
Chapter 8

Community-based Health Systems

Following the end of the Second World War, many developing countries sought to provide public health and medical systems established by developed countries and such countries trained healthcare professionals such as doctors and nurses as well as established hospitals and other medical facilities. In practice, however, most of these developing countries found it extremely difficult to develop the target level of resources and personnel due to poverty and insufficiently developed political and social structures. Medical services therefore tended to be limited to urban areas, and accessible only to the well-off minority. Therapeutic and preventive programs for rural villagers, representing the majority of the population, were overlooked, and the overwhelming majority was abandoned to continued poor health.

In 1978, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) issued the "Alma Ata Declaration," stating the global aim of "Health for All by the Year 2000," and proposing the concept of Primary Health Care (PHC). According to the Declaration, "primary health care is essential healthcare based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community a country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination." The 5 general principles of PHC are given as fairness and equality, participation of community cooperatives and individuals, appropriate technology, and a multisector, compound and diversified approach. With the addition of health education, a safe water supply and sanitation facilities, and

provision of necessary medical supplies, activities are proposed in a total of 8 areas. These principles have since been expanded into the new field of "community-based health," concentrating on public health and medical activities within the community, that has been incorporated into a number of assistance programs in developing countries.

At the time when all social resources were in short supply in Japan, immediately following the end of the Second World War, a number of comprehensive initiatives, combining prevention, treatment, care and health education, were conducted at the community level. These initiatives took full advantage of human resources already present within the community, and represent a public health approach characteristically led by local residents, or what is now called a "community-based health" approach. In Okinawa, the archipelago prefecture located at the southernmost part of Japan, and was under administration by the U.S. for 27 years post-war, the shortage of healthcare personnel and facilities was even more dire than in the main islands. The Okinawan experience is of public and private sectors working together in community-based health initiatives, making full use of limited community resources, with cooperation from local residents. This community-based health approach taken in Japan during the period of post-war chaos provides a number of suggestions for assistance to improve the health status of the residents of regions and countries presently lacking in medical resources.

In this chapter, we will introduce Japanese initiatives in the field of community-based health, concentrating on the immediate post-war period, with a number of similarities to present low and middle-income countries, and discuss the implications for developing countries.

1. Trends in Community-based Health Systems

Initiatives in community-based health are strongly influenced by the characteristics and main challenges of the day, the way that the government addresses those challenges, and the way that the local society functions at the time. Compared to other areas, where unique historical divisions can be made, community-based health can be placed in the mainstream of the history of public health and medical services in Japan. We will therefore look at trends in community-based health using the divisions set out in Chapter 1. It can be said that the people looked at the same trends from the community-based health perspective that the government looked at from the public health and medical services perspective. From the above, we will give an overview of Japanese initiatives in community-based health using the divisions set out in Chapter 1, namely the acute infectious disease control phase (1868~1919); the phase of chronic infectious disease control and formation of maternal and child health services (1920~1945); the phase of restructuring the health administration (1946~1960); the phase of expanding medical services (1961~1979); and the phase of challenge of an aging society (1980~present).

1-1 Phase of Acute Infectious Disease Control (1868~1919)

This phase of infectious disease control and maternal and child health measures was a time of

military government, of compulsory initiatives under central control in all administrative areas in Japan, and not just public health. Rather than the mainstay of activities, the people were regarded as the recipients of services provided under instructions from the central administration. The frontline organization for disease control measures, the principal focus of public health measures at this time, was the police. The beginnings of community-based health can be seen in the community at this time, however. In 1886, the Kyoto Nursing School was established at the Doshisha Hospital marked the commencement of nursing education in Japan, and a district nursing system began in 1892. The achievements of the Nursing School are evident in the activities of its alumni¹. Early public health nurse programs did not expand beyond the activities of individuals, however, until the end of the Taisho Era (around 1920)².

1-2 Phase of Chronic Infectious Disease Control and Formation of Maternal and Child Health Services (1920~1945)

The mortality rate from tuberculosis peaked in 1920 (223.7 per 1,000 head of population), and care for tuberculosis sufferers was a major social challenge³. At the same time, the infant mortality rate was extremely high (peaking in 1918 at 189.7 per 1,000 live births), causing major concern. In 1916, the Ministry for Home Affairs established the "Health and Sanitation Research Council"⁴ to survey public health matters such as these. The Council recommended in 1926 that, in order to

¹ Masa SUZUKI, a member of the first graduating class, set up the "Visiting Nurses Association" in 1891 that conducted home nursing and epidemic control measures when infectious diseases were rampant. The Association also worked to introduce and popularize new techniques in areas such as nursing, childraising, cooking and clothes washing line with general healthcare principles. Nobu TERASHIMA, a member of the seventh graduating class, set up the Yuai Yorojin (Home for the Aged) in 1899, that cares for elderly women.

² Oguri, Shiro., Kinoshita, Yasuko and Uchibori, Chiyoko (1985) *Hokehfu no Ayumi to Koshueisei no Rekisi -Koshueisei Jissen Series 2* [The History of Midwives and Public Health -Series of Public Health Practice 2-], Igaku Shoin.

³ At first, each Prefectural Police Department that possessed a Public Health Bureau set up programs employing nurses to make home visits to tuberculosis patients. This is considered by historians to be the beginnings of public health nursing in several prefectures. Nakahara, Toshiko (2003) "*Shashin de Miru Hokenfu Katsudo no Rekishi* [The History of Midwives' Activity in the Pictures]" *Hokenfu Zasshi*, Vol. 59 No. 8 August, 2003, pp. 746-761.

⁴ Established by the government to research the health status of the population, factors that mitigate against their health and how to address those factors, and ways to promote and maintain health.

Table 8-1 Increasing Numbers of Community Public Health Nurses

Month/Year	No. of qualified	No. of unqualified	Total
February 1941	344	—	—
December 1943	2,632	640	3,272
December 1944	5,604	1,568	7,172
December 1945	7,811	1,830	9,641

Source: Uchibori, Chiyoko (1985) p. 157

reduce the infant mortality rate, infant health guidance be established staffed by public health nurses, who would also make home visits to give lifestyle guidance for pregnant women and infants, and conduct disease prevention activities. This led to a number of programs with public health nurses making home visits to provide health guidance⁵, and the establishment of health guidance facilities similar to public health centers⁶.

At this time, the Rockefeller Foundation (a U.S. charitable organization) made donations to the Kyobashi Health Care Center in Kyobashi Ward, Tokyo (opened in 1935) and the Tokorozawa Health Care Center in Tokorozawa City, Saitama Prefecture (opened in 1938). Staffed by doctors and public health nurses, these became the models for public health centers, the Kyobashi Health Care Center acting as a health guidance center for a metropolitan community, and Tokorozawa Health Care Center for a rural community. The Institute of Public Health was also established in 1938 to train public health professionals.

Against the background of the above-mentioned facilities and projects, the Public Health Center Law was enacted in 1937, placing the public health center at the frontline of public health

guidance, and establishing the new profession of the public health center public health nurse. With this new system, the emphasis within the Japanese public health administration changed from management to public health guidance, and the basis for community-based health activities centered on the public health center was formed during this time.

The initial plan was to establish 550 public health centers, with 1,100 branch centers, over a 10 year period, but this failed to eventuate due to the escalation of the war and other factors. As the war progressed, human resources became scarce, and many centers were damaged, public center functions all but obliterated by war's end.

Rural villages were exhausted by agricultural panic, and farming household finances were in a parlous state due to drought and poor harvests. Infant mortality rates were high in rural villages, and the high prevalence of conditions such as parasitic diseases, trachoma and tuberculosis meant the demand for medical services was high, but medical expenses were a tremendous burden that most rural households were unable to bear.

To assist the inhabitants of the Tohoku (northeast Honshu) Region, who had suffered a series of poor harvests, the Tohokukoshin-kai (Tohoku Association for Revitalization)⁷, began a

⁵ Some well-known examples are the Saisei-kai, that conducted nursing home visits following the Great Kanto Earthquake in 1923; the St. Luke International Hospital, that commenced a public health nursing program within the Kyobashi Area of Tokyo in 1927; and the activities of the Osaka Asahi Public Health Nurses' Association, established in 1930.

⁶ Some examples are the Osaka Municipal Child Guidance Center (1919), the Tuberculosis Control Health Guidance Center (1923), the Child Welfare Center (1926), and the Health Insurance Health Guidance Center (1934).

⁷ The Tohokukoshin-kai was officially formed in 1935. Nakahara, Toshiko (2003) "*Shashin de Miru Hokenfu Katsudo no Rekishi* [The History of Midwives' Activity in the Pictures]" *Hokenfu Zasshi*, Vol. 59 No. 8 August, 2003, pp. 746–761.

system of model villages in 1931, to which public health nurses were posted to exterminate trachoma, protect pregnant women, new mothers and infants, and improve levels of nutrition. The Hokkaido branch of the Saisei-kai⁸ set up a district nurse system, training volunteers from doctorless villages, and returning them to act as public health nurses. These projects only reached a small proportion of the needy areas, however, and with the enactment of the National Health Insurance Law in 1938 came the establishment of a system of “national public health nurses,” with public health nurses stationed nationwide, and a nationwide system of public health nurse postings. Public health nurse numbers had increased dramatically (Table 8-1), through training under the aegis of the National Health Insurance Association, an affiliated organization established by the Ministry of Health and Welfare in 1939, and public health programs conducted in poverty-stricken rural villages by industrial associations (now agricultural cooperatives). These associations came up with the following plan: 1) rapid expansion of national health insurance associations (industrial associations acting as agents); 2) expansion of health insurance association hospitals; and 3) stationing of public health nurses. These national public health nurses soon became essential providers of healthcare services in rural and remote areas, conducting maternal and child health and tuberculosis control programs, as well as providing health education and guidance, nutrition advice, midwifery services, and even some simple medical treatments and initial emergency medical services.

In this way, the numbers of public health nurses increased, offering a variety of public health services in both urban and rural settings. At the First National Public Health Nurse Congress was held in 1940, and by the Second Congress the following year, public health nurses expressed the

strong desire for professional recognition. This led to the issue in 1941 of the “Regulation for Public Health Nurse,” establishing a system of accreditation for public health nurses.

1-3 Phase of Restructuring the Health Administration (1946~1960)

The immediate post-war period was a chaotic period in the field of public health as in other areas, with malnutrition caused by poor hygiene and food shortages, the advent of a baby boom, and outbreaks of infectious diseases brought back by those returning from overseas. In 1947, the Japanese infant mortality rate was 76.7 per 1,000 live births, and the tuberculosis mortality rate was 187.2 per 100,000 head of population, making tuberculosis the leading cause of death, a situation similar to that seen in developing countries today. By 1960, the infant mortality rate was less than half that in 1947, at 30.7 per 1,000 live births, and the tuberculosis mortality rate had dropped dramatically to 30.2 per 100,000 head of population, representing a significant improvement in health standards over a short period. This can be attributed in part to overall improvements in Japan's socioeconomic situation and educational standards, and medical advances. As Japanese society entered a period of stability after the post-war chaos, a large part of its public health successes were due to the establishment of a system of public health administration, expansion of the network of public health centers, development and spread of community-based health activities initiated by community organizations, and programs conducted in the community by public health nurses and others acting as members of the public health administration.

Commencing immediately after war's end in 1945, fundamental reform of public health administration was conducted under GHQ supervision. Following the reform of the Ministry

⁸ *The Onshi Zaidan Saiseikai* (Imperial Gift Foundation Saisei Association) was established in 1911 through an endowment from Emperor Meiji. It became an incorporated social welfare organization in 1952, and now has branches throughout Japan and runs a number of hospitals and other medical facilities.

of Health and Welfare administration in May 1946, and revisions to the Local Government Law in 1947, independent Health Departments were established to oversee public health administration in each prefecture. The new Public Health Center Law was then enacted in September 1947, placing public health centers in the frontline of public health, combining guidance and administrative responsibilities under the one roof. The network of public health centers was expanded, aiming for one center for every 100,000 people. “Guidelines for Guidance Activities by Public Health Centers” were issued in 1949, giving public health center managers the responsibility for the deployment, working conditions, and guidance of public health nurses within the municipality served by the center.

With these measures, the public health system extending from the center to the periphery, comprising national government (Ministry of Health and Welfare), prefectures (public health centers), and municipalities, was established. Public health centers became the central facilities for public health services, responsible for improving the health of the community.

A number of other health-related laws were passed in 1947, including the Tuberculosis Prevention Law, the Labour Standards Law that provided the base for occupational health and safety, and the Child Welfare Law as the base for maternal and child health programs. The Tuberculosis Control Law underwent a complete overhaul in 1951, radically expanding the role of public health centers. “Tuberculosis Advisory Committees” were set up within public health centers to ensure tuberculosis control programs were consistent and comprehensive, monitoring the identification of cases, evaluating different treatments, and following cases until cured. The duties of public health nurses were revised in 1951 to ensure that no inconsistencies arose in guidance given to tuberculosis sufferers and their families. Public health centers formulated plans for the deployment of public health nurses

under their jurisdiction (if necessary, public health nurses were sent on resident postings to towns and villages), and communications were strengthened between public health centers and public health nurses posted to municipalities within their catchment area.

A succession of further health-related laws were enacted at this time, including the School Health Law, the Preventive Vaccination Law, the Eugenic Protection Law, the Law for Public Health Nurses, Midwives and Nurses, the Daily Life Protection Law, and the Disabled Persons Protection Law. Community-based health activities were conducted, based on this remarkable series of legislative achievements, centered on the public health center as the specialist public health facility. In particular, public health centers played a major role in improving maternal and child health and controlling tuberculosis. Total expenditure related to public health centers reached ¥13.1 billion in FY 1958, accounting for 23.5% of the total health budget, and reflecting the importance placed on community-based health⁹.

In accordance with the GHQ preference for local government, it was announced that the responsibility for all public health centers should be handed over to the relevant municipality. In practice, however, only public health centers in cities with a population over 150,000 people were transferred to local government control.

1-4 Phase of Expanding Medical Services (1961~1979)

As Japan entered the 1960s, lifestyle-related diseases replaced infectious diseases and maternal and child health as the major challenge for public health and medical services. The achievement of universal health insurance coverage in 1961 also led to a massive increase in the demand for medical services, requiring a sudden expansion of the system of medical service provision to meet this demand. Public health centers, which had

⁹ The Ministry of Health and Welfare (1963) Annual Report on Health and Welfare.

Box 8-1 The 1960s: Time of Transformation for Public Health Centers

As the frontline facility responsible for the health of the nation, until the 1960s public health centers played a central role in tuberculosis control and maternal and child health programs. As Japan entered the 1960s, it was already evident that demand would increase for services related to maternal and child health, mental health, and lifestyle-related diseases, and in urban areas for services related to environmental sanitation¹⁰.

As preparations were made to expand public health administration to meet increased demand, regional financial constraints resulted in personnel shortages from the early 1950s. Changes in public health center catchment areas following the 1953 Municipality Merger Promotion Law also necessitated re-evaluation of center placements. The Social Security System Committee issued its "Recommendations Concerning the Medical Insurance" in 1956, emphasizing the connections between public health and medical services¹¹. The great strides in medical insurance made through the introduction of universal health insurance coverage in 1961 led to a reconsideration of the way public health centers should operate¹². As a result, from 1960 instead of the previous uniform population-based distribution of one public health center for every 100,000 people, public health centers were classified into 5 types: urban type; rural, mountain or fishing village type; intermediate type; underpopulated region type; and special type. Each public health center thereupon reorganized its activities to reflect the local character. The breakdown as of April 1961 was: urban type 24%; rural, mountain or fishing village type 53%; intermediate type 10%; and under-populated region type 12%. For urban-type public health centers, the emphasis was placed on collaboration with medical, welfare, industrial and cultural resources within the center catchment area, and entrusting as many public health activities to them as possible. For rural, mountain or fishing village-type public health centers, to compensate for the lack of medical facilities the emphasis was placed on reinforcing outreach services, programs for diseases endemic to rural villages, extermination of environmental pests, and environmental sanitation programs, and promoting the activities of local organizations. There was accordingly a clear distinction between the two types¹³.

The 1965 revision to the Local Government Law transferred responsibility for some of the functions of public health centers (routine immunizations, tuberculosis screening for local residents, rodent and insect pest extermination, issue of Maternal and Child Handbooks, etc.) to the municipalities. Almost all the remaining administrative duties were transferred in 1975. From 1978, municipal health centers were established as administrative facilities separate to the public health centers, as a base for personal health services close to the community. By the end of the year 2000, some 2,364 of the new centers had been established nationwide. The enactment of the "Community Health Law" in 1994 provided the legislative basis for these municipal health centers, making them the facilities responsible for the provision of personal health services in place of public health centers.

¹⁰ The Ministry of Health and Welfare (1963) Annual Report on Health and Welfare.

¹¹ The Ministry of Health and Welfare (1988b) *Kosei-sho Goju Nen Shi* [Fifty Year's History, Ministry of Health and Welfare] Kosei Mondai Kenkyukai.

¹² The Ministry of Health and Welfare (1960) Annual Report on Health and Welfare.

¹³ The Ministry of Health and Welfare (1963) Annual Report on Health and Welfare.

served as the base for community-based health approach since the post-war reconstruction period, were also faced with the necessity to reexamine their way of operating in the face of tight regional finances and personnel shortages¹⁴. As a result, from 1960 public health centers were classified into 5 types: urban-type; rural, mountain or fishing village-type; intermediate-type; under-populated region-type; and special-type. Each public health center was thereupon reorganized to reflect the local character (see Box 8-1). The role of the public health center was reduced in urban areas with adequate medical facilities, whereas in rural areas lacking in medical facilities, the continuing function of the public health center as the central provider of medical and public health services was reinforced. Through amendments to the Local Government Law in 1965 and again in 1975, jurisdiction for public health centers was transferred in stages to the municipalities. The 1978 “National Health Promotion Campaign” led to the establishment of Municipal Public Health Centers, with public health nurses taking on the central role in health promotion campaigns. This completed the transfer of public health nurses from national government employ to local government, marking the end of 40 years of national public health nurses, and the beginning of the system of exclusive municipal public health nurses.

Associated with the advent of advanced economic growth, the demands and concerns of the general public turned from the community-based health approach, that had been so spectacularly successful before and after the war, to a more specialized and diversified medical approach. Revisions to the “Welfare for the Aged Law” in 1963, and to the “Mental Health Law” in 1965, added responsibility for the physical and mental health of elderly residents to public health centers, however, so there was certainly no lessening of the functions demanded of public health centers.

1-5 Phase of Challenge of an Aging Society (1980~present)

Japan became one of the longest-lived countries in the world in 1985 when the average life expectancy for women exceeded 80 years. Around the same time, however, the declining birthrate and aging of society, increase in lifestyle-related diseases (malignancies became the number one cause of death in 1981), the rising costs of new medical treatments and increased treatment durations, all contributed to increased medical expenditure with inevitable social consequences.

Japan’s economic development also slowed during the 1980s, making the efficient utilization of limited medical resources even more important. The 1985 revisions to the Medical Service Law made it mandatory for each prefecture to formulate a medical services plan (including the provision of a secondary medical services within reach of people in their everyday lives, and provision of sufficient hospital beds for each region).

The progressive aging of society increased the importance of collaboration between public health, medical and welfare services at the community level in the provision of care for the elderly. The “Ten Year Strategy for Promotion of Health and Welfare Services for the Aged” (also known as the Gold Plan) was adopted in 1989, making it compulsory for each municipality to formulate a plan for the health and welfare of their aged residents by the year 1993.

The advent of the 1990s brought a prolonged economic downturn, triggered by the collapse of the bubble economy. It also brought a major wave of decentralization, including the abolition of the Public Health Center Law and its replacement by the “Community Health Law” in 1994. The new law specified public health centers as the broadly based, specialized, and technical bases for community-based health. Personal

¹⁴ The Ministry of Health and Welfare (1960) Annual Report on Health and Welfare.

services (such as immunizations and maternal and infant health checks), that had previously been the responsibility of public health centers, were transferred to the new “municipal health centers,” under the jurisdiction of local governments close to the people.

With this intensification of the duties of public health centers, and apportionment of some duties to the new municipal health centers, public health centers underwent streamlining and rationalization from the late 1990s. Their numbers have dropped from 852 in April 1991 to 576 in April 2003. Revisions to the “Maternal and Child Health Law” in 1994 also basic maternal and child health services transferred to the municipalities in April 1997. In other words, decentralization finally came to the field of public health and medical services during this period.

The late 1990s also saw the emergence of the concepts of quality of life and normalization, and the way of thinking that a disability should not prevent people from living in familiar surroundings. Most recently, care for the elderly and disabled has been more home-based rather than institution-based, even in the final stages. Home-based care has become increasingly necessary in many fields, raising the demand for a community-based health approach, providing holistic care within the community, making use of community resources. Even when medical institutions recommend diet and exercise programs to patients with lifestyle-related diseases, few actually comply, and the results of outreach programs are being examined in this area. These include initiatives where the medical institution notifies municipal public health nurses and dietitians when a patient is diagnosed, and they provide continued and holistic care, such as through home visits¹⁵. Another involves home visits for dietary guidance by diet improvement extension workers (shokkai-san), employed by

many local governments (see Box 8-5). From the above, we can see that the community-based health approach is undergoing something of a revival at present.

2. Main Initiatives in Community-based Health

In this essay, we will first identify the major players in community-based health, how they were involved in which initiatives, and summarize their characteristic features. When we consider the field of community-based health, we cannot simply express their characteristic features in terms of the principal players alone, but need to consider what dynamics worked in what combination to achieve the overall results. As the name implies, initiatives in community-based health will vary widely between communities, making it difficult to classify community-based health as a whole. We will therefore present three well-known examples of successful community-based health initiatives, and through them describe the dynamism of community-based health overall. We will then discuss dynamics and their mechanisms that come to play in community-based health. There are few prior studies in this area, as they are difficult to conduct, so we hope to illuminate a part of this area.

2-1 Principal Players in the Community-based Health Field

Players who have fulfilled important roles in Japanese community-based health include public health centers, public health nurses, local resident groups, and livelihood extension workers. The way in which these players engaged in community-based health programs in collaboration with each other is a common factor in many regions. This allows us to know what is an

¹⁵ Fujiuchi, Shuji (2003) “*Koshueisei to Primary Health Care no Kyodo* [Collaboration of Public Health and Primary Health Care],” *Koshueisei* [Public Health], Vol. 67 No. 8 August 2003, pp. 17–21.

Table 8-2 History of Community-based Health

Year	Policy, movements in community-based health	Trends in society
1892	District nursing commenced by Doshisha Hospital	
1898	Introduction of School Physician System	
1900	Introduction of School Nurse System	
1909		Extremely poor harvest in Tohoku Region
1914		Commencement of First World War
1916		Establishment of Health and Sanitation Research Committee
1918	District nursing commenced by Tokyo Municipality	Rice Riots in Toyama Prefecture
1919		First World War ends
1920	Enactment of School Doctor Regulations	
1922	Commencement training in disaster nursing at Nisseki (Japan Red Cross)	Community Health Law enacted
1923	Tokyo establishes Child Health Centers; Imperial Gift Foundation Saisei-kai commences nursing home visits	Great Kanto Earthquake
1924	Osaka City commences district nursing program	
1927	St. Luke International Hospital commences a public health nursing program, also sets up a training project	
1928	Commencement of social work nurse training at Nisseki (Japan Red Cross)	
1929		Great Stock Market Crash
1930	Osaka Asahi Newspaper Social Foundation and Public Health Nurses' Association established	Showa Crash
1934		Boshi Aikku-kai (Aikku Association) formed
1935	Foundation of Tohokukoshin-kai (Tohoku Association for Revitalization) (social work nurse program) Kyobashi Public Health Center established (Rockefeller Foundation)	
1936	Yamagata Prefecture, resident posting system for social work nurses	
1937	Implementation of Health Center Law→birth of "Public Health Nurse"	
1938	National Health Insurance Law enacted→birth of "Community Public Health Nurse" Institute of Public Health established (Rockefeller Foundation) Tokorozawa Public Health Center established (Rockefeller Foundation)	National Mobilization Law enacted Ministry of Health and Welfare established
1939		One-third of municipalities doctorless Commencement of Second World War
1940	Research Institute of Health Science commences public health nurse training	<Period of "Healthy Soldier, Healthy People"> National Physical Strength Law enacted
1941	Public Health Nurse Regulations enacted→establishment of public health nursing as a profession	
1942	First accreditation examinations for public health nurses	Commencement of Mother's Handbook System
1945		Second World War ends
1947	New Public Health Center Law enacted Law concerning Public Health Nurses, Nurse Midwives and Nurses promulgated Program of public health nurse postings to frontier areas (Ministry of Agriculture, Forests and Fishery)	1947-49 First Baby Boom Reconstruction of National Health Insurance Scheme commences
1948	All public health administration transferred from Police Departments to public health centers Suginami Public Health Center established as first model public health center	Preventive Vaccination Law enacted
1951		Cerebrovascular disease replaces tuberculosis as number one cause of death Tuberculosis Prevention Law revised
1953	Public Health Center Managers Association formed (partial revision of Public Health Center Law)	
1955	"No Mosquitoes and Flies Program" initiated by local public health groups	The number of abortions reaches a peak nationwide
1956		Economic White Paper "It's not post-war any more"
1958	School Health Law enacted Maternal and child health centers established	
1960	Classification of public health centers into 5 types	Ikeda Cabinet announces "National Income Doubling Program" Institutional births exceed 50%
1961		Universal medical care insurance System achieved
1965	Revision of Mental Health Law; public health centers become frontline public health facilities	Local Government Law revised
1968		Maternity and Child Health Promoter system introduced
1975		Local Government Law revised
1978	National public health centers transferred to municipalities Municipal public health centers established	"Alma Ata Declaration" by WHO and UNICEF
1982	Law for Health and Medical Services for the Elderly passed	
1985		Medical Services Law revised; Medical policy formulation
1989	Ten Year Strategy for Promotion of Health and Welfare Services for the Aged announced	
1993	Completion by municipalities of health and welfare plans for the Elderly	
1994	Community Health Law enacted	
1997	Community Health Law fully implemented	
2000		Long-term Care Insurance System implemented

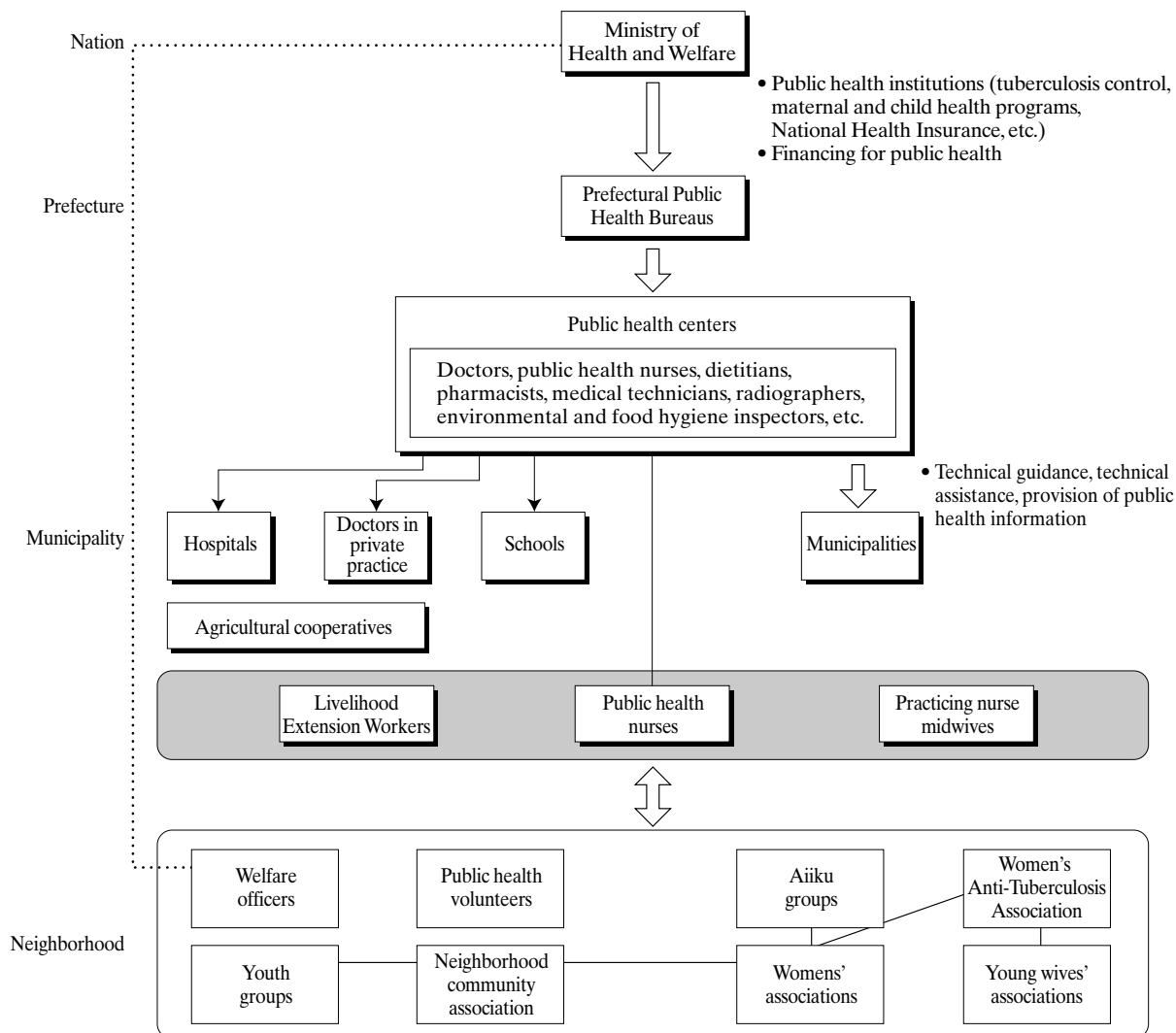
average sort of community-based health initiative in Japan. In the following pages, we will introduce some initiatives through the major player involved.

2-1-1 Community-based Health Network Centered on the Public Health Center

The network of public health centers had reached a certain level before the war, but it only began to function on a nationwide scale post-war. It has a distinctive axis of public health administration, extending from nation to prefecture (public health center) to municipality, with the public health center positioned as the

terminal facility (see Figure 8-1). Public health centers planned and conducted prefectural public health and medical policy, as external organs of the prefectural public health bureaus, and at the same time supervised and guided municipalities and medical institutions. The functions of public health centers were broadly divided into “personal public health services” (public health education, guidance, health checks, and immunizations, provided directly to residents), and “non-personal public health services” (regulation and guidance related to the environment, pharmaceuticals, food and drink, and animals, as well as prevention, and response

Figure 8-1 Diagram of Community-based Public Health Services Based on the Public Health Centre (Late 1940's)



Source: Based on Moriguchi, Ikuko (2003) p. 32

to outbreaks of, infectious diseases). To make public health activities in both of these areas possible, public health centers were provided with the necessary funding, equipment, and specialist personnel (doctors, pharmacists, public health nurses, dietitians, medical technicians, radiographers, dentists, environmental and food hygiene inspectors, etc.)¹⁶. Personal services provided by public health centers included tuberculosis control programs, maternal and child health activities, and nutritional guidance. Non-personal services included food hygiene testing and surveillance, and hygiene education. A major characteristic of Japanese public health centers is that they sought to raise public health standards through both personal and non-personal service provision.

Collaboration with a variety of other organizations and facilities is another characteristic of Japanese public health centers (see Figure 8-1). Collaboration with medical facilities was essential, as doctors in private practice in the community were the main providers of medical services. Patients identified by public health centers as requiring medical treatment would be referred to local medical facilities. Opening up the investigation facilities of the public health centers for use by doctors, dentists and pharmacists further promoted collaboration between public health centers and local healthcare providers.

“Tuberculosis Advisory Committees” were set up in each public health center (see Chapter 5), to provide centralized monitoring of screening, treatment and post-discharge follow-up. The Committees brought about improvements in the quality of treatment by doctors in private practice, ensured that each patient was monitored thoroughly, transferred patients requiring long-term treatment to large public hospitals or tuberculosis sanatoria, and took responsibility for their post-discharge aftercare.

High priority was also given to collaboration with schools, with regular meetings held with school principals, school doctors, and other parties

involved in school health in each public health center district, at which public health centers provided technical guidance regarding school meals, for example. After the unification of municipal public health programs and public health facilities for national health insurance following the 1948 revisions to the National Health Law, public health centers became the site for meetings and training for national public health nurses. The National Public Health Center Managers Association was then formed in 1946 to improve cooperation between public health centers. Although public health centers did conduct their own programs, it can be said that they played an even greater role in promoting and facilitating activities by other agencies within their area.

With guidance from GHQ, the Ministry of Health and Welfare established model public health centers, to serve as an example for other public health centers around the country of how they should be outfitted and managed. Starting with the Sugunami Public Health Center in Tokyo in 1948, as a rule one model public health center was established in each prefecture.

2-1-2 Outreach Activities by Public Health Nurses

Influenced by public health nurses in the U.S., from the late 1920s community-based health activities, including outreach programs in tuberculosis control and maternal and child health, were performed in Tokyo and Osaka by “public health nurses,” “social work nurses” and “social work public health nurses.” Industrial associations and national health insurance cooperatives in rural villages and remote areas lacking in medical facilities also employed public health nurses, who fulfilled an important role in community-based public health and medical programs (see Box 8-2).

Through the post-war period of chaos, the focus in community-based health gradually shifted to chronic infectious disease control and maternal and child health guidance. The activities of public health nurses activities expanded in response to the needs of the community, encompassing group screening

¹⁶ The placement of personnel varied between public health centers, and also changed over time.

for the early detection of tuberculosis, home visits for guidance to patients, parasitic disease control, infant health checks in response to the post-war baby boom, and family planning guidance.

In particular, public health nurses attached to municipalities, mainly national public health nurses, faced many demands as the only healthcare professionals in post-war doctorless villages in rural villages and remote areas. They were obliged to set

forth at any time day or night, no matter how inclement the weather, and often had to perform medical treatments by necessity. Through home visits, health guidance, and health education activities, they gained a thorough understanding of health problems facing the community, and engaged in public health programs with the support of community organizations such as women's groups, young wives' associations, and youth groups.

Box 8-2 Public Health Nurse Activities in Remote Regions

Public health nurse activities posted to rural and remote regions often found themselves working in doctorless villages, meaning they had to respond day and night to the demands of the villagers and settlers. The diaries of many of these nurses tell of the difficult early days of their postings to doctorless villages in great need of first aid and midwifery services, and of being forced to provide treatment exceeding that provided for the Medical Services Law. Public health nurses then turned their attention to the living conditions of the community, that could not be resolved with temporary, makeshift medical services. Rural villages, remote regions, and frontier areas were faced with "problems that needed to be solved before public health guidance could be given." These included a number of serious lifestyle issues, including obtaining the necessary nutrition, ensuring a safe water supply, local roads, prevention of a "high birthrate, high mortality rate" situation, improvement of conservative thinking by husbands and mothers-in-law, the health of women suffering from overwork, and a hygienic living environment and lifestyle. Public health nurse activities were said to "start by walking in their shoes," with the emphasis on providing guidance from the standpoint of sharing the same lifestyle as other members of the community. Their activities naturally became practical, realistic, and varied, aimed squarely at the lifestyle issues faced by the community. Activity reports from this period contain many examples of collaborations with the local mayors, local government officials, agricultural extension workers, livelihood extension workers, community center officers, and teachers.

In rural villages, remote regions, and frontier areas, public health nurse activities gradually came increasingly into conflict with male-centered thinking, and conservative thinking of mothers-in-law. In order to protect the health of children, and of mothers subjected to a harsh lifestyle, they conducted programs on a more organized basis. The diary of one public health nurse says, "I tried to encourage 'farmers that think'" in activities in rural villages. Public health nurses in general worked with local women's groups, and women's sections of settler cooperatives, forming independent study groups and conducting surveys. Worthy of note are their efforts in bringing about changes in health indices in the community, and evaluating results, always based on statistical information. Through activities such as these, public health nurses forged strong links and a relationship of trust with the community, contributing to the results they achieved.

Source: Produced by Yasuhide Nakamura, the chairperson of this research group, based on Sakamoto, Mariko (2003) "*Hokenfu no Keiken wo Tojokoku ni Katsuyo Surutamenno Hosaku ni Kansuru Kenkyu* [Research on the Strategy to Utilize the Midwives' Experience for Developing Countries]," Grant-in-Aid for Scientific Research by the Ministry of Health, Labour and Welfare, (Research Project on International Cooperation in the field of Social Security), Buntan Kenkyu Hokokusho.

Moriguchi (2003) classifies the roles of public health nurses in rural villages at this time into: 1) direct care provider; 2) determining the overall health problems of the community, and developing programs to meet those needs; 3) acting as contact point between administration and residents, forming a cooperative relationship involving both parties; and 4) continue activities to develop local treatment, prevention programs and activity of community involvement. Before the war, municipal public health nurses tended to “fight a lonely battle,” but collaboration with public health centers and public health center public health nurses strengthened after the war.

2-1-3 Community-based Health Activities Undertaken by Community Groups

By order of the GHQ, all community organizations such as public health cooperatives¹⁷ and neighborhood associations¹⁸ were abolished. Residents of communities ravaged by war, struggling with outbreaks of infectious diseases, food shortages, and inflation, promptly formed new community groups for self protection. The first of these began in 1946~47 in rural and mountain villages in Hokkaido

and the Tohoku and Hokuriku Regions of Honshu, at the time menaced by outbreaks of infectious diseases such as dysentery and Japanese Encephalitis. Villages banded together to exterminate environmental pests and improve sanitation. The hygiene and sanitation programs run by these villagers were effective in not only controlling disease, but also improved their living environment and the productivity of their farms, thereby improving the lifestyles of the entire village. Successful examples were widely publicized by newspapers and radio, becoming known as “People’s Organization Activities,” and were the focus of attention throughout the war-ravaged country¹⁹.

From around 1949~50, a “No Mosquitoes and Flies Program” was conducted by “Community-based Health Organizations,”²⁰ composed of volunteers from the local community. From 1949, the Ministry of Health and Welfare devised a plan to conduct eradication activities based on these community organizations, established model neighborhoods in each prefecture, and promoted the expansion of the program²¹. The “Communicable Disease Prevention Law” was revised in 1954 to give further impetus to the

¹⁷ Community organizations dating back to 1887, specified in the Communicable Disease Prevention Law with the aim of introducing public health concepts into daily life.

¹⁸ Set up during wartime as an administrative unit at the neighborhood level, to issue rations of food and other necessities, as well as government bonds and savings, take delivery of goods for the war effort, and mobilize residents for war work, sending and greeting soldiers, and air raid drills.

¹⁹ The Ministry of Health and Welfare (1988a) *Kosei-sho Goju Nen Shi (Kijutsu hen)* [Fifty Year’s History, Ministry of Health and Welfare (descriptive version)] Kosei Mondai Kenkyukai.

²⁰ In 1953, the Ministry of Health and Welfare standardized “people’s organization activities” as “community-based health organization activities.”

²¹ These campaign were led by individuals resident in the local community (e.g. hamlet, village, town), and were characterized by a number of organizations and institutions present in the community (women’s groups, youth groups, children’s groups, 4H clubs, schools and factories) working together in a planned and organized manner towards a common goal. Extermination of flies and mosquitoes requires a relatively high level of specialized knowledge and expertise, so the public health center responsible for that areas provided technical guidance, including surveys of fly and mosquito breeding sites, generation of protocols, actual eradication, and evaluation of results. Municipalities assisted with funding and the provision of facilities. Hashimoto, Masami (1955) *Koshueisei to Soshiki Katsudo* [Public Health and Organizational Activities] Seishin Shobo.

²² Municipalities became responsible for the extermination of rats, mice, and insect pests after a partial revision to the “Communicable Disease Prevention Law” in 1922. As the burden was great on smaller municipalities in terms of finances and technical ability, from 1950 municipalities with a population of 113,000 or more retained responsibility for pest control, but for municipalities with a population of less than 113,000, the prefecture became responsible for extermination programs. The 1954 amendments to the Law provided for: a) said extermination programs were again entirely the responsibility of the municipalities; and b) the prefectural governments were responsible for the formulation of plans for extermination programs, overseeing their implementation, and any other necessary activities. In effect, these amendments returned pest control to the municipalities, the organizations closest to the community-based health organizations.

Box 8-3 Results of the “No Mosquitoes and Flies Program”

Hashimoto (1955) suggests that the results of the “No Mosquitoes and Flies Program” were many and varied, and that recognition of these results by the community spread the program nationwide “like a contagious disease.” Excerpts from the effects of the program as identified by Hashimoto are given below

1. Public Health Aspects

- 1) It was not simply a matter of life became easier without flies and mosquitoes. Dirty, unhygienic and unsanitary breeding places for flies and mosquitoes, such as puddles, toilets, rubbish bins, piles of fertilizer, animal pens, and compost heaps, were cleaned up to the extent that it became difficult to find somewhere to throw away cigarette butts. (Environmental hygiene effect)
- 2) The reduction in infectious diseases mediated by flies and mosquitoes, especially dysentery, was remarkable. Reductions in gastroenteritis in the newborn were also widely reported. (Preventive hygiene effect)
- 3) This program required an appropriate level of knowledge, technical skill, and in particular organized action on the part of the local community. The results were readily apparent and could be appreciated by everyone, so this program resulted not only in the extermination of flies and mosquitoes, but also had a salutary educational effect for public health in general, increasing the rates of handwashing and immunizations as well. (Public health education effect)

2. Home Economic Aspects

- 1) The costs previously incurred due to flies and mosquitoes by the average household, approximately ¥1,000 per year, were no longer incurred.
- 2) Livestock diseases were reduced, and their weights increased. At the same time, to reduce the feed cost by about 20% for letting livestock to eat in a more leisurely fashion.
- 3) The reduced human disease burden meant that medical expenses were significantly reduced for households and for the village.

3. Educational (Character Building) Aspects

Promotion of this campaign had effects beyond the above-mentioned public health education aspects. It raised community spirit, led to overall lifestyle improvements, and markedly increased the desire for development and improvement of local society. The following effects were reported:

- 1) It is an excellent theme for a wholesome youth movement and leadership training (there were reports of youths no longer going out at night, and deserted pachinko parlors).
- 2) More people paid their taxes, as they could see them at work.
- 3) Our village has been divided into 2 factions for many years, but this campaign has allowed them to make peace.

4. Productivity Aspects

- 1) Reduced levels of disease, and increased weight, in cattle, horses, goats, pigs, etc. Better productivity from cattle and horses.
- 2) Increased production of cow's milk, goat's milk, and (chicken) eggs (approximately 20% increase/year)

Source: Hashimoto, Masami (1955) *Koshuisei to Soshiki Katsudo* [Public Health and Organizational Activities] Seishin Shobo. pp. 25–26.

activities of these community organizations²². As a result, the number of model neighborhoods expanded rapidly, from less than 50 in 1949, to around 3,500 in 1954 (covering 8 million people, or 10% of the population). Based on the results achieved in these model neighborhoods, the government decided in June 1955 to extend the “No Mosquitoes and Flies Program” nationwide over the ensuing 3 years. The activities of the community-based health organizations were given a considerable boost by this decision, and with the aid of the mass media, this program, that had commenced in rural villages, extended to Tokyo and other major cities²³. This program had a number of flow-on effects, beyond just the public health benefits, including character forming, improved household finances, and improved farm productivity (see Box 8-3).

In addition to community activities related to environmental sanitation in rural and mountain villages, in urban areas public health centers encouraged the formation of community movements, that conducted a broad range of public health activities (see Box 8-4). Some typical examples are the Mothers and Children Groups in the cities of Suita and Toyonaka, both commenced in 1950, that conducted programs related to the health of mothers and children. These Groups undertook a broad range of initiatives in areas including maternal and child health, improved nutrition, and improved sanitation, characterized by close collaboration with the local medical and dental associations, national health insurance providers, and community centers. As a result of the activities of these pioneering Mothers and Children Groups, in 1954 the “Osaka Prefectural Public Health Womens’ Service Association” was formed from the 150 Mothers and Children Groups in the Osaka area²⁴.

Following on from the above campaigns, a variety of public health themes were taken up by community organizations. In 1955, there were 10,924 community-based health organizations active in Japan. The themes of their activities were as follows: environmental sanitation (78.8%), infectious disease control (14.1%), maternal and child health (8.9%), improved nutrition (7.9%), family planning (6.7%), tuberculosis control (5.1%), parasitic disease control (4.1%), and oral hygiene (1.2%)²⁵.

2-1-4 Community Health Activities Undertaken by Livelihood Extension Workers

Hand in hand with various major legislative measures introduced concerning the public health and medical system in post-war Japan, at the behest of GHQ and as part of the “democratization of rural villages,” three major post-war rural reforms were carried out: strong action towards agrarian land reform, the creation towards agricultural cooperatives, and the introduction of the rural livelihood improvement movement. The aim of this movement, introduced under the Rural Livelihood Improvement Law of 1948, was to “improve life in farming villages and train smarter farmers” through the spread of scientific expertise and knowledge about agriculture and living conditions in farming communities. Under this Law, rural livelihood improvement centers were set up in all prefectures of Japan, and two types of extension workers were appointed: agricultural extension workers, most of whom were men and who were responsible for providing guidance in agricultural techniques; and livelihood extension workers, all of whom were women and who were responsible for providing guidance on how to improve living standards in farming communities. Known more familiarly as “*Nokai-san*” (Mr. Better Farms) and “*Seikai-san*” (Mrs. Better Lives), they

²³ The Ministry of Health and Welfare (1988) *Kosei Sho Goju-nen Shi (Kijutsu-hen)* [Fifty Year’s History, Ministry of Health and Welfare (Descriptive Version)] Kosei Mondai Kenkyukai.

²⁴ *ibid.*

²⁵ *ibid.*

**Box 8-4 Community-based Health Initiatives Centered on an Urban Public Health Center:
Toyonaka Public Health Center**

Given its distance of around 12.5 kilometers, or about twenty minutes by train, from downtown Osaka, Toyonaka City, a municipality adjoining Osaka City's northern border, is a typical satellite city that developed as a dormitory suburb for people with jobs in the offices and factories to its south. With the designation of the Toyonaka Public Health Center as a model public health center in 1948, its personnel and organization were expanded and the existing facilities were enlarged with the active support of the Toyonaka Municipal Government. As a result, its functions as a public health center were expanded, and its target activities spread into public health education. At the time, public health centers conducted primarily practical projects such as tuberculosis screening and maternal and child health guidance, and there were few public health centers that actively engaged in health education as part of their activities.

In 1949 Toyonaka Public Health Center drew up a "Three-Year Plan for Health Education." This was the master plan for its comprehensive and organized promotion of public health campaigns. The Plan's principal objects included setting up a framework within the Center for conducting organized activities; gathering basic data and conducting basic surveys to elucidate the particular characteristics of the region under the Center's jurisdiction; identifying different social resources; publicity campaigns to encourage various elements to organize. In addition, to promote health education, efforts were made to organize and train the community, with the idea that "if all residents in the Center's catchment area are to be the target audience for health education, then community organizations must also be active throughout the catchment area, and moreover must have the enthusiastic backing of the residents themselves." By the end of this three-year preparation stage, organic community health activities had been developed by existing organizations (such as medical and dental associations), and by various newly organized community groups, in collaboration with the Public Health Center. These activities can be outlined as follows.

The Toyonaka Mothers and Children Group, made up of mothers who were clients of the Toyonaka Public Health Center and by housewives in the neighborhood, actively assisted in the Babies Group and Mothers' Classroom, through which the Center provided birth and childcare guidance for expectant mothers. This Group also held film sessions, lectures, and nutritional cooking classes. It also worked actively with the Center on seasonal events such as Sanitation Week in April and the Summer Health Improvement Campaign, and Sexually Transmitted Disease Prevention Events and Tuberculosis Control Week in September.

A variety of school health measures were undertaken in Toyonaka, including the establishment of health education as a part of the school curriculum by the School Health Promotion Association, a body formed with the participation of organizations involved in school health such as public health centers, boards of education, and medical and dental associations. In addition, this Association set up subcommittees (including tuberculosis control, oral hygiene, environmental sanitation, parasitic disease control, and eye care), which provided specialist guidance and promoted surveys and research with the assistance of the relevant organizations.

The Public Health Association, made up of Toyonaka businesses with an interest in food and environmental sanitation, with the assistance of the Center provided health education to their employees through in-house voluntary management guidance and through their businesses. The Association also established a food hygiene promotion committee, whose aim was to raise

awareness in businesses and consumers, and to encourage strict compliance with hygiene practices such as washing hands before preparing food, to prevent food poisoning. In addition, once a year it also gave commendations for the best stores and facilities within the Center's catchment area, and also conducted study tours of model food factories and facilities in neighboring prefectures.

The Infant Health Promotion Association, made up of individuals with an involvement in kindergartens and child care centers, and the Infant Research Group, a specialist organization which conducted specialist research of infant health issues, were pioneers in Japan with a number of infant health initiatives.

Hygiene education was also conducted as part of the community education activities conducted by education research institutes, libraries, and community centers in Toyonaka City. In addition, for areas whose distance from the Center denied them easy access to its services, ground-breaking innovations were also trialed, such as a resident posting system for public health nurses.

From the above, activities were promoted that placed the emphasis on education campaigns centered around the Toyonaka Public Health Center. Comprehensive public health activities were conducted, for the particular area of health to be treated and for the particular age group targeted, by a wide variety of community groups and other organizations. Probably the most striking feature of this experiment was that success was achieved, in a new town where people had very few local ties or extended family, through community-based health activities that got started by creating community groups.

Source: 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., and Dai-Ichi Mutual Life Insurance Company (1969) *Hoken Bunkasho 20-nen no Ayumi* [Progress for 20 Years of Insurance Culture Awards], Daiichi Seimei Hoken Sougo Kaisha.,

both helped to raise the standard of living in rural communities, but in terms of community-based health, the results achieved by *Seikai-san* are better known.

Women with qualifications as teachers or nutritionists were recruited as *Seikai-san*. After training in the participatory problem solving method recommended by GHQ, with dedication and creativity they devoted their efforts to improving the day-to-day lives of farming families, improvising and making the most use of existing resources from the same viewpoint as the wife in the family. Liaising closely with agricultural extension centers, local government officials, public health centers and public health nurses, paying heed to the concerns of village officials and other influential figures and elders in the community, and by working through the village's network of women's groups and lifestyle improvement groups, livelihood extension workers undertook activities to improve the standard of living of the local residents, through initiatives that contributed to a broad improvement

in health and sanitation. Examples of such activities were improving residential infrastructure (better ovens, kitchens, water supply facilities, and baths); improving diets (using preserved foods and preparing communal meals during busy farming periods, and raising small livestock); communal eradication of flies and mosquitoes; health education (cutting down on excessive work, and leisure time education); and family planning awareness campaigns.

Specific activities which produced tangible results, such as reducing the amount of household work, also helped wives and mothers (who would be the principal individuals implementing these activities) with getting the approval of their husbands and parents-in-law. Community-based health activities led by all the residents of a village or region with the encouragement of a *Seikai-san* played a major role in raising health standards among the rural population, which made up 70% of Japan's population.

2-2 Examples of Successful Projects

We will now present some successful cases of community-based health programs in Japan. These are (1) Sawauchi Village in Iwate Prefecture, where the lead taken by the local government succeeded in improvements in public health and medical services; (2) Yachiho Village, where the Saku Central Hospital, played a major role; and (3) Okinawa, which managed to develop community-based health programs despite minimal medical resources and disadvantageous geographical conditions.

2-2-1 Sawauchi Village: Community-based Health Activities Under the Local Government Initiative²⁶

Sawauchi is an impoverished village located in the central north of the main Japanese Island of Honshu, some 60 kilometers southwest of Morioka City. Situated in a mountainous region close to the border with Akita Prefecture, it is snowbound each year between the months of December and May.

The most notable feature of the community-based health initiatives undertaken in Sawauchi is that they were combined with regional development projects in the form of snow clearing in the winter months and nameko mushroom cultivation. These led to the empowerment of the local residents, that in turn germinated self-supporting measures for subsequent public health activities.

Other major characteristics of the Sawauchi experience were that the local government, headed by the village mayor, took the lead in these initiatives, and that they aimed for bottom-up change from the residents themselves, notwithstanding the time-consuming nature of the relevant processes. Both the winter snow clearing and the nameko mushroom cultivation schemes were achieved by collaboration with the local residents. The first

step taken was to increase residents' knowledge through greater education, that was needed in order to enhance democratic processes in the village. Next, encouragement and support was given for the creation of one community group after another, such as a housewives' association, a youth club, a youth branch of the agricultural cooperative, and a village office employee association. Furthermore, in order to coordinate the village's health activities, a "health liaison worker" was appointed for each neighborhood, and a "public health committee" was created representing community groups as well as professionals with an involvement in Sawauchi's healthcare system and its schools.

A "Halve the Infant Mortality Rate Campaign" was conducted, organizing various entities, including these community groups. Programs were developed in which doctors, the village authorities, public health nurses, the board of education and various community groups would work together seamlessly. Examples of such activities were infant health checks, outreach diagnosis and treatment services, the purchase of an ambulance, film sessions to raise awareness of the tax cost of the national health insurance scheme, a campaign to expand the organization of youth clubs, and seminars on hygiene, childrearing and nutrition run by the housewives' association. As a result, Sawauchi's infant mortality rate, which at 70.5 per 1,000 births was almost double the national average of 39.8 in 1955, fell to zero in 1962.

In addition, in the belief that health education would not take hold in the village unless a proper medical system was established, measures were taken to raise the quality of the village hospital. Doctors posted to the Sawauchi Hospital did not generally stay long, which meant that the quality of its medical staff was often poor, and consequently Sawauchi residents viewed the hospital with great

²⁶ Prepared with reference to Kikuchi, Takeo (1968) *Jibun-tachi de Inochi wo Mamotta Mura* [A Village that Protected their Own Lives] Iwanami shoten. Oikawa, Kazuo (1984) *Soncho Arika - Sawauchi-mura, Fukazawa Masao no Shogai* [Village Mayor - Sawauchi Village, The life of Fukazawa Masao. Shincho sha, Idashimoto Masami (1968) *Chiiki Hoken Katsudo - Koshuisei to Gyouseigaku no Tachiba kara* [Community-based Health Activities - From the Standpoint of Public Health and Public Administration], Igakushoin.

distrust. However, as a result of the mayor's efforts over more than six months, in 1959 with the cooperation of Tohoku University, he was able to engage some keen young doctors. As a result of the renewed confidence in the hospital owing to the improvements in its human and physical resources, Sawauchi's residents were now prepared to join forces with the hospital to get health campaigns up and running.

A preventive philosophy of avoiding sickness in the first place also prevailed in Sawauchi, aiming to reduce the number of people who only saw the doctor after falling ill. To that end, in order to combine remedial diagnosis and treatment services with programs of sickness prevention, the official responsible for community health and national health insurance in Sawauchi was appointed to serve concurrently as the hospital's business manager. As stroke was the village's leading cause of death, health checks were provided free of charge for all adult residents in the village, including blood pressure checks, electrocardiography, urinalysis and funduscopy, with the specific aim of reducing the incidence of strokes. These measures led to setting up and maintaining a register of people with high blood pressure, ongoing measurement and health guidance by public health nurses, and improvements to the harsh living environment in winter. The bold step was taken to give 100% health insurance coverage to people over the age of 60 in 1960, and to infants in 1961. As a result of these efforts, and the growing realization among Sawauchi residents of the importance of prevention and early detection, the village's medical consultation rate came to be among the highest in Iwate Prefecture, but a reduction was achieved in costly medical treatments for fatal and serious illnesses,

and so these initiatives succeeded in lowering its medical expenditures overall.

To summarize the characteristics of initiatives undertaken by Sawauchi Village: measures were combined with regional development projects (snow clearing and nameko mushroom cultivation), which provided impetus for subsequent public health measures; residents were encouraged to organize themselves and embark on further voluntary activities; quality of the services provided by the village's medical facilities were raised, boosting people's confidence in them; comprehensive measures were carried out by getting a number of different organizations to collaborate; and through measures that emphasized prevention and early detection, the village succeeded in reducing its overall medical expenditure.

2-2-2 Saku Central Hospital and Yachiho Village: Hospital-based Community Health Activities²⁷

When a surgeon by the name of Toshikazu Wakatsuki took up his post in the spring of 1945 at Saku Central Hospital in the village of Yachiho, a typical Japanese isolated mountain village, the Hospital had never accepted inpatients, and in reality functioned as a medical clinic. Dr. Wakatsuki held the firm attitude that the Hospital should meet whatever medical needs the local residents might have.

At the time, there was not one facility that was officially able to perform abdominal surgery in the vast mountainous region of Minami Saku, which then had a population of well over 200,000. Dr. Wakatsuki therefore decided to offer this service, and consequently accept inpatients at the Hospital. In addition to general surgery, he also performed a whole range of surgical procedures, from caesarean

²⁷ Prepared with reference to Wakatsuki, Shunichi (1971) *Mura de Byoki to Tatakau* [To Fight with Illness in Villages] Iwanami Shoten., Wakatsuki, Shunichi (1971) *Noson Igaku* [Medical Care in Rural Villages] Nihon Koshueisei Kyokai., Namboku, Nagi, Keishi (1994) *Shinshu ni Joi Ari - Waikatsuki Shunichi to Saku Byoin* [Good Doctor in Shinshu - Doctor Shunichi Wakatsuki and Saku Hospital] Iwanami Shinsho, and 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.

sections to breast cancer operations, often referring to medical texts. This won him the great confidence of the local community, that then formed the basis for the Hospital's subsequent developments.

Health education activities were the next step, by way of an outreach diagnostic service that went out into the village, and also in the form of medical theater performances by the Hospital staff. Surprised at how often residents in rural areas who came to the Hospital were beyond medical aid and how little health knowledge they had, Dr. Wakatsuki described this as "an endeavor to get out from the Hospital into the community, so as to detect illnesses early and get early treatment for residents." This endeavor succeeded in uncovering hidden disease burdens and individual cases among farming communities.

Diseases and conditions peculiar to farming communities were discovered as a result of epidemiological surveys and occasional sociological surveys. These diseases included gallstones caused by parasites, "kohte," a painful condition afflicting farmers' wrists during busy periods, the problem of cold farmhouses, and "Farmer's Syndrome." The Hospital developed treatments for these ailments, and as well monitored the ongoing situation using field surveys, and worked to spread awareness of preventive measures. These activities were based on scientific evidence, and following of the first conference in 1947 of the Nagano Prefecture Association of Rural Medicine, a National Association of Rural Medicine came to be established in 1951. Spurred by the issue of cold farmhouses, research was conducted into heating, and the external causes of "Farmer's Syndrome" were identified as physical and mental fatigue, poor nutrition, and cold weather during winter. These are some examples of the research that led to improvements in the standard of living of residents of rural communities.

In addition, medical technologies were improved to meet the health needs of the rural residents one by one and with great care. One new hospital ward after another was constructed, including an infectious diseases ward in 1951, a

bone tuberculosis ward and a psychiatric ward in 1957, and an adult diseases center in 1964.

In 1959, through a partnership with the Yachiho Village Office, a mobile consultation service that had formerly been conducted on an irregular basis was expanded into a regular medical examination service called the "All Village Health Management Project," which targeted all village residents over the age of fourteen. The results of simultaneous medical examinations of all eligible villagers were recorded in a "health register," which allowed the village to monitor the health levels of its residents as a whole. At the same time, individual villagers were given their results in the form of a "health card," which helped to foster an understanding and awareness of their own health. These records did not only contain the results of medical examinations. Another feature was that they also recorded lifestyle and environmental factors, so they could assist residents with improving their lifestyles by allowing them to see the correlation between their lifestyle and environment on the one hand, and their health on the other. The support and cooperation of local residents was crucial to the complete implementation of the "All Village Health Management Project," and for that purpose a "public health committee" was set up with learned representatives from the village, and in each community a "health guidance officer" was appointed. The youth and housewives' branches of the agricultural cooperatives also provided support in all aspects. Through rigorous early detection and treatment, the Yachiho All Village Health Management Project achieved a reduction in the incidence of serious disease. This in turn led to a definite drop in the village's medical costs per insured individual, compared to both neighboring villages and the national average. Given that the reduction in medical costs was several times greater than the costs of health management, Dr. Wakatsuki proposed that the costs of health management should be covered by insurance as "payment for preventive measures."

To summarize the characteristics of the initiatives undertaken by the Saku Central Hospital: the needs of rural residents were met

one by one and with great care; the underlying nature of those needs meant that they were identified only after health workers and professionals actually took up residence in the village; and those needs were identified using epidemiological, sociological and other scientific methods. Other notable features are that the health levels of rural residents were monitored on an ongoing basis through the health register and their individual health cards; success was achieved in reducing medical costs through prevention and early treatment; and, as a result of the investigations made into the underlying causes of diseases afflicting the villagers, steps were taken to promote improvements in residents' basic living conditions and in their farming work practices.

2-2-3 Community-based Health Activities in Okinawa

For almost thirty years following WWII until 1972 the territory of Okinawa was under U.S. administration, which meant that its public health and medical system followed a slightly different developmental path from that on the Main Japanese Islands. The territory of Okinawa comprises 160 islands both large and small scattered across a vast area of ocean measuring 1,000km from east to west and 400km from north to south. Difficulty in accessing medical treatment is therefore a major issue for its residents. The devastation wrought by the war also meant that Okinawa lost much in the way of trained medical personnel and resources, so it had to start again from virtually nothing. Despite this, Okinawa residents now have the longest rates of longevity in Japan, thanks to community-based health programs that received strong backup from local authorities.

1) Response to the Doctor Shortage

There was an extreme shortage of healthcare personnel in Okinawa in the immediate post-war

period. For instance, whereas there had been 34.4 doctors for every 100,000 people before the war (in 1936), after the war (in 1946) this ratio had collapsed to 12.2, or around one third the previous figure. Although doctors originally from Okinawa before the war did gradually return home from wartime postings and former occupied territories, even in 1950, some five years after the war, Okinawa had a total of just 131 doctors, or 18.8 per 100,000 people.

In order to overcome this extreme shortage of doctors, for six years between 1945 and 1951 the U.S. military government²⁸ prohibited doctors from private practice, and instead operated an entirely government-run medical system. The authorities dealt with the emergency caused by the shortage of trained personnel during this period by posting doctors as government employees to medical facilities in different parts of the territory according to the local needs. Pharmaceuticals and medical supplies were all supplied by the U.S. military.

The territorial administration also set up a system of "assistant doctors," whereby people with experience as medical assistants (such as former Imperial army medical orderlies) were given special dispensation to perform a limited range of treatments after a one to two week retraining period. Assistant doctors were posted to outlying islands and remote areas with a shortage of doctors, taking on the role of provider of community-based medical services in their postings.

Efforts were also directed towards training more doctors. In 1949 the territorial administration launched the Contract Medical Student Study Abroad Scheme, which allowed many Okinawan students to study medicine on the Main Japanese Islands. This was replaced in 1953 by the Publicly Funded Medical Student Study Abroad Scheme, that continued until 1986. Doctors trained under these schemes subsequently made a major contribution as providers of community-based medical services in

²⁸ From 1950, the U.S. civilian government.

Okinawa Prefecture, both as clinicians and as leaders in the training of other medical personnel.

2) System of Resident Posting for Public Health Nurses in Okinawa

Okinawa's public health nurses were qualified nurses who were authorized to administer limited medical treatments after a brief training period. Planning, guidance, support and coordination of the activities of public health nurses in Okinawa were the responsibility of the public health center to which they were attached. Nurses were stationed in underpopulated areas and outlying islands where there were no doctors. Their role was to be single-handedly responsible for the health of local residents while living among them. In particular, as part of tuberculosis control programs, public health nurses would make home visits to provide health guidance and supervise medication. In remote areas with no medical services, they even initiated tuberculosis treatment. Public health nurses encouraged chairman of neighborhood association and community organizations, such as housewives' associations, youth men's associations, and elderly citizens' centers, to participate in tuberculosis prevention and screening programs. These efforts ensured that the entire community cooperated in health education and underwent testing for tuberculosis. Public health nurses also combined forces with local governments and schools to promote various public health projects.

This system achieved great results. The strong support base provided by the regional government was a factor in that success (see Box 8-5). A major characteristic of this system was the centralization of personnel management in the hands of the regional government, namely the Government of the Ryukyu Islands and its successor (from 1972) the Okinawa Prefectural Government. Determination by the central authorities of who was appointed where, and for how long, ensured that nurses' postings were fair and equitable, and helped to eliminate any feelings of uncertainty and inequity on the part of the nurses, who at some stage would unavoidably have to be sent to

an outlying island or remote area with scant resources or information sources. A major factor behind the success of the system of resident posting was the strong relationship of trust between the administration (principally, the managers of Nursing Divisions) and the field workers (the public health nurses), that underpinned the entire process of posting, supervision, and monitoring.

3) Private Sector Activities

Another noteworthy feature of community-based health activities in Okinawa was the beneficial consequences of community participation and publicity campaigns in the mass media.

We have already seen how, as part of tuberculosis control programs in Okinawa, public health nurses resident in local communities actively lobbied chairman of neighborhood association (such as ward chiefs), as well as community organizations such as housewives' associations, youth clubs and elderly citizens' centers, the entire community became involved in health education came to be conducted by and people were encouraged to undergo tuberculosis screening. The "Ryukyu Tuberculosis Prevention Society" was a private organization established in 1953 to conduct community education, publicity campaigns, and group screening. Subsequently, in 1956, recovered patients took the lead in forming the "Okinawa Patient's Association" to provide patients with guidance on managing their day-to-day lives and with counseling on medical treatments, and also conducted publicity campaigns for tuberculosis prevention. In this way, private sector support programs were a major driving force in the campaign against tuberculosis.

Parasitic disease control programs began in Okinawa with the establishment of the private "Ryukyu Parasite Testing Center" in 1961 by a pharmacist who felt strongly about the need for parasite control measures in rural villages. With assistance from technicians in public health centers and institutes of public health, the Center conducted stool sample testing. With the assistance of doctors from the public and private sector, they

Box 8-5 The Key to the Success of the Resident Posting System for Okinawa's Public Health Nurses

Transfers of personnel in the resident posting system for Okinawa's public health nurses were formally controlled by trustworthy administrators in the central regional government. Postings would alternate between 5-6 years on the main island of Okinawa and 2-3 years' service on an outlying island. In addition, since public health nurses on outlying islands were inevitably isolated with no immediate support, they needed every possible support their manager could provide. The Nursing Division Manager responsible for the outlying island where a public health nurse was to be posted would offer her words of encouragement immediately prior to her posting, saying, "I will look after you and your health for the duration of your posting, so you can devote all your energy to looking after the health of the local residents." The manager would also accompany the nurse on her first journey to her posting, and take her around and introduce her to the municipal officials and leading citizens as part of the handover of her duties. Over the course of her posting, the manager would telephone frequently, and ask how her programs were going and if she was short of supplies. Managers also provided counseling and advice, and would also regularly visit the nurses and give them training and guidance. All this support allowed public health nurses posted to outlying islands to engage in their duties in these very challenging day-to-day conditions with the feeling of security that they weren't being neglected, and that someone was looking after them. In addition, the public health nurses attached to each public health center would meet once a month to discuss community health problems and particular difficulties that they faced. These regular gatherings served as forums where they could gain assurance as well as valuable advice on their work.

Source: Nakasone et al. (Supervisor), Ogawa, Sumiko (Chief Editor) (2002) Public Health Nurse in Okinawa, Production by Video Pack Nippon, Planning & Sponsored by JICA.

also provided public health education to various groups, including schools, municipalities, and housewives' associations.

In 1963, the Center grew into the Okinawa Association of Parasite Control, an incorporated foundation that became a central figure in the field with the "Zero Parasite Campaign" that ran for five years from 1965. The Zero Parasite Campaign was conceived as a joint project with the media such as local newspapers, radio and television stations. It was the first fully-fledged mass media campaign in Okinawa. The radio program "The Journey of Zero Parasite Campaign" was broadcast as a long-running series, providing the impetus for harnessing the power of the media to raise public awareness of parasitic infestation as a major social problem. The Campaign also placed emphasis on information provision to local residents, and nearly 250 events on

parasite control were held each year in communities and schools by doctors and public health nurses, including health education sessions and film screenings. At these events, reports were given on the state of progress in the Zero Parasite Campaign, and making those results available to the public had the beneficial effect of raising community awareness of participation. As a result of the Campaign, private sector activities came to be reflected in government policies, with the result that the government covered part of the cost of stool sample testing.

As a result of transfers of population to disease-ridden areas, for example war-related evacuations, there was an explosive increase in malaria among the population of post-war Okinawa. To combat this outbreak, rigorous measures were instituted under the guidance of U.S. military doctors, including the detection of

patients through blood testing followed by treatment, elimination of mosquito vectors using DDT, and administering preventive medicines to residents of affected areas. These measures resulted in a dramatic decline in the number of malaria cases, and following the last five cases in 1961, indigenous malaria was eliminated from Okinawa. A principal cause of this success was enlisting the active cooperation of local residents in malaria control measures. This was achieved through community education, using lectures, posters, leaflets and media announcements, changing the awareness of the local population, the majority of whom had previously thought that malaria was fatal. In addition, in order to exterminate the mosquito vectors, under the guidance of public health centers people were recruited on a temporary basis from each community to spray DDT. Local residents also acted in eliminating underbrush and stagnant pools of water from around their properties, and community groups assisted by encouraging people to take blood tests. Widespread community participation in this manner was a major driving force in the success of the malaria control campaign.

In summary, the characteristic Okinawan initiatives were: despite an extreme shortage of healthcare personnel and facilities, a number of pressing health issues were overcome by making effective use of the limited resources available; utilization of the publicity power of the mass media; and through public health education, and active community participation. In particular, the resident posting system for health staff such as public health nurses, and the back-up system provided for them, provides a number of suggestions to developing countries with regard to capacity building.

2-3 Mechanisms of Community-based Health

Using a holistic analysis of the characteristics of the principal players previously introduced, along with three specific examples of community-based health initiatives, in this essay we will examine the dynamics and mechanisms that operate in community-based health in Japan. Community-based health measures are extremely varied, as they

depend on the particular nature of the community to which they are applied. While it is therefore not easy to provide a model that can be presented as representing “community-based health,” from a number of different actual measures in this essay we will attempt to elicit some common base elements. By extracting what could be described as the “essence” of community health, and by considering which factors have to be heeded in order to achieve a healthy community, we will attempt to define one aspect of the mechanisms of community health.

2-3-1 Collaboration between Different Organizations

While the lead organization in a community-based health program will vary depending on the particular circumstances, common to these measures is that governments, medical institutions, public health nurses, other public agencies and community organizations work together in an organized manner. Community-based health activities take on an energy of their own in an all-inclusive manner only when the activities of the participating groups become dynamic and organic through working together for a common goal. Hashimoto (1968) cited as the principal constituent elements of community-based health activities: 1) expert leadership (e.g. medical associations, universities, and research institutes); 2) community-led participation (e.g. various private sector groups and neighborhood organizations); and 3) government authorities (e.g. regional governments, public health centers, and local governments). Participation by these three players, each with their own different methods and objectives, is thought moreover to be an important factor in extending the range of community-based health activities. Sakuma (1978) has categorized the merits and demerits of community medicine and community health programs according to the type of leading player (see Table 8-3).

With respect to the organization of a community for the purpose of a community health program, Sawauchi Village and the Saku Central Hospital are examples where local neighborhood units such as school districts and neighborhoods were made the smallest units. These units were

assigned personnel such as health guidance officers who would represent the residents, and while maintaining close contacts with the community, met regularly at the municipal level, collaborated at the municipal level, holding regular meetings.

As the peak body in the community health hierarchy, a public health committee was established to allow exchanges through regular meetings

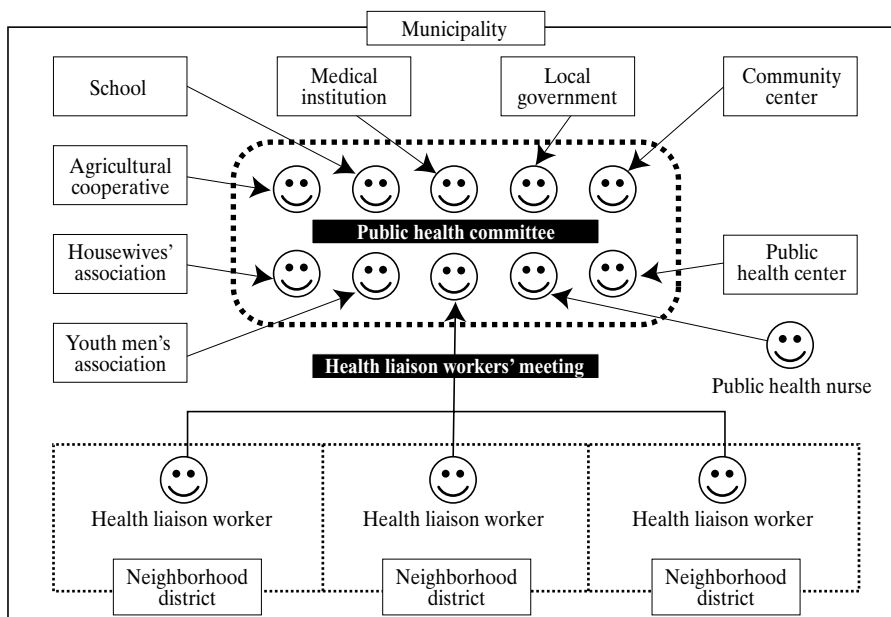
between representatives of health guidance officers, organizations with responsibility for specialist leadership, responsible government officials, and leading citizens from the local community. This sort of structure can be put forward as an effective mechanism (see Figure 8-2). Hashimoto (1968) said that although small communities such as school districts and villages are the most cohesive units for

Table 8-3 Comparison of Different Leadership Models for Promotion of Community-based Health, Medical Services and Social Welfare

Leading player	Main merits	Main demerits and problems
Local government	Securing budgets, collaboration with and making best use of administrative organization	Securing doctors and other professionals, problems of cooperation with medical associations, complexity of paperwork
Public health centers	Proven experience in Community-based health, securing certain specialists	Lack of personnel and resources, poor ability to lead community organization activities
Medical associations	Cooperation and activities by doctors, cooperation with other medical service personnel	Lack of collaboration with local residents, difficulty collaborating with government and other professionals
Academics	Advantageous for drafting plans and developing theories	Lacking in practical abilities, participation in planning tends to be sporadic
Local residents	Local residents can take the lead in planning and activities	Difficulties securing doctors and other professionals, and making time for activities
Specialist organizations	Can develop activities based on their own decisions	Tend to become isolated, have problems coordinating with other organizations
A combination of the above	A selective combination of the above merits	Ill-defined leadership, tendency to confrontation and competition

Source: Sakuma (1978) p. 31

Figure 8-2 Diagram of the Organization of Community-based Health



Source: Produced by the authors

community-based practical activities such as pest eradication, they are however too small to be effective if society resources are to be mobilized for any program to develop a community organization. This sort of two-stage organization formation can both give rise to a sense of unity among local residents and allow effective measures by government authorities and organizations responsible for providing specialist leadership. In addition, when people at the grassroots level come together at one site in regular meetings, allowing an exchange of views between the peak organization and the various participants, this is an effective means for sharing problems and for devising solutions.

2-3-2 Active Participation by Local Residents

No matter how much time it takes, it is important to get local residents to participate in community-based health activities, through democratic discussion in community organizations. Sustainable community-based health activities will not be possible unless each individual community member changes their thinking, exercising their minds in these discussions in order to overcome powerlessness, resignation, superstitions and counterproductive customs. While the support of medical services personnel and the administration will of course be necessary, the local residents themselves who will receive services will obtain the best available services if they have input into the content and form of those services. Community residents will be empowered through the confidence that they experience from their own achievements, leading to other programs and thus giving rise to a self-sustaining ability to develop activities in general. It is also important for medical and government authorities to take the position of "thinking with the community," and it goes without saying that it is necessary to view things from the perspective of local residents.

In Sawauchi Village, snow removal programs and nameko mushroom cultivation built trust in government officials, whereas at the Saku Central Hospital, Dr. Wakatsuki earned the people's trust through surgical operations, in both cases forming the basis for subsequent community-based health activities. With entry points such as these, whose results readily seen by people in the community, it becomes easier to gain people's trust, in turn making it easier to encourage local residents to become involved.

2-3-3 Problem Solving Begins with Understanding the Present Situation

Characteristic of Japanese initiatives is the scientific and efficient approach taken, in that before attempting to solve the community's problems, the community is assessed in its present state (including specific characteristics and medical needs), problems are identified and analyzed, and then existing resources are fully utilized in solving those problems. Scientific methods are used to conduct an analysis of problems and issues by the central government, local authorities and doctors as a matter of course, and also by public health nurses and livelihood extension workers. Interested parties in Japan have considerable latent capacities in this regard.

Outreach activities are valuable for assessing lack of time available to farming families particularly in busy seasons; 4) personal feelings of reserve or constraint owing to feudal concepts, patriarchy or the relationship between mothers- and daughters-in-law; and 5) the idea that seeing a doctor is a luxury²⁹.

In addition, there is much about community residents that healthcare staff can understand only when they go out among them. Dr. Shimizu, the deputy director (in 1992) of Saku Central Hospital stated "Previously, medicine would assess people only from a biological aspect, as if they were just an organism. But by going out into the community,

²⁹ Wakatsuki, Shunichi (1966) "*Noson ni okeru Iryo to Koshueisei* [Medical Care and Public Health at Rural Villages]," *Iryo to Koshueisei* [Medical Care and Public Health], Igakushoin.

³⁰ Wakatsuki, Shunichi and Shimizu, Shigefumi ed. (1992) *Ishino Mita Noson no Henbo – Yatsugatake Sanrei Goju-nen* [The Transformation of the Rural Village Seen by a Doctor –Yatsugatake Sanrei for 50 Years–] Keiso Shobo.

Box 8-6 From Community-based Health to Regional Promotion - Healthy Vegetable Production as the Impetus

Case 1: Nishi Aizu Town, Fukushima Prefecture

The town of Nishi Aizu in Fukushima Prefecture (population: 9,000) lies nestled in mountains near the border with Niigata Prefecture, in Japan's central north-west. Its population is shrinking, and mostly only the elderly remain. The residents' diets contain too much salt, and in line with a situation often seen in this part of Japan, being shut indoors by heavy snowfalls means its residents do not get enough exercise in winter. The town consequently suffers from a high incidence of strokes and lifestyle-related diseases, and with an average life expectancy in 1985 (73.1 years for men and 80 for women) lower than the national average, it was dubbed the "town of early death." With increasing numbers of bedridden elderly residents, the town saw its medical bills escalate unchecked, blowing out the deficit in its national health insurance budget, in turn necessitated onerous increases in the residents' tax burden.

At a lecture held in the town in 1997, a talk was given by the director of an agricultural sciences institute that advocates the traditional Chinese philosophy of food as medicine, and provides guidance on the cultivation of fruit and vegetables full of minerals. The town mayor liked what he heard and asked the director to provide the town with farming guidance. The director made a "nutritional diagnosis" of some of the town's farmland, and found that the soil was dying because of too many fertilizers and agricultural chemicals. The town accordingly curbed its use of fertilizers and chemicals, and the soil was given supplements of the minerals that it lacked. When cultivation began in the spring of 1999, the benefits were immediately apparent, and a crop of very palatable fruit and vegetables was harvested, with a higher sugar content and rich in vitamins and minerals. The number of devotees of the "healthy vegetables" grew rapidly, farmers began to offer farm-gate sales, and they were even used in local school lunches. They fetched a twenty to fifty percent premium at markets in Tokyo, and the town received a most respectable number of home delivery orders.

While naturally there were health benefits from eating the vegetables, such as reducing the incidence of allergies and better well-being from increased physical activity, as production picked up another benefit appeared. Cultivating the vegetables gave a purpose in life to elderly residents who had known no other life but farming.

In addition, a campaign was conducted to improve residents' diets by modeling their meals on the diets in Okinawa Prefecture, whose residents enjoy the longest life expectancy in the world. A project was also launched whereby diet improvement guidance workers, who had received training in food nutrition, would visit people's homes and give them guidance for a healthy diet. As a result of all these activities, life expectancy in Nishi Aizu gradually improved, to an average of 77.6 years for men and 84.1 years for women in 2000, also delivering a reduction in the town's tax bill to meet its national health insurance costs.

Source: "An Entire Town Grows Healthy Vegetables - Nishi Aizu in Fukushima Prefecture Extends its Residents' Average Life Expectancy," Nikkei Shinbun (June 15, 2003)

Case 2: Kita Mimaki Village

In 1976 Kita Mimaki, a village with a population of around 5,500 located to the west of Komoro City, began an "All Village Health Management Project" with the support of the Komoro Kosei Hospital. With the municipal government and the agricultural cooperative playing the

pivotal role, health screenings using medical examinations surveying people who had missed out on checkups, result reporting sessions, and one-on-one individual counseling sessions, were conducted throughout the village. An examination of the Project's results over a ten-year period revealed that anemia was a major problem for the village. A diet survey conducted in 1986 of all adults in the village showed a significant difference between the anemic group and non-anemic group in terms of their consumption of meats, fish, soy products and vegetables, food types with a strong connection with anemia. This confirmed that efforts were needed to improve the villagers' diets.

A public health nurse from the village office and mothers from the village who attended the "National Conference of the Campaign Against Synthetic Detergents" in Suwa City in 1987, heard a lecture that described the benefits of millet, which contains lots of vitamins, calcium and iron. Thinking that this would be just the thing to prevent anemia, they at once purchased nine kilos of millet seed, which they sowed in the fields of the health guidance officer and some volunteer farmers. In the fall, they harvested seven tones of millet. The village government and the agricultural cooperative joined forces with local residents in this project, the former purchasing a grain polishing machine and the latter offering storage sites. In late fall, when the village harvest festival was held, a range of millet dishes that had been prepared by the health guidance officer and the housewives' branch of the agricultural cooperative were put on display and offered to visitors to sample. Millet, whose cultivation by the village had started out as a means to combat anemia, evolved into a "village promotion project" when it was designated a specialty of the village the following year in 1988, thereby attracting interest throughout the local region. As a result of various measures implemented to combat anemia through the inclusion of millet in the local people's diets, in 1988 the rate of anemia in the village fell to its lowest on record. Following the success with millet, the housewives' branch of the agricultural cooperative began to produce Mimaki Tofu, using locally produced soya beans grown in converted rice paddies. Mimaki Tofu became so well known that production could barely keep up with the demand from private homes and for school lunches.

Source: Sakamoto, Kazuyo ed. (1990) *Iryo wo Koete-Komoro Kosei Sogo Byoin · Chiiki Hoken Katsudo no Jissen* [Beyond Medical Care-Komoro Health and Welfare General Hospital · Practice of Community-based Health Activities] Nihon Keizai Hyoron-sha.

doctors begin to be able to understand their patients in their social context."³⁰ In other words, by undertaking outreach activities, for the first time medical personnel are able to "think with the local residents."

2-3-4 Holistic Approach

Starting with mother and child healthcare, parasitic disease control programs and tuberculosis control projects, community-based health initiatives in Japan have ultimately led to overall community development. In many cases, the fundamental causes of the various diseases were often revealed to be the residents' sub-standard living environments, including housing, diets and work practices. Community-based

health initiatives result in improved lifestyles. By conducting outreach activities from the perspective of "thinking with the local residents," and through the problem solving method that starts from assessing the current situation, measures naturally become "multi-sector" in nature. In one case which conspicuously demonstrates this process, through better vegetable cultivation methods and the cultivation of new vegetables, initially just with the aim of improving the local residents' diets, not only did the community's general health levels improve, but those vegetables became a specialty of that region, contributing to the incomes of the district. In addition, in many farming families the cultivation of

vegetables became the main purpose in life for their older members, who knew no other life but farming (see Box 8-6). These examples show that it is possible for community-based health improvements to bring other benefits in the form of rural development, higher incomes and improved lifestyles, and that ultimately they can achieve well-being in people's lives. Improving general levels of health is the first step in lifting people out of poverty.

3. Community-based Health Systems in Developing Countries in the Light of Japan's Experience

The most pressing issues facing low and middle income countries today, and in particular rural villages, are the lack of medical facilities and medical service personnel, and the inability of residents to access medical services, perhaps even to the extent of ignorance of their existence. Both Japan's experience for about fifteen years following the Second World War, and Okinawa's experience under administration by the U.S. military, include overcoming situations similar to those in developing countries by means of community-based health initiatives. They can therefore offer models for the application of community-based health in developing countries. Some specific examples from those experiences are given below. When considering these experiences, it should however be emphasized that the first step should be to conduct a survey to find out what the country or communities already have in the way of human resources and facilities, and what sort of role these existing resources can fulfill.

3-1 Provision of Community-based Health Services Centered on Public Health Centers

Nowadays almost all developing countries have established public health facilities called health centers or health posts. A system of community-based health based on health centers and health posts is considered effective for regions with no medical facilities. Health centers and health

posts are lacking in adequate trained personnel and finances, however, and are little trusted by the local people. Another issue is that health centers do not make the best use of community resources (such as schools and trained personnel).

On the other hand, with only limited medical facilities after the war, Japan built and maintained a network of public health centers across the country, as both the most peripheral part of the public healthcare framework and as the frontline organization in the community-based health system. Japan's public health centers differ from health centers in many of today's developing countries in that they function more efficiently, the principal being that they were fully incorporated into the public health administrative framework, which constituted a coherent chain from the central government to the public, in a line from the Ministry of Health and Welfare to regional governments to public health centers to the community. Another factor was that Japan's public health centers were able to secure adequate budgets, along with various professionals and equipment. In addition, public health centers did not provide medical services, but instead focused on prevention, early detection and community education. They also concentrated their efforts on tuberculosis and maternal and child health, the most pressing health issues of the time. In addition, as well as being the most peripheral part of the administrative framework, it is also noteworthy that public health centers linked together both community resources (medical clinics, hospitals, and schools) and human resources (public health nurses, practicing mid-wife, livelihood extension workers, and community groups), and served as the coordinator for these groups.

Much of the Japanese experience of building and expanding public health centers, as well as much of the experience in bringing community resources together and playing a coordinator role, could be useful for developing countries in building and strengthening their own health centers, and in increasing their capacity to coordinate activities with the local community.

3-2 Appropriate Placement of Public Health Workers

In order to overcome an extreme shortage of doctors, for example because they have either no medical school, or just one, some developing countries have trained personnel called mid-level practitioners (MLPs)³¹. Many developing countries also have a variety of assistant nursing professionals who are responsible for public health programs in health posts and health centers³². Although much support is provided for the training of these personnel, a major problem is that once trained they are often unwilling to take up positions in the very communities, such as farming villages, which lack adequate healthcare services, notwithstanding the tremendous need of these communities for such healthcare staff. Some of the reasons they give are feelings of isolation in rural communities, the uncertainty of not knowing when they can return to a central posting, frustration that they are not keeping up with technical advances, and dissatisfaction with low remuneration.

After the war, when it has an acute shortage of trained medical personnel, Okinawa achieved excellent results by establishing both a public health nurse system and a system of “assistant doctors” who were permitted to perform a limited range of treatments. At the same time, for remote regions in Japan that suffered from an acute shortage of medical staff, an Okinawa’s public health nurse resident posting system was adopted, whereby by living in local communities with the local people these nurses could provide healthcare services to the community on a 24-hour, 365-day basis.

A resident posting system for healthcare personnel who are authorized to perform some medical treatments is effective for communities that have difficulty accessing medical services, and Japan’s experience shows that they can achieve much, even if they do not have a medical qualification. On a daily basis, public health nurses would visit people’s homes and obtain information regarding family members and their lifestyle, that would assist in diagnoses and treatments. These women performed many of the duties of what today would be called a family doctor. Their efforts inspired security and trust in their clients towards public health nurses and their programs.

Japan’s system of dispatching healthcare staff to remote locations, such as villages without medical services, is also applicable to developing countries. For example, under the Okinawan resident posting system, personnel were managed in a fair and equitable manner, allowing public health nurses to attend to their duties diligently, with peace of mind over their own situation. Professional standards of personnel management were applied, with nurses receiving regular support and training opportunities from their immediate managers while on their postings, and there was also the regular program of bringing together the public health nurses attached to each public health center, where they could share their problems and discuss ways to solve them. Another important factor was that national and municipal public health nurses were well remunerated³³, which meant that they could head out to their posting and carry out their duties with a sense of duty, and without any

³¹ While their training period and job title varies from country to country, as a general rule even if they are not doctors they are trained as medical services personnel who can provide certain treatments, and they are regarded as an integral part of the community-based health system. They are called, for example, Health Assistants (HAs) or Assistant Health Workers (AHWs), and are often appointed to manage health centers.

³² Their job title varies from country to country. Some examples are Assistant Nurse-Midwife (ANM), and the Village Health Worker (VHW).

³³ According to Moriguchi and Hyou (1993), “in 1952 in their second year of employment, national public health nurses in Y Village earned a higher salary than a teacher with a university degree, the remuneration of national public health nurses in I Town was exceeded only by that of the deputy mayor, and they were given the use of a motorized bicycle.” According to Nahara (2003), public health nurses were “members of the village elite, second only in status to the mayor.”

sense of grievance. As shown by the example of the Saisei-kai in Hokkaido, the strategy of returning people to their original communities after sending them away for training as healthcare staff is effective in securing medical personnel for remote communities. The Nepal School and Community Health Project (SCHP), conducted through cooperation between JICA and the Japan Medical Association between 1992 and 2001³⁴, achieved considerable success with this strategy³⁵. The principle of Primary Health Care (PHC) espoused in the Alma Ata Declaration also suggests the desirability of health workers who are to work in a particular community to be selected from that community, since these workers can readily settle down in the community and get to know the local people³⁶.

In developing countries, residents are sometimes not even aware of the existence of healthcare services, and they may have a number of latent health needs that they do not realize. Outreach activities are one of the most effective approaches in this situation. Measures are needed that to get healthcare staff in developing countries to walk around a village as part of their practical training, so that they can experience for themselves how effective outreach activities are. Providing health guidance through outreach activities assists with disease prevention, and the early detection of disease also encourages patients to make timely visits to medical facilities. Prevention and early detection of diseases is especially necessary in developing countries, where it is difficult to access advanced medical treatments, and medical resources are limited.

Developing countries also need to expand their medical training programs, alongside their

training of allied medical personnel. In Japan a variety of measures were taken to that end, such as the Okinawan Publicly Funded Medical Student Study Abroad Scheme, setting up specialist training institutions responsible for remote area medical services such as the Jichi Medical School (see Box 2-1 in Chapter 2), and establishing medical faculties in regional areas. These initiatives could also serve as models for the training of medical personnel in developing countries.

For the purpose of training medical services personnel, however, it is important to not simply study a variety of systems. What is required is the formulation of a long-term plan for the training of medical services personnel that conforms to the national long-term plans for training skilled personnel in general, after making a thorough survey of existing medical resources.

3-3 Active Participation by Local Residents

In developing countries today, awareness and participation on the part of local residents is needed more than ever before to raise community health levels. With the active participation of local residents, community-based health programs can become self-sustaining. In Japan, around the country, community groups arose to tackle public health problems at the community level. In Okinawa, faced with an extreme shortage of medical personnel, community-based health programs with broad participation by local residents contributed greatly to controlling parasites, tuberculosis, and malaria. Developing countries often already have community organizations of one sort or another based on gender, age, or occupation. It will be important to

³⁴ Funding for the project was provided by the Japan Medical Association. In this respect, it differed from the usual technical cooperation by JICA.

³⁵ Jinba, Masamine (2000) “*Nepal Noson ni okeru Koshueisei Katsudo no tameno Jinzai Ikusei –Nepal Gakko, Chiiki Hoken Project niyoru Bottom-up Shiki Approach no Jirei* [Human Resources Development for Public Health Activities at Rural Villages in Nepal –Case Study of Bottom-up Approach for the School and Community Health Project in Nepal], *Koshueisei Kenkyu* [Research on Public Health] Vol. 49 No. 1 pp. 37–43.

³⁶ Umeuchi, Takuo (2001) “Primary Health Care,” *Kokusai Hoken Iryo Gaku* [International Health and Medical Study] Kyourin Shobo.

stir these community groups into action and make positive use of those groups.

With an entry point whose results are immediately apparent, it is easier to encourage the community to actively participate. Since any person undoubtedly wants good health, much use should be made of the advantages inherent in the field of public health and medical services in attracting participation by local residents. Attention should also be directed at literacy education as is already being conducted in various countries. Under the above-mentioned SCHP in Nepal, literacy education is being provided to women between the ages of 15 and 45, demonstrating great effectiveness as an entry point for getting women in particular to become actively involved in community-based health projects³⁷.

We have examined specific examples of entry points such as snow removal and nameko mushroom cultivation in Sawauchi Village, and surgical procedures at Saku Central Hospital, although entry points will vary depending on the particular characteristics of each community. A number of coincidences have occurred in the examples given, so it is difficult to generalize from these entry points. An entry point can be identified for a particular community, however, by looking with great care at each set of needs of the local residents. It is also often the case that such a meticulous attitude will of itself bring about a transformation in the local residents.

In some developing countries, notwithstanding the success that some community groups can achieve in certain areas with the support of donors, the problem remains that those activities will often be difficult to apply on a nationwide basis, or will unravel once the donors' support comes to an end. When a community group arose in Japan to deal with a particular problem, the administration would

analyze and systemize their achievements, adopt them as government policies, and then budget for funding to expand the project throughout the country. Reflecting on Japan's experience in community-based health, as indicators for the spread and sustainability of activities by community groups, attention should be given to official commendations given for good practices, mass advertising campaigns conducted in the media, standardization of projects by government, and securing of government funding for projects when they were adopted as government policies.

3-4 Collaboration between Different Organizations

In order to conduct projects efficiently in the face of limited community resources, collaboration between a variety of organizations is essential. When organizations with different backgrounds tackle a common problem, results that no organization can achieve alone are possible. Japan's experience has shown that projects can then be transformed into a dynamic "movement." One specific method for such collaboration adopted by Japan to organize initiatives in the area of community-based health was participation by three particular players: 1) specialist leadership (hospitals, medical associations, universities, and research institutes); 2) active participation by local residents (various private sector groups and local neighborhood organizations); and 3) administration (regional governments, public health centers, and local governments)³⁸. Another method was the two-level organization process involving first a lower level organization of local neighborhood units, such as school districts and neighborhoods, as the smallest organizational units in the system, followed by the creation of a specialist organization at the municipal level that oversees the lower level organizations (see Figure 8-

³⁷ Jinba, Masamine (2000) "Nepal Noson ni okeru Koshueisei Katsudo no tameno Jinzai Ikusei -Nepal Gakko, Chiiki Hoken Project niyoru Bottom-up Shiki Approach no Jirei [Human Resources Development for Public Health Activities at Rural Villages in Nepal -Case Study of Bottom-up Approach for the School and Community Health Project in Nepal], *Koshueisei kenkyu* [Research on public health] Vol. 49 No. 1 pp. 37-43.

³⁸ 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.

2). These methods are also worthy of consideration by developing countries in organizing their own community-based health initiatives.

3-5 Scientific Approach to Problem Solving

A major feature of Japanese initiatives was the scientific and efficient approach adopted by all parties, from the national government, local governments and doctors to public health nurses and livelihood extension workers, of resolving problems by assessing the particular characteristics of the community in question and its current medical needs, analyzing the relevant problems, and making the best use of existing resources. Since such problems cannot be resolved through a haphazard approach, what is ultimately required in developing countries is improved capacity building. The methodic resolution of problems (namely, first conducting a survey to gauge what the problems are, then devising measures to deal with them, and allocating resources rationally) will be more efficient in the end, and will probably also resolve the problems sooner. It is important that the developing country be the principal party that assesses the current situation. If that assessment can succeed in raising the awareness of the relevant parties, it holds promise for their attitudes towards undertaking initiatives to address subsequent problems.

3-6 Community-based Health and Multi-Sector Approach

It is no exaggeration to say that all factors pertaining to lifestyle, including living environments, income, and interpersonal relations within the community and the home, have an effect on the health of people within a community. In order to raise community health levels, it will therefore be necessary to combine health projects with an activity that targets the lives of the local community generally, such as education or rural development.

As mentioned above, community-based health initiatives naturally become more holistic when outreach activities are conducted from the perspective of “thinking with the local residents,”

and when the process of solving a community’s problems begins with an assessment of its current situation. Although gauging problems through fieldwork and solving the fundamental causes of those problems is often a difficult process, it has enormous potential for bringing well-being into people’s lives.

JICA has also conducted assistance in projects that have used an approach of combining community-based health projects with rural development programs for the community as a whole. For example, under the “Family Planning and Gender in Development Project Phase II” in Jordan in 2000~2003, after consultation with decision-making bodies in the community, income generating activities for women were adopted as the entry point. With the agreement of the husbands, fathers-in-law and mothers-in-law in the villages, and by getting men and women to think about working together to raise the level of health of mothers and children, it was decided to increase the number of family planning practitioners in rural villages. This project was planned on the basis that rural development and community health are inseparable. A multi-sector development perspective is the key to improving community health.

3-7 Conclusion

Community health should be tackled in an integrated manner, where a variety of players and a variety of measures work together based on the particular characteristics of the community in question. In addition, rather than as a particular fixed goal to be achieved, community-based health is better seen as a dynamically changing process involving constant trial and error, all the while aiming for greater well-being in people’s lives. Community-based health is by no means simply a problem solving method. Provided that people in developing countries and their supporters work as partners with local residents and see problems through their eyes, and scientific analysis lies at the basis of any ongoing and steady progress, little by little the people in communities can be mutually empowered through

even the smallest of achievements. While the progress achieved will be incremental, community-based health can indeed be regarded as a means

for gradually bringing people closer to achieving well-being in their lives.