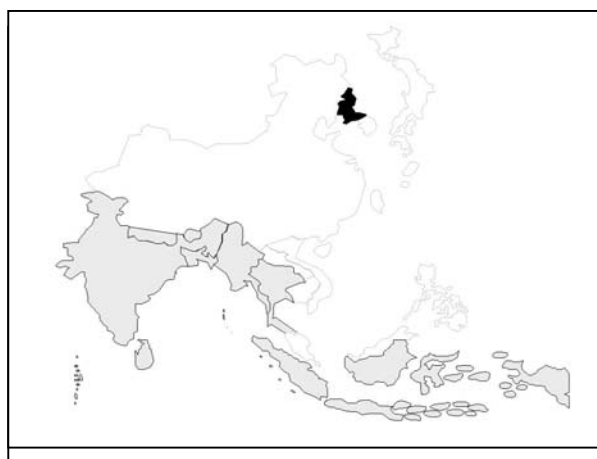


COUNTRY HEALTH PROFILE

DPR KOREA



The boundaries shown on the above map do not imply official endorsement or acceptance by the World Health Organization.

DPR KOREA

SECTION 1: TRENDS IN POLICY DEVELOPMENT

The state policy of DPR Korea embodies the immortal *Juche* idea based on the principle that man is the master of everything and decides everything. Such a human-centred state policy firmly guarantees successful implementation of HFA and constant development of the country's health work.

SECTION 2: TRENDS IN SOCIOECONOMIC DEVELOPMENT

2.1 Economic development

The economy of DPR Korea, which relies on agriculture, light industry and foreign trade, has faced increasing challenges in recent years. Extreme winters and alternative droughts and flood had compounded an already precarious geographical terrain, resulting in crop failure. According to Government estimates, the total damage from the natural disasters was worth 15 billion US Dollars. The gross national product (GNP) per capita declined from USD 970 in 1991 to USD 479 by 1996. The resource crunch put further strain on the health care system and added to the country's overall disease burden. The central task of economic reconstruction that began in 1997 was to tackle the food shortages created by the 1996 floods that devastated 117 counties in 8 provinces.

2.2 Demographic trends

In 1995, the annual population growth rate was 1.5%, crude birth rate (CBR) 20.0 and crude death rate (CDR) 5.5 per 1000 population. The CBR and CDR for 2000 were 17.5 and 8.8 respectively. The total fertility rate (TFR) was 1.51 in 1999. With increasing life expectancy, the proportion of the elderly is increasing, and creating more demand for preventive and curative services for noncommunicable diseases. The proportion of the population in urban areas is 39.1%, in rural areas 60.9% (1995).

2.3 Social trends

DPR Korea provides universal free education to its citizens. It has achieved an adult literacy rate of 100% for both males and females (1996). The Law protects equal rights for both sexes, and women account for more than half the labour force. There is no unemployment in the country. The mass media extends to even remote mountainous villages.

2.4 Food Supply and nutritional status

The percentage of newborns weighing less than 2500 grams is 9% (1998). The proportion of children under 7 years whose weight-for-age is acceptable by international standards is 39.4 (1998). In 1995, the prevalence of iodine deficiency disorders (IDD) was 17.5%, anaemia in women was 6%, and nutritional disorders in children less than five years of age was 5.6%. Following the 1996 floods, the country has been facing economic difficulties and a severe food shortage.

2.5 Lifestyle

In DPR Korea enforces a ban on smoking for students and women. Adult males smoke, but the youth are gradually leaving the habit due to education about the hazards of smoking. Anti-tobacco programs encourage physical culture and sports to wean people away from smoking. According to government reports, there are no cases of alcohol and substance abuse in the country.

SECTION 3: HEALTH AND ENVIRONMENT

3.1 General protection of the environment

The Environment Protection Law provides legal support for protection of the environment. The government strictly monitors the quality of air, water and soil. It controls pollution from factories and industrial enterprises. The state enforces a policy on food safety; the Nutrition Institute provides scientific and technical support in this area. The government is responsible for providing housing and maintaining health and safety standards.

3.2 Water supply and sanitation

The proportion of the population with safe drinking water available at home or within reasonable access is 99.9% (1998). The proportion with adequate excreta disposal facilities is 99.2% (1998). Pipe-borne water is also being introduced to farming villages. Water supply and drainage facilities damaged by the recent floods are being gradually restored.

SECTION 4: HEALTH RESOURCES

4.1 Human resources for health

The present (1995) availability of health personnel per 10,000 population is as follows: physicians 29.7, pharmacists 3.5, midwives 6, nurses 18 and prosthetists 1.8. DPR Korea has improved coverage at the peripheral level by introducing a household doctor system and intensifying the training of health workers. Training units within the Ministry of Public Health and the Planning Commission are responsible for planning human resource needs for health, implementing training programmes, distributing health workers equitably, and evaluating their activities. The regular medical education system produces an adequate number of health workers. It also provides in-service and reorientation training as well as specialized postgraduate education. The system gives special attention to the role and functions of household doctors and secondary health care workers.

4.2 Financial resources for health

The total national health expenditure as a percentage of GNP is 3.0% (1998). The total government health expenditure as a percentage of the total expenditure is 5.5% (1998). A large share of the national expenditure is devoted to primary health care (PHC) and much attention is given to the efficient use of health resources.

4.3 Physical infrastructure

In 1995, the numbers of health facilities were as follows: hospitals 2342, clinics 4999, sanitary and epidemiological stations 229, sanatoria 131, and medical drug management agencies 225. There were 136.1 hospital beds per 10,000 population. Health facilities are equitably distributed

wherever people live and work, be it urban or rural areas. DPR Korea is employing more specialists in its larger specialized hospitals and improving physical facilities in the county peoples' hospitals, rural hospitals and clinics. It is currently implementing a scheme to ensure the rational distribution of health facilities and medical equipment at PHC level.

4.4 Essential drugs and supplies

Local production of pharmaceuticals is very limited in DPR Korea, which depends heavily on donors for essential drugs. The government therefore encourages medium and small sized factories to increase the production of drugs and medical appliances. The production of traditional drugs and folk remedies is also encouraged. UNICEF meets most of the vaccine requirements for the EPI program. The proportion of essential drugs available in rural health facilities was 85% in 1995.

DPR Korea has a national essential drug list that uses generic names. It also has a national drug formulary and national therapeutic guidelines. A system is also in place to monitor drug quality in the country.

4.5 International partnerships for health

In recent years, DPR Korea has received massive aid from the international community. The amount of international aid received for health in 1996 from WHO and other international organizations was US \$2,410,000.

SECTION 5: DEVELOPMENT OF THE HEALTH SYSTEM

5.1 Health policies and strategies

The promotion and protection of the health of the people is a key policy of the government. All health facilities in DPR Korea are state owned and the state is responsible for the health of the people. The fundamental principles of the national health policy include universal and free medical care services, maintaining preventive and promotive health services, and the development of Juche-oriented medical science and technology. Environmental concerns are protected through the Environment Protection Law and the health of workers by the Socialist Labour Law. The linkage between the "section doctor" system and the "household doctor" system helps to improve the quality of care at household level.

5.2 Intersectoral cooperation

A close intersectoral relationship exists between the health sector and other relevant sectors, since health in DPR Korea is regarded as the work of the society and of the whole nation. For important health activities, a series of intersectoral committees have been established from the centre down to the rural ri and the urban dong levels.

5.3 Organization of the health system

PHC is organized around the "section doctor" system that has direct linkages with the "household doctor" system. The latter is in effect an outreach component of the section doctor system. The eight essential elements of PHC are implemented through this system. The PHC health worker is a doctor or feldsher who is qualified to deliver health services to the households under his charge. This system is supported by a referral system to the higher levels of care.

5.4 Managerial process

National policies, strategies and plans of action have been formulated, with mechanisms to involve other sectors and the community in planning, monitoring and evaluation. In support of managerial processes, a periodical titled "Information on Public Health Administration" is published and sent to decision makers and health managers.

5.5 Health information system

The Information Institute of Medical Sciences and the larger medical institutions with medical information sections generate medical information. The Institute of Public Health Administration deals with public health information and administration.

5.6 Community action

Health activities are organized as a peoples' movement. The "model healthy county/district movement" is a mass movement to organize and mobilize the people to collective action. Peoples' committees review and evaluate progress.

5.7 Emergency preparedness

There are agencies and research institutions that deal with natural disasters. A national flood disaster management committee to deal with the recent flood was organized in the Administration Council with subcommittees in the MOPH.

5.8 Health research and technology

The Institute of Public Health Administration under the MOPH is responsible for health systems research. There are also public health administration research sections in the provinces.

SECTION 6: HEALTH SERVICES

6.1 Health education and promotion

The state exerts a major effort in the area of health education. A well-organized system for health education exists from centre to provincial, city and county/district levels. There is a health education agency under the MOPH and a health education hall in each province. The state assigns doctors specialized in health education to sanitary and epidemiological stations and hospitals at central, provincial, city and county/district levels. Health education is also incorporated in the school curriculum. A mass "sanitary propaganda system" involves youth leagues, trade unions, women's groups, sanitary volunteers and the mass media.

6.2 Maternal and child health/family planning

In 1995 the proportion of pregnant women attended by trained personnel during pregnancy was 100% and at delivery 98.6%. The proportion of infants attended by trained personnel was 100%. The proportion of women of childbearing age using family planning was 67%. There is a well-developed health services system for MCH, with the Pyongyang Maternity Hospital at central level, provincial maternity hospitals, and obstetrics/gynaecology departments in peoples' hospitals at city and county/district level. In addition, maternity rooms are found in urban polyclinics and in rural ri

hospitals. Pregnant women are registered at three months gestation and cared for through pregnancy and delivery. A similar institutional infrastructure is available for childcare from central to rural levels. Those who require family planning can obtain these services. In 1995, the country forged links with the International Planned Parenthood Federation.

6.3 Immunization

In 1998, the proportions of infants immunized before their first birthday were as follows: DPT3 37.4 %, BCG 63.9%, OPV3 76.5%, measles vaccine 34.4%. All vaccines are produced within the country.

6.4 Prevention and control of locally endemic diseases

Today DPR Korea reports no known locally endemic disease.

6.5 Treatment of common diseases and injuries

Of importance today is the management of noncommunicable diseases such as cardiovascular diseases, cancer and diabetes. Much effort is devoted to improving diagnosis and treatment. Various health and medical activities are also available at domiciliary level for chronic patients.

SECTION 7: TRENDS IN HEALTH STATUS

7.1 Life expectancy

Life expectancy at birth in 2000 for females was 70.94 years and for males 63.04 years.

7.2 Mortality

The infant mortality rate which was reported to be 14.1 per 1000 live births in 1996, increased to 21.8 per 1000 live births in 2000. The number of deaths from diarrhoeal diseases in children under five years of age was reported as 134 (1996). The number of deaths from tuberculosis was 16, while no deaths were reported from measles or malaria in 1996. Diarrhoea and acute respiratory infections in children under five years of age and noncommunicable diseases, primarily cardiovascular diseases and cancer in elderly population, are among the leading causes of mortality in the country.

7.3 Morbidity

No cases of leprosy, malaria or measles were reported during 1996. There were seven cases of poliomyelitis and three of neonatal tetanus. The prevalence of cancer was 3.2, cardiovascular diseases 20.5 and tuberculosis 50 per 10,000 population.

7.4 Disability

A survey is currently being carried out to assess the prevalence of blindness.

Country reported data for basic health indicators

Indicator	Latest available data	Year	Source	Remarks
Population and Vital Statistics				
Total population (in thousands)	22,963	2000	6	Computed from population by sex
Sex ratio (males per 100 females)	95.23	2000	6	
Crude birth rate (per 1000 population)	20.0	1995	2	
	17.5	2000	6	
Crude death rate (per 1000 population)	5.5	1995	2	
	9.3	1998	1	
	8.8	2000	6	
Annual population growth rate (%)	1.5	1995	2	
	0.9	1998	1	
Total fertility rate (per woman)	1.51	1999	7	
Urban population (%)	60.9	1995	2	
Socioeconomic Situation				
Gross national product per capita (US\$)	479	1996	2	
Adult literacy rate (%): Total	100	1996	2	
	Male	100	1996	2
	Female	100	1996	2
Prevalence of low birth weight (weight <2500 grams at birth) (%)	9.0	1998	4	
Prevalence of underweight (weight-for-age) in children <7 years of age (%)	60.6	1998	4	
Prevalence of stunting (height-for-age) in children <7 years of age (%)	62.3	1998	4	
Prevalence of wasting (weight-for-height) in children <7 years of age (%)	15.6	1998	4	
Environment				
Population with safe drinking water available in the home or with reasonable access (%)	99.9	1998	4	

Indicator	Latest available data	Year	Source	Remarks
Population with adequate excreta disposal facilities available (%)	99.2	1998	4	
Health Resources				
<i>Facilities</i>				
Hospital beds per 10,000 population	136.1	1995	2	
<i>Human resources</i>				
Physicians per 10,000 population	29.7	1995	2	
<i>Budgetary resources</i>				
Total Expenditure on Health (THE) as % of Gross Domestic Product (GDP)	3.0 %	1998	5	
Public Expenditure on Health (PHE) as % of Total Expenditure on Health (THE)	...	...
Private Expenditure on Health (PvtHE) as % of Total Expenditure on Health (THE)	...	...
Public Expenditure on Health (PHE) as % of General Government Expenditure (GGE)	...	...
Social Security Expenditure on Health (SSHE) as % of Public Expenditure on Health (PHE)	...	...
Tax funded Health Expenditure (TaxFHE) as % of Public Expenditure on Health (PHE)	...	...
External Resources for Health (Ext Res HE) as % of Public Expenditure on Health (PHE)	1.0 %	1998	5	
Private Insurance for Health Risks (Pvt ins HE) as % of Private Expenditure on Health (PvtHE)	...	...
Out-of-Pocket Spending on Health (OOPS) as % of Private Expenditure on Health (PvtHE)	...	...
Per capita Total Expenditure on Health (THE) at official Exchange rate (X-Rate per US\$)	14	1998	5	
Per capita Public Expenditure on Health (PHE) at official Exchange rate (X-Rate per US\$)	...	...

Indicator	Latest available data	Year	Source	Remarks
Per capita Total Expenditure on Health (THE) in international dollars (int'l \$)	30	1998	5	
Per capita Public Expenditure on Health (PHE) in international dollars (int'l \$)	...	...
Health Services				
Pregnant women attended by trained personnel during pregnancy (%)	100	1995	2	
Deliveries attended by trained personnel (%)	98.6	1995	2	
Infants attended by trained personnel (%)	100	1995	2	
Women of childbearing age using family planning (%)	67	1995	2	
Eligible population (i.e. infants reaching their first birthday) that has been fully immunized according to national immunization policies	Nearly 100%	1996	2	
	...	1998	4	
Infants reaching their first birthday that have been fully immunized against diphtheria, tetanus, and whooping cough (%)	96.3	1995	2	
	37.4	1998	4	Survey of 12 to 23 months old children
Infants reaching their first birthday that have been fully immunized against poliomyelitis (%)	99	1995	2	
	76.5	1998	4	Survey of 12 to 23 months old children
Infants reaching their first birthday that have been fully immunized against measles (%)	99.7	1995	2	
	34.4	1998	4	Survey of 12 to 23 months old children
Infants reaching their first birthday that have been fully immunized against tuberculosis (%)	100	1995	2	
	63.9	1998	4	Survey of 12 to 23 months old children
Women that have been immunized with tetanus toxoid (TT) during pregnancy (%)	91.1	1998	4	Single dose
	4.6	1998	4	Two doses
Health Status				
Life expectancy at birth (years): Total	67.13	2000	6	
Male	63.04	2000	6	
Female	70.94	2000	6	

Indicator	Latest available data	Year	Source	Remarks
Disability-Adjusted Life Expectancy (years):				
Total	60.95	2000	6	
Male	56.89	2000	6	
Female	64.69	2000	6	
Infant mortality rate (per 1000 live births)	14.1	1996	2	
	21.8	2000	6	
Under-five mortality rate (per 1000 live births)	23	1996	4	
Maternal mortality ratio (per 100,000 live births)	105	1996	3	

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