Introduction The Issues of Public Health and Medical Systems in Developing Countries

When we consider what aspects of Japan's experience may be useful in cooperation with developing countries, it is necessary to understand what kinds of issues these developing countries are presently facing, and how the international community is responding. In this chapter, we will therefore present the challenges in the field of public health and medical services now being faced by developing countries, and give an overview of international assistance initiatives, and Japanese assistance initiatives, in these areas.

1. The Issues of Public Health and Medical Services Faced by Developing Countries

The field of public health and medical services is an important one, closely related to people's lives, and essential for societies and countries to grow and develop. Improvements to public health and medical services are therefore emerging as a major priority in many developing countries, where many people continue to suffer due to high infant and child mortality and maternal mortality rates, the spread of infectious diseases, lack of access to a safe water supply, and inadequate sanitation facilities. Industrial accidents, occupational diseases, and pollution-related health damage are all more common in developing countries than in developed countries. Japan has faced all of these issues, and developed programs to overcome them.

(1) High Infant and Child Mortality and Maternal Mortality Rates

High rates of infant and maternal mortality are a major problem in developing countries, with reduction in these rates a national priority in many countries. Initiatives in the individual countries, and international cooperation, have brought down infant and maternal mortality rates somewhat, but every year some 11 million children are dying from preventable diseases[1]. Many of these deaths can be prevented by better nutrition and sanitation, improving the health of pregnant women and new mothers, and providing the required education.

Every year more than 500,000 pregnant women and new mothers die worldwide. The situation is particularly bad in sub-Saharan Africa, with 1 in 13 women dying during pregnancy or of puerperal causes[2]. Maternal mortality rates can be reduced through adequate health care in the perinatal period, and the assistance of properly trained public health nurses at the birth. In

Table Int-1 Infant Mortality Rate (2000)

	Infant mortality rate (per 1,000 live births)	Under 5 mortality rate (per 1,000 live births)
Average of developing countries	61	89
Average of OECD countries	6	14

Source: UNDP (2002)

[1] UNDP (2002) p. 31
[2] *ibid.* p. 32

southern Asia and sub-Saharan Africa, however, public health nurses are present at fewer than 40% of births[3].

(2) The Spread of Infectious Diseases, Including HIV/AIDS and Tuberculosis

Infectious diseases such as HIV/AIDS are a major challenge to be overcome by developing countries. Some 90% of cases of infection with HIV are in developing countries, and the prevalence rates of other infectious diseases are high in developing countries as well. By the end of the year 2000, approximately 22 million people had died of AIDS, and in sub-Saharan Africa in particular, AIDS is the number one cause of death[4]. Every year there are 300 million acute cases of malaria worldwide, whereas 60 million people have been infected with tuberculosis (TB). These infectious diseases are treatable with modern medical techniques, but every year two million people die from TB, and one million from malaria, without receiving any medical treatment[5]. Those countries suffered reduced work capacity due to deaths and disabilities caused by infectious diseases. The situation makes poverty worse as a result of the costs of treatments, thereby placing a further strain on the already impoverished national budget.

(3) Lack of Access to Safe Water Supply, and Inadequate Sanitation Facilities

The lack of safe water supply and adequate sanitation facilities causes diarrheal diseases and malaria. Every year, approximately four billion people develop diarrheal diseases, with 2.2 million deaths. Most of these are children, and diarrhea is the cause of death in 15% of child deaths in developing countries. In the year 2000, the number of people without access to a safe water supply rose to 1.1 billion[6].

(4) Occupational Health, Environmental Pollution

Every year, 250 million people suffer industrial accidents, 160 million suffer occupational diseases, and 1.2 million die from these causes. Victims of industrial accidents and occupational diseases are more common in developing countries, where the working environment is often poor, and social security cover is limited as well. The impact of injury or illness tends therefore to be greater in developing countries[7].

Pollution related health damage is becoming more common in rapidly industrializing developing countries. In the rush towards industrialization, pollution control measures are often deferred until later. That causes problems such as air pollution, declining water quality, and acid rain. These are an adverse influence on the health of the population in these developing countries.

(5) Strained National Finances, Vulnerable Administrative Abilities, Inadequate Systems

As outlined above, developing countries are facing a number of issues in the field of public health and medical services, but unfortunately the budget available to deal with these issues is extremely limited. In high-income countries, per capita health expenditure is $2,733, whereas in low income countries it is a mere $21[8]. Not only is budget limited, but there is also often a lack of the administrative ability to survey the situation, and formulate and conduct an appropriate plan based on the survey results.

Another major problem is the lack of an adequate social security system. The poor classes in developing countries are often unable to afford medical expenses related to illness and accidents, and therefore do not receive the appropriate

---

[3] UNDP (2002) p. 33
[4] *ibid.* p. 33
[5] *ibid.* p. 34, WHO (2002)
[6] UNDP (2002) p. 36
[7] Somavia (2000)
[8] World Bank (2002)

treatment. If they do manage to raise the money needed for treatment, it may be at the expense of their savings. A health insurance system that ensures even the most poor and needy have access to appropriate medical treatment is of course desirable, but there are problems with a lack of sufficient funding. Even if a health insurance system is in place, it may not be properly run. It is often the case that the poorest people, who need health insurance coverage most, are denied by the health insurance system.

(6) Lack of Personnel, Institutions and Medications in Public Health and Medical Systems

Shortages of personnel, institutions and medications also cause major problems. In high-income countries, there are 2.9 doctors per 1,000 population, whereas in low income countries it is roughly one-sixth of that, or 0.5 per 1,000 population. There are 7.2 hospital beds per 1,000 population in high income countries, compared to only 1.3 in developing countries[9]. Shortages of medications are another serious problem. The major cause of death in developing countries is infectious diseases, but even if an effective medication is available for a particular disease, it is likely that it will be too expensive for the poorer classes to afford.

2. Assistance Initiatives in the Field of Public Health and Medical Services

(1) International Assistance Initiatives

The challenges in the field of public health and medical services outlined above have long been recognized. So as an important part of international

Box Int-1 Objectives Related to Public Health and Medical Services in the New DAC Strategy : Shaping the 21st Century

- Reduce infant mortality rates and under-five mortality rates in developing countries to 1/3 of 1990 levels by the year 2015.
- Reduce maternal mortality rates to 1/4 of 1990 levels by the year 2015.
- Expand reproductive health services by the year 2015.

Source: OECD/DAC (1996)

Box Int-2 Objectives Related to Public Health and Medical Services in Millennium Development Goals

- Reduce under-five mortality rates by 2/3.
- Reduce maternal mortality rates by 3/4.
- Stop the spread of diseases such as HIV/AIDS and malaria, and start to reduce their prevalence, by the year 2015.
- Reduce by half the proportion of people without sustainable access to safe drinking water by the year 2015.

Source: UNDP (2000) “Millennium Development Goals”

[9] World Bank (2002)

assistance programs, a number of global initiatives have been conducted in this area, continuing to the present day. In particular, since 1990, global targets have been set, and concerned parties from government and community organizations in both developed and developing countries, have been working together to improve public health and medical systems on a global scale, especially in developing countries. Emphasis has been placed on the concepts of ownership and partnership as an important approach to achieving these targets. Given below are the international initiatives in the field of public health and medical services, concentrating on the global targets that have been set in this area, and the relevant approaches that should be emphasized.

There has been cooperation in the field of public health and medical services since international assistance programs first began. Since the Basic Human Needs (BHN) Approach was proposed in the 1970's, the emphasis has been on assistance in the areas of nutrition, safe water supply, and public health and medical services. At its World Health Assembly in 1977, the WHO (World Health Organization) adopted a resolution calling for "Health for all by the year 2000," and the Alma Ata Declaration in 1978 enunciated the Primary Health Care (PHC) Approach as a strategy to achieve this goal. The PHC Approach, with an integrated approach combining equality, participation of the local community, an emphasis on prevention, and the use of appropriate technology, is still considered important for improving the health and relieving poverty for all the peoples of the world.

During the 1990's, a number of global goals and new concepts were espoused in the field of public health and medical services. As an example, at the World Summit for Children in 1990, the goals set were the elimination of neonatal tetanus by the year 1995, global eradication of polio by the year 2000, and the reduction by 90 per cent of measles cases and measles deaths by 95 per cent by the year 1995. The concepts of reproductive health and reproductive rights were defined by the International Conference on Population and Development (ICPD) held in Cairo in 1994, since which time rights related to sex and reproduction have been considered fundamental human rights. At the Fourth World Conference on Women held in Beijing in 1995, improvements in the physical and emotional health of women, including reproductive health, were affirmed as basic to the empowerment of women and raising their status. The Beijing Declaration adopted at that conference recommended global initiatives to address women's health problems.

The World Summit for Social Development, held in 1995 in Copenhagen, Denmark, was the culmination of all UN (United Nations) conferences related to development held until that time. The Copenhagen Declaration recognized the need for people-centered development, with a balance between social development, economic progress, and environmental conservation. A commitment was also made to provide universal and equal access to education and PHC.

Following the Copenhagen Summit, at the 1996 High-Level Meeting of the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC), a development strategy paper "Shaping the 21st Century: The Contribution of Development Cooperation" (new DAC strategy) was announced. The new DAC strategy set out international goals for development (International Development Goals, IDGs), that included public health and medical services. The achievement of these goals would be to require ownership of the IDGs by the developing countries, and broad partnerships among participating countries and organizations.

At the Millennium Summit of the UN held in September 2000, the international development goals espoused over the preceding decades were consolidated into the Millennium Development Goals (MDGs). Whereas the new DAC strategy was agreed to by donor nations, the MDGs were ratified by 189 nations, comprising both developed and developing countries, and are regarded as the

common development goals of the international community. Working towards achieving the MDGS, greater emphasis has been placed on partnerships with the private sector, and the importance of cooperation between governments and communities.

At the World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa in 2002, a Plan of Implementation based on the MDGs was adopted. Prior to the WSSD, an unofficial preparatory meeting was held in Japan, with the aim of sharing ideas and priorities related to cooperation in the field of public health. At this meeting, the importance of partnerships, as well as independent effort by developing countries, was recognized. It was also considered necessary to strike a balance between reactive measures, responses to problems arising in the public health field, and proactive measures (health education, improving health awareness, provision of safe water supplies, sanitation, and vaccinations). Recent G8 summits have often included pronouncements concerning the importance of initiatives to improve public health and medical systems. Control measures for infectious diseases such as HIV/AIDS have been given particular emphasis.

Not only governments, but also the private sector, NGOs and local communities have also become service providers, with demand extending to a wide range of services. The idea that community residents should no longer be passive service recipients, but should check the quality of services offered, and play a role in determining policy, is becoming widespread.

(2) Japan's Initiatives

Japan has been closely involved in cooperation in the field of public health and medical services for many years. Japan's experience in facing public health challenges through a united approach by government, the people and local communities, has been useful in cooperation in this field, and Japan has repeatedly announced, domestically and abroad, that it will utilize its experience in cooperation initiatives.

In the Official Development Assistance (ODA) Charter announced in 1992, and revised in 2003, measures against problems on a global scale, such as infectious diseases, and assistance in the field of public health and medical services, were given priority.

In 1993 the "US-Japan Common Agenda for Cooperation in Global Perspective" (US-Japan Common Agenda) was announced. One of the four pillars of the US-Japan Common Agenda was "Promoting health and human development," and two of the 18 initiatives, ranked below the four pillars, were in the public health area, namely "Population and Health" and "New and Recrudescent Infectious Diseases (in particular HIV/AIDS)." In response to the Common Agenda, in 1994 Japan announced the "Global Issues Initiative on Population and AIDS" (GII)[10], with positive initiatives in these two important areas.

At the 1996 G7 Summit held in Lyon, then Prime Minister Hashimoto presented the "Initiative for a Caring World," that proposed that through sharing ideas and experience in social policy with each other, each country could then better solve their own problems.

At the 1998 G8 Summit held in Birmingham, then Prime Minister Hashimoto presented the "Global Parasitic Disease Control Initiative" (Hashimoto Initiative), promoting assistance partnerships (effective promotion of international cooperation) and research in control measures for parasitic diseases. The Hashimoto Initiative called for the establishment of effective projects, with the emphasis on a collaborative approach utilizing the experience of each country in parasitic disease control.

In the "Medium Term Policy on Official

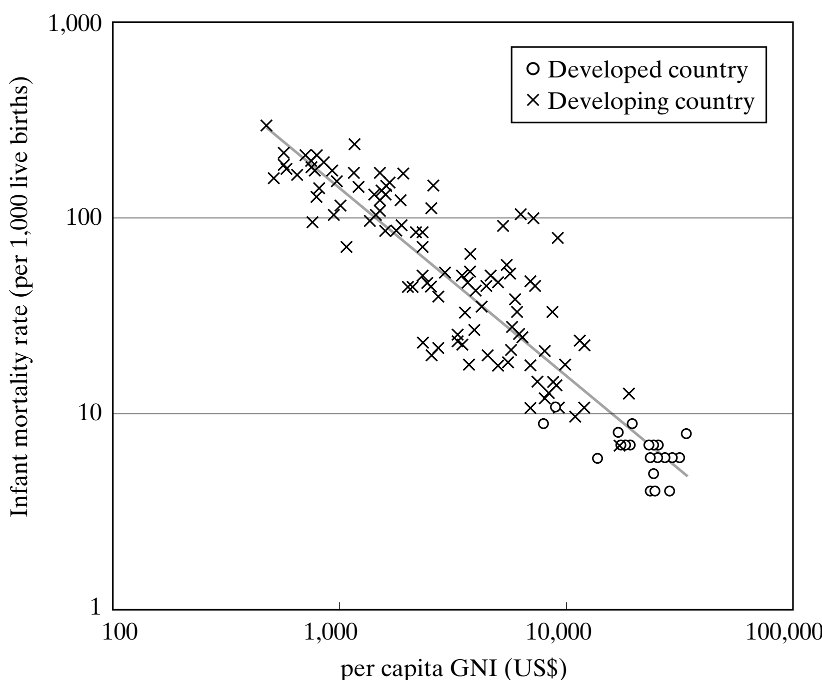
---

[10] Japan committed a total ODA budget of US$3 trillion to cooperation with developing countries over the seven year period from 1994 to 2000. Targets were achieved by the end of 1995.

Box Int-3 Infant Mortality and Economic Development

In considering whether Japan's experience in the field of public health and medical services can be of use to developing countries, we can see that almost all developed nations, including the UK and the US, have gone through similar changes, according to the level of economic development at the time, in the challenges faced in this field, and the way they met them, and Japan is no exception[12]. The graph below plots the relationship between infant mortality rates, used as an indicator of the status of local heath services, and per capita GNI[*1], an indicator of national economic strength, in developed countries[*2] and developing countries. Allowing for differences related to the situation in each country, there is a broad correlation between the level of economic development and the status of public heath and medical services, and we can anticipate that in many countries the status of heath services will change along with economic development. We can further assume that the changes in public health and medical services experienced by Japan will provide some useful pointers for developing countries to consider.

Relationship between per Capita GNI and Infant Mortality Rates



Sources: Infant mortality rate: UN Population Division "World Population Prospects: The 2002 Revision"
Per capita Gross National Income (GNI): Compiled by Makiko Komasawa, on the basis of 2000 figures in the World Bank "World Development Indicators 2002" (2002)

*1: Derived from GNP using various corrections. For details, refer to World Bank "World Development Indicators 2002."

*2: 27 countries, comprising Canada, the United States, Japan, Singapore, Australia, New Zealand, Israel, the Czech Republic, Poland, Denmark, Finland, Ireland, Norway, Sweden, the United Kingdom, Croatia, Greece, Italy, Portugal, Slovenia, Spain, Austria, Belgium, France, Germany, The Netherlands and Switzerland.

---

[12] Hashimoto, Masami (1968) *Chiiki Hoken Katsudo - Koshueisei to Gyosei-gaku no Tachiba kara* [Community Health Activities - From the Standpoint of Public Health and Public Administration], Igaku Shoin.

Development Assistance" (Medium Term ODA Policy) promulgated in 1999, priority was given to "assistance in the fight against poverty and in the field of public health and medical services." This policy states that Japan will provide assistance concentrating on improving public health policy, establishing public health and medical systems, and setting up institutions, utilizing Japan's experience in these areas, with strong community participation and in collaboration with NGOs.

In the "Okinawa Infectious Disease Initiative" (IDI)[11], announced at the G8 Summit in Kyushu and Okinawa, Japan set out its intention to engage in effective programs for control of infectious diseases, utilizing and sharing Japan's experience and knowledge gained in drastically reducing deaths from TB through a post-war public health program.

At the 2002 WSSD, Prime Minister Koizumi emphasized the importance of sharing Japan's experience in overcoming environmental pollution with other countries.

Japan also announced sustainable development projects in the public health field, "Human Resource Development in Infectious Disease Control," "Chargas Disease Vector Control Projects," Tuberculosis (TB) Control Projects" and "Maternal and Child Health (MCH) Handbook Projects." In this way, in international forums Japan has announced its intention to utilize its experience in cooperating with developing countries. What has hitherto been lacking, however, is a systematic analysis to determine what aspects of Japan's experience will be useful, and what areas require caution in applying the Japan's experiences to developing countries.

There is an urgent need to systematically examine Japan's experience to determine which aspects will be useful to developing countries, in order to effectively apply them in cooperation. There have also been requests from developing countries to apply the Japan's experience in improving its public health and medical system, in particular the achievement of a rapid reduction in the infant mortality rate, in reforming their own public health and medical systems. In the following sections, we will provide an overview of Japan's initiatives in the field of public health and medical services, and also analyze those initiatives in areas where they are considered likely to be useful to developing countries.

[11] Japan committed a total of US$3 trillion to cooperation in the related fields of infectious diseases and social development over the five year period commencing in the year 2000.