COURSE REPORT

The JICA Training Course, Community-based Cancer Prevention for Asian Pacific Countries, 2004 (Epidemiological Approach)

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Introduction

Communicable diseases are still major causes of deaths in developing countries. Cancer incidence, however, increased 19% between 1990 and 2000, mainly in this same developing world (Stewart 2003), and malignant neoplasms are now the second leading cause of mortality in these countries (WHO 2003). Limitations of medical facilities and equipment means that prevention is indispensable for cancer control (Mikheev et al. 1994). However, human resources concerning cancer prevention are limited, and encouragement of their development should be taken as a first priority.

To assist in this aim, the present training course was designed by the Division of Epidemiology and Prevention, Aichi Cancer Center Research Institute, Japan, and has been annually conducted since 1999, supported by the Japan International Cooperation Agency (JICA) (Takezaki 2001; 2002; 2003). The course targets doctors and public health workers who are responsible for community-based cancer prevention in developing countries to promote the introduction of comprehensive procedures, focusing mainly on primary prevention but also including screening for secondary prevention of cancer.

The Japanese Government extends official development assistance (ODA) to developing countries to support self-help efforts that will lead to economic progress and a better life for their citizens. Since its foundation in 1974, JICA has implemented Japan's technical cooperation under the ODA program. Currently, JICA conducts such activities as training, dispatch of experts, provision of equipment, project-type technical cooperation, development studies, dispatch of cooperation volunteers and surveys and administration of capital grant aid programs. Hosting training programs for overseas participants is one of JICA's fundamental technical cooperation activities for developing countries. Participants come from target countries to obtain knowledge and technology training in a wide variety of fields. The objectives of the JICA training program are: 1) to contribute to the development of the human resources necessary to promote progress in developing countries, and 2) to contribute to the promotion of mutual understanding and friendship.

The present report concerns revision of contents in this 6th course, the first in the second-phase, five-year program.

Requirement for Application

Course participants were nominated by their governments in accordance with the given criteria and selected by JICA. Inclusion criteria for application are: 1) be a doctor or other person who is currently engaged in public health service, and also responsible for community-based cancer prevention activities; 2) never have previously participated in a public health related training course in developed countries such as Great Britain, the United States and Australia; 3) be under forty years of age; 4) have basic skills in computer usage; and 5) have a sufficient command of spoken and written English. A minimum TOEFL score has been required since 2001. Persons serving in the military are excluded. Applicants were also requested to submit questionnaires and a country report with their application documents.

Time Schedule

The first brief announcement of the present course was made through the list of all training courses of JICA that are delivered to the countries on Japan's technical cooperation by JICA offices or Japanese embassies in July two years before the course. The government of each country makes the priorities and submits lists of candidates. All lists are sent to the headquarters of JICA, and first candidate countries are decided according to priorities and fixed numbers for each course. Then, the JICA training center, Chubu International Centre (CBIC), selected final candidate countries from the listed first candidates with suggestions from the program members of the counterpart institute, Aichi Cancer Center Research Institute, around one year before the course.

General information (GI) for application was sent to the governments of selected countries by JICA in July-August seven months before the course. The deadline for application

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acceptance in the JICA office or the Embassy of Japan was December. The five-week training course was performed from February to March, after one week of Japanese guidance.

Participants

The annual number of participants ranged from seven to ten between 1999 and 2004 (Table 1). A Brazilian observer who was a long-term trainee of JICA also attended the course in 2001. For 2004, the candidate countries were limited to the Asian Pacific. The participants this year came from Bangladesh, Indonesia, Malaysia, Sri Lanka, Thailand, Fiji, Colombia, Dominica, and Paraguay. During the six years, 52 trainees from 33 countries completed the course.

The participants comprised 30 men and 22 women, aged 26 to 48 years (mean, 36.4 years). The backgrounds of participants were doctors in 46, nurses in 3 and health extension officers in 3. Present employers were hospitals in 17, research institutes in 11, governmental organizations in 15, non-governmental organizations in 2, and universities in 7.

Course Subjects

Lectures, practices and observations were programmed according to training subjects by the program members of the Division of Epidemiology and Prevention, Aichi Cancer

Table 1. Distribution of Participants for "Community-based Cancer Prevention" by Country and Year

Country	Years 1999	2000	2001	2002	2003	2004	Total
Asia							
Bangladesh						1	1
Cambodia		1					1
Indonesia						1	1
Laos		1					1
Malaysia				2		2	4
Mongolia		1			2		3
Sri Lanka				2		1	3
Thailand				1		1	2
Oceania							
Fiji					1	1	2
Papua New Guinea		1					1
Vanuatu		1					1
Middle and South America							
Colombia						1	1
Costa Rica	1			1			2
Dominica						1	1
Dominican Republic	1						1
Honduras		1					1
Brazil	2		1[a]				3
Ecuador	1						1
Paraguay		2			1	1	4
Uruguay	2						2
Middle East							
Iran			1				1
Jordan					1		1
Palestine Authority				1	1		2
Turkey					1		1
Africa							
Ethiopia			1				1
Kenya					1		1
Seychells					1		1
Tanzania				1			1
Zambia			2				2
Zimbabwe			1				1
East Europe							
Bosnia-Herzegovina			2				2
Lithuania			1				1
Romania			1				1
Total (countries)	7 (5)	8 (7)	10 (8)	8 (6)	9 (8)	10 (9)	52 (33)

[a] JICA trainee.

Center Research Institute. Following the Japanese guidance, course orientation and country report presentation, training subjects comprised: 1) outline of epidemiology; 2) details of epidemiology; 3) cancer prevention; and 4) action planning for cancer prevention. The course curriculum has annually been revised with suggestions from lecturers and the participants themselves.

The training course was mainly conducted at the Chubu International Centre of JICA, Nagoya, Japan, and Aichi Cancer Center and other facilities were used according to the course programs. A field trip was scheduled to Hiroshima, Osaka, and Kyoto areas for visiting places where practical cancer prevention activities are taking place, as well as to povide an understanding of Japanese culture and history.

After completing the technical training, participants were required to prepare action plan reports for presentation at the Action Plan Meeting scheduled at the end of the training course. The purpose of this meeting was to present what participants found the most interesting concerning the cancer prevention in the present course, and what could possibly be applied in their own countries. At the middle and end of the training, evaluation meetings were to be held for further improvement of the present training course. Participants were also asked to submit weekly questionnaires for course evaluation.

Contents of the course program in 2004 are summarized in Table 2. Computer practices were performed using a statistical package, STATA (Stata Corporation, College Station, TX) and software for cancer statistics, GLOBOCAN 2000 (IARC Press, Lyon). Planning of perspective of cancer prevention and its strategy in each country was concentrated in the last week. The most common theme at the Action Plan Meeting was cancer prevention, including risk factor control, followed by development of cancer registration or cancer research capacity.

Lecturers

A total of 38 experienced lecturers and/or persons in charge of practical programs, who are specialists in cancer epidemiology and prevention, were recruited from 11 universities, 2 hospitals, and 9 other facilities. Among them, eight staff of Aichi Cancer Center were involved in 26 of the total 69 sessions (37.7%).

Course Evaluation

All participants responded by filling in questionnaires for final course evaluation at the end of the training course. The items of this questionnaire included coverage of subjects, depth, logical order of topics, relationship of each topic to the objectives of training or study program, and balance of time allocation, and each item was evaluated to be about right or fair in 90% or over participants except for duration of the program. The expected topics to be added to further program were actual activity of cancer control in the community, and ICD-O (International Classification of Diseases for Oncology) and ICD-10. As regards to time allocation, more discussion and practices were expected. More detailed information was obtained from weekly questionnaires.

Commentary

Chronic diseases including cancer have not simply replaced infectious ones in developing countries. Rather, such countries now suffer from a double burden of disease (Yach 2004). In the absence of policy actions, risky behavior including consumption of tobacco, alcohol, and foods high in fat increases along with gross national product, followed

Figure 1. Presentation at the Action Plan Meeting

Table 2. Contents of Course Program in 2004

	Number of sessions [a]		Contents of practice
	Lecture	Practice [b]	
Outline of epidemiology			
Concept and overview of cancer epidemiology	1		
Cancer control in Japan	1		
Global health policies and their trend	1		
Cause and risk	2	1	Calculation
Details of epidemiology			
Demographic studies	1	1	Calculation
Human ecology and cancer variation	1		
Case-control studies	1	2	Group discussion
Cohort study	1		
HERPACC[c]	1	1	Observation
Cancer pathophysiology	1		
Diet, nutrition and cancer	2		
Molecular epidemiology		1	
Instruction of reporting skills	1		
Study design of intervention trials	1	1	Group discussion
Ethical issues in epidemiological studies	1		
Biostatistics	1	2	Computer
Cancer prevention			
Aichi Cancer Center Research Institute and Hospital		1	Observation
Smoking control (Osaka)	1		
Aichi cancer registry	1	2	Computer
Osaka cancer registry (Osaka)	1	1	Observation
Radiation and cancer (Hiroshima)	1	1	Observation
Infection and cancer	1		
Helicobacter pylori and gastric cancer	1		
Cancer screening	1	1	Observation
Evaluation of cancer screening	1	1	Computer
Occupational health in Japan	2		
Epidemiology of occupational cancer	2		
Primary cancer prevention	1	3	Discussion
Medical costs for cancer treatment	1		
Carotenoids as biomarker	1		
Local public health activity		1	Observation
Main risk factors for cancer by site	1		
Health promotion and prevention of lifestyle-related diseases in Japan	1	2	Observation and health assessment
Country report		1	Presentation
Cancer prevention and its strategy	1	3	Personal discussion
		2	Group discussion
		5	Report making
		1	Presentation
Course evaluation			
Weekly		(4)	Report
Mid-term & final		(2)	Discussion
Japanese language lesson			
Total	36	33	

[a] One session comprises 1.5 (Morning A and B) and 2.5 (Afternoon) hours.
[b] Including observations.
[c] Hospital-based Epidemiologic Research Program at Aichi Cancer Center.

by related increases in cancer and other chronic diseases decades later (Yach 2004). Establishment of cancer prevention programs should lead not only to effective cancer control, but also reduction of other non-communicable diseases that have common risk factors with cancer.

Population-based strategies, such as community-based cancer prevention may be more suitable focusing on high-risk groups in developing countries because education and promotion produce a great impact for cancer prevention in these countries, where many people at the present have

limited information on how to prevent cancer (Rose 1992). Development of human resources is an essential measure and training courses on cancer prevention toward a model for nurse educators in developing countries were conducted in the US between 1986 and 1994 (Ash et al 1999). To our knowledge, the present course is a first trial in the Asian Pacific region.

The advantage of the present course is its small group-training style (Takezaki 2001). The participants can easily communicate with each other and with the lecturers. Through the course they have a chance to be exposed to a variety of ethnic backgrounds and lifestyles, reflected in different cancer statistics, and objectively consider the situation in their own countires. Furthermore, the awareness of differences is encouraged by the stay in Japan, a highly developed economically. Such a comparison is helpful to establish unique and suitable methods for cancer prevention, based on ethnoepidemiological considerations (Tajima and Sonoda 1996; Last, 2001).

However, the present training style requires standardization of training contents, while background of knowledge and experiences of cancer prevention, and the priorities naturally differ between participants and countries. The selection system of JICA making priorities on the basis of political considerations make standardization of participants difficult (Takezaki 2002). To minimize this disadvantage, the five-year program beginning from this year was planned to focus on Asian Pacific countries. Fortunately, the participants this year all had a reasonable background knowledge of cancer epidemiology and prevention and could make the most of the course.

Because of practical reasons, we had to shorten the course from eight to five weeks in the new five-year program, but the logical integrity of the course appeared to be well preserved. We however regret that several practices and observations had to be omitted, although most participants expected to know more about field activity for cancer prevention in Japan. Although the period of the course is limited, we are planning to include more observations in communities in the next course.

In summary, the present course provides one ring in the ladder for cancer prevention in developing countries and hopefully will contribute to further development of human resources in each country. The course is again to be held in 2005. The author welcomes participants to share opportunities to plan how to prevent cancer in each country.

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Figure 2. Participants, Lecturers, and Staff of JICA and Japan International Cooperation Center at Closing Ceremony

for Cancer and Cardiovascular Diseases, Drs. Masakazu Nakamura and Nobuko Nakano at the Osaka Medical Center for Health Science and Promotion, Drs. Kazunori Kodama at the Radiation Effects Research Foundation, Prof. Takesumi Yoshimura at the University of Occupational and Environmental Health, Prof. Toshiro Takezaki at the Kagoshima University Graduate School of Medical and Dental Sciences, Dr. Manami Inoue at the Research Center for Cancer Prevention and Screening, National Cancer Center, Mr. Kazuhiko Nishikawa at the Kanie Town Health Center, Drs. Suketami Tominaga and Kazuyo Tsushita at the Aichi Health Plaza, Dr. Malcolm A Moore of the Asian Pacific Organization for Cancer Prevention, Drs. Kenji Yamao, Yasuaki Arai, and Nobukazu Fuwa at the Aichi Cancer Center Hospital, and Drs. Kazuo Tajima, Kaoru Hirose, Keitaro Matsuo, Hidemi Ito, and Ms. Toshiko Saito at the Division of Epidemiology and Prevention, Aichi Cancer Center Research Institute for providing excellent lectures, practices and observations to participants in 2004. The author would like to especially acknowledge the contribution of Mr. Hisayoshi Ogiwara, the President of the Chubu International Centre, JICA, and thank Mr. Shintaro Takano at the Program Division, Chubu International Centre, JICA, Ms. Hisako Yamamoto and Mr. Kiyohiko Ogino at the Japan International Cooperation Center for their well-organized course coordination in 2004.

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