or provinces. There is a huge different in effectiveness of treatment by province, with recovery rates ranging from 10 to 75% (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

It is clear that the largest factor in the rapid increase of tuberculosis is the spread of HIV/AIDS. It has been reported in a MOHCW survey that about 60% of tuberculosis patients are also infected with HIV (figures from "HIV/AIDS in Zimbabwe: Background Projections Impact Interventions," 1997; NACP). Moreover, it has been reported that if HIV/AIDS did not exist, the number of new cases of tuberculosis would be 0.2% of the population, or roughly 15,000 to 20,000 (figures from "HIV/AIDS in Zimbabwe: Background Projections Impact Interventions," 1997; NACP). However, estimating the number of HIV tuberculosis patients at 8%, by the year 2005 there may be as many as 70,000 cases of AIDS-related tuberculosis (figures from "HIV/AIDS in Zimbabwe: Background Projections Impact Interventions," 1997; NACP).

Some factors apart from HIV/AIDS that have contributed to the increase of tuberculosis are the concentration of population in the cities, poor living conditions in the cities, over-integration of tuberculosis programs within PHC, and incomplete treatment. Moreover, with the increase of drug resistant strains of tuberculosis, it is necessary to invest more funds into tuberculosis programs.

### **G) Leprosy**

As shown in Table 4-23, cases of leprosy have fallen greatly. This is due to the success of programs implemented by clinics established in every region, based on the National Anti-Leprosy Programme initiated after independence. The 1987 incidence of 0.51 per 10,000 population is well below the WHO goal of 1 case per 10,000 population by the year 2000; WHO has judged Zimbabwe to have virtually eliminated leprosy (figures from Country Health Profile: Zimbabwe, 1995; WHO/MOHCW).

In recent years, most cases of leprosy have been among the natives of Mozambique; moreover, half of all cases are of multi-bacillary leprosy. Between 30 and 35% of all cases have grade II/III disability (figures from

“Third Evaluation of the Implementation of Strategies for Health for All by the Year 2000: Version 2,” 1997; MOHCW). The number of cases in absolute terms and cases per unit of population for leprosy are about one tenth that of neighboring countries (figures from “Third Evaluation of the Implementation of Strategies for Health for All by the Year 2000: Version 2,” 1997; MOHCW).

Table 4-23: Trends in Number of Cases of Leprosy

Year	No. Cases
1987	135
1990	102
1993	73
1994	54
1995	24

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

## H) Malaria

Malaria, along with HIV/AIDS and tuberculosis, is one of the most serious illnesses in Zimbabwe. Zimbabwe is located on the southern border of Africa’s malaria infested region; about four million people in Zimbabwe live in areas infested with malaria. This area covers not only large tourist areas, but also regions vital to the nation’s economy, such as mines, power plants, and commercial farms. In 1995, 5.8% of all outpatients, and 3.8% of all inpatients excluding childbirth cases were treated for malaria at medical facilities (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

The rate of malaria infection is high: in 1995, of those 5 years or older treated at medical facilities, 6.2% were treated for malaria; malaria was the fourth most common complaint among patients 5 or younger (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

### 1) Trends in Outbreaks of Malaria

Table 4–24 shows the status of malaria outbreaks and their correlation with precipitation since 1987. It is evident that the incidence of malaria fluctuates according to conditions for each year. In 1996 especially, outbreaks of malaria were widespread. Looking at outbreak patterns, malaria shows no signs of improvement. It is thought that drug resistant strains of malaria, lack of diagnostic abilities, incomplete spraying of insecticides to kill the vector mosquitoes, and movements in population are behind this lack of improvement.

The incidence among children 5 years or younger is high, and the large effect malaria has on child health is clear.

It is also evident that incidence is highest during periods of high precipitation. Especially striking is the large number of malaria infections in 1996, a year in which there was over 700 mm of precipitation. Conversely the reduction in malaria seen in 1991/92 was due to the drought..

Table 4-24: Trends in Outbreaks of Malaria and Precipitation

Year	Under 5 years		5 years or older		Total		Precipitation (mm)
	No. Cases	Incidence	No. Cases	Incidence	No. Cases	Incidence	
1987	122,704	83.8	345,857	46.6	468,561	52.7	422
1988	245,337	162.1	724,664	94.6	970,001	105.7	744
1989	174,243	111.6	558,903	70.7	733,146	77.4	605
1990	158,889	98.6	474,737	58.2	633,626	64.9	625
1991	146,925	88.4	434,243	51.6	581,168	57.6	502
1992	94,760	55.3	325,377	37.5	420,137	40.4	335
1993	180,514	102.0	697,220	77.8	877,734	81.8	630
1994	146,340	86.2	651,320	68.9	797,659	71.5	519
1995	137,012	77.9	584,364	59.8	721,376	62.6	419
1996	313,541	174.0	1,352,147	133.8	1,665,688	139.9	740

(Note) Incidence: per thousand population

Source: Zimbabwe National Health Profile 1995 1997 MOHCW; MOHCW  
Epidemiology & Disease Control Department Documents, 1997

## 2) Outbreaks by Region

Table 4-25 shows number of cases and incidence of malaria by region. There is large variation by region of incidence patterns, which can be classified into the following levels.

Stratum A: Endemic areas with perennial transmission (low veld below 900m in the north and 600m in the south).

Stratum B: Hypo-to meso-endemic areas with seasonal transmission and, in the absence of control, with yearly epidemics (middle veld between 900 and 1,200m in the north and between 600 and 900m in the south).

Stratum C: Areas with normally negligible or no transmission, (high veld above 1,200m in the north and 900m in the south). However, rare but severe epidemics may occur at irregular intervals at the fringe of that area

A malaria-free band stretches from southwest to northeast, and divides the malarious zone into two isolated parts, the northern and the southern. Harare, Bulawayo, and Chitungwiza are in the malaria-free areas. Approximately 45% of the national territory is in stratum A or B regions, as well as about 40% of the population, or roughly 4 million (figures from "National Malaria Control Programme: Five-Year Plan 1994 – 1998," 1993 MOHCW).

It is thought that patients who underwent treatment for malaria at medical facilities in the three above mentioned cities contracted the disease in malaria prone areas.



Table 4-25: Cases and Incidence of Malaria by Region (1996)

Province/City	No. Cases	Incidence	% of Population Located in Stratum A and B Regions (based on 1991 population)
Manicaland	367,560	208.7	41.7%
Mashonaland Central	219,336	221.8	70.7%
Mashonaland East	130,073	110.8	13.3%
Mashonaland West	155,544	122.2	64.5%
Masvingo	100,941	71.8	58.4%
Matabeleland North	369,316	502.5	37.4%
Matabeleland South	42,060	62.4	35.3%
Midlands	224,054	149.1	33.6%
Bulawayo	21,566	30.1	0%
Chitungwiza	8,773	27.7	0%
Harare	26,465	19.0	0%
Nationwide	1,665,688	139.9	39.4%

(Note) Incidence: /thousand population

Source: MOHCW Epidemiology & Disease Control Department Documents 1997

As shown above, proportion of malaria outbreaks do not directly correspond to region type. According to a 1997 MOHCW report<sup>20</sup>, one reason for this is that residents have indirectly developed a natural immunity to malaria due to continuous anti-malarial programs; moreover, differing ecology may account for different incidence patterns among neighboring villages, and even among different locations within the same village. For these reasons, it has been argued that dividing up regions into these three types is not a suitable predictor for the spread of malaria.

### 3) Types of Malaria in Zimbabwe

Three types of malaria are known to exist in Zimbabwe: *plasmodium falciparum*, *plasmodium malarie*, and *plasmodium ovale*; in 1991, however, *plasmodium falciparum* accounted for 99.7% of confirmed cases (figures from "National Malaria Control Programme Five-Year Plan 1994-1998," 1993; MOHCW).

### 4) Malaria Season

The spread of malaria differs according to the season. In the cold, dry winter months of May through August, there are almost no infections of malaria save in a portion of the lowlands. With the start of the rainy season in November, conditions are right for the breeding of mosquitoes which carry malaria; consequently, it is during the months of February through May that the spread of malaria is greatest (figures from "National Malaria Control Programme Five-Year Plan 1994-1998," 1993; MOHCW).

<sup>20</sup> Third Evaluation of the Implementation of Strategies for Health for All by the Year 2000: Version 2," 1997 MOHCW

## l) Schistosomiasis

In tropical and subtropical regions, schistosomiasis ranks behind only malaria among the public health and socioeconomic problems posed by parasites. Schistosomiasis affects the health of over 2.5 million people in Zimbabwe; 6 million people are exposed to the risk of becoming infected (figures from "1992 National Schistosomiasis Survey," 1996; Blair Research Institute).

The main type of schistosomiasis found in Zimbabwe is *Bilharzia*<sup>21</sup>, but *Schistosoma mansoni*, which causes skin inflammation, fever and cough is also found. Schistosomiasis uses shellfish as an intermediary host, and infects through the skin those who walk barefoot in rivers and streams.

Surveys for schistosomiasis in Zimbabwe are scarce: the only comprehensive survey conducted is a 1992 nationwide survey of 16,500 school children between the ages of 10 and 12; it was conducted by the Blair Research Center and Denmark's *Bilharzia* Research Center with support from DANIDA. Table 4-26 shows carrier rates for each province according to this survey. The carrier rate for *Schistosoma haematobium* is substantially higher than that of *Schistosoma mansoni*; about one in every three or four small children are carriers of *Schistosoma haematobium*. There is no pronounced regional variation.

Table 4-26: Incidence of Schistosomiasis by Region

Province	Schistosoma Haematobium	Schistosoma Mansoni
Manicaland	34.9%	2.4%
Mashonaland Central	37.5%	7.6%
Mashonaland East	35.7%	2.5%
Mashonaland West	N/A	0%
Masvingo	41.3%	5.6%
Matabeleland North	28.1%	0%
Matabeleland South	31.9%	2.8%
Midlands	23.7%	1.1%
Nationwide	37%	N/A

Source: "1992 National Schistosomiasis Survey" 1996 Blair Research Institute

This survey was also conducted at the district level; regional variation in incidence is evident even within provinces, at the district level. The district with the highest incidence is Chivi in Masvingo, with a carrier rate of 59.6%; the lowest incidence in that province is Gutu, with one of 21.0%.

Table 4-27 shows the number of cases and incidence by region for *Schistosoma haematobium* based on health care facility outpatient statistics. It is evident that school children between the ages of 5 and 14 have the highest incidence. It is believed that this is due to the fact that these children have the greatest chance of coming into contact with the shellfish which host schistosomiasis when swimming and playing in

<sup>21</sup> *Schistosoma haematobium*

waters where the hosts are present. The two provinces with the highest incidence are Mashonaland Central and Mashonaland East.

Table 4-27: Number of Cases and Incidence of Schistosomiasis by Region and Age (1995)

Province/City	Under 5 years		5-14 years		15 years or more		Total No Cases
	No. Cases	Incidence	No. Cases	Incidence	No. Cases	Incidence	
Manicaland	1,823	6.7	32,417	57.9	22,657	25.9	56,897
Mashonaland Central	1,794	11.9	20,483	68.4	13,691	27.1	35,968
Mashonaland East	927	5.5	28,345	77.4	18,397	30.4	47,669
Mashonaland West	646	3.5	12,219	33.4	10,155	14.8	23,020
Masvingo	747	3.6	21,883	48.1	15,586	22.4	38,216
Matabeleland North	132	1.1	2,121	9.3	2,185	6.0	4,438
Matabeleland South	92	0.9	2,326	10.9	1,648	4.9	4,066
Midlands	421	1.9	11,320	25.0	9,725	12.6	21,466
Bulawayo	119	1.2	647	4.2	899	2.0	1,665
Chitungwiza	71	1.6	831	11.1	669	3.6	1,571
Harare	245	1.4	2,473	8.8	2,123	2.4	4,841
Nationwide	7,017	4.0	135,065	39.1	97,735	15.4	239,817

(Note) Incidence: per thousand population

Source: Zimbabwe National Health Profile 1995-1997 MOHCW

Table 4-28 shows changes in incidence and number of cases of schistosoma haematobium based on the same outpatient statistics. Because only severe cases are recorded in medical facility statistics, they are substantially lower than the actual number of cases.

The pattern, however, is little incidence among children under 5, and numbers are declining, but no change is seen among children over 5. A district level survey was conducted in 1992, but there is need for seasonal and regional spot checking surveys beyond those presently conducted at medical facilities.

Table 4-28: Changes in Incidence and Number of Cases of Schistosoma Haematobium

Year	No. Cases			Incidence (per thousand population)		
	Under 5 years	5 years or older	All Ages	Under 5 years	5 years or older	All Ages
1987	16,159	180,880	197,039	10.6	24.6	22.2
1988	10,484	207,922	218,406	6.7	27.5	23.9
1989	11,502	245,416	256,918	7.4	31.2	27.2
1990	9,199	194,039	203,238	5.7	23.5	20.6
1991	11,611	247,621	259,232	6.7	29.6	25.6
1992	11,102	228,891	239,993	6.5	26.4	23.1
1993	7,464	202,076	209,540	4.2	22.5	19.5
1994	6,873	186,956	193,829	4.1	19.8	17.4
1995	7,017	232,800	239,817	4.0	23.8	20.8

Source: Zimbabwe National Health Profile 1995, 1997; MOHCW

## J) HIV/AIDS

### 1) Current State

It has been reported that in 1996 there were 25.5 million HIV cases worldwide, 2.5 times the amount of HIV cases in 1990. Of these 25.5 million infections, about 60% were in sub-Saharan Africa. Moreover, 3 million children have been born with HIV, almost all of whom developed AIDS and died within one or two years (figures from "HIV/AIDS in Zimbabwe: Background Projections Impact Interventions," 1997 NACP MOHCW).

In Zimbabwe, as in other sub-Saharan African countries, it is estimated that HIV started to spread at a fairly rapid pace in the mid-1980's; according to MOHCW statistics, however, as of 1987 there were only about 119 cases (see Table 4-29). Due to the fact that in 1987 most medical institutions were not able to perform tests for HIV antibodies, and since there was literally no surveillance system in place, it is thought that the statistics from this period are far below the actual number of cases. Table 4-29 shows changes in number of AIDS cases since 1987.

Table 4-29: Trend in Number of AIDS Cases

Year	Female	Male	Unspecified	Total
1987	N/A	N/A	119	119
1988	N/A	N/A	202	202
1989	630	674	7	1,311
1990	1,917	2,405	40	4,362
1991	1,860	2,663	34	4,557
1992	3,501	4,630	49	8,180
1993	3,888	5,225	61	9,174
1994	4,812	5,777	58	10,647
1995	5,835	7,447	74	13,356
1996	5,890	6,091	48	12,029
Total Cases	34,912	28,333	692	63,937

Source: Annual Report 1996 Date of Publication Unknown NACP MOHCW

In 1996 there was a slight drop in AIDS cases, but numbers have skyrocketed since 1987. In 1996 there were about 3% more cases among males than among females: specifically, there were 5,890 cases among females and 6,091 cases among males. The total number of cases since 1987 is 63,937. The decline in cases of AIDS in 1996 does not mean that AIDS has reached its peak. According to the NACP<sup>22</sup>, statistics of AIDS cases are based on severely under reported data; it is estimated that by the end of 1995, the actual number of AIDS patients was probably more than 300,000. Moreover, it has been reported that there have been about 1.4 million HIV positive cases with one in five adults, or 20% of the adult population and about 100,000 children being affected (figures from "HIV/AIDS in Zimbabwe: Background Projections Impact Interventions," 1997 NACP MOHCW).

<sup>22</sup> National AIDS Coordination Programme (for details see Chapter 5: "Health Care Programs," 5.8: "Prevention and Treatment of AIDS")

Table 4–30 shows AIDS cases by age and sex. 70% of all cases are in the 20 to 49 age group, which constitutes the age group at the peak of their working life. This clearly has a large socioeconomic impact. There are slightly more cases among men than women.

The reason for the high number of AIDS cases among children under 5 is a result of high perinatal transmission. In fact, according to a 1994/95 survey<sup>23</sup>, of the 470 women who received antenatal care about 19% were HIV positive (figures from “The Early Socio-Demographic Impact of the HIV-1 Epidemic in Rural Zimbabwe,” 1996 Blair Research Institute/University of Oxford).

There are extremely few cases of AIDS among the 5 to 14 age group; this suggests that most AIDS infections occur through heterosexual relations or through perinatal transmission. There is an extremely large difference by sex for AIDS cases among the 15 to 19 age group: over 5 times as many girls as boys have AIDS in this age group. This is believed to be a result of men tending to choose young women as sexual partners.

Table 4-30: AIDS Cases by Age and Sex (Total up until 1996)

Age	Male	Female	Unspecified	Total No. Cases	Proportion(%)
0 – 4	4,584	4,145	57	8,786	13.7
5 – 14	445	443	0	888	1.4
15 – 19	173	946	5	1,124	1.8
20 – 29	7,600	9,953	40	17,593	27.5
30 – 39	11,560	7,753	47	19,360	30.3
40 – 49	5,933	2,818	15	8,766	13.7
50 – 59	1,799	648	5	2,452	3.8
60+	896	305	5	1,206	1.9
Age Unknown	1,922	1,322	518	3,762	5.9
<b>Total</b>	<b>34,912</b>	<b>28,333</b>	<b>692</b>	<b>63,937</b>	<b>100.0</b>

Source: Annual Report 1996 Date of Publication Unknown; NACP MOHCW

Table 4–31 shows the number of AIDS cases and incidence for 1995 by region. NACP gives the following reasons for there being no major regional variation in numbers of cases and incidence among regions:

- 1 There is some amount of variation in the quality of recording systems among provinces and cities; in some areas cases are extremely under reported
- 2 Zimbabwe’s domestic transportation systems, railroads and roads, are well developed and maintained. Because of this, workers easily move between urban and rural areas according to the season.

<sup>23</sup> Conducted Jointly by the Blair Research Institute and Oxford University

Table 4-31: Number of Cases and Incidence of AIDS (1995)

Province/City	No. AIDS Cases	Incidence
Manicaland	1,529	89.7
Mashonaland Central	2,061	215.6
Mashonaland East	813	71.3
Mashonaland West	1,331	104.2
Masvingo	1,429	105.2
Matabeleland North	396	55.6
Matabeleland South	589	90.2
Midlands	1,491	102.6
Bulawayo	1,889	273.0
Harare	1,798	133.4
Unknown	30	—
Nationwide	13,356	115.14

(Note) Incidence: per 100,000 population

Source: Annual Report 1996 Date of Publication Unknown NACP MOHCW

## 2) Background of the Spread of AIDS and Causes of Infection

NACP gives the following items as background for the spread of AIDS in Zimbabwe:

- 1 Poverty and relatively poor health status of the population
- 2 High prevalence of other STDs
- 3 Patterns of worker migration
- 4 Dislocations caused by drought and other factors
- 5 Cultural factors and beliefs

In general, the following 5 factors can be regarded as contributing to infections:

- 1 Heterosexual contact
- 2 Homosexual contact
- 3 Perinatal transmission
- 4 Drug abuse (sharing infected needles)
- 5 Blood transfusions and blood products

In Zimbabwe, drug abuse and homosexuality are extremely rare. Furthermore, the blood supply system is well developed and hygienically maintained, and is rarely a cause of infection. Infections through heterosexual relations are overwhelmingly the most common form of transmission, accounting for 90% of total infections (figures from "HIV/AIDS in Zimbabwe: Background Projections Impact Interventions," 1997; NACP MOHCW). Moreover, there are many cases of perinatal transmission, at 9% of the total (figures from "HIV/AIDS in Zimbabwe: Background Projections Impact Interventions," 1997; NACP MOHCW). Unlike Southeast Asia, where most infections through heterosexual contact are limited to certain high risk groups such as prostitutes and drug addicts, what is striking about Zimbabwe is that transmissions occur among ordinary people. The reason for this is believed to be the

influence of the tradition in which men do not limit their sexual partners to one person.

In Zimbabwe, STDs<sup>24</sup> apart from AIDS are extremely widespread; this is one of the causes for the rapid spread of HIV infections<sup>25</sup>. In 1996 health care facilities treated 840,000 cases of STDs apart from AIDS; this is roughly unchanged from the 800,000 to 900,000 cases treated in 1992 (figures from Annual Report 1996, NACP MOHCW). The main STDs are syphilis and gonorrhoea.

Moreover, the tradition in which men, regardless of marital status, do not limit their sexual partners to one person is a large factor in the spread of AIDS through heterosexual relations. Traditionally, it is taboo for married women to have sexual relations with men other than their husbands; according to traditional Shona beliefs, if a married woman has sexual relations with a man other than her husband, her husband will die.

It has been reported that between 30 and 40% of mothers infected with HIV will have children infected with HIV. Because the number of mothers infected with HIV is high, it is estimated that a large number of HIV transmissions are from mother to child (figures from "HIV/AIDS in Zimbabwe: Background Projections Impact Interventions," 1997 NACP MOHCW). Newborns infected with HIV develop AIDS in an extremely short period: almost all of them develop AIDS within two years and die before reaching the age of five.

The "Second Medium Term Plan for the Prevention, Control, and Care of HIV/AIDS 1994 – 1998" (MTP2) regards the following as reasons for the spread of HIV in Zimbabwe. Furthermore, the government has set goals based on cause analysis of this phenomenon, and is currently implementing activities designed to meet these goals (for more information concerning these goals and activities, see chapter 5: "Health Care Programs," 5.8: "HIV/AIDS Control.").

Causes of the spread of HIV in Zimbabwe:

- 1 Multiple sexual partners
- 2 Unprotected sexual relations
- 3 Mothers infected with HIV
- 4 Spread of STDs
- 5 Use of unsterilized medical instruments and unsafe medical practices
- 6 Abuse of alcohol and drugs, which prevents responsible decision making and behavior

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<sup>24</sup> Sexually Transmitted Disease. In Zimbabwe, this is often seen in documents as Sexually Transmitted Infection: STI

<sup>25</sup> People infected with STDs often have open sores on their genitals; it is known that this increases the risk of infection with HIV.

### **3) Projections**

A 1996 survey<sup>26</sup> conducted jointly by the Blair Research Institute and the University of Oxford, with support from British ODA, predicts that in the worst case the HIV incidence will peak at about 25% of the population. This peak will be reached in the late 1990's, and will be maintained for a while. It is predicted that the peak for men is in 1996 and is in 2001 for women.

NACP predicts that by the year 2000 the HIV incidence will be 22%, meaning that 1.7 million people will have contracted HIV; by the year 2005, 1.9 million people will have contracted HIV. It is predicted that as a result the number of AIDS cases will also increase: by the year 2000 there will be 187,000 cases, and 217,000 by the year 2005. Moreover, it is estimated that by 1995 there was a total of 200,000 deaths from AIDS; it is predicted that by the year 2005 the total will be 1.7 million.

### **4) Social and Economic Impact of HIV/AIDS**

According to NACP documents<sup>27</sup> analyzing the various effects of HIV on the nation of Zimbabwe, in addition to the above mentioned effects that the spread of AIDS will have on the demography, it will also have the following effects:

#### **a) Demographic Impact**

It is predicted that due to the effects of HIV/AIDS on the population, the population will grow from 10.4 million in 1992 to 12.1 million by the year 2000 and 12.7 million by the year 2005, for a growth rate of 0.8%. It is predicted that although AIDS will have a major impact on population growth, Zimbabwe's population growth rate will continue to be positive.

It is estimated that AIDS has been responsible for about 5% of infant deaths from 1986 to 1996. It is predicted that between 2001 and 2005 AIDS will be responsible for about 75% of infant deaths.

Under the assumption that AIDS does not exist, it is predicted that in the year 2005 infant mortality would be between 20 and 29 per thousand live births; however with AIDS, infant mortality is predicted to be 44 per thousand live births.

#### **b) Health Care Impacts**

CIMAS, a major medical aid society which covers more than 300,000 beneficiaries in Zimbabwe, conducted a study concerning the medical costs of AIDS. According to this study, in 1994 the estimated average direct cost for an AIDS case was Z\$4,900. Furthermore, most of these costs were incurred in the few months prior to death. This level is prohibitive for many households. Because the people of Zimbabwe are not able to bear these costs, the government has no choice but to do so; this means the government must shift more of its limited budget to AIDS programs. As a result the budget for other programs will have to be cut,

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<sup>26</sup> The Early Socio-Demographic Impact of the HIV-1 Epidemic in Rural Zimbabwe

<sup>27</sup> HIV/AIDS in Zimbabwe: Background Projections Impact Interventions, 1997 NACP MOHCW



having a major detrimental impact on health care for items other than AIDS. Moreover, hospitalizations for AIDS patients are extremely long, perhaps as long as 60 days; it is predicted that because of this, as the number of AIDS cases increases medical facilities will face a shortage of beds, and because of their limited budgets the quality of their care for non-AIDS patients will worsen.

#### **c) Economic Impacts**

It is predicted that because the majority of AIDS cases are among adults of the most productive age group, the spread of AIDS will result in the reduction of the workforce, and hence the country's productivity and economic power.

#### **d) AIDS Orphans**

It is clear that deaths of adults from AIDS, including the deaths of mothers, will increase the number of orphans. In 1990 there were 200,000 orphans, and in 1995 it is estimated that there were 680,000; it is predicted that by the year 2005 there will be 1.1 million orphans. The cost of caring for the increased number of orphans will have economic impacts, and by altering the traditional family structure will also have social impacts.

#### **e) Effect on Women**

Research has indicated that the risk of HIV infection is 2-4 times higher for women than men during unprotected intercourse because of the larger surface areas exposed to contact. Younger women are at an even higher risk because the physiological immaturity of their systems provides less of a barrier to HIV transmission.

Moreover, because the work of women generally does not support the family economically, if for instance the husband develops AIDS, the family's source of income vanishes; as a result, the mother is forced to work to maintain the family and care for her children at the same time, effecting the health of not only the children but the mother as well.

### **K) Other Infectious Diseases**

Communicable diseases which have shown outbreaks in recent years are listed below.

#### **1) Rabies**

Following independence, expansion of rabies vaccines nearly eradicated rabies. In 1994/95, however, a large number of jackals infected with rabies moved from Mashonaland West to Mashonaland Central and Mashonaland East, causing a large number of rabies outbreaks among domestic and wild animals. Several hundred people were bitten by these animals; in 1994 there were two confirmed deaths attributed to rabies, and in 1995 there were 4 (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

#### **2) The Plague**

There was an outbreak of plague in Matabeleland North in 1994/95; 145 clinical cases were confirmed, 5 of whom died (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

### **3) Cholera**

In November of 1992 there was an outbreak of cholera in Manicaland. The outbreak started in a camp for refugees from Mozambique; it then spread throughout the province, and to surrounding districts and provinces. 136 emergency cholera treatment centers were set up; by October 1993 there were about 7,000 confirmed cases of cholera, and 136 deaths. Children under 15 accounted for 48 % of cholera patients and 48% of deaths. The fatality in children under 5 was 9.6%, and in children between the ages of 5 and 14, it was 3.7% (figures from Children and Women in Zimbabwe: A Situation Analysis Update 1994, 1994; UNICEF).

### **4) Epidemic Cerebrospinal Meningitis**

There was an outbreak of this disease in Chitungwiza in 1995, in which there were 12 confirmed deaths (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW). As of October 1997 there were 33 clinical cases in Bulawayo, 11 of which were confirmed; 8 of these resulted in death (figures from "Weekly Report on Rapid Notification of Diseases, Death and Public Events: Week No 40," 1997 MOHCW).

### **5) Anthrax**

Anthrax occurs through the ingestion of rotten meat and rough handling of corpses. There was an outbreak in Matabeleland North in 1995, in which 30 clinical cases were confirmed (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

### **6) Others**

Zimbabwe does not have the capability to serologically confirm Hepatitis, but there are between 100 and 200 clinical cases each year; in 1995, 15 deaths were attributed to hepatitis (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW). There are also several confirmed deaths from intestinal typhus each year; in 1995 there were 16 confirmed clinical cases, 2 of whom died (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

## **4.3.2 Non-Communicable Diseases**

### **(1) Nutritional deficiencies**

#### **A) Infant Undernutrition**

Child health as represented in mortality and morbidity rates is greatly affected by nutrition.

The following three indicators relating to child development are often used to ascertain the nutritional status of children: "height-for-age," "weight-for-height," and "weight-for-age."

**1) "Height-for-age"**

If the child's height to age ratio is two standard deviations (-2SD) or more below the median, the child's height is said to be insufficient for its age; this condition is called stunting. If stunting continues for a long period, it points to chronic undernutrition.

**2) "Weight-for-height"**

If the child's weight to height ratio is two standard deviations (-2SD) or more below the median, the child is said to be underweight of its age. This condition is called wasting. Wasting reflects a current/acute, rather than chronic nutritional deficiency.

**3) "Weight-for-age"**

"Weight-for-age" is a combination of "Height-for-age" and "Weight-for-height." If the child's weight to age is two standard deviations (-2SD) or more below the median, it shows that the child is suffering from chronic or acute undernutrition. Hence, "weight-for-age" is a good index to ascertain a child's nutritional status.

Table 4-32, below, shows the DHS results for 1988 and 1994. A comparison of the results of the 1988 and 1994 surveys shows that the proportion of wasting is less than that of stunting, thus it is clear that acute nutritional problems have increased between 1988 and 1994. The biggest reason for this is the drought of 1991/92, which resulted in food shortages into 1994, in turn causing undernutrition in many children. On the other hand, severe cases of stunting (children three standard deviations or more below the median for height-for-age) have declined, and this is attributed to government and NGO child nutrition programs, improvements in toilets and environmental sanitation, economic reasons and other reasons.

Table 4-32: Occurrence of Undernutrition among Children Based on 1988 and 1994 DHS (%)

	-2SD or less		-3SD or less	
	1988	1994	1988	1994
Height-for-age	20.3	21.4	8.7	6.1
Weight-for-height	1.1	5.5	0.2	0.7
Weight-for-age	9.9	15.5	1.6	3.0

(Note): Due to the fact that the 1994 survey covered children 3 or under, while the 1988 survey covered children 5 or under, detailed analysis is not possible.

Source: DHS 1988, 1994 CSO

Table 4-33 shows occurrence of undernutrition among children by urban vs. rural area, sex, and age. The rate of stunting in rural areas is 1.3 times the rate in urban areas; this shows that chronic food shortages are more common in rural than in urban areas. On the other hand, wasting is more common in urban areas; this suggests that the effects of the famine were less severe in rural areas due to food stockpiles.

There is no major difference by sex, but the nutritional status of girls is better than that of boys.

The rates of both stunting and wasting show that children 24 months and younger are the most vulnerable to food shortages. The nutrition a child receives greatly affects its growth. This is shown clearly in Table 4-33, where children between the ages of 13 and 24 months have the highest incidence of stunting and wasting.

Table 4-33: Occurrence of Undernutrition among Children by Urban vs. Rural Area, Sex, and Age (%)

Distinction	Height-for-age		Weight-for-height		Weight-for-age	
	-2SD or less	-3SD or less	-2SD or less	-3SD or less	-2SD or less	-3SD or less
Urban	17.6	5.6	6.1	0.5	12.5	1.8
Rural	22.8	6.3	5.3	0.8	16.6	3.4
Male	21.7	6.9	6.5	1.1	17.3	3.4
Female	21.1	5.3	4.5	0.4	13.8	2.6
Under 6 months	3.5	1.0	3.0	0.8	1.8	0.0
6-11 months	10.2	2.2	7.6	0.8	9.9	1.8
12-23 months	31.0	9.8	7.4	0.9	22.9	4.0
24-35 months	28.7	7.6	3.6	0.6	19.2	4.3
Total	21.4	6.1	5.5	0.7	15.5	3.0

Source: DHS 1994 CSO

## B) Breastfeeding

Breastfeeding supplies nutrition necessary for infants under 6 months. In Zimbabwe, regardless of whether the area is urban or rural, nearly 100% of children are breast fed. 95% of children are breast fed for their first 10 to 11 months, while 72% of children are breast fed for the first 16 to 17 months (figures from DHS 1994 CSO).

Dietary supplements to breast milk are introduced at an early age: 80% of children under two months are given water and/or some other dietary supplement (figures from DHS 1994 CSO). Moreover, this figure climbs to 84% for children under four months (figures from DHS 1994 CSO). About two in three infants between the ages of two and three months are given not only breast milk, but also water and other dietary supplements; About 90% of infants between the ages of four and five months are given not only breast milk, but also other foods (figures from DHS 1994 CSO).

Feeding babies water and other foods apart from breast milk not only leads to diarrhoeal diseases, but also reduces the nutritional effectiveness of breast milk. This is one factor explaining why in Zimbabwe chronic undernutrition is more rampant than acute undernutrition.

### **C) Iodine Deficiencies**

It appears that Zimbabwe's high rate of iodine deficiency is due to the fact that it is a land-locked country. According to a nationwide survey on goiter of 164,000 school children between the ages of 7 and 16, the rate of those suffering from goiter varied from province to province, ranging from 52% in Mashonaland Central to 17% in Matabeleland South; the national average was 42% (figures from Children and Women in Zimbabwe: A Situation Analysis Update 1994, 1994; UNICEF, and Country Health Profile: Zimbabwe, 1995; WHO/MOHCW).

According to the same survey, the rate of goiter was abnormally high in Murewa District, with a goiter rate of 78% and a VGR<sup>28</sup> of 24% (figures from "Endemic Goitre in Zimbabwe," 1993; J.R. Mutamba). There has not been a national survey since 1988, but in a 1990 survey of 2,138 school children in Murewa District the rate of goiter had fallen, with a goiter rate of 65% and a VGR of 5.6% (figures from "Endemic Goitre in Zimbabwe," 1993; J.R. Mutamba). The reason for the difference between the 1988 and 1990 data is not clear, and although it is possible that there was an improvement after 1988, another possibility is that this is due to a difference in technical capabilities between those conducting the two surveys.

### **D) Vitamin A Deficiencies**

In 1991, a nationwide survey of vitamin A deficiency targeting 6,000 school children was conducted. In this survey, the prevalence of Bitot's spots was seen in 0.17%, and that of corneal scarring was 0.2% (figures from Children and Women in Zimbabwe: A Situation Analysis Update 1994, 1994; UNICEF). This survey was conducted on a nationwide level, following WHO standards. By WHO standards, if the prevalence of Bitot's spots is 0.5% or less, and the incidence of corneal scarring is 0.05% or less, vitamin A deficiency does not pose a problem for public health. As a result, it was confirmed that vitamin A deficiency does not pose a public health risk in Zimbabwe.

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<sup>28</sup> Visible Goiter Rate

## **E) Other Vitamin and Mineral Deficiencies**

Due to the fact that no study has yet been conducted on iron deficiencies or pellagra, which is caused by niacin and tryptophan deficiencies, their status is unknown. Documents published by the World Bank<sup>29</sup> touch on these two deficiencies in the following way:

### **1) Iron Deficiencies**

It is thought that iron deficiencies in Zimbabwe are low due to the use of iron pots and iron containers for drinking beer, incidence of iron deficiencies should be low. Changes in diet and lifestyle in recent years, however, are beginning to change this trend; cases of anemia brought on by malaria, schistosomiasis, and hookworms have been seen.

### **2) Pellagra**

Virtually all adult inpatient cases of pellagra in Zimbabwe have been alcohol related. According to 1995 hospital statistics, about 15,800 cases of pellagra in adults were reported. Incidence is highest in Manicaland, Masvingo, and Midlands (figures from "National Health Strategy for Zimbabwe 1997 – 2007: Discussion Draft Document," 1997 MOHCW).

## **F) Chronic and Degenerative Disease**

Zimbabwe's health care statistics are relatively advanced compared with those of other developing nations, which is clear from the fact that mortality statistics by age have been published. Statistics on chronic and degenerative disease are also more developed than those of other developing nations. However, the reliability of these statistics is questionable due to the fact that they are chiefly based on hospital statistics, whose diagnostic ability is not very advanced. Moreover, in rural areas, because control programs for HIV/AIDS and other communicable diseases is given higher priority, almost no data has been collected concerning chronic and degenerative disease. The Non-Communicable Disease Unit of the MOHCW Epidemiology and Disease Control Department is responsible for data on chronic and degenerative disease, but due to budgetary and personnel constraints the unit has not been very active.

### **1) Malignant Tumors (Cancer)**

Cancer is a leading cause of death following communicable diseases, nutritional deficiencies, and maternal death during childbirth. In 1995 there were 367 deaths from cancer; this is 2.6% of the total number deaths of the population 5 years and older (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

Table 4-34 shows the number of cancer cases nationwide and for Harare for 1990. Out of the 6,058 patients in 1995, 66 were patients referred from abroad; the actual number of patients was therefore 5,992. Cancer rates have increased yearly between 1990 and 1995,

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<sup>29</sup> Directions in Development Nutrition in Zimbabwe: An Update, 1994; Julia Tagwirey/Ted Greiner

they increased by 1.3 times. Over 30% of all cases are in Harare. In 1995 males cases slightly outnumbered female among Zimbabweans: there were 3,052 cases among males (50.9%), and 2,940 cases among females (49.1%). Among these 422 were white males, and 388 were white females.

Table 4-34: Number of Cases of Cancer Nationwide and in Harare

Year	Cancer Cases Nationwide <sup>#1</sup>	Cancer Cases in Harare <sup>#1</sup> (% of national)
1990	4,756	1,458 (30.7%)
1991	4,745	1,457 (30.7%)
1992	4,896	1,545 (31.6%)
1993	5,000	1,791 (35.8%)
1994	5,023	1,784 (35.5%)
1995	6,058 (5,992) <sup>#2</sup>	1,924 (31.8%)

(Note) <sup>#1</sup>: Including foreign referrals from abroad

<sup>#2</sup>: Number in Parentheses is number of Zimbabwean patients

Source: Pattern of Cancer in Zimbabwe 1995 Annual Report 1997 Zimbabwe National Cancer Registry

Types of cancer are shown according to sex in Table 4-35, below. Kaposi's sarcoma is the most common form of cancer in men, accounting for 31.6% of the total. In women, uterine cancer is the most common form of cancer at 24.9% , followed by Kaposi's sarcoma, which accounts for 15.7%. The high level of Kaposi's sarcoma is most likely due to the spread of HIV/AIDS.

Table 4-35: Most Common Cancers by Sex (1995)

Men	Type of Cancer	%	Women	Type of Cancer	%
	Kaposi's sarcoma	31.6		Uterine	24.9
	Non-melanoma of skin <sup>#1</sup>	11.1		Kaposi's sarcoma	15.7
	Oesophagus	7.4		Breast	8.5
	Prostate	6.6		Non-melanoma of skin <sup>#1</sup>	7.5
	Liver	6.5		Lymphoma	2.9
	Lung	3.7		eye	2.6
	Lymphoma	3.6		Liver	2.6
	Stomach	3.1		Bladder	2.5
	Bladder	2.8		Ovary, etc.	2.3
	Eye	2.4		Stomach	1.9

(Note) <sup>#1</sup>: Skin cancer other than melanoma

Source: Pattern of Cancer in Zimbabwe 1995: Annual Report 1997 Zimbabwe National Cancer Registry

In Harare as shown above, Kaposi's sarcoma is the most common form of cancer in men, at 28.9% of the total. Uterine cancer is also the most common form of cancer in women, although its proportion is somewhat lower than the national average, with 14.2% of the total. Instead there are relatively higher rates of non-melanoma of skin and breast cancer, at 12.6% and 9.5%, respectively (figures from Pattern of Cancer in

Zimbabwe 1995: Annual Report 1997 Zimbabwe National Cancer Registry).

## 2) Cardiovascular Disease

The rate of cardiovascular disease is growing every year. In 1994, cardiovascular disease accounted for approximately 2 to 9% of total illnesses; of these about 85% were cases of hypertension. Three per thousand population over 5 years of age suffer from cardiovascular disease; 0.4 suffer from rheumatic heart disease. Moreover, 8.5 people per thousand population over 35 years suffer from hypertension (figures from "Third Evaluation of the Implementation of Strategies for Health for All by the Year 2000: Version 2," 1997; MOHCW, and "Report of Non Communicable Disease Unit," 1997 MOHCW).

Table 4-36 shows the proportion of outpatients suffering from chronic disease. The MOHCW collects statistical data from most hospitals concerning chronic disease; according to this data, 27% of all outpatients with chronic disease have hypertension, a disease next only to tuberculosis (As shown in Table 4-36, however, AIDS, tuberculosis, and leprosy are included under chronic disease).

Table 4-36: Proportion of Outpatients with Chronic Disease (1995)

Name of Disease	No. Outpatients	%
Diabetes	5,064	5.3
Asthma	9,776	10.2
Tuberculosis	21,669	22.5
Leprosy	281	0.3
Epilepsy	4,151	4.3
Psychiatric	4,743	4.9
Disabled / Handicapped	3,670	3.8
Hypertension	25,592	26.7
Rheumatic heart disease	3,355	3.5
AIDS	4,464	4.6
HIV related diseases	10,943	11.4
Cancer	2,421	2.5
Total	96,129	100.0

Source: Zimbabwe National Health Profile 1995, 1997 MOHCW

In 1994, cardiovascular disease accounted for approximately 3 to 3.5% of all inpatient cases. 50% of these were cases of hypertension, followed by diseases of pulmonary circulation at 32%, diseases of the cerebrovascular diseases at 9.6%, and rheumatic heart disease at 8.4% (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW).

In 1994 there were 1,049 cerebrovascular cases, up 35% from 1993. The fatality of cerebrovascular diseases was the highest, at 17.3%, followed by diseases of pulmonary circulation at 12.3%, rheumatic heart disease at 5.2%, and hypertension, with a low fatality of 3.1% (figures from "Report of Non Communicable Disease Unit," 1995; MOHCW). There is no great regional variation in rates of hypertension (interview with Assistant Director Mudarikwa of the Non Communicable Disease Unit, Epidemiology and Disease Control Department, MOHCW).



### 3) Psychiatric Disorders

As with chronic disease and adult disease, psychiatric disorders are given low priority compared to communicable diseases; consequently, there are few documents concerning mental disorders, and not many studies have been conducted.

Table 4-37 shows changes in the number of patients with psychiatric disorders between 1991 and 1995, based on hospital outpatient records. Because of limited diagnostic capabilities, the number of new patients has not grown to a large degree.

Table 4-37: Changes in Number of Psychiatric Cases

Year	No. New Cases	No. Old Cases	Total
1991	4,484	83,568	88,052
1992	5,076	92,614	97,690
1993	2,703	67,462	70,165
1994	1,974	56,784	58,758
1995	4,865	100,021	104,886

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

Table 4-38, below, shows the breakdown of mental disorders based on outpatient statistics. Schizophrenia follows epilepsy as the leading mental disorder, with 26% of the total. Alcoholism and drug addiction are very low.

Table 4-38: Breakdown of Mental Disorders (1995)

Mental Disorder	No. Cases	%
Dementia	71	1.5
Schizophrenia	1,265	26.0
Mania / Hypomania	58	1.2
Depression	576	11.8
Anxiety / Neurotic disorder	177	3.6
Alcohol dependence	51	1.0
Drug dependence / Induced psychosis	61	1.3
Mental Retardation	533	11.0
Epilepsy	1,344	27.6
Others; Unknown	729	15.0
<b>Total</b>	<b>4,865</b>	<b>100.0</b>

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

Mental disorders are difficult to diagnose, especially in rural areas. Because of this, it is estimated that cases are under-reported, and that the actual number of cases is much higher. Depression is quite prevalent in rural areas, and it has been reported that about 20% of all patients in RHCs suffer from it. Epilepsy is also common but is declining. Because of extremely strict narcotics control by police and customs, drug dependence is nearly nonexistent. Marijuana is also illegal, but this is not very strictly enforced due to its use in traditional ceremonies. Smoking has also increased in recent years. Consumption of alcohol is prohibited for children under 8 years, but there are no regulations regarding smoking. (interview with Assistant

Director Mudarikwa of the Non Communicable Disease Unit, Epidemiology and Disease Control Department, MOHCW).

#### 4) Physical Disabilities

Table 4–39, below, shows a breakdown of types of new cases of physical disabilities from 1990 to 1995. The overall trend has been for the number of cases of physical disabilities to increase. The leading types of physical disabilities were orthopedic and soft tissue injuries (external injuries), accounting for roughly half the total. These are caused by traffic accidents, and accidents at home and in the workplace. Mental disabilities are on the rise: the reason for this is the rising rate of hypertension in adults, which if not sufficiently treated can lead to strokes, causing partial paralysis. Mental disabilities are the most under-reported of disabilities, and are not yet sufficiently recognized as physical disabilities.

Table 4-39: Trends in and Breakdown of Physical Disabilities

Type of Physical Disability	1990	1991	1992	1993	1994	1995	
							(%)
Medical respiratory	2,914	3,209	4,071	3972	5239	6506	15.4
Orthopedic / soft tissue	10,690	12,705	13,652	15,233	17,587	20,539	48.7
Neurological	2,874	3,838	3,912	3,882	4,773	5,682	13.5
Burns	1,679	1,831	2,447	2,013	2,072	2,591	6.1
Psychiatric	612	660	972	960	946	1,423	3.4
Cerebral palsy	1,081	1,349	1,110	1,053	930	1,054	2.5
Mental handicap	722	820	881	882	1,012	928	2.2
Congenital deformity	579	671	772	790	741	833	12.0
Visual impairment	196	219	457	432	289	518	1.2
Hearing impairment / speech	356	648	687	744	2,031	1,911	4.5
Multiple disabilities	193	186	239	246	191	159	0.4
<b>Total</b>	<b>21,896</b>	<b>26,136</b>	<b>29,200</b>	<b>30,207</b>	<b>35,811</b>	<b>42,144</b>	<b>100.0</b>
Number of patients (per thousand population)	N/A	2.6	2.8	2.8	3.2	3.7	

Source: Zimbabwe National Health Profile 1995 1997 MOHCW

The number of people with physical disabilities is calculated from the number of new patients utilizing rehabilitation centers, but the true numbers are unknown since actually there are people with preexisting disabilities and those who do not receive rehabilitation because for instance of their rural location.

Of the new cases of physical disabilities at rehabilitation centers in 1995, 30.5% were due to accidents at home, 9.7% were due to accidents at work, and 7.6% to traffic accidents: this means that 47.8%, or roughly half, of all physical disabilities were due to accidents (figures from Zimbabwe National Health Profile 1995, 1997; MOHCW). Moreover, the proportion of physical disabilities resulting from traffic accidents grew from 5.2% in 1991 to 6.3% in 1994. Apart from accidents, congenital deformity accounted for 5.5% of the total, while physical disabilities caused by illness accounted for 20.6% of total physical