Japan's Experiences in Public Health and Medical Systems

Towards Improving Public Health and Medical Systems in Developing Countries

March 2005

Institute for International Cooperation Japan International Cooperation Agency

This report is based on the discussion and findings of the study committee on "Japan's Policies and Approaches in the Fields of Public Health and Medical Systems" organized by the Japan International Cooperation Agency (JICA). The views expressed in this report are those of the members of the study committee and do not necessarily reflect those of JICA.

The names of government departments and agencies, and sometimes the organizations themselves, administering public health and medical services have changed over the years. The names employed at the time will be used in this report.

The full text of this report and other reports are available on the JICA web page. URL: http://www.jica.go.jp/ The contents of this report may not be copied or used without the permission from JICA.

Publisher: Research Group, Institute for International Cooperation, Japan International Cooperation Agency (JICA) 10-5, Ichigaya Honmura-cho, Shinjuku-ku, Tokyo 162-8433 Fax: +81 3 3269 2185 E-mail: iictae@jica.go.jp

The photos on the front cover have been provided by the Mainichi Newspaper.

Foreword

The field of public health and medical services is an important one, closely involved in people's lives, and essential for societies and countries to grow and develop. There are more than a few countries that are still struggling with issues such as high infant and maternal mortality rates, the spread of HIV/AIDS and other infectious diseases, and the lack of a safe water supply. Improvements to public health and medical services are therefore emerging as a major priority in many developing countries. Internationally, aid programs in the field of public health and medical services have been given a high priority, with donor countries and organizations and NGOs involved in partnerships to achieve Millennium Development Goals (MDGs), including projects aiming to reduce infant mortality rates, improve maternal health, halt the spread of diseases such as HIV/AIDS and malaria, and provide sustainable access to safe water.

Japan has also announced, through the "Medium Term Policy on Official Development Assistance (ODA)" promulgated in 1999, and the 2003 revision of the "Official Development Assistance Charter (ODA Charter)," that assistance in the field of public health and medical services will be given priority as part of the fight against poverty. A number of public health initiatives have also been announced, including the "Global Issues Initiative on Population and AIDS" (GII), the "Global Parasitic Disease Control Initiative" (usually known as the "Hashimoto Initiative") and the "Okinawa Infectious Disease Initiative" (IDI), where Japan's experience will be utilized in improving the public health and medical systems in developing countries.

In this report, we reviewed Japan's experiences in the field of public health and medical services, highlighting those aspects of Japan's experience that may be of use to developing countries in the challenges they face in improving their own public health and medical systems. We also examined and considered how the Japanese experience in this field can be applied to developing countries, where the situation is often markedly different from Japan's, and where particular points are essential to remember in applying this experience.

In the past, Japan has confronted the issues of high infant mortality rate, and a high prevalence of infectious disease such as tuberculosis. In a relatively short period, however, Japan has succeeded in reducing the infant mortality rate to the lowest in the world, as well as all but eliminating tuberculosis, that was once called a "national scourge," and Japan is now the nation with the greatest longevity in the world.

Factors in this remarkable development have included national supervision of the network of public health and medical systems, with a national approach to the main diseases prevalent in each historical era; formulation and enactment of policy based on a firm grasp of the actual situation, achieved through surveys of public health and medical services and rigorous statistical collation with the assistance of scientific academia; collaboration between government, doctors and midwives in private practice, non-government organizations, community organizations, and the media in overcoming various challenges; outreach services provided by public health nurses finely attuned to the needs of their local community; and the achievement of universal health insurance coverage during a period of financial restraint.

From experiences such as these, there are likely to be a number of areas worthy of consideration by developing countries in reforming their own public health and medical systems. There are also several

regrettable features in the Japanese experience, such as the delayed response to environmental pollution leading to escalation of the extent of the damage, and the strain on the health insurance system associated with the aging society. It is to be hoped that the lessons learned in these areas will also be useful to developing countries in formulating their response when they face similar problems in the future.

The actual initiatives undertaken in Japan were put into action on the basis of the historical background, the social structures, and the available resources, so if these factors are different then it naturally follows that the response to the problem will be different. It should be noted that adjustments and alterations will be required to suit the local needs and circumstances if Japan's experience is to be utilized in developing countries, it is, therefore, not the report's intention that the Japan's experience can simply be transferred into the host country as it is.

For this report, we set up a study committee composed of opinion leaders in their various fields, JICA associates and consultants to conduct the required surveys and put together this report. We would like to express our warmest thanks to all the members for all the efforts they put into the research survey.

It is our fervent wish that this report will be of assistance to our friends in developing countries in improving their public health and medical systems.

March 2004 Morimasa KANAMARU Director General, Institute for International Cooperation Japan International Cooperation Agency

Contents

Foreword .		i
Contents		iii
Terms and	Abbreviations	xvii
Overview c	of the Research Survey	xxiv
Introducti	on The Issues of Public Health and Medical Systems in Developing Countries	
	Issues of Public Health and Medical Services Faced by Developing Countries	
2. Assis	stance Initiatives in the Field of Public Health and Medical Services	3
	verview of Public Health and the Medical System in Japan	
-	The History of Public Health and Medical Services	11
	nographics: Population, Birth and Mortality Rate, Disease Prevalence	
1-1	Population Change	
1-2 1-3	Birth and Mortality Rate The Structure of Disease Prevalence	
	History of Public Health and Medical Services	
2. The 2-1	Phase I: Acute Infectious Disease Control (1868~1919)	
2-1 2-2	Phase II: Chronic Infectious Disease Control and Formation of Maternal	14
2-2	and Child Health Services (1920~1945)	17
2-3	Phase III: Restructuring the Health Administration (1946~1960)	
2-3 2-4	Phase IV: Expanding Medical Services (1961~1979)	
2- 4 2-5	Phase V: Challenge of an Aging Society (1980~present)	
	lix. Discussion of Classification of Phases in Public Health and Medical Services	20
rippend	in Japan	27
Year Ta	able. History of Public Health and Medical Services in Japan	
		,
Chapter 2	Present State of Public Health and Medical Services	
	rview	37
2. The	Service Delivery System	38
2-1	Public Health Services	38
2-2	Medical Services	39
2-3	Allied Health Services	39
3. Majo	or Public Health Services	39
3-1	Health Promotion	39
3-2	Maternal and Child Health Services	40
3-3	Health Services to the Middle-aged and Elderly	40
4. Med	ical Facilities	41
4-1	Overview	41
4-2	Facilities and Beds	42
4-3	Medical and Related Professional Employees	42
4-4	State of Equipment	
4-5	Inpatient and Outpatient Medical Care	
4-6	Provision of Medical Services by National Institution	45

5.	Medical Service Personnel		45
	5-1	Overview	45
	5-2	Medical Services Professionals	45
	5-3	Issues on Medical Service Provision	50
6.	Medio	cal Pharmaceuticals	51
	6-1	Pharmaceutical Industry	51
	6-2	Special Considerations Related to Separation of Dispensary from Medical Practice	52
7.	System	m for Collection and Dissemination of Health Information	53
	7-1	Collection of Health Statistics	53
	7-2	Utilization of Communication Technologies	53
8.	Finan	ces in Medical Services	54
	8-1	Trends in Medical Expenditure	54
	8-2	Budget of Health Sector	55

Part II Japan's Experiences in Public Health and Medical Services

Chapter 3 Maternal and Child Health

1.	Chan	ges Over Time in Maternal and Child Health Measures	59
	1-1	Pre-war Maternal and Child Health (1868~1944)	59
	1-2	Post-war Phase of Introduction of Maternal and Child Health Measures (1945~1948)	60
	1-3	Phase of Maturation of Maternal and Child Health Measures (1949~1979)	61
	1-4	Phase of Assistance in Childrearing (1980~present)	61
2.	Main	Factors in Improvements in Maternal and Child Health	64
	2-1	Analysis of Factors in Raising the Level of Maternal and Child Health	64
	2-2	Public Health Initiatives—Activities in Women-only Professions	66
	2-3	Participation of Community Groups	68
	2-4	Maternal and Child Health (MCH) Handbook System	71
	2-5	Promulgation of "Mother's Body Protection Law"	
		(Formerly "Eugenic Protection Law")	72
	2-6	Provision of Maternity Clinics in Rural Townships	72
	2-7	Maintenance of Maternal and Child Health Statistics	73
3.	Impro	ovements in Maternal and Child Health in Developing Countries	
	in the	e Light of Japanese Experience	73
	3-1	Preconditions for the Application of Japanese Experience	73
	3-2	Promotion of Women-only Professions	74
	3-3	Encouragement of Community Participation	74
	3-4	Maternal and Child Health Handbook Program	76
	3-5	Provision of Birthing Places and Improvements in their Quality	77
	3-6	Maintenance of Maternal and Child Health Statistics	78
4.	Conc	lusion	78

Chapter 4 Family Planning

1.	Tren	ds in Family Planning	80
	1-1	Pre-war and Wartime "Birth Control" (1920~1945)	80
	1-2	From Post-war Baby Boom to Promulgation of the "Eugenic Protection Law"	
		(1945~1948)	80
	1-3	From Rapid Increase in Abortion to the Widespread Use of Family Planning	
		(1949~1959)	81
	1-4	The Popularity of Family Planning and Present Challenges (1960~present)	83
2.	Main	Participants in Family Planning	88
	2-1	Government Initiatives in Family Planning	88
	2-2	Private Sector's Initiatives in Family Planning	92
3.	Fami	ly Planning in Developing Countries in the Light of Japan's Experience	96
	3-1	Factors in the Outcomes of Family Planning Measures in Japan	96
	3-2	Lessons Learned from Problems Encountered—the Importance of Reproductive	
		Health and Reproductive Rights	99
A	ppend	ix. Family Planning/ Prevention of Parasitic Diseases Integration Project (IP) 1	100

Chapter 5 Infectious Diseases Control

(Tuberculosis, Parasitic Disease, Immunization Programs)

1.	Trend	ls in Infectious Disease Control	109
	1-1	Acute Infectious Disease Phase (1868~1919)	109
	1-2	Chronic Infectious Disease Phase (1920~1944)	112
	1-3	Post WWII Acute and Chronic Infectious Disease Phase (1945~1960)	112
	1-4	Decline in Infectious Disease Phase (1961~1979)	114
	1-5	Emerging and Re-emerging Disease Phase (1980~present)	115
2.	Tuber	rculosis Control Measures	115
	2-1	Main Tuberculosis Cotrol Activities	116
		2-1-1 Strong Governmental Commitment	116
		2-1-2 Public Health Approach	117
		2-1-3 Private Sector Participation	118
		2-1-4 Activities of Tuberculosis Specialists	120
	2-2	Tuberculosis Control in Developing Countries in the Light of Japan's Experience	122
		2-2-1 Governmental Commitment	122
		2-2-2 Appropriate Patient Management and Intensive Treatment	122
		2-2-3 Supervision and Assessment Based on Patient Records and Reporting Systems	125
3.	Paras	itic Disease Control	126
	3-1	Post-war Measures against Soil-transmitted Parasites	126
		3-1-1 Measures Taken by Government	127
		3-1-2 Involvement of Community Groups	127
		3-1-3 Contributions by Parasitologists	131
		3-1-4 Characteristics of Japan's Initiatives	131

3-2	Contr	rol of Parasitic Disease in Developing Countries in the Light of Japan's	
	Expe	rience	131
	3-2-1	Identification of Needs and Awareness Campaigns	132
	3-2-2	Activities of Community Groups	132
	3-2-3	Collaboration with Experts	132
	3-2-4	Linkage with School Health Programs	133
	3-2-5	Public Hygiene Approach with Control of Parasitic Disease as a Point of	
		Introduction	133
4. Im	nunizati	on Program	135
4-1	Immu	inization Programs in Japan	135
	4-1-1	Trends in Programs	135
	4-1-2	Kinds and Delivery System of Immunizations at Present	137
	4-1-3	Infectious Disease Surveillance Program	138
	4-1-4	National Movement to Obtain Supplies of Poliomyelitis Vaccine	138
4-2	Immı	inizations in Developing Countries in the Light of Japanese Experience	139
	4-2-1	Commitment and Roles of Governments in Conducting Immunization	
		Programs	139
	4-2-2	Implementation of Immunization Activities Using Existing Health System	140
Apper	dix 1. H	IV/AIDS Control Measures in Japan	141
Apper	dix 2. R	esponse to Hansen's Disease (Leprosy)	143
Chapter	6 Envii	ronmental Pollution Control Measures	
1. Ov		f Environmental Pollution Control Measures	
1-1	What		140
1-2		is Environmental Pollution?	
1-2	Chan	ges Over Time in Environmental Pollution Control Measures	146
1-2 1-3	Chan		146
	Chan Treno 1-3-1	ges Over Time in Environmental Pollution Control Measures ds in Environmental Pollution Control Measures Beginning of Environmental Pollution (1600s~1945)	146 146 146
	Chan Treno 1-3-1 1-3-2	ges Over Time in Environmental Pollution Control Measures ds in Environmental Pollution Control Measures Beginning of Environmental Pollution (1600s~1945) Social Awareness of Environmental Pollution (1946~1964)	146 146 146
	Chan Treno 1-3-1 1-3-2	ges Over Time in Environmental Pollution Control Measures ds in Environmental Pollution Control Measures Beginning of Environmental Pollution (1600s~1945)	146 146 146
	Chan Treno 1-3-1 1-3-2	ges Over Time in Environmental Pollution Control Measures ds in Environmental Pollution Control Measures Beginning of Environmental Pollution (1600s~1945) Social Awareness of Environmental Pollution (1946~1964)	146 146 146 147
	Chan Trend 1-3-1 1-3-2 1-3-3	ges Over Time in Environmental Pollution Control Measures ds in Environmental Pollution Control Measures Beginning of Environmental Pollution (1600s~1945) Social Awareness of Environmental Pollution (1946~1964) Environmental Pollution Control Measures Commenced in Earnest	146 146 146 147
	Chan Trend 1-3-1 1-3-2 1-3-3	ges Over Time in Environmental Pollution Control Measures ds in Environmental Pollution Control Measures Beginning of Environmental Pollution (1600s~1945) Social Awareness of Environmental Pollution (1946~1964) Environmental Pollution Control Measures Commenced in Earnest (1965~1974)	146 146 146 147 147
1-3	Chan Trend 1-3-1 1-3-2 1-3-3 1-3-4 in Respo	ges Over Time in Environmental Pollution Control Measures ds in Environmental Pollution Control Measures Beginning of Environmental Pollution (1600s~1945) Social Awareness of Environmental Pollution (1946~1964) Environmental Pollution Control Measures Commenced in Earnest (1965~1974) Pollution Control Measures Lose Momentum, Increased Awareness of Environmental Problems (1975 onwards) onses to Environmental Pollution	146 146 146 147 147 147 148 156
1-3	Chan Trend 1-3-1 1-3-2 1-3-3 1-3-4 in Respon Histo	ges Over Time in Environmental Pollution Control Measures	146 146 146 147 147 147 148 156
1-3 2. Ma	Chan Trend 1-3-1 1-3-2 1-3-3 1-3-4 in Respon Histo 2-1-1	ges Over Time in Environmental Pollution Control Measures ds in Environmental Pollution Control Measures Beginning of Environmental Pollution (1600s~1945) Social Awareness of Environmental Pollution (1946~1964) Environmental Pollution Control Measures Commenced in Earnest (1965~1974) Pollution Control Measures Lose Momentum, Increased Awareness of Environmental Problems (1975 onwards) onses to Environmental Pollution	146 146 146 147 147 147 148 156 156

2-2	Environmental Pollution Control Measures		
	2-2-1	Environmental Pollution Legislation and Upgrading Administrative	
		Organization	
	2-2-2	Environmental Standards and Waste and Emission Standards	
	2-2-3	Environmental Pollution Control Measures and Regional and Local	
		Authorities	

		2-2-4 Police Prosecutions and Fines for Polluters	160
		2-2-5 Financial Assistance for Prevention of Environmental Damage	161
		2-2-6 Introduction of Regional Industrial Planning Policies	161
		2-2-7 Environmental Assessment	161
		2-2-8 Pollution Prevention Research	161
		2-2-9 Use of the Court	161
		2-2-10 Pollution-related Health Damage Compensation	162
		2-2-11 Education of Environmental Pollution Control Personnel for Industry and	
		Local Government	162
		2-2-12 Pollution Awareness Campaigns	162
3.		onmental Pollution Control Measures in Developing Countries	
	in the	Light of Japan's Experience	162
Chaj	pter 7	Occupational Health	
1.	Histo	ry of Occupational Health in Japan	165
	1-1	Worker Protection Measures Prior to 1945	165
	1-2	Post-war Administration of Occupational Health	166
		1-2-1 Establishment of a New Legislative Framework for Occupational Health	
		(Immediate Post-war Period)	166
		1-2-2 Responses to Frequency of Occupational Disease and Industrial Accidents	
		(mid 1950s~1960s)	167
		1-2-3 Enactment of the More Comprehensive Law on Industrial Health and Safety (1970~1980s)	167
		1-2-4 Increased Prevalence of Stress-related Disease (1990s-present)	169
2.	Main	Initiatives for Occupational Health	169
	2-1	Administration of Fundamental Occupational Health Policy	169
		2-1-1 Industrial Accidents	170
		2-1-2 Occupational Disease	171
		2-1-3 Medical Examinations and Health Promotion	172
	2-2	Employer Occupational Health Systems	174
	2-3	Workers' Compensation Insurance System	175
	2-4	Strategies for Small Businesses	176
	2-5	Towards a Participatory Model for Occupational Health Programs	177
3.	Occu	pational Health in Developing Countries in the Light of Japan's Experience	178
	3-1	From Government Directive to Worker-management Partnerships, a Century	
		of Progress	178
	3-2	Promoting the Participatory Model of Occupational Health	179
	3-3	On-site Occupational Health and Safety Measures	179
	3-4	Promoting Epidemiological Research	179
	3-5	Occupational Health Awareness and Education Campaigns	180
	3-6	Occupational Health Measures in Small and Medium-sized Enterprises	180

Chapter 8 Community-based Health Systems

1.	Tren	ds in Community-based Health Systems	182
	1-1	Phase of Acute Infectious Disease Control (1868~1919)	182
	1-2	Phase of Chronic Infectious Disease Control and Formation of Maternal and Child	
		Health Services (1920~1945)	182
	1-3	Phase of Restructuring the Health Administration (1946~1960)	184
	1-4	Phase of Expanding Medical Services (1961~1979)	185
	1-5	Phase of Challenge of an Aging Society (1980~present)	187
2.	Main	Initiatives in Community-based Health	188
	2-1	Principal Players in the Community-based Health Field	188
		2-1-1 Community-based Health Network Centered on the Public Health Center	190
		2-1-2 Outreach Activities by Public Health Nurses	191
		2-1-3 Community-based Health Activities Undertaken by Community Groups	193
		2-1-4 Community Health Activities Undertaken by Livelihood Extension Workers	195
	2-2	Examples of Successful Projects	198
		2-2-1 Sawauchi Village: Community-based Health Activities Under the Local	
		Government Initiative	198
		2-2-2 Saku Central Hospital and Yachiho Village: Hospital-based Community	
		Health Activities	199
		2-2-3 Community-based Health Activities in Okinawa	201
	2-3	Mechanisms of Community-based Health	204
		2-3-1 Collaboration between Different Organizations	204
		2-3-2 Active Participation by Local Residents	206
		2-3-3 Problem Solving Begins with Understanding the Present Situation	206
		2-3-4 Holistic Approach	208
3.	Com	munity-based Health Systems in Developing Countries	
	in the	E Light of Japan's Experience	209
	3-1	Provision of Community-based Health Services Centered on Public Health Centers	209
	3-2	Appropriate Placement of Public Health Workers	210
	3-3	Active Participation by Local Residents	211
	3-4	Collaboration between Different Organizations	212
	3-5	Scientific Approach to Problem Solving	213
	3-6	Community-based Health and Multi-Sector Approach	213
	3-7	Conclusion	213

Chapter 9 School Health Programs

1.	The H	History of School Health Programs	216
	1-1	Pre-war School Health Programs	216
	1-2	Post-war School Health Programs	216
2.	Main	Initiatives in School Health	218
	2-1	Administration of School Health	218

	2-2	Organization of School Health Programs	220
	2-3	Parasitic Disease Control	. 220
	2-4	School Lunch Programs	. 221
3.	Japan	's School Health Achievements - Application in Developing Countries	. 222
	3-1	Parasitic Disease Control	. 223
	3-2	School Lunch Program	224
	3-3	Collaboration with Schools, Families and the Local Community	. 225

Chapter 10 Emergency Medical Care

1.	Tren	ds in Emergency Medical Care	228
	1-1	Establishment and Expansion of Accident and Emergency Medical Centers	
		(1960's~early 1970's)	228
	1-2	Systematization of Provision of Emergency Medical Services (Late 1970's~1980's)	231
	1-3	Expansion of Pre-hospital Care Provision (1990~1996)	232
	1-4	A New Approach to Emergency Medical Care (1997~present)	232
	1-5	Future Challenges	233
		1-5-1 Pediatric Emergency Medical Services	233
		1-5-2 Improvements to the Pre-hospital Care System	
		(Emergency Medical Technicians)	233
		1-5-3 Emergency Medical Care in Remote Areas and Outlying Islands	233
2.	Main	Initiatives in Emergency Medical Care	234
	2-1	Emergency Transport by Fire Department Personnel	234
	2-2	"Dial 119" System for Emergency Assistance	235
	2-3	Expansion of Designated Emergency Medical Facilities	235
	2-4	System of First, Secondary and Tertiary Emergency Medical Services	235
	2-5	Establishment of a System of "Emergency Medical Information Centers"	236
	2-6	Reinforcement of the Pre-hospital Care System	237
3.	Emei	gency Medical Services in Developing Countries in the Light of Japan's Experience	238
	3-1	Road Trauma Care Centered in Municipalities in Southeast Asia	239
	3-2	Emergency Obstetric and Pediatric Care in Rural Areas in Low Income Countries	242
		3-2-1 Care in the Community	242
		3-2-2 Care During Transportation	243
		3-2-3 Care at the Receiving Medical Facility	243

Chapter 11 National Health Insurance

1.	Histo	ry of the Medical Insurance System	
	1-1	Birth of Medical Health Insurance (1900~1944)	
	1-2	From the End of the War to the Establishment of Universal Health Insurance	
		(1945~1961)	
	1-3	Phase of Revisions to the Health Insurance System (1962~1981)	
	1-4	Phase of Response to the Aging Society (1982~present)	

2.	Over	view of the Public Medical Insurance System	247
	2-1	Outline of the Medical Insurance System	247
	2-2	Long-term Care Insurance System	249
	2-3	Welfare and Medical Expenses Support Systems	250
		2-3-1 Welfare System	250
		2-3-2 Public Funding System for Medical Expenses	250
3.	Struc	ture of Medical Insurance Systems in Developing Countries	
	in the	E Light of Japanese Experience	250
	3-1	Characteristics of the Medical Insurance System in Japan	251
		3-1-1 Universal Health Insurance Coverage	251
		3-1-2 Major Role Played by the Government	251
		3-1-3 Inclusion of those Not Formally Employed	251
		3-1-4 Extremely High Number of Insurers	252
	3-2	Applicability of Japan's Medical Insurance Systems to Developing Countries	252
		3-2-1 Preconditions to Make Universal Health Insurance Coverage Succeed	252
		3-2-2 Scale at Introduction, and Phased Expansion of a Medical Insurance System	
		Suited to the Stage of Economic Development	254

Supplementary Chapter Environmental Sanitation

Focus: Water Supply and Waste Disposal, and Sewage Treatment

1.	Trend	ls in Environmental Sanitation	261
	1-1	Pre-war Environmental Sanitation Projects (1868~1945)	261
	1-2	Post-war Provision of Water and Sewage Systems (1946~1979)	262
	1-3	Water Quality Preservation and Sewage Treatment (1980~present)	265
2.	Japan	's Main Initiatives	266
	2-1	Roles of Local and National Government in Water Supply and Sewage Infrastructure	266
	2-2	Night Soil Treatment Works Outside the Sewage System	266
	2-3	Spread of Small-scale Water Supply System	267
3.	Impro	oving Environmental Sanitation in Developing Countries	
	in the	Light of Japan's Experience	269
	3-1	Striking a Balance between Water Supply and Sewage Infrastructure, and Utilization	
		of Appropriate Technologies	270
	3-2	Division of Responsibilities between Central and Local Governments	270
	3-3	Community Responsibility for Provision of Sanitation Facilities	270

Part III	Towards Application of Japan's Experience in Public Health and Medical Systems t	to
	Developing Countries	
Chapter	2 Towards Application of Japan's Experience in Public Health and Medical System	ms
	to Developing Countries	
1. Dis	cussion of Transition in Japanese Public Health and Medical Systems	275
1-1	Phase I: Acute Infectious Disease Control (1868~1919)	275
1-2	Phase II: Chronic Infectious Disease Control and Formation of Maternal and Child	
	Health Services (1920~1945)	277
1-3	Phase III: Restructuring the Health Administration (1946~1960)	277
1-4	Phase IV: Expanding Medical Services (1961~1979)	277
1-5	Phase V: Challenge of an Aging Society (1980~present)	278
2. Tov	vard the Use of Japan's Experience in Developing Countries	278
2-1	Feasibility of Applying Japanese Experiences to the Health Challenges Facing	
	Developing Countries	278
2-2	Characteristic of Japan's Initiatives that Can be Utilized in Developing Countries	282
3. Fur	ther Areas Requiring Study	291
Appen	dix. Japan's Experiences that May be Applicable in Cooperation with	
	Developing Countries	294

Appendix Statistics Related to Public Health and Medical Systems

1.	Overview	. 299
2.	Maternal and Child Health, Family Planning	. 308
3.	Control of Infectious Disease	. 310
4.	Occupational Health	. 315
5.	Community-based Health Systems	. 315
6.	School Health Programs	. 317
7.	Emergency Medical Care	. 319
8.	Health Expenditure, Social Security	. 320
9.	Sanitation	. 323
Refer	ences	. 325

Index of Boxes, Figures and Tables

Boxes

Box Int-1	Objectives Related to Public Health and Medical Services in the New DAC Strategy	. 3
Box Int-2	Objectives Related to Public Health and Medical Services in Millennium Development	
	Goals	. 3
Box Int-3	Infant Mortality and Economic Development	. 6
Box 1-1	Initiatives for Doctorless Regions	
	-Focusing on the Example of the Jichi Medical School-	. 23
Box 3-1	Home Delivery and Infant Mortality Rate	. 65
Box 3-2	Activities of Public Health Nurses—Takaho Village in Nagano Prefecture	. 67
Box 3-3	Ogyaa (Disabled Children's) Donation	. 69
Box 3-4	Expected Results of Mother's Handbook System	. 71
Box 3-5	"Projeto Luz" (Project of Light) —Humanizing Maternity Care in Brazil	. 75
Box 3-6	Maternal and Child Health Handbooks in Indonesia	
Box 4-1	Condoms are the Most Popular Form of Contraception in Japan	
		. 85
Box 4-2	Reproductive Health and Reproductive Rights among the Japanese Youth	. 87
Box 4-3	Real-life Activities of Family Planning Workers	. 91
Box 4-4	Public Information and Awareness Campaigns by the Japan Family Planning Extension	
	Association	. 93
Box 4-5	Family Planning Movement by Corporate Programs	. 95
Box 4-6	Why Parasite Control is an Appropriate Partner for Family Planning	. 101
Box 4-7	Application of Japan's Experience in Integration Projects	. 102
Box 5-1	The DOTS Strategy	. 121
Box 5-2	Community Activities in One United Body by the Residents of Okinawa Prefecture	. 123
Box 5-3	Home-based Approach to Tuberculosis Treatment in Okinawa	. 124
Box 5-4	The Okinawan Zero Parasite Campaign	. 129
Box 5-5	Schistosoma Japonicum	. 130
Box 5-6	Japanese Organization for International Cooperation in Family Planning Integration	
	Project (IP) in China	. 134
Box 5-7	The Effect of Suspension of the Vaccination Program on the Prevalence of Pertussis	. 136
Box 6-1	Promulgation of the Basic Law for Environmental Pollution Control	. 150
Box 6-2	Pollution Session of the Diet	. 151
Box 6-3	Establishment of Environment Agency	. 151
Box 6-4	The Public Health Center's Response	. 157
Box 6-5	Background to the Delayed Response	. 158
Box 8-1	The 1960s: Time of Transformation for Public Health Centers	. 186
Box 8-2	Public Health Nurse Activities in Remote Regions	. 192
Box 8-3	Results of the "No Mosquitoes and Flies Program"	. 194
Box 8-4	Community-based Health Initiatives Centered on an Urban Public Health Center:	
	Toyonaka Public Health Center	. 196

Box 8-5	The Key to the Success of the Resident Posting System for Okinawa's Public	
	Health Nurses	203
Box 8-6	From Community-based Health to Regional Promotion - Healthy Vegetable	
	Production as the Impetus	207
Box 9-1	Regular Health Check Schedule according to School Year	219
Box 9-2	Summary of the International Control of Parasitic Disease Asia Center Project	224
Box 10-1	Emergency Obstetric Care	238
Box 10-2	Challenges for Developing Countries in 3 Processes of Emergency Medical Care	240
Box 10-3	A Feasible Emergency Medical Care Model for Developing Countries	242
Box 11-1	A Comparison of the Medical Insurance Systems of the USA, UK and Germany	253
Box 11-2	The Medical Insurance System in South Korea	257
Box 11-3	The Medical Insurance System in Singapore	258
Box S-1	Improvements in Public Health from Small-scale Water Supply System	
Box S-2	Drawing Water is Hard Labor	
Box S-3	Self-Help and Mutual Aid in the Community	271
Box 12-1	Feasibility of Application of Japan's Experience in Public Health and Medical	
	Systems to Developing Countries	292

Figures

Figure 1-1	Trends in Total Population and Population Demographics	. 11
Figure 1-2	Trends in Birth Rate and Mortality Rate	. 12
Figure 1-3	Trends in Main Causes of Death	. 12
Figure 1-4	Changes in Industrial Structure	. 23
Figure 1-5	Trends in Numbers of Medical Institutions	. 23
Figure 2-1	Health Services in the Life Cycle	. 37
Figure 2-2	Summary of Education System for Medical and Allied Professional	. 44
Figure 2-3	Trends in the Medical Workforce	. 44
Figure 2-4	Trends in Number of Nurses and Assistant Nurses (Nursing Assistants)	. 48
Figure 2-5	Trends in Per Capita Medical Expenditure and as a Proportion of the National Income	. 55
Figure 3-1	Trends in Infant Mortality Rate in a Number of Developed Countries (1950~2000)	. 59
Figure 3-2	Infant Mortality, Maternal Mortality and Maternal and Child Health Initiatives	63
Figure 4-1	Contraceptive Prevalence Rate and Abortion Rate	. 83
Figure 5-1	Tuberculosis Deaths	. 111
Figure 5-2	Trends in the Prevalence of Roundworm and Hookworm Infestations	. 128
Figure 5-3	Trends in Prevalence of HIV Infection	. 141
Figure 5-4	Trends in Number of People Living with HIV/AIDS	. 141
Figure 6-1	Expenses Associated with Local Government Environmental Pollution Control	
	Measures	. 149
Figure 6-2	Roles and Responsibilities for Relevant Parties from Consideration of Minamata	
	Disease Countermeasures	. 159

Figure 7-1	Trends in Industrial Accidents (Either Fatalities or Causing at Least 4 Days Off Work).	170
Figure 7-2	Trends in Fatal Accidents	171
Figure 7-3	System of Occupational Health Management Under the Industrial Health and Safety	
	Law (Model)	173
Figure 7-4	Total Health Promotion Plan Flow Chart	174
Figure 8-1	Diagram of Community-based Public Health Services Based on the Public Health	
	Centre (Late 1940's)	190
Figure 8-2	Diagram of the Organization of Community-based Health	205
Figure 9-1	School Health Administration	218
Figure 9-2	Organization of School Health	221
Figure 10-1	Trends in Traffic Accident Deaths and Accidents Causing Death or Injury	229
Figure 10-2	Numbers of Emergency Medical Facilities	230
Figure 10-3	The Emergency Medical Care System	230
Figure 10-4	Trends in the Numbers of Emergency Calls and Transport Personnel	231
Figure 11-1	Breakdown of Enrollments in the Medical Insurance System	249
Figure S-1	Water Supply Penetration Rate and Prevalence of Water-borne Infectious Disease	264
Figure S-2	Trends in Sewage Penetration Rate	264
Figure 12-1	Overall Summary of Japan's Experiences in the Health Sector	276
Figure 12-2	Main Causes of Death in Developing Countries	280
Figure 12-3	Feasibility of Applying Japan's Experience to Health Problems in Developing	
	Countries	280
Figure A-1	Total Fertility Rate	299
Figure A-2	Average Life Expectancy at Birth	302
Figure A-3	Maternal Mortality Rate by Cause of Deaths (1950~1975)	308
Figure A-4	Deaths from Acute Infectious Disease (Cholera, Dysentery, Typhoid, Smallpox)	
	(1876~1899)	310
Figure A-5	Number of Tuberculosis Deaths, Mortality Rate and Morbidity Rate	311
Figure A-6	Positive Test Rate for Parasite Eggs	313
Figure A-7	Number of Public Health Centers	315
Figure A-8	Disease Prevalence in Junior High School Students	317
Figure A-9	Trends in Water Supply Penetration Rate and the Prevalence of Water-borne	
	Infectious Disease	323

Tables

Table Int-1	Infant Mortality Rate (2000)	1
Table 1-1	Classification of the Phases in Public Health and Medical Systems in Japan	13
Table 1-2	Health Transitions and the Corresponding Systems	27
Table 2-1	Medical Facilities by Type	41
Table 2-2	Hospital Bed Numbers by Type	41
Table 2-3	Number of Institutions and Beds by Operator	41

Table 2-4	Number of Professional Employees per 100 Beds and per Facility	42
Table 2-5	Diagnostic Equipment in Hospitals	43
Table 2-6	Registered Health Service Providers and Ratio	46
Table 2-7	Medical Practitioners by Institution Type	46
Table 2-8	Number of Dental Practitioners by Institution	47
Table 2-9	Number of Public Health Nurses and Midwives by Workplace	49
Table 2-10	Number of Nurses by Workplace	49
Table 2-11	Comparison of Medical Service Provision in Developed Countries	51
Table 2-12	Yearly Growth Rate in Medical Expenditure	55
Table 2-13	Major Items in Ministry of Health, Labour and Welfare Budgets	56
Table 3-1	History of Maternal and Child Health	62
Table 4-1	History of Family Planning	82
Table 4-2	Main Methods of Contraception Used in Japan	85
Table 5-1	Cholera Patients and Deaths	110
Table 5-2	History of Infectious Disease Control	113
Table 5-3	Promotional Activities by the Japan Anti-Tuberculosis Association	118
Table 5-4	Differences in Tuberculosis Control Strategies between Japan and Developing	
	Countries	121
Table 5-5	Global Statistical Overview of Parasitic Disease	126
Table 5-6	Immunizations and the Target Disease	136
Table 6-1	Seven Categories of Pollution	145
Table 6-2	The History of Environmental Pollution Control Measures	146
Table 6-3	Summary of the Four Major Pollution Trials	149
Table 6-4	History of Environmental Pollution	152
Table 6-5	History of Minamata Disease	156
Table 6-6	Prerequisites and Considerations Regarding the Application of Japanese Pollution	
	Strategies in Developing Countries	
Table 7-1	Important Trends in Occupational Health Policy	168
Table 7-2	Post-war Preventive Ordinances Related to Occupational Disease	168
Table 8-1	Increasing Numbers of Community Public Health Nurses	183
Table 8-2	History of Community-based Health	189
Table 8-3	Comparison of Different Leadership Models for Promotion of	
	Community-based Health, Medical Services and Social Welfare	205
Table 9-1	Trends in School Health Programs	
Table 10-1	Major Causes of Death and DALYs* in Medium and Low Income Countries	
Table 10-2	Development in Emergency Medical Care in Japan	229
Table 10-3	Plan and Criteria for Restructure of the Emergency Medical System	
Table 10-4	Life-saving Effect of Bystander Emergency Care (January~December 1998)	237
Table 10-5	Effects of Introduction of Emergency Life-saving Technician	
	(January~December 2001)	237

Table 11-1	Major Developments in the Japanese Medical Insurance System	247
Table 11-2	Summary of the Japanese Medical Insurance System (as of June 2003)	248
Table 11-3	International Comparison of Medical Insurers	253
Table 11-4	Economic Stages and Medical Insurance Stages in Japan	255
Table S-1	Population with Water Supply Systems and Water Supply Penetration Rate in	
	Japanese Cities, Towns and Villages (2001)	269
Table 12-1	WHO Classification of Countries according to Child and Adult Mortality Rates	279
Table 12-2	Japan's Experiences in Public Health and Medical Services According to the Health	
	Challenges Faced	281
Table A-1	Main Population Vital Statistics and Population	300
Table A-2	Average Life Expectancy at Birth (Mean Life Expectancy at Age of 0)	302
Table A-3	Population by Age-group (3 divisions) and Indices of Age Structure	303
Table A-4	Number of Deaths and Mortality Rate by Major Causes of Death	304
Table A-5	Number and Rate of Medical and Allied Personnel	306
Table A-6	Number and Rate of Medical Institutions	307
Table A-7	Maternal Deaths and Maternal Mortality Rate by Cause of Death	308
Table A-8	Numbers of Births by Place of Confinement	309
Table A-9	Number of Pregnancy Terminations and Contraception Prevalence Rate	309
Table A-10	Number of Patients and Deaths from Acute Infectious Disease	
	(Cholera, Dysentery, Typhoid, Smallpox) (1876~1899)	310
	Tuberculosis Deaths, Mortality Rate and Morbidity Rate	
Table A-12	Positive Test Rate for Parasite Eggs	313
Table A-13	Trends in Implementation Rate of Vaccination	314
Table A-14	Number of Industrial Accidents	315
Table A-15	Number of Public Health Centers	316
Table A-16	Number of Public Health Nurses according to Workplace	316
Table A-17	Physical Characteristics of School Students	317
Table A-18	Prevalence of Main Disease in School Students	318
Table A-19	Number of Traffic Accidents, Deaths and Injuries	319
Table A-20	Overview of National Medical Expenditure	320
Table A-21	Change in National Medical Expenditure by Classification	321
Table A-22	Change in Social Security Expenditure by Classification	321
Table A-23	Determination of Healthcare Benefits	322
Table A-24	Water Supply Penetration Rate	323

Terms and Abbreviations

Specialist terms	Outline explanation
Activities of Community-based Health Organizations	Community groups, particularly in rural villages, were active from the end of the Second World War until the late 1950's, in areas such as the elimination of insect pests and improved sanitation. At first these activities were known by various names such as "Community Organization Activities," but in 1953 the Ministry of Health and Welfare (MHW) grouped them all under the term "Activities of Community-based Health Organizations." These activities originated in rural villages, but later spread to the larger cities. A particularly famous example, that became a nationwide program, was the "No Mosquitoes and Flies Program."
Average Life Expectancy	The average age to which someone at a certain age can expect to live, according to a life expectancy chart, is called the average life expectancy for that age. The average life expectancy at the time of birth is called the "Life Expectancy at Birth."
Capacity Building	"Capacity" refers to the ability of an individual, organization, system or society to solve problems, or set goals and achieve them, either individually or collectively (problem solving ability). "Capacity building" is the process of improving or increasing that ability. This term is also used in contrast to "institution building," the establishment of organizations and systems, to denote the enhancement of the ability to conduct and manage said organizations and systems. In recent years, the term "capacity development" is more often used, emphasizing the importance of making improvements to capacities from within, rather than an external agency imposing changes from the outside.
DALYs (Disability-Adjusted Life Years)	This term is used by groups such as the World Bank and the World Health Organization (WHO) as a comprehensive public health index including death and disability. Calculated as DALYs = YLL (Years of Life Lost due to premature mortality) + YLD (Years Lived with Disability), it is an expression of time lost due to disease or disability. Using DALYs, the economic burden can be calculated for each country and for each disease/condition. This allows economic burden can be relieved by preventive or therapeutic interventions in a particular disease/condition.
Declaration of Alma Ata	In September 1978, an "International Conference on Primary Health Care" was held under the aegis of the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) in Alma Ata (formerly USSR, now Kazakhstan), with representatives from 143 countries and 67 organizations in attendance. The Alma Ata Declaration was endorsed on the final day of this conference. The Declaration, containing 10 recommendations, points out the inequalities in health outcomes between developed and developing countries, as well as political and economic inequalities within countries, and states that all people have a right and an obligation to participate in the planning and conduct of primary health care (PHC)*. The PHC Approach was put forward as the key to achieving the goal of "Health for all by the year 2000," as agreed on by the governments of the individual countries as well as international organizations. (Nakamura 1998)
DOTS (Directly Observed Treatment, Short-course)	A comprehensive primary health care approach to the diagnosis and treatment of tuberculosis (TB). It involves a short course of antibiotic therapy under direct supervision (for at least the first 2 months, medical staff or a responsible person directly observes the person taking their medication every day). DOTS is the prototype for an overall strategy to control tuberculosis being developed by the WHO. [see Box 5-3 for details]
Empowerment	This means to gain power in the social, economic or legal sense. This term is often used for women and social classes that have historically had their cultural and religious rights suppressed. In the field of development cooperation, empowerment of these groups is thought to lead to their personal development as well as development of the society as a whole.

Terms marked with * in the text are included in this glossary.

Specialist terms	Outline explanation
Environmental Sanitation	The World Health Organization (WHO) defines sanitation as "controlling all factors in the physical lifestyle environment of people that have an adverse effect, or have the potential to adversely affect, human growth, health or survival." Typical sanitation activities include disease prevention measures to prevent the spread of infectious diseases*; waste treatment measures for urine and sewage; vermin control measures to exterminate infectious disease* carrying pests such as mosquitoes, flies, fleas, lice, cockroaches and mice; and introduction of water supplies and sewage systems. In recent years, the field of sanitation has broadened and diversified markedly to include food sanitation measures, pollution control, environmental control systems for buildings, elimination of dangerous household products, disposition of industrial waste, and more recently areas of public interest such as environmental hormones and "sick house syndrome." (Toho Environmental Disease Research Institute)
Epidemiology	The study of the distribution of diseases, and their causes, in human populations. It has a basic science aspect, that examines disease distributions (temporal, geographical, special, gender, lifestyle, etc.) to determine causes and contributing factors, and an applied science aspect, that then seeks to prevent disease on the basis of these findings.
Expanded Program on Immunization (EPI)	This program was initiated by the World Health Organization (WHO) in 1974, and is currently run as a joint project by the WHO and the United Nations Children's Fund (UNICEF). The aim of the EPI is to extend immunization programs to all the children of the world for the prevention of diphtheria, pertussis, tetanus, measles, rubella, polio*, and tuberculosis.
Essential Drug Concept	The "Essential Drug Concept" is defined by the World Health Organization (WHO) as "Essential Drugs are those that satisfy the health care needs of the majority of the population, and they should be available at all times." This concept is derived from the "Possible new drug policies" outlined in the report to the World Health Assembly (WHA) in 1975 by the Director-General of the WHO.
Family Planning	A movement proclaiming the need for "birth control" (translated into Japanese as "restriction or regulation of the numbers of children") arose in Japan around 1920, and this movement emerged even stronger after the war under the name of "family planning." In the field of national development, "family planning" is often taken to be part of a strategy to control population growth, but originally it referred to a couple using contraception and spacing between pregnancies to plan the size and makeup of their family, also raising the age at the time of the first pregnancy and allowing treatment for infertility if required. Following the 1994 International Conference on Population and Development, family planning is considered to be one of the Reproductive Rights*.
GII (Global Issues Initiative on Population and AIDS)	Following on the 1993 US-Japan Common Agenda, in the following year the Japanese government announced this initiative, whereby it would increase its commitment to international aid in the areas of population and HIV/AIDS, contributing US\$3 trillion over the following 7 year period. This was a historic initiative for Japan, in that it was the first time it announced to the world an Official Development Assistance (ODA) action plan in a specific area.
Health Insurance	Under the Japanese health insurance system, the national government guarantees medical services for all under a social security system. It broadly comprises two main pillars, employees' insurance that covers company employees (occupational insurance), and National Health Insurance, that covers the self-employed and others. There is also a separate health insurance system for the elderly aged over 70, that is supported by the health insurance system for the present working generation.

Specialist terms	Outline explanation
Hospitals and Clinics	In Japan, medical service providers are regulated in accordance with the Medical Service Law*. Medical service providers mainly comprise hospitals, clinics and birthing centers. The term "hospital" refers to an institution with provision for at least 20 inpatients, whereas a "clinic" is an institution with no more than 20 inpatient beds. "Clinics" are further divided into "general medical clinics" and "dental clinics."
IDI (Okinawa Infectious Diseases Initiative)	Japanese public health cooperation strategy to follow GII*. This initiative, announced at the completion of the G8 Summit in Kyushu and Okinawa, involved a contribution of US\$3 trillion over the following 5 year period. Targets were announced for HIV/AIDS, tuberculosis (TB) and malaria, to be reached by 2010 through partnerships between the G8 members, the developing countries themselves, non-government organizations (NGOs), private corporations, and members of local communities.
Infant Mortality Rate (IMR)	This is the number of deaths of children (infants) aged under 1 per 1,000 live births (sometimes per 1,000 births) for a specified year. The Infant Mortality Rate is a good indicator of the public health situation in a region or country.
Infectious Disease	An infection occurs when a pathogen such as a virus or bacterium enters the body and multiplies, and the ensuing disease is called an infectious disease. Apart from contagious infectious disease (usually refers to contagious disease), that are passed from person to person, there are also non-contagious infectious disease, that are carried by animals or insects, or enter the body through a wound. When the onset of the disease occurs soon after exposure, it is usually referred to as an acute infectious disease, and when a long period elapses between exposure and onset or progression of the disease, it is referred to as a chronic infectious disease. Previously unknown disease that have recently caused problems, such as HIV/AIDS and ebola hemorrhagic fever, are called new infectious disease, whereas previously known disease that had at one stage reduced markedly but are now again causing problems, such as tuberculosis (TB) and malaria, are called recrudescent infectious disease. The WHO has sounded a note of warning that the threat of infectious disease on a global scale has not disappeared.
Immunizations	The administration of vaccines, orally or by percutaneous injection, with the aim of preventing infectious diseases*. By this process, immunity is conferred to that infectious disease*. A vaccine is a viral or bacterial preparation that has been attenuated, inactivated or detoxified.
Livelihood Extension Worker	During the Occupation following the Second World War, the General Headquarters (GHQ) of the Allied Powers conducted a program of "Democratization of Rural Villages." As part of this program, the Ministry of Agriculture, Forestry and Fisheries began a "Rural Livelihood Improvement Program" with the aim of improving the lifestyle of the residents of rural villages. Qualified teachers and nutritionists were recruited, given training in participatory social development methods and technical training appropriate to rural villages, and then posted to prefectural Agricultural Extension Centers. The goal of Livelihood Extension Workers was to create "farmers who can think independently," so they concentrated on facilitation, rather than instruction, promoted problem analysis and problem-solving through community participation, and provided multi-sector development assistance. Livelihood Extension Workers were also affectionately known as "Seikai-san," an abbreviation of the rather long title in Japanese.
Maternal and Child Health	The field of public health concerned with the maintenance and promotion of the health of mothers and children.
Maternal and Child Health (MCH) Handbook	In Japan, with the aim of achieving consistent health outcomes throughout pregnancy and infancy, all pregnant women are registered, and are issued a "Maternal and Child Health Handbook." Details of the pregnancy, birth and child development are recorded in the MCH Handbook, which also provides useful information for pregnant women and new mothers, of an administrative nature as well as public health and child raising tips. This system commenced in 1942 with the "Pregnant Mothers' Handbook," and has undergone many revisions since.

Specialist terms	Outline explanation	
Maternal Mortality Rate (MMR)	This is the number of deaths related to pregnancy and childbirth per 10,000 live births (sometimes per 10,000 births) for a specified year. "Deaths related to pregnancy and childbirth" refers to deaths due to pregnancy, childbirth and other puerperal causes. Differences between countries in Maternal Mortality Rates are greater than those in Infant Mortality Rates.	
Medical Service Law	This law regulates the activities of medical service providers. It sets out the standards for medical clinics, birthing centers, hospitals, and public medical institutions, regulating their facilities, staffing, management, distribution and medical corporations. The National Medical Service Law promulgated in 1942 was replaced by the present Medical Service Law in 1948.	
Medical System ("Isei" comprehensive medical code)	The "Isei" (Comprehensive Medical Code), setting the principles and operating criteria for the medical system, were promulgated in 1874 by the Meiji government in introducing Western medicine to Japan. This code contained all the fundamentals of health policy, including central and regional administrative bodies, the medical education system, standards for the establishment and running of medical institutions, rules for employment of medical and allied personnel, and pharmaceutical administration.	
Medical Tiers (Primary, Secondary and Tertiary)	The 1985 revisions to the Medical Service Law directed each prefecture to establish a three tier system of regional medical services, in order to provide efficient and appropriate medical care with finite resources, and to improve collaboration between medical, community health, and social welfare service providers. The unit of the primary tier of medical care is the municipality, providing medical, community health, and social welfare services closely connected with the daily lives of the residents of the community (regulated by each prefecture, as the Medical Service Law contains no specific regulations). The secondary tier of medical care is mainly concerned with inpatient care, with provision for availability of beds, etc. The tertiary tier of medical care provides for the medical needs of the entire prefecture that cannot readily be met by the primary and secondary tiers. In the field of emergency medicine, "initial, secondary and tertiary emergency medical services" are all contained within the secondary tier of medical care.	
Ministry of Health and Welfare (MHW)	A central government agency, established in 1938, responsible for improving social welfare, social security, and public health*. Merged with the Ministry for Labour in January 2001, becoming the Ministry for Health, Labour and Welfare (MHLW).	
Millennium Development Goals (MDGs)	These are based on an amalgamation of the September 2000 United Nations (UN) Millennium Declaration and Global Development Goals announced at major international conferences during the 1990's. The development goals for the international community to be realized by 2015 are: ① Eradicate extreme poverty and hunger; ② Achieve universal primary education; ③ Promote gender equality and empower women; ④ Reduce child mortality; ⑤ Improve maternal health; ⑥ Combat HIV/AIDS, malaria, and other diseases; ⑦ Ensure environmental sustainability; and ⑧ Develop a global partnership for development.	
Morbidity/Incidence/ Prevalence	The morbidity (rate) of a disease is the proportion of the population who have a disease expressed as a percentage of the total population. The incidence (rate) of a disease is the number of new cases during a set time period expressed as a percentage of the population at risk during the period. The prevalence (rate) is the number of people in a population who have a disease at a given time (irrespective of the time of onset) expressed as a percentage of the total population.	

Specialist terms	Outline explanation		
National Census	The Japanese "population census." The most fundamental statistical national survey, conducted with the aim of elucidating the numbers and household arrangements of the population within Japan. The census is the basis from which a variety of statistical surveys extract their samples. Conducted by the Statistics Bureau of the Ministry of Public Management, Home Affairs, Posts and Telecommunications (MPHPT) every 5 years, this is a total population census that includes all households, including foreign nationals. Not just a population census, it also gathers information concerning gender, age, relationships, and nationalities, as well as social and economic circumstances, daily movements, and social movements. Formal national censuses using modern methods commenced in Japan in 1920.		
Nurse	A profession that assists in the treatment of patients and attends to their needs. In general, the qualification is gained after graduating from senior high school, by completing a 3 to 4 year course at a nursing school or training college, and passing a national examination. An assistant nursing qualification is also available to junior high school graduates after a further 2 years of study and passing a national examination. Nursing was traditionally a female-only profession in Japan, but from 1989 males and females were offered the same educational opportunities, and male nurses have undergone training. From March 2003 all nurses are referred to by a title that is gender-neutral.		
Nurse Midwife ("Midwife" in this report)	In Japan, "sanba" traditional birth attendants have assisted at births from ancient times. The Meiji Government promulgated the "Sanba Kisoku (Midwifery Regulations)" in 1899, setting national standards for the age, range of permitted activities, and accreditation of midwives. Until the end of the Second World War, these midwives were important professionals in the community, with a good grasp of the health of mothers and children, as well as their economic circumstances. In 1947, a new "Law concerning Public Health Nurses, Nurse Midwives and Nurses" was promulgated, renaming the profession as "josanpu" (nurse midwives). From March 2003, the gender neutral term "josanshi" (mid-person) is now used. The question of actually admitting male midwives (mid-persons) is a controversial one, however.		
Occupational Health	Health and safety in the work environment. The area of public health principally concerned with prevention of disease and injuries in employees caused by working under adverse conditions. In many developing countries, there is little awareness of human rights, there is a lack of protective legislation in such areas as handling of dangerous materials, lighting, and ventilation, so dangerous working environments are common.		
Outreach	Outreach means to reach out your hand. This term is used for service providers and aid workers, from government and non-government organizations, going out to potential users of their services, endeavoring to attract their interest, and provide services appropriate to their needs.		
Polio	Also known as infantile paralysis and acute anterior poliomyelitis. An acute viral infectious disease that causes paralysis, as the second eradicable disease after smallpox, polio is presently the subject of a global eradication campaign led by the World Health Organization (WHO) and Rotary International. (Arita 2001)		
Population Vital Statistics	Examination of variables that alter a population between two timepoints, such as births, deaths, marriages, divorces and stillbirths, the study of population vital statistics gives understanding of changes in the population and its demographics. Statistics were commenced in Japan in 1899. The broad definition of population vital statistics also includes population movements, that are divided into international population movements and intranational population movements.		

Specialist terms	Outline explanation
Preventive Medicine	Preventive medicine is a discipline placed at the opposite end of the spectrum to clinical medicine. The specialties that make up this area of medicine include public health statistics, epidemiology*, health education theory, and public health and medical administration theory. From them are developed an extremely wide range of programs applicable to each stage of life, such as health management policies (maternal and child health*, school health*), and lifestyle and environmental health programs at the community level.
Primary Care	Also referred to as "primary medical care." This term refers to individual preventive and therapeutic medical care provided by a general practitioner or family doctor.
Primary Health Care (PHC)	The principle espoused in the 1978 Alma Ata Declaration*. It is derived from the realization that the introduction of a disease-based approach to medical care and a Western-style public health system to developing countries has only brought benefits to one segment of the population, with no improvement in the health status of the majority. Primary health care is characterized by integration of public health and basic medical services at the community level, aiming to provide public health and medical services to people from all classes and regions, with the willing participation of the local population.
Public Health	Organized health-related activities undertaken by private and public institutions, as well as community and workplace organizations, for the maintenance and promotion of the health of the populace. This field includes maternal and child health*, infectious disease prevention, programs for adult (lifestyle-related) diseases, mental health, food sanitation, residential sanitation, provision of water supplies and sewage systems, urine and waste disposal, pollution control measures, and industrial health and safety.
Public Health Center	A public health center is a public health institution, established by the prefecture or designated municipality, to maintain and promote the health of the residents of the local community. The public health center system began with the 1937 Health Center Law, with the first public health centers established as part of the "Rich Nation, Strong Army" concept, principally for the control of chronic infectious diseases such as tuberculosis, and for maternal and child health programs. The Health Center Law underwent a complete overhaul in 1947, in which the position of the public health center was firmly established as the first line of public health services protecting the health of community residents. As well as providing personal health services (excluding medical services) such as immunizations, maternal and child monitoring, tuberculosis monitoring, and health education, and hygiene-orientated services related to food hygiene and sanitation, public health centers also conducted awareness campaigns related to maintenance of statistics and community health matters. The Health Center Law was revised and renamed the Community Health Law in 1994 (coming into full effect in 1997), with personal services now under the aegis of the local municipality in order to provide health services located closer to the community, and giving public health centers more broadly based responsibilities, highly specialized and technical.
Public Health Nurses (PHNs)	Usually called "public health nurses" or "community health nurses" in English, but their training system and social status varies from country to country. In Japan, public health nursing began as part of a social program around 1920, conducting home visits to offer lifestyle guidance and disease prevention activities for pregnant women and nursing mothers and their children. The system was later reinforced, with PHNs employed by public health centers*, health insurance associations, and local governments, providing directly to the community important public health services such as health checks, immunizations*, maternal and child health guidance, supervision of tuberculosis treatment, and health education. In the present day, however, rather than a public health service provider, PHNs are probably regarded more as administrators. To become a PHN, a further 1~2 years of specialized study is required after the nursing degree. As with nurses and nursing assistants, from March 2003 PHNs are referred to by a gender neutral term in Japanese.

Specialist terms	Outline explanation	
Reproductive Health (RH)	In all areas related to the reproductive system, its function and processes, this refers to not just the absence of disease or weakness, but also a state of total physical, mental and social well- being. Reproductive health was defined as a new concept by the 1994 International Conference on Population and Development in Cairo.	
Reproductive Rights (RR)	This concept states that all couples or individuals possess the right to decide how many children they will have and when, and the right to access information, knowledge and techniques to exercise their reproductive choices. As with reproductive health*, this concept was first defined at the International Conference on Population and Development in Cairo.	
Referral System	This is the comprehensive system of referral and transport that connects primary medical care with secondary and tertiary medical institutions. Patients are initially seen by their local primary medical care provider. If the primary care physician decides that they require a higher level of medical care, then they are referred and transported to a secondary or tertiary medical institution after the appropriate treatment has been given, at the appropriate time.	
School Health	An overall title for all activities conducted at schools for the maintenance and improvement of the students' and teachers' health, and the promotion of a healthy lifestyle. These activities are broadly divided into "health education," that imparts knowledge of health issues and fosters the ability to maintain and improve ones own health, and "health care," that primarily consists of health checks.	
Social Marketing	This method is basically the same as those of the private sector but it aims at expanding public interests and leading people to voluntarily take proper action. Developing countries are faced with various problems, such as low purchasing power, limited advertisement and undeveloped distribution systems. To cover these shortcomings, this method is being applied to activities such as diffusing condoms and mosquito nets, mainly in the field of public health, including measures for HIV/AIDS prevention and against malaria.	
Total Fertility Rate (TFR)	This is the average number of children that one woman (or group of women) would bear over the course of her lifetime, if current age-specific fertility rates remained constant during her childbearing years (15-49 years of age).	
Under 5 Mortality Rate (U5MR)	This is the ratio of the number of deaths of children aged under 5 per 1,000 live births for a specified year. Compared to the Infant Mortality Rate*, the Under 5 Mortality Rate better reflects improvements in nutrition and vaccination programs, so it is used as an indicator of the overall level of social welfare. In general, the term "child mortality rate" refers to this U5MR.	
Women in Development (WID)	This is a development assistance concept, that women must be provided opportunities, as the harbingers of development, to participate fully in all stages of development.	

Note

	Explanation
Japanese Era Names	The practice of era naming was originally taken over from Imperial China and adopted in Japan in 645. During Japan's Feudal Period (1603~1868), Era names were changed not only on the death of an emperor, but also to mark natural disasters or major social upheavals. This entire period is commonly known as the Edo Era. The Meiji Era began with the Meiji Restoration in 1868 and ended with the death of Emperor Meiji in 1912. The last year of one era is also the first year of the succeeding era. Following the Meiji Era, subsequent eras are: The Taisho Era (1912~1926), the Showa (1926~1989) and the Heisei Era (1989~present day). Although nowadays, the Western calendar is commonly used for everyday purposes, era names are still in frequent use.

Overview of the Research Survey

1. Objectives and Background

The field of public health and medical services is an important one, closely related to people's lives, and essential for societies and countries to grow and develop. Improvements to public health and medical services are therefore emerging as a major priority in many developing countries. Internationally, aid programs in the field of public health and medical services have been given a high priority, with donor countries and organizations and NGOs involved in aid projects such as those outlined in the Millennium Development Goals (MDGs), including projects aiming to reduce infant mortality rates, improve the health of expectant mothers, halt the spread of diseases such as HIV/AIDS and malaria, and provide sustainable access to safe water.

Japan has also announced, through the "Medium Term Policy on Official Development Assistance (ODA)" promulgated in 1999, and the 2003 revision of the "Official Development Assistance Charter (ODA Charter)," that assistance in the field of public health and medical services will be given priority as part of the fight against poverty. A number of public health initiatives have also been announced, including the "Global Issues Initiative on Population and AIDS" (GII), the "Global Parasitic Disease Control Initiative" (usually known as the "Hashimoto Initiative") and the "Okinawa Infectious Disease Initiative" (IDI), where Japan's experience will be utilized in improving the public health and medical systems in developing countries. What has hitherto been lacking, however, is a systematic analysis of the Japanese experience to see how it can be used effectively by developing countries.

The Japan's experience included national supervision of the network of public health and medical systems, with a national approach to the main diseases prevalent in each historical era; formulation and enactment of policy based on a firm grasp of the actual situation, achieved through surveys of public health and medical services and rigorous statistical collation with the assistance of scientific academia; collaboration between government, doctors and midwives in private practice, non-government organizations, community organizations, and the media in overcoming various challenges; outreach services provided by public health nurses finely attuned to the needs of their local community, leading to improved public health outcomes; and the achievement of universal health insurance coverage during a period of financial restraint.

There are also several regrettable features in the Japan's experience, such as the delayed response to environmental pollution leading to escalation of the size of the problem, and the strain on the health insurance system due to overly optimistic long-term forecasts of the effects of the aging society. From experiences such as these, there are likely to be a number of areas worthy of consideration by developing countries in reforming their own public health and medical systems.

In this survey, we revisited Japan's experiences in the field of public health and medical services, highlighting those aspects of the Japan' experience that may be of use to developing countries in the challenges they face in improving their own public health and medical systems. We also investigated and discussed how the Japan's experience in this field can be applied to developing countries, where the situation is often markedly different from Japan's, and where particular caution is required in applying this experience.

It should be noted that adjustments and alterations will be required to suit the local needs and circumstances if Japan's experience is to be applied to challenges faced by developing countries and the Japanese solution cannot simply be transplanted into the host country as it is.

2. Structure of this Report

This report comprises three major parts. The introductory part, entitled "The Issues of Public Health and Medical Systems in Developing Countries," presents an overview of challenges in the field of public health and medical services presently faced by developing countries, and of assistance initiatives undertaken by Japan and the international community in improving public health and medical systems in developing countries.

Part I, entitled "Overview of Public Health and the Medical System in Japan," presents an overview of changes in public health and the medical system in Japan, and the present system of provision of public health and medical services, with analyses of past and present initiatives in this field.

Part II, entitled "Japan's Experiences in Public Health and Medical Services," based on the previous parts, we analyzed the Japanese experience with challenges presently faced by developing countries in the field of public health and medical services. With the emphasis on the policies formulated and approaches taken, and the results of the various initiatives, we identified suggestions and potential problems for consideration in making improvements in public health and medical systems in developing countries.

In Part II, we began with an examination of the health problems identified in the Millennium Development Goals, in chapters 3. "Maternal and Child Health," 4. "Family Planning," and 5. "Infectious Diseases Control (Tuberculosis, Parasitic Diseases, Immunization Programs)." We then covered Japanese initiatives in health problems that arose after success was achieved with programs in the fields of maternal and child health and infectious diseases, in chapters 6. "Environmental Pollution Control Measures" and 7. "Occupational Health."

The next chapters in this section, "Community-based Health Systems" (chapter 8) and "School Health Programs" (chapter 9), examine public health structures and systems with the focus on effective initiatives in maternal and child health and infectious disease control undertaken by communities and schools. We also included a chapter on "Emergency Medical Care" (chapter 10), originally established as a response to the rapid increase in road traffic accidents. A chapter was also devoted to "National Health Insurance" (chapter 11), that has greatly improved access to public health and medical services in Japan. A supplementary chapter "Environmental Sanitation" gives a simplified introduction to improvements made in sanitation, that can be called the basis of all measures to combat health problems in the fields of maternal and child health and infectious diseases.

In Part III, "Towards Application of Japan's Experience in Public Health and Medical Systems to Developing Countries," we conduct a cross-sectional analysis of Japan's initiatives in public health and medical systems, summarizing the findings in Part I and II. With the characteristics of the Japanese people in mind, we also attempted to systematically analyze Japan's initiatives to see how they can be used effectively by developing countries in improving their own public health and medical systems.

3. List of the Committee Members

Chairperson

Yasuhide NAKAMURA	Professor, Osaka University, Graduate School of Human Sciences	
Committee Members		
Hiroyuki NAKANO	Chief, Division of Pediatrics, Department of International Cooperation, St. Mary's Hospital	
Aiko IIJIMA	Director, Human Resource Development Division, Japanese Organization for International Cooperation in Family Planning	
Seiki TATENO	Director, 1st Expert Service Division, Bureau of International Cooperation, International Medical Center of Japan	
Sumiko OGAWA	Assistant Professor, Department of Preventive Medicine, Faculty of Medicine, University of the Ryukyus	
Megumi INAOKA	Visiting Researcher, Department of International Health, Graduate School of Medicine, the University of Tokyo	
Advisor		
Kiyomichi FUJISAKI	Managing Director, Medical Cooperation Department, JICA (untill August, 2003)	
Chief of Taskforce		
Hiroshi TAKAHASHI	Senior Advisor, Institute for International Cooperation, JICA	
Taskforce		
Katsuichiro SAKAI	Deputy Resident Representative, JICA Zambia Office	
Naoko UEDA	Deputy Director, Second Research and Development Division, Institute for International Cooperation, JICA (also a member of the secretariat)	
Hisakazu HIRAOKA	JICA staff (seconded to WHO Western Pacific Regional Office)	
Kaori NAKATANI	Associate Expert, First Overseas Division, Secretariat of Japan Overseas Cooperation Volunteers (JOCV), JICA	
Kanako ADACHI	Researcher, Second Research and Development Division, Institute for International Cooperation, JICA (also a member of the secretariat)	
Makiko KOMASAWA	Consultant, Earth & Human Corporation	

Secretariat

Ryozo HANYA	Director, Second Research and Development Division, Institute for International Cooperation, JICA (until January 2004)
Kazuaki SATO	Deputy Director, Second Research and Development Division, Institute for International Cooperation, JICA (until November 2003)
Yasuko DOGUCHI	Researcher, Japan International Cooperation Center (JICE), Second Research and Development Division, Institute for International Cooperation, JICA

4. Method of Preparation of this Report and List of Authors

Based on manuscripts prepared by the authors given below, the material in this report was revised by the authors and the office staff following discussions by the Research Group.

The various manuscripts were then edited by the office staff and our consultants to produce this report.

< <i>Chapter title></i>		<names authors="" of=""></names>
Overview of the Research Survey		Kanako ADACHI
Introduction: The Issues of Public Health and Medical Systems in		Kanako ADACHI
Γ	Developing Countries	
Part I. Overvie	ew of Public Health and Medical System in Japan	
Chapter 1.	The History of Public Health and Medical Services	Makiko KOMASAWA
Chapter 2.	Present State of Public Health and Medical Services	Makiko KOMASAWA
Part II. Japan's	s Experiences in Public Health and Medical Services	
Chapter 3.	Maternal and Child Health	Yasuhide NAKAMURA
Chapter 4.	Family Planning	Aiko IIJIMA,
		Naoko UEDA
Chapter 5.	Infectious Diseases (Control Tuberculosis, Parasitic	Hisakazu HIRAOKA,
	Disease, Immunization Programs)	Makiko KOMASAWA
		Seiki TATENO
		Hisakazu HIRAOKA,
		Makiko KOMASAWA
Chapter 6.	Environmental Pollution Control Measures	Megumi INAOKA
Chapter 7.	Occupational Health	Hiroshi TAKAHASHI
Chapter 8.	Community-based Health Systems	Sumiko OGAWA,
		Naoko UEDA,
		Makiko KOMASAWA
Chapter 9.	School Health Programs	Seiki TATENO
Chapter 10.	Emergency Medical Care	Hiroyuki NAKANO
Chapter 11.	National Health Insurance	Katsuichiro SAKAI,
		Yasuhide NAKAMURA
Supplement	ary Chapter. Environmental Sanitation	Makiko KOMASAWA

Part III. Towards Application of Japan's Experience	
in Public Health and Medical Systems to Developing Countries	
Chapter 12. Towards Application of Japan's Experience in Public	Makiko KOMASAWA
Health and Medical Systems to Developing Countries	
Appendix: Statistics Related to Public Health and Medical Systems	Makiko KOMASAWA
Editorial Staff	

Makiko KOMASAWA, Kanako ADACHI, Yasuko DOGUCHI