

Democratic Socialist Republic of Sri Lanka

FY2015 Ex-Post Evaluation of Technical Cooperation Project
“Project on Health Promotion and Preventive Care Measures of Chronic-NCDs”

External Evaluator: Tomoko Tamura, Kaihatsu Management Consulting, Inc.

0. Summary

This project was implemented with the aim of developing effective and efficient implementation models to prevent and control non-communicable diseases (NCDs¹) in Sri Lanka.

Prevention and control of NCDs was an important policy target of the country at the time of planning and completion of the project. The number of deaths by NCDs was increasing in the country as a result of aging of the population and changes in eating habits and lifestyle. There was a strong necessity and urgency for the country to establish a system for preventing and controlling NCDs; this would be in addition to the existing health and medical services, which were mainly for prevention and treatment of communicable diseases. The objective of the project was consistent with Japanese assistance policy to Sri Lanka at the time of project planning, which placed an importance on assistance for enhancing social welfare services giving consideration to the aging population. Therefore, relevance of the project is high.

At the time of project completion, implementation models for prevention and control of NCDs had been developed based on the trial programme in the project pilot areas, as expected in the project. However, efficiency of the health check-ups and effect of the health guidance were not exactly up to the expected level. At the time of the ex-post evaluation, health check-ups and guidance had been implemented all over the country according to the above-mentioned implementation models. Healthy Lifestyle Centers (HLCs)² had been established in every district of the country as planned. However, HLCs are not utilized adequately, and it is not known if the high-risk groups and patients identified in the health check-ups are receiving necessary treatment and guidance. Therefore, effectiveness and impact

¹ NCDs is an abbreviation for an inclusive term for non-communicable diseases, which include cardiovascular diseases, cancers, diabetes mellitus, chronic respiratory diseases. These diseases are also called lifestyle diseases, because they can be prevented by improving one’s lifestyle. In a broad sense, NCDs sometimes include all diseases except communicable diseases, such as injury through accidents, burns, poisoning and others, which are called acute NCDs.

² Healthy Lifestyle Centers. They are the centers for carrying out NCD health check-ups and guidance. The Ministry of Health instructed primary health care institutions all over the country to establish HLCs, based on the outcome of the project. HLCs are located on the premises of primary healthcare institutions. Usually one of the rooms in the institution is renovated and used as an HLC. Sometimes, independent buildings were established for HLCs. There are no dedicated staff for HLCs. They are only open on the days of the health check-ups and guidance (once a week, approximately); staff of the medical institutions, such as medical officers and nursing staff, work for the clinic.

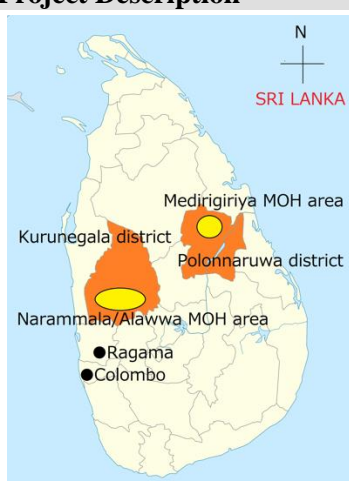
of the project is fair.

Efficiency of the project is fair because project cost exceeded the plan, although the project period was within the plan.

The policies and systems to implement prevention and control of NCDs are continuing. Institutional arrangements for the implementation have been made among the relevant institutions, including the implementing agency. There is no problem with regard to the technical capacity of staff members and the financial situation of relevant institutions. Therefore, sustainability of the effect of this project is high.

In light of the above, the project is evaluated to be satisfactory.

1. Project Description



Project Location



Group Health Guidance for NCD Prevention at an HLC

1.1 Background

The Government of Sri Lanka has provided free health and medical services to the people according to their policy of placing an emphasis on social welfare. As a result, basic health indicators of the country, including maternal death rate, average life expectancy and others, have been as high as those of developed countries. However, NCDs were increasing from 80s in the country due to an aging population and changes in lifestyle.³ The health and medical system of the country, however, placed an emphasis on the prevention and treatment of communicable diseases, which was necessary earlier. A system for promoting prevention and control of NCDs had not been established properly.

³ Japan will have the highest ratio of population above 65 (29.47 per cent) by 2025 among the Asian countries. Sri Lanka will have 13.75 per cent and is in 7th place. (P.10, Table 2A, *Aging in Asia: Trends, Impacts and Responses*, Working Paper Series on Regional Economic Integration No. 25, Asian Development Bank, February 2009). The background for an aging population in Sri Lanka is the low newborn and infant mortality rate, longer average life expectancy, lower fertility rate caused by prevalence of birth control, and the influence of popularization of higher education.

JICA has provided cooperation to the health sector of the country for a long time, and also provided assistance to the Ministry of Health on control of NCDs. The Health Master Plan of 2007 – 2016, which was issued in 2007 with assistance from JICA, stated the importance of control of NCDs. A Technical Cooperation for Development Planning of JICA named “The Study on Evidence-Based Management for the Health System”, which was carried out from 2005 to 2007, conducted a study on the present situation of NCD control and risk factor analysis. Consequently, the Ministry of Health and JICA recognized the need to develop effective and efficient implementation models for NCD prevention, and therefore implemented this project.

1.2 Project Outline⁴

Overall Goal		Effective and efficient implementation models to prevent and control NCDs (diabetes mellitus, hypertension and hypercholesterolemia) ⁵ are implemented in all districts in Sri Lanka
Project Purpose		Effective and efficient implementation models to prevent and control NCDs are developed.
Outputs	Output 1	Risk factors of cardiovascular diseases are identified by the Ragama Health Study ⁶ based on the evidence.
	Output 2	Intervention guidelines and manuals are formulated based on available evidences and related literatures.
	Output 3	Institutional and technical feasibilities of the Consolidated Intervention Guideline are assessed for development of the NCD prevention models in pilot areas. ⁷
	Output 4	Expansion plan for health check-ups/ guidance and health promotion for prevention of cardiovascular diseases is finalized for island-wide implementation.

⁴ In the project outline of the project in Japanese language, “prevention and control NCDs” in the overall goal and the project purpose was described as “prevention of NCDs”. “Ragama Health Study” in Output 1 was described as “Ragama Study”. There was no “and related literatures” in Output 2. There was no “for prevention of cardiovascular diseases” in Output 4”

⁵ As mentioned in footnote 1, NCDs sometimes include all diseases apart from communicable diseases. The Ministry of Health in Sri Lanka and JICA Expert Team had a series of discussions and concluded that the NCDs to be prevented by the project were diabetes mellitus, hypertension and hypercholesterolemia. These are the causes for diseases such as cancer and cardiovascular diseases.

⁶ Ragama Health Study was conducted in 2007 by the medical faculty of Kelaniya University of Sri Lanka in the area of Ragama Medical Officer of Health (MOH) in Gampaha district, with the aim of identifying the prevalence of metabolic syndrome and developing a diagnosis standard. The study conducted a questionnaire survey on the risk factors (age, sex, BMI, injuries and diseases), body measurement, blood tests and others for 3,000 people aged between 35 to 64 in the Ragama MOH area. A follow-up investigation study was conducted in this project for three years, from 2008 to 2010, in order to identify social and medical evidence in relation to prevention and control of cardiovascular diseases.

⁷ There were two pilot areas, that were, Narammala and Alawwa MOH areas in Kurunegala district, and Medirigiriya MOH area in Polonnaruwa district (See map on page 2).

Total Cost (Japanese Side)	438 million yen
Project Period	May 2008 – March 2012
Implementing Agency	Ministry of Health
Other Relevant Agencies / Organizations	None
Supporting Agency/ Organization in Japan	Global Link Management, Inc.
Related Projects	<ul style="list-style-type: none"> • JICA, “Master Plan Study for Strengthening Health System in Sri Lanka (Development study), 2002 - 2003 • JICA, “The Study on Evidence-Based Management for the Health System” (Technical Cooperation for Development Planning), 2005 - 2007 • JICA, “Project for Improvement of Basic Social Services” (ODA loan project), 2012 - 2017 • JICA, “Project for Enhancement of NCD Management”, 2014 - 2018 • WHO, programme based on “Country Cooperation Strategy”, 2012- 2017⁸ • World Bank, “Sri Lanka Health Sector Development Project: HSDP”, 2004 - 2010 • World Bank “Sri Lanka Health Sector Development Project II” (HSDP-II), 2013 - 2018⁹

1.3 Outline of the Terminal Evaluation

1.3.1 Achievement Status of Project Purpose at the Time of the Terminal Evaluation

There were several indicators of the project purpose that had not been achieved up to the expected levels, such as: a) coverage ratio of health check-ups at the pilot areas, b) participation rate of people identified as having high risk in the follow-up clinics, and c) participation rate in the necessary medical treatment of the patients identified as having hypertension or diabetes mellitus in the health check-ups. However, it was anticipated that these indicators would be met by the completion of the project because related activities had been carried out.

⁸ The activities include development of a holistic plan for NCD named, “Package of Essential NCD intervention for primary health care in low-resource setting (PEN)”, and healthy lifestyle promotion for an aging society.

⁹ Introduction of regulations for usage of tobacco, alcohol, salt and sugar content, trans-fatty acid; establishment of HLCs, enhancement of laboratory facility and others.

1.3.2 Achievement Status of Overall Goal at the Time of the Terminal Evaluation (including other impacts)

There was no specific statement about the achievement status of the overall goal at the time of the terminal evaluation. One of the indicators, “100 per cent of districts have implemented check-ups/ guidance and health promotion activities, which were developed by the project”, was expected to be achieved earlier than planned, by the time of project completion. Achievement level of another indicator, “the annual incidence of cardiovascular diseases (coronary vascular diseases and cerebral stroke) starts to decline in the project area by 2018” was unknown, as there was no usable data relating to this.

1.3.3 Recommendations at the Time of the Terminal Evaluation

Table 1 shows a summary of recommendations at the terminal evaluation of the project, and status of implementation of the recommendations at the time of the ex-post evaluation.

Table 1 Recommendations provided at the Time of Terminal Evaluation and Status of Implementation at the Time of Ex-post Evaluation

Recommendations	Status of Implementation at the Time of Ex-post Evaluation
(1) Collection of data for indicator 2 of the project purpose “coverage of follow-up guidance for the people in the high-risk group”.	The project team collected relevant data in Kurunegala and found the coverage was 50 per cent. The team could not do information collection and analysis in Polonnaruwa as there was no data. The Ministry of Health was trying to collect the data in the technical cooperation project of JICA named “Project for Enhancement of NCD Management”, at the time of the ex-post evaluation.
(2) Study versatility and ways of utilization of Ragama Health Study and implement a longer term cohort study ¹⁰ and analyze the result.	The Ministry of Health concluded that the result of the Ragama Health Study was not appropriate for application nationwide because it was conducted in a limited area and period, and had limited versatility as social and medical evidence. The University of Peradeniya in Sri Lanka was conducting a longer-term cohort study at the time of the ex-post evaluation.

¹⁰ A study to observe secular changes of target groups is called a cohort study.

Recommendations	Status of Implementation at the Time of Ex-post Evaluation
(3) Develop a mechanism to treat all cases found to have diseases through health check-ups, while giving attention to the importance of the quality of treatment for patients.	The Ministry of Health was enhancing facilities for health check-ups and initial treatment in the technical cooperation project “Project for Enhancement of NCD Management”, and ODA loan project of, “Project for Improvement of Basic Social Services” of JICA.
(4) For island-wide expansion of HLCs, define detailed plans for HLCs, which include necessary budget allocation, distribution system of medicine, TOR (terms of reference) of staff members, assignment of necessary staff, development of human resources and monitoring system.	The Ministry of Health decided on the necessary facilities, equipment, human resources and activities and informed health institutions nationwide. ¹¹ The ministry also decided on and informed a guideline on essential drugs for NCDs at the health institutions. ¹²
(5) Design a long-term strategy to enhance health promotion activities.	The Ministry of Health developed “National Health Promotion Policy and Strategic Framework” in 2014.

2. Outline of the Evaluation Study

2.1 External Evaluator

Tomoko Tamura, Kaihatsu Management Consulting, Inc.

2.2 Duration of Evaluation Study

Duration of the Study : September, 2015 - November, 2016

Duration of the Field Study : January 4th – 25th, 2016 and April 18th – May 4th, 2016

¹¹ *Guideline for the establishment of Healthy Life Style Centers in healthcare institutions*, Ministry of Health, Sri Lanka, July 31st, 2013.

¹² *Guidelines on ensuring availability of essential drugs for the management of Non Communicable Diseases (NCD) at healthcare institutions*, Ministry of Health, Sri Lanka, November 2013.

3. Results of the Evaluation (Overall Rating: B¹³)

3.1 Relevance (Rating: ③¹⁴)

3.1.1 Relevance to the Development Plan of Sri Lanka

Both at the time of planning and completion of the project, the medium- and long-term national development plan of the country (2005 - 2016),¹⁵ emphasized the increase of NCDs due to aging of population and changes in lifestyle, and the importance of implementing prevention and control of NCDs. Improvement of quality of life by prevention of NCDs and promoting a healthy lifestyle was one of the important objectives in the *Health Master Plan* of the ministry, which continued from the time of planning to the completion of the project.

As mentioned above, the objective of the project was consistent with the development plan of the country.

3.1.2 Relevance to the Development Needs of Sri Lanka

From the 1980s, NCDs became a more common cause of death than communicable diseases in Sri Lanka as a result of aging of the population and changes in eating habits and lifestyle. The increase in NCDs had led to serious socio-economic problems, such as sudden death or the breadwinner of a family being unable to work at the age of 40 - 50. It was also a problem because NCDs need longer-term treatment, and increase the burden of health expenditure for the government. In this manner, the increase in NCDs was a serious problem for the socio-economic situation of ordinary people and health finance of the country. However, there was no established system for implementing prevention and control of NCDs at the time of project planning, and the existing health services of the country were mainly for prevention and treatment of communicable diseases. As at the time of project completion, NCDs caused 75 per cent of deaths in the country;¹⁶ and social problem and burden to health finance was still a serious issue for the country.

In this manner, the increase of NCDs was a serious problem for Sri Lanka at the time of project planning and completion, and therefore this project, which aimed at prevention and control of NCDs, was consistent with the development needs of the country.

3.1.3 Relevance to Japan's ODA Policy

The *Country Assistance Policy of Sri Lanka* (April 2004) of Japan at the time of project

¹³ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

¹⁴ ③: High, ② Fair, ① Low

¹⁵ “*Mahinda Chintana*”. The first version was issued in 2005 and the revised version was issued in 2010.

¹⁶ NCDs Country profile of WHO, 2014, stated that 75 per cent of the causes of death was NCDs. http://www.who.int/nmh/countries/lka_en.pdf (accessed on June 17th, 2016)

planning listed the health sector as an important area of assistance, according to the plan of assistance focused on the middle- and long-term development vision. The plan had a policy direction for carrying out assistance for enhancing social welfare services giving consideration to the aging population. Therefore, the objective of the project was consistent with Japanese ODA policy at the time of project planning.

This project was highly relevant to the country’s development plan and development needs, as well as Japan’s ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impact¹⁷ (Rating: ②)

3.2.1 Effectiveness

3.2.1.1 Project Outputs

<Output 1>

Output 1 was “Risk factors of cardiovascular diseases are identified by the Ragama Health Study based on the evidence”. As shown in Table 2, the indicator of Output 1 had been achieved. The analysis from the study was utilized in the process of risk analysis and setting up standards for screening, which were conducted for development of implementing models for NCD check-ups in the project pilot areas. The analysis from the study was an important document for the activities of the project, because this was the only cohort study on NCDs at the time of implementation of the project. It was planned at the time of project planning that the results of the study would be utilized as a national standard for screening. However, this was not realized. The Ministry of Health concluded that the results from the study were not appropriate for applying nationwide because it had been conducted in a limited area and period. The ministry adopted the cardiovascular diseases risk prediction chart in “WHO-Package of Essential NCD (WHO-PEN)”, which had more versatility and could create comparable results with other countries.

Table 2 Achievement of Output 1

Indicator for Output 1	Status of Achievement of the Indicators at the time of Project Completion
<u>Indicator 1</u> : At least one scientific paper with regard to risk factors identified in the Ragama Health Study is accepted by an authorized peer-reviewed journal. <Achieved>	Ragama Health Study identified risk factors for cardiovascular diseases based on evidence obtained in the study. It was accepted by an authorized peer-review journal. ¹⁸

¹⁷ Sub-rating for Effectiveness is to be put with consideration of Impact.

¹⁸ *Journal of Gastroenterology and Hepatology*, Volume 28, issue 1, Page 142-147, January 2013.

<Output 2>

Output 2 was “Intervention guidelines and manuals are formulated based on available evidences and related literatures”. As shown in Table 3, all three indicators were achieved by completion of the project.

Table 3 Achievement of Output 2

Indicators for Output 2	Status of Achievement of the Indicators at the time of Project Completion
<u>Indicator 1</u> : The Consolidated Intervention Guideline (for health check-ups, health guidance and health promotion) is approved by September 2012 <Achieved>	Guideline for health check-ups, health guidance and health promotion was approved by JCC ¹⁹ in July 2012.
<u>Indicator 2</u> : The Consolidated Intervention Guideline is adopted by Ministry of Health by March 2013. <Achieved>	Intervention guideline for health check-ups, health guidance and health promotion was compiled as an NCD prevention guideline and approved by the Ministry of Health in July 2012, and thereafter printed and distributed.
<u>Indicator 3</u> : Cost analysis results of interventions assessed and disseminated among provincial and national decision-makers by December 2011. <Achieved>	A seminar on results of the cost analysis was held in November 2011 with participation of 68 provincial and national decision-makers in health sector. The report was distributed to the participants.

As mentioned in the section on Output 3 in this report, the intervention guideline was finalized based on the conclusion of verification of the available evidence, which was the feasibility of the two health check-up activity models tested in the pilot areas; and was thereafter approved by the Ministry of Health in July 2012 as planned. Therefore, the intervention guidelines and manuals were formulated based on available evidence; and Output 2 was achieved.

<Output 3>

Output 3 was “Institutional and technical feasibilities of the Consolidated Intervention Guideline are assessed for development of the NCD prevention models in pilot areas”. As shown in Table 4, all three indicators of the output were achieved.

¹⁹ Short form of Joint Coordination Committee.

Table 4 Achievement of Output 3

Indicators for Output 3	Status of Achievement of the Indicators at the time of Project Completion
<u>Indicator 1</u> : Health check-up activities are conducted in 90 per cent of target health institutions by June 2012. <Achieved>	Health check-up activities were conducted in all the target health institutions (100 per cent).
<u>Indicator 2</u> : Standard registries and formats for health check-ups are utilized by December 2011. <Achieved>	Standard registries and formats for health check-ups were utilized in the pilot areas. Information management, including data collection, was also conducted.
<u>Indicator 3</u> : A model of training mechanism for health promotion activities is developed by June 2012. <Achieved>	A “Resource book for facilitators of health promotion activities” was compiled and distributed nationwide. A training programme on health promotion was conducted for Medical Officers in charge of NCDs (MO-NCDs) in the office of Regional Director of Health Services (RDHS).

The ex-post evaluation team studied the process of assessment of institutional and technical feasibility of the Consolidated Intervention Guideline, which was the aim of this Output, along with the study on status of achievement of the indicators.

There was no system for conducting NCD check-ups for the general public by staff of Provincial Director of Health Services (PDHS) and RDHS in the country before the implementation of this project. The project implemented three types of health check-ups in the pilot areas as trials for validating NCD check-ups that would be institutionally and technically feasible (Figure 1). Firstly, in the first year of the project, a “three-step model” (Figure 1: left side) was tested in the two pilot areas, in which two screenings were carried out (the 1st and the 2nd steps), at the maternal and child health (MCH) clinics locally; those who were categorized as being in the high-risk group were instructed to visit medical institutions for receiving necessary treatment or being referred for further investigations (the 3rd step). The Ministry of Health and the project team studied the results of this trial, and found that a simpler model was needed.

In the second year, a “two-step model” (Figure 1: middle) was conducted in Medirigiriya MOH area in Polonnaruwa district, in which a screening was conducted (the 1st step), by measuring blood pressure, at MCH clinics located in villages and towns; those who were categorized as being in the high-risk group were instructed to visit medical institutions in the region for receiving another screening, including investigations of fasting capillary blood glucose and thereafter received necessary treatment or were referred for further investigations

(the 2nd step).²⁰ In Narammala and Alawwa MOH areas in Kurunegala district, a “one-step model” was conducted (Figure 1 : right), in which people first visited a primary medical institution and had detailed screening, including investigation of fasting capillary blood glucose, without having an earlier screening at the clinics in villages and towns, and thereafter received necessary treatment or were referred for further investigations.²¹ Public midwives and public health inspectors recruited local people aged between 40 to 75 for the health check-ups in both pilot areas.

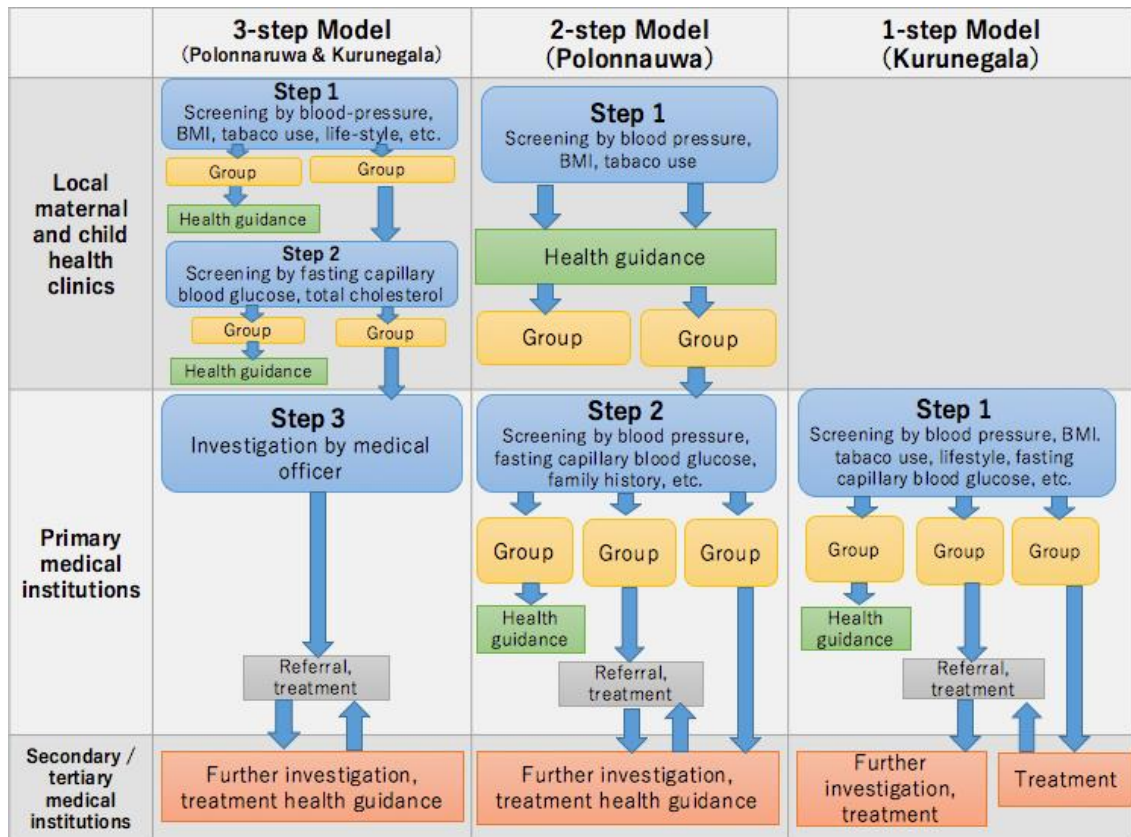


Figure 1 Health Check-up Model Tested in the Pilot Areas

Source: Illustrated by the external evaluator based on the documents provided by JICA.

The Ministry of Health studied these test models from the aspects of institutional and technical feasibility, and adopted the one-step model as the one to be applied nationwide. There were mixed opinions in the ministry about the two-step model, which was not adopted as the one for nationwide dissemination. The concerns about the two-step model were: a) measurement of blood pressure does not fall into the job specification of the public midwives,

²⁰ In Polonnaruwa district, the screening was conducted at 24 MOH clinics under the purview of Medirigiriya MOH, which was the pilot area of the project, and had a target population for health check-ups of 11,610.

²¹ In Kurunegala district, health check-ups were conducted at 8 primary medical institutions in Narammala and Alawwa MOH areas, which were the pilot areas of the project, and had a target population for health check-ups of 25,666.

but is a task of the medical officer; b) there was a concern about conducting a health check-up activity locally because blood pressure meters might not be accurate and midwives might not have adequate competency, and also because it is a “single-approach” that does not consider accumulated risks caused by several risk factors (total risk), as the screening at Step 1 of the two-step model was conducted without considering blood glucose level and others;²² and c) public midwives would have a heavier workload and might not carry out MCH activities properly as a result. On the other hand, the two-step model had the following advantages: a) it is easier for people to participate in the health check-ups, as they can be done at local clinics; b) a constant number of participants can be expected for the health check as public midwives, who work closely with the local community, recruit the people;²³ c) tracing the participants of the health check is easier; and d) health-check activity can be conducted without much difficulty even in an area with limited resources and medical staff. Therefore, it was decided that the two-step model can also be adopted by PDHS and RDHS when necessary.

The Intervention Guideline was first compiled drawing on documents used at the time of conducting the three-step model; this was modified and finalized by reflecting the experience of trial implementation of the one-step and two-step models, and was finally approved by the Ministry.

All the three indicators were achieved, three models for health check-ups were tested in the pilot areas, and the intervention guideline was validated for institutional and technical feasibility according to the result of the tests. Therefore, Output 3 was achieved.

<Output 4>

Output 4 was “Expansion plan for health check-ups/ guidance and health promotion for prevention of cardiovascular diseases is finalized for island-wide implementation”. As shown in Table 5, both two indicators for the output were achieved by the time of completion of the project.

²² The project and the Ministry of Health were promoting a “total risk approach”, which evaluates the total risk, not individual diseases, at the health check-ups, because the risk for cardiovascular diseases could become higher when various risks are accumulated.

²³ In the one-step model, it is a usual practice that nursing officers explain about the risks of NCDs in the waiting room in the outpatient department in the hospital, and invite them to participate in health check-ups.

Table 5 Achievement of Output 4

Indicators for Output 4	Status of Achievement of the Indicators at the time of Project Completion
<u>Indicator 1</u> : Steps for expansion, stakeholders and their roles, and necessary resources are identified by September 2011. <Achieved>	The Ministry of Health issued a circular in August 2011 instructing PDHS and RHDS to establish HLCs nationwide for carrying out health check-ups and guidance. ²⁴
<u>Indicator 2</u> : The cost for island-wide expansion is estimated by September 2012. <Achieved>	The cost analysis study was completed in 2010. Additionally, a model was developed which shows necessary equipment and cost of human resources for health check-up activities, when one inputs target population and period of health check-ups.

As the above table shows, the Ministry of Health decided to establish HLCs, to conduct NCD health check-ups and guidance, in primary health institutions nationwide. It was also decided to set up at least three HLCs in an MOH area; each HLC conducts an NCD prevention health check-up clinic at least once a week for people aged between 35 and 65. Around 20 people will receive health check-ups and guidance at a time. The medical officer working for the primary health institution works for the HLC in his/her institution, and other medical staff will assist with activities at the HLC, such as health check-ups and health guidance, as needed. Necessary resources for HLCs, such as furniture, equipment and various forms were also decided by the circular. Around 580 HLCs were established nationwide at the time of project completion.

Output 4 had been achieved from the fact that all the indicators were achieved, and a system and plan for expansion of health check-ups and guidance and health promotion for island-wide expansion was finalized at the time of project completion.

²⁴ *Guideline for the establishment of healthy Lifestyle centers in healthcare institutions*, NCD/41/2011, August 15, 2011, Ministry of Health



A HLC at Ridigama District Hospital in Kurunegala district



Health check-up being conducted at the HLC at Ridigama District Hospital

Source: Photographed by the ex-post evaluator (January 2016)

3.2.1.2 Achievement of Project Purpose

Project purpose was “Effective and efficient implementation models to prevent and control NCDs are developed”. Table 6 shows status of achievement of the indicators for project purpose.

Table 6 Achievement of Project Purpose

Indicators	Status of Achievement of Project Purpose at the time of Project Completion
<u>Indicator 1:</u> 20% of target population is screened annually. <Achieved to a great extent>	Annual coverage rate of health check-up in the pilot area in Kurunegala district was 18%, and that in Polonnaruwa district was 17% at the time of project completion. ²⁵
<u>Indicator 2:</u> 70% of people identified as high-risk receive follow-up guidance by December 2012. <Not achieved>	Participation rate of the follow-up guidance in the pilot area in Kurunegala district was 50%. The rate in the pilot area in Polonnaruwa district was unknown as there was no data. There was not enough time to collect necessary data in the pilot area as it took some time for the ministry to define “high-risk group”. ²⁶ The project completion report of the project stated that the indicator was considered not to be achieved in Polonnaruwa, because a system for ensuring the high-risk group participate in follow-up guidance was still being established in the area.

²⁵ In the pilot area in Kurunegala district, 12,479 people participated in the health check-ups out of the target population of 24,000 during the period from August 2009 to October 2012. In the pilot area in Polonnaruwa district, 4,455 people participated in health check-ups out of the target population of 11,600 during the period from August 2009 to October 2011.

²⁶ There were various opinions in the Ministry of Health about the definition of “high-risk”. As a result, it was defined as “the group that has more than 20 per cent possibility of having a cardiovascular event within the next 10 years” in May 2012, and informed to the relevant staff.

Indicators	Status of Achievement of Project Purpose at the time of Project Completion
Indicator 3: 90% of newly identified patients have received necessary treatment by December 2012. <Partly achieved>	The percentage of patients who were continuing treatment was 100% in the pilot area in Kurunegala district. This figure included those who completed treatment according to the decision of medical officer. It was 75% in the pilot area in Polonnaruwa district. The majority of those who stopped the treatment by themselves stated “I did not feel a need for treatment” as a reason. ²⁷

As mentioned in the above table, of the three indicators, the first one, “annual rate of coverage of health check” had been achieved to a great extent. However, the second indicator, “participation rate of the high-risk groups to the follow-up clinics” had not been achieved, and therefore it is understood that an efficient system for carrying out continuous guidance was not established completely at the time of project completion. Indicator 3, “percentage of newly identified patients in the health check-ups, who were receiving necessary treatment”, was not achieved in Polonnaruwa district, which meant the NCD health check-ups and guidance conducted in the area were not as effective as had been expected.

An implementation model for NCD prevention was developed, and health check-ups and guidance was implemented. It is clear that an implementation structure was formed; however, efficiency of the health check-ups and effect of the health guidance did not reach exactly up to the expected level. Therefore, the project achieved its project purpose at a limited level.

3.2.2 Impact

3.2.2.1 Achievement of Overall Goal

Overall goal of the project was “Effective and efficient implementation models to prevent and control NCDs are implemented in all districts in Sri Lanka”. Table 7 shows the status of achievement of the two indicators of the overall goal.

²⁷ Source: Document provided by JICA

Table 7 Achievement of Overall Goal

Indicators	Status of Achievement at the time of Project Completion
<p><u>Indicator 1:</u> 100 % of districts have implemented the check-up/ guidance and health promotion activities. <Achievement level remains moderate></p>	<p>HLCs were established in every district in the country. Health check-ups and guidance was carried out at HLCs. Coverage of the health check-ups exceeded the target. However, status of utilization of the HLCs was not as high as initially expected, and people’s recognition about the HLCs was low. It was unknown whether health promotion activities were implemented in every district.</p>
<p><u>Indicator 2:</u> The annual incidence of cardiovascular diseases (coronary vascular diseases and cerebral stroke) starts to decline in the project area by 2018. <Achievement level is unknown></p>	<p>Status of achievement was not known as there was no usable data.</p>

<Indicator 1>

Status of achievement of Output 1, “100 per cent of district in the country has implemented the check-ups/ guidance and health promotion activities” was found as follows:

At the time of the ex-post evaluation, 711 HLCs had been established in total in the districts of the country as a result of an effect of this project and assistance of other donor agencies²⁸ (as of end June 2015). An integrated intervention guideline, registry for health check-ups, various formats, tools for health guidance and others developed by the project were utilized at the HLCs. It was found through a visitor satisfaction survey of HLCs conducted by a staff member of the Ministry of Health that the level of satisfaction of visitors to HLCs was high.²⁹ Health check-ups were conducted not only at HLCs, but also at mobile clinics, workplaces and MOH clinics. Accumulated health-check coverage was 7.7 per cent in 2014, which exceeded the target for the year set by the ministry, which was 6 per cent.³⁰

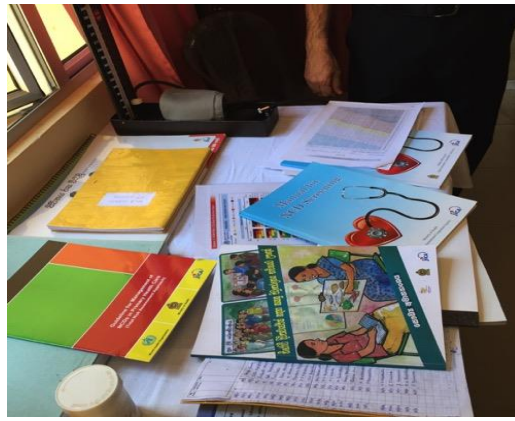
²⁸ Funding from HSDP II (2013 – 2018) provided by the World Bank was utilized for setting up clinic rooms for HLC and purchasing necessary tools and equipment for HLCs.

²⁹ 21% of the visitors answered “very much satisfied”, and 79% answered “satisfied”. Source: ‘Evaluation of the Healthy Life Style Clinics (HLCs) in primary health care institutions in the District of Matara’, A P R S Chandrasena, *Sri Lanka journal of health policy and management* (date of issue unknown). This was the study conducted by a staff member of the ministry working in the district in 2013 of the 17 HLCs in the district. Sample size of the study was 280.

³⁰ Source: *Annual Health Bulletin 2012*, Ministry of Health and reply to the evaluation questionnaire distributed at the time of the ex-post evaluation (document provided by the NCD Unit). Target population for the health check-ups was entire population aged from 40 to 65. The ministry set an annual target for the health check-ups, applicable every year from 2012, as 2 per cent of the target population without overlapping. The target figure of 2012 was 2 per cent and that of 2013 was 4 per cent.



A medical officer conducting health guidance using a flip-chart developed by the project



The guidelines and formats developed by the project

Source: Photographed by the ex-post evaluator (January 2016)

The number of HLCs increased as mentioned above. However, status of utilization of HLCs was lower than what was planned initially. The Ministry of Health conducted a utilization study of HLCs all over the country in 2015.³¹ The notice circulated by the ministry, which instructed establishment of HLCs, proposed a plan that each HLC conduct health check-up activity at least once a week, and carry out health-check-ups for at least 20 people at once. The utilization study investigated the number of participants in health check-ups at all HLCs. The study defined the status of utilization as 100% if an HLC conducted health-check activities as mentioned in the above-mentioned plan, that was for 80 people per month. Then, the total number of visitors to the HLCs was collected and analyzed to identify the status of utilization of HLCs in the country. As a result, it was found that there was only one MOH area where the utilization rate of HLCs was more than 100 per cent. There were four MOH areas where the utilization rate was between 50 per cent to 99 per cent. There were 12 MOH areas where the rate was from 30 per cent to 50 per cent. There were 6 MOH areas where the rate was less than 30 per cent. (3 MOH areas did not reply.) From this data, it can be said that the number of participants in health check-ups at the HLCs was much less than planned; therefore, status of utilization of the HLCs was not adequate.

However, annual health check-up coverage was more than the target set by the ministry, as mentioned in the previous page. The reason that the health check-up coverage met the target although status of utilization of the HLCs was poorer than the plan are: a) health check-ups are conducted at mobile clinics, workplaces and MOH clinics in all over the country that are contributing to achievement of the rate of health check-up coverage, b) there are a lot of HLCs

³¹ A Study on Utilization Pattern of Healthy Lifestyle Centers (HLC), Policy Analysis and Development, Ministry of Health, 2015. The study on utilization was conducted for the period from January to September, 2014.

in the country, which are contributing to the health check-up coverage rate in total, although each HLC is not adequately utilized.³²

Recognition of HLCs was also not adequate. Only 25 per cent of the respondents knew about HLCs in the beneficiary survey³³ conducted as a part of the ex-post evaluation (Figure 2). When those who knew about HLCs were asked how they heard about it, they replied mostly as “from friends and neighbors” and “TV programme and public advertisements”. From these replies, it is understood that awareness about HLCs was created among the local people to a certain extent by personal communication and mass media (Figure 3). The officers in-charge of the NCD unit in the ministry, PDHS and RDHS were also of the opinion that recognition of HLCs was not enough. Staff of PDHS and RDHS were making various efforts to create awareness among the local people to visit HLCs and have health check-ups. For example, the nursing officers in charge of health education explain about NCDs to people in the waiting room of the outpatient department in primary medical institutions, where the HLCs are located, and invite them to the HLCs; and public midwives are giving invitation cards to HLCs to the local people when they make home visits for MCH activities. The NCD Unit of the ministry are also conducting programmes for awareness creation of NCD prevention and for increasing recognition of HLCs, by posting newspaper articles, carrying out campaigns and so on. However, it seems that recognition of HLCs among the local people was still not adequate.

It was also found that only 14 per cent of those who heard about the HLCs had visited HLCs (Figure 4). When they were asked about the reasons they did not visit the HLCs, the most

³² According to the calculation made by the external evaluator, the target number of people supposed to have health check-ups, that was 2% (see footnote 30), is 120,000. The necessary number of HLCs to complete health check-ups of this target population is 125, if each HLC conduct health check-ups for 80 people every month of the year as planned by the ministry (80 people x 12 months x 125 HLCs = 120,000). However, there were 711 HLCs in the country at the time of the ex-post evaluation (June 2015). This larger numbers of HLCs were established probably because the ministry encouraged establishment of HLCs by giving a target to open at least 3 HLCs in each MOH area (there are 338 MOH areas in total in the country) as mentioned in “3.1.1.4 Output 4” of this report; and the necessary financial resources, which was provided by the World Bank, were available for opening the HLCs.

³³ Street interviews were conducted in six local government areas of the country with an objective of identifying the level of awareness about NCD check-ups and HLCs of the local people. The local government areas were selected through stratified random selection method of two steps by using a random number table. Firstly, 3 districts were selected out of all the 25 districts in Sri Lanka. Secondly, one UC (Urban Council) and one PS (Pradeshiya Sabha) were selected from each of the selected three districts randomly from the list of local governments in the district. As a result, 6 local government areas were selected for the locations of the survey, namely, Chilaw UC and Puttalam PS in Puttalam district, Gampola UC and Kundesale PS in Kandy district, Talawakele UC and Kothmale PS in Nuwara Eliya district. Street interviews were conducted from January 30th to February 1st 2016 for around 30 people including males and females in each location, whose ages were between 40 to 65, and obtained 172 valid responses in total. The characteristics of the samples were: 56% male and 44% female; 41% was the 40s, 55% was the 50s, and 3% was 60s; 38% self-employed, 24% working for private sector, 21% housewives, 9% government officers, 4% retired and 2% unemployed. As mentioned above, locations of interview were selected randomly, but respondents were purposely selected on the streets. There could be a potential for bias in the samples, as only those who were on the streets and were willing to participate in a 10-minute interview were selected. The sample size was small, compared with the target population of the age (around 6 million). Therefore, the result of this beneficiary survey cannot be generalized.

frequent answer was “Because I believe I am healthy” and the next was “I have no time/ am busy”. It is understood from these replies that local people do not have appropriate awareness about the importance of having an NCD health check-up. (Figure 5)

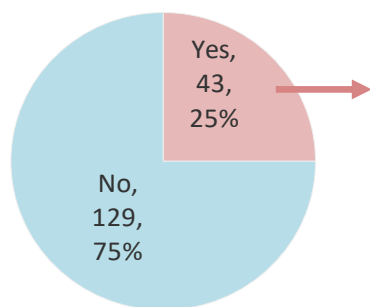
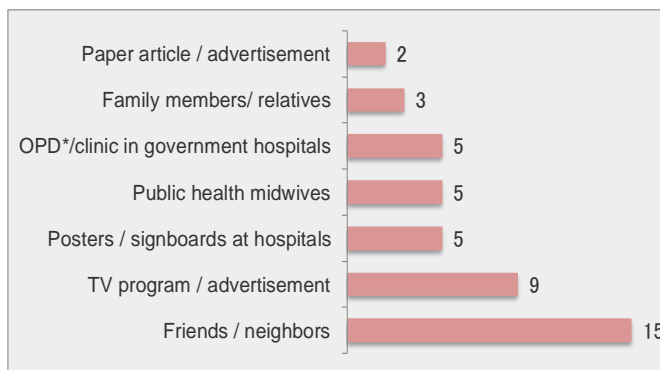


Figure 2 Do you know HLC?
(N=172)



(*OPD: Outpatient Department)

Figure 3 How did you hear about HLC?
(N=43, multiple answers allowed)

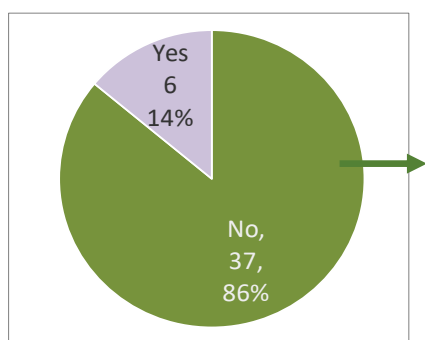


Figure 4 Have you visited HLC?
(N=43)

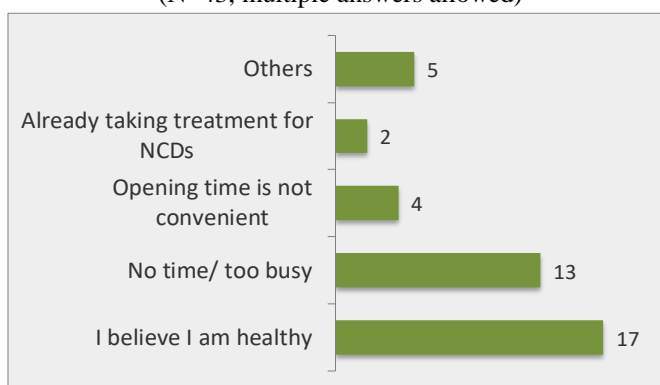


Figure 5 What was the reason you did not visit HLC?
(N=37, multiple answers allowed)

Source: Beneficiary Survey

The following results of the beneficiary survey also tells about insufficient motivation to have an NCD check-up and insufficient understanding about NCDs among the general public. It was found that 60 per cent and 40 per cent of the respondents replied “yes” and “no” respectively to a question “Have you ever had a health check-up for NCDs?” (Figure 6)³⁴ Subsequently, those who had not had a health check-up for NCDs were asked if they think they need a check-up. Then, only 28 per cent replied “yes” and 72 per cent in total replied negatively as “No”, “No need for the time being” or “Do not know”. (Figure 7) When respondents who had replied negatively were asked “what are the reasons for not having a check-up?”, the most common

³⁴ It included those who had had a test of blood glucose level or cholesterol, which is not an integrated NCD health check-up or a risk assessment.

answer was “Because I believe I am healthy”. (Figure 8) It was found important to create more awareness among the general public about the fact that NCDs can become advanced without noticing any symptoms, and that even those who do not notice any symptoms of NCDs should have a check-up.

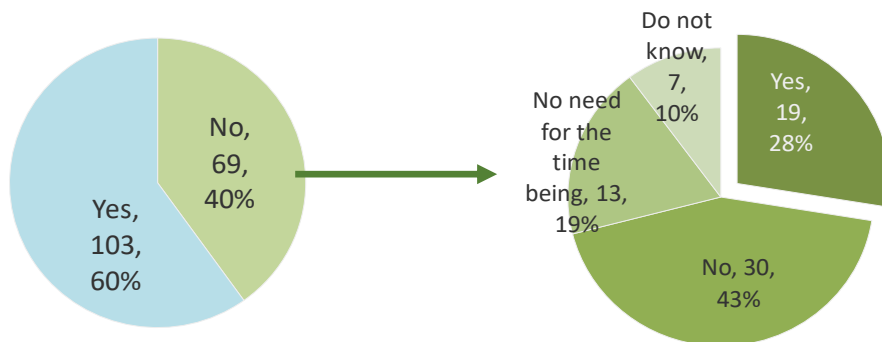


Figure 6 Have you ever had a health check-up for NCDs? (N=172)

Figure 7 Do you think you need a health check-up for NCDs? (N=69)

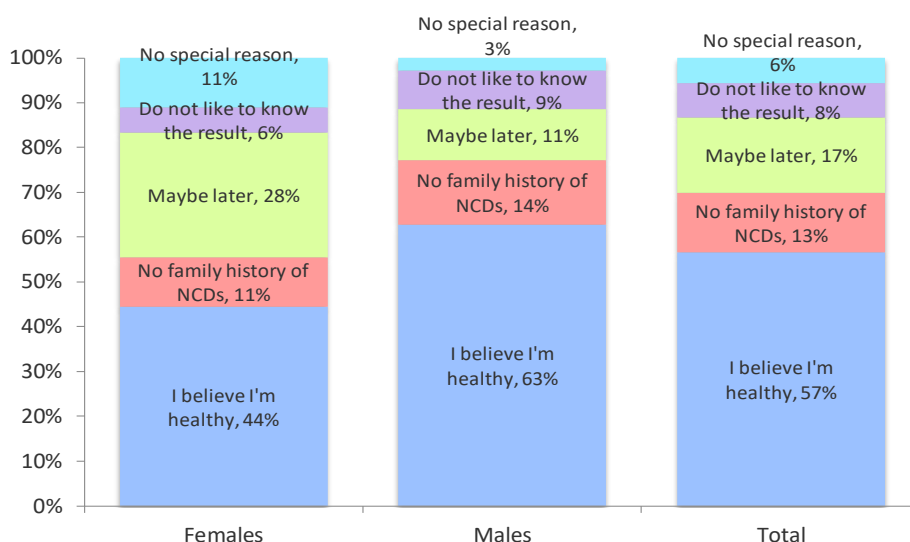


Figure 8 What are the reasons for not having a NCD check-up? (N=53)

Note: Total percentages sometimes does not become 100, as the percentage of each item was rounded.

Source: Beneficiary Survey

There was a tendency that more males than females stated “Because I believe I am healthy” as a reason for not feeling the need for a health check-up, among those who had not participated in a health check-up. (Figure 8) It seems that awareness creation activity about the need to have a check-up even there is no symptom should target males more. Staff of PDHS and RDHS recognized the problem of less participation of males in health check-ups. Seventy-three per cent of the participants to the NCD health check-ups in 2014 in Kandy RDHS area were female,

for example (source: document provided by Kandy RDHS).

The percentage of those who were continuously participating in follow-up clinics among those who were identified as having high-risk as a result of health check-ups, and the percentage of those who were receiving treatment among those who identified as patients, were not available, because a system for tracing the participants of health check-ups had not been established at the time of the ex-post evaluation.³⁵ Therefore, it was not sure whether the health check-up activities actually led them to have treatment at an early stage.

As for health promotion activities, the Ministry of Health, Ministry of Sports, Ministry of Education and others were facilitating activities according to the “National Health Promotion Policies and Strategic Framework”. The external evaluator was able to observe several examples of these activities during the ex-post evaluation (see photos below). However, it was unknown whether activities were conducted in every district as the Ministry of Health was not collecting information, such as on venue of activities and number of participants, as these activities were self-motivated ones by nature.



People Walking in a Park



An Aerobics Class Organized by Ministry of Sports

Source: Photographed by the external evaluator (January 2016, Colombo)

Kurunegala district, where the pilot areas were located, played a leading role in nationwide expansion of HLCs by accepting visitors from other districts. At the time of the ex-post evaluation, there were 126 HLCs in the district (as of September 2015) - many more than the number in other districts, which were between 6 and 48. Annual health check-up coverage of the pilot areas (Narammala and Alawwa MOH areas) in recent years, up to June 2014, was 17 per cent,³⁶ which was much higher than the national average of 7.7 per cent. Therefore, it is

³⁵ A tracing system was under development at the time of the ex-post evaluation by a technical cooperation project of JICA named, “Project for Enhancement of NCD Management”.

³⁶ Source: Replies provided by the NCD Unit, Ministry of Health, to the questionnaire developed for the ex-post evaluation.

clear that the district and the pilot areas were still playing a leading role in NCD prevention and control in the country at the time of the ex-post evaluation. There were 17 HLCs in Polonnaruwa district, another district where the pilot area was located. Annual health check-up coverage of the pilot area in the district (Medirigiriya MOH area) was 7 per cent, which was nearly same as the national average.³⁷ The reason that the district and the pilot area were not expanding NCD health check-up activities, although it started activities earlier than other districts, was probably because of frequent replacement of directors and key staff at the RDHS, who were taking leadership in NCD prevention and control in the district during project implementation.³⁸ The pilot areas in both districts did not have active health promotion activities, like the ones implemented during the project, at the time of the ex-post evaluation.

<Indicator 2>

There was no usable data for investigating indicator 2, “The annual incidence of cardiovascular diseases starts to decline in the project area by 2018” at the time of the ex-post evaluation of the project. The situation was the same at the time of the terminal evaluation. The Ministry of Health and PDHS/ RDHS had no system to receive information about the number of annual incidences of cardiovascular diseases, as it is difficult for them to collect such statistics.³⁹ The Ministry of Health stated in the *National Policy & Strategic Framework for Prevention and Control of Chronic NCDs*, that it aimed to reduce the number of premature deaths (below 60 years old) caused by NCDs by 2 per cent annually over the next ten years, starting from 2009. This aim could be set as an overall aim of the project instead of the existing one. However, currently there was no usable data for this indicator, either.

As explained above, the project has achieved its overall goal at a limited level.

3.2.2.2 Other Impacts

None.

Implementation models for NCD prevention and control had been developed, and health check-ups and guidance were carried out; however, efficiency of the implementation structure and effect of the health guidance had not reached the expected levels at the time of completion

³⁷ Source: Replies provided by the NCD Unit, Ministry of Health, to the questionnaire developed for the ex-post evaluation.

³⁸ Source: Document provided by JICA

³⁹ The Ministry of Health maintains statistics about the number of patients hospitalized in public hospitals after cardiovascular incidents. However, the ministry has no way to obtain numbers of those who were treated in outpatient departments or hospitalized in private hospitals. Therefore, it is not possible for the ministry to maintain statistics of the number of cardiovascular events.

of the project. Therefore, the project achieved at a limited level its project purpose. Activities for NCD prevention and control were carried out nationwide after the project completion by utilizing the outputs of the project. However, HLCs, which were supposed to play an important role in NCD prevention and control, were not fully utilized; status of continuous participation with health guidance by the high-risk groups identified in the health check-ups was unknown; and whether patients who were identified in the health check-ups were receiving necessary treatment had not yet been studied. Therefore, the project has achieved at a limited level its overall goal.

By considering the above findings, it was evaluated that the project had achieved the project purpose and overall goal to a certain extent, and effectiveness and impact of the project are fair.

3.3 Efficiency (Rating : ②)

3.3.1 Inputs

Table 8 shows main inputs and outputs of the project.

Table 8 Planned and Actual Inputs of the Project

Inputs	Planned	Actual at the Time of Project Completion
(1) Experts (There was no distinction in long- and short-term as it was a corporate contract)	Number and man-months of experts were not indicated in the plan. 6 specialities (team leader, NCD prevention, clinical epidemiology, health promotion, health information system management and cost analysis)	11 experts in 8 specialties (team leader, NCD prevention, clinical epidemiology, health promotion, health information system management, health finance, cost analysis and training coordination)
(2) Trainees received	Number of trainees was not indicated in the plan. Training in Japan – Observation tour for NCD prevention programme and others	13 trainees Training in Japan – Observation tour for NCD prevention programme and others
(3) Equipment	Amount for equipment was not indicated in the plan Equipment for health check-ups, computers, equipment for health promotion, vehicles and others	Equipment for health check-ups, audio-visual equipment, vehicles and others
Japanese Side Total Project Cost	380 million yen	438 million yen

Inputs	Planned	Actual at the Time of Project Completion
Sri Lankan Side Operational Expenses	1. Assignment of counterpart officers 2. Provision of office space for JICA Experts 3. Expenses for the office (utilities and others) 4. Payment of taxes for vehicles and equipment to be provided by JICA	1. Assignment of counterpart officers 2. Provision of office space for JICA Experts 3. Expenses for the office (utilities and others) 4. Payment of taxes for vehicles and equipment provided by JICA 5. Consumables used for health check-ups in the pilot areas of the project

3.3.1.1 Elements of Inputs

The number of JICA experts and trainees to be sent to Japan and amount of equipment to be provided were not indicated in the plan. Therefore, a comparison of planned and actual quantity of these items could not be conducted. As for content of inputs, it was confirmed that the actual was same as the plan in general.

3.3.1.2 Project Cost

Planned and actual project cost were 380 million yen and 438 million yen respectively, and the actual was higher than planned (115 per cent vs. plan). Main reasons for the actual exceeding the plan were: training programme in Japan and procurement of vehicles were carried out in additional numbers according to necessity, and a JICA consultation team was dispatched by JICA twice during the project.⁴⁰ Other reasons were, for example, necessary furniture, tools, equipment for health check-ups and others were procured by the project for the 50 and 18 HLCs, total 68, which were established in Kurunegala and Polonnaruwa districts respectively. Originally, one or two HLCs were planned to be established in each pilot area. However, it was decided by the ministry to establish more HLCs as the activities on health check-ups and guidance progressed earlier than expected.

3.3.1.3 Project Period

Actual project period was same as planned - four years and eleven months from May 2008 to March 2012. (100 per cent vs. plan)

Although the project period was same as planned, the project cost exceeded the plan. Therefore, efficiency of the project is fair.

⁴⁰ JICA consultation team was dispatched twice to help the Ministry of Health and JICA to agree on the objective of the Ragama Health Study, as there was no adequate consensus between these parties at the beginning of the project.

3.4 Sustainability (Rating : ③)

Under the item of sustainability, the following was analyzed: if the necessary policy and programme were formulated; establishment of institutional arrangements in the Ministry of Health, PDHS and RDHS; adequate technical capacity of the officers of PDHS and RDHS who are implementing and facilitating implementation of the models; and any problems in terms of finance, at the time the models of NCD prevention, such as on health check-up, guidance and health promotion activities are carried out efficiently and effectively in every district in Sri Lanka.

3.4.1 Related Policy and Institutional Aspects for the Sustainability of Project Effects

Health Master Plan (2007 – 2016) clearly stated the importance of NCD control; the Ministry of Health formulated the *National Policy and Strategic Framework for Prevention and Control of Chronic NCDs* in 2009 and *National Health Promotion Policy and Strategic Framework* in 2010. The ministry is implementing the “National NCD Screening Programme”, including health check-ups and guidance at HLCs, mobile clinics, workplaces and MOH clinics, with the aim of implementing NCD prevention and control all over the country.

In this manner, the necessary policies and institutional arrangements for sustaining the effect of the project are in place.

3.4.2 Organizational Aspects of the Implementing Agency for the Sustainability of Project Effects

The Ministry of Health formed policy-level committees for NCD prevention and control: the National NCD Steering Committee, which has directors of the ministry as members, and National NCD Advisory Committee, which has representatives of the health ministry, and other related ministries and NGOs. These committees hold several meetings a year and carry out policy recommendations and monitoring of the related programme of NCD. There is an NCD Unit in the head office of the ministry. The unit is implementing planning of programmes for NCD prevention and control, monitoring activities on NCD prevention and control in the country, publicity programme for general public and others. A MO-NCD is assigned in every RDHS office, who conducts facilitation and monitoring of health check-ups, guidance and others carried out at the HLCs and MOH areas under the preview of the directors of PDHS and RDHS. A cabinet decision was made in December 2015 to establish an NCD Bureau under the Ministry of Health, with the aim of further strengthening the above-mentioned activities.⁴¹

⁴¹ The NCD Bureau is planning to implement a holistic programme of prevention and control, not only for NCDs that were targeted by the project, including diabetes mellitus, hypertension and hypercholesterolemia, but also others coming under the wider definition of NCDs, such as cancers, liver ailment, diseases of eyes and ears, as well as accident injuries, poisoning and others.

Seven hundred and eleven (711) HLCs were established in total in the country at the time of the ex-post evaluation. The ministry is currently working on establishing at least two HLCs in each MOH area (there are a total of 338 MOH areas in the country). Seventy-five MOH areas had met this target as of the end June 2015. HLCs were started to be set up around four years ago. Currently, the ministry recognizes several issues about the HLCs, and is taking steps to overcome these issues. For example, there are some primary medical institutions, in which HLCs were established, that have only one medical officer. It was found that these institutions find it difficult to conduct an NCD health check-up at the HLC once a week. To overcome this issue, the ministry has been increasing the number of medical officers at these institutions. The ministry is also taking steps to introduce equipment to measure cholesterol levels at HLCs to meet the demand of the general public.

The ministry and JICA were implementing the ODA loan project of “Project for Improvement of Basic Social Services” from 2012, and technical cooperation project of “Project for Enhancement of NCD Management” from 2014. These projects are carrying out a programme in order for people who were identified as high-risk or patients at the health check-ups to be provided appropriate treatment and control. The programme includes activities for improving facilities and equipment at the secondary medical institutions; enhancing production capacity of medicines; developing a tracing system after people participated in health check-ups; enhancing systems for NCD patients to receive necessary treatment, and others. These projects were implemented with the prospect that need for treatment would increase after nationwide expansion of health check-ups as a result of this project. The implementation supports sustainability of the effect of this project.

As described above, related organizations of the project, such as the Ministry of Health, PDHS and RDHS have the necessary systems for supporting the sustainability and further expansion of the effect of the project.

3.4.3 Technical Aspects of the Implementing Agency for the Sustainability of Project Effects

The NCD Unit of the Ministry of Health holds a meeting for monitoring progress of activities on NCD prevention and control once every three months. MO-NCDs of RDHS participate in the meetings, report progress of activities in their area, discuss issues, and share their experience.

PDHS and RDHS conduct training programmes on NCD prevention and control for medical officers, public midwives, public health inspectors and other staff with the aim of enhancing their knowledge and programme management capacity. These staff conduct awareness creation activities with local communities. They use flipcharts and references developed by the project, and tools developed by the programme funded by WHO and others. These references and tools help standardize the quality of their programme.

Currently, there is no problem in carrying out the programme of NCD prevention and control due to the technical capacity of the staff members.

The staff of the ministry, PDHS and RDHS have the necessary technical capacity to sustain the effect of the project.

3.4.4 Financial Aspects of the Implementing Agency for the Sustainability of Project Effects

NCD Unit of the ministry has obtained a budget allocation of 20 - 30 million Sri Lankan Rupees (LKR) (around 17- 26 million yen) every year for carrying out the training programme and other activities. For years where there is a plan to conduct awareness creation campaigns, the budget allocation is sometimes 45 - 60 million LKR (around 39 - 52 million yen).⁴² There is a plan for increasing budget allocation of the NCD Unit in 2017 and 2018. The director of the unit explained that they do not have a financial problem for carrying out necessary activities.

PDHS and RDHS were allocated budget from the respective provincial government for carrying out NCD activities, including a programme for awareness creation, training, improvement of equipment and facilities. PDHS and RDHS were also obtaining funding from WHO. This funding was utilized for establishment and purchasing necessary equipment for HLCs. Expenses of HLCs, such as costs of health check-ups, were spent out of the budget allocated to the primary medical institution in which the HLC is located. According to the directors of PDHS/ RDHS and MO-NCDs, the status of operation and maintenance of the equipment provided by the project, such as equipment for health check-ups, audiovisual equipment and vehicles was satisfactory, and there was no financial problem in this regard.

In this way, there was no financial problem observed for sustaining the effect of the project.

No major problems have been observed in the policy background and the organizational, technical, financial aspects of the implementing agency. Therefore, sustainability of the project effects is high.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This project was implemented with the aim of developing effective and efficient implementation models to prevent and control NCDs in Sri Lanka.

Prevention and control of NCDs was an important policy target of the country at the time of planning and completion of the project. The number of deaths by NCDs was increasing in the

⁴² Source: Replies provided by NCD Unit, Ministry of Health, to the questionnaire developed for the ex-post evaluation. Exchange rate in the JICA website (1LKR=0.859JPY in December 2015) was used for the currency conversion.

country as a result of aging of the population and changes in eating habits and lifestyle. There was a strong necessity and urgency for the country to establish a system for preventing and controlling NCDs; this would be in addition to the existing health and medical services, which were mainly for prevention and treatment of communicable diseases. The objective of the project was consistent with Japanese assistance policy to Sri Lanka at the time of project planning, which placed an importance on assistance for enhancing social welfare services giving consideration to the aging population. Therefore, relevance of the project is high.

At the time of project completion, implementation models for prevention and control of NCDs had been developed based on the trial programme in the project pilot areas, as expected in the project. However, efficiency of the health check-ups and effect of the health guidance were not exactly up to the expected level. At the time of the ex-post evaluation, health check-ups and guidance had been implemented all over the country according to the above-mentioned implementation models. HLCs had been established in every district of the country as planned. However, HLCs are not utilized adequately, and it is not known if the high-risk groups and patients identified in the health check-ups are receiving necessary treatment and guidance. Therefore, effectiveness and impact of the project is fair.

Efficiency of the project is fair because project cost exceeded the plan, although the project period was within the plan.

The policies and systems to implement prevention and control of NCDs are continuing. Institutional arrangements for the implementation have been made among the relevant institutions, including the implementing agency. There is no problem with regard to the technical capacity of staff members and the financial situation of relevant institutions. Therefore, sustainability of the effect of this project is high.

In light of the above, the project is evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agency

(1) Necessary arrangement of statistical data for identifying level of achievement of the policy objective of NCD prevention and control.

The Ministry of Health stated in the National Policy of NCD Prevention and Control that it aimed to reduce the number of premature deaths (below 60 years old) caused by NCDs by 2 per cent annually for ten years starting from 2009. However, there is no baseline data for this. The statistics of the number of deaths in public hospitals that are reported in the Annual Report of the Ministry of Health can be used to represent the above-mentioned number in the policy

objective.⁴³ At present, the number of hospital deaths is collected according to age groups from a standpoint of reproductive health, that is ages 1 - 4, 5 - 16, 17 - 49, 50 - 69 and over 70. Therefore, “number of deaths caused by NCDs at an age below 60” cannot be collected. In order to collect the number of deaths caused by NCDs at an age below 60, it is necessary to change the age groups in data collection. In addition to that, to identify a death caused by NCDs, it is more appropriate to collect the numbers by the secondary causes of death, not by the primary or direct causes.⁴⁴ It is a good opportunity for the ministry to change the data collection method to that of the target age groups and by secondary causes of death, so that the level of achievement of the policy objectives can be investigated, as currently, the ministry is working on computerized data collection for health statistics.

(2) Enhancement of activities for motivating the general public to participate in NCD health check-ups

It was found in the beneficiary survey of the ex-post evaluation that a substantial portion of the general public had not heard about HLCs, and did not feel a need to participate in NCD health check-ups because they believed they were healthy. There is a survey to show under-utilization of the HLCs, although they were established nationwide. It is recommended that the Ministry of Health, PDHS and RDHS consider the above-mentioned facts and enhance activities for improving the level of understanding about NCDs among the general public, creating more awareness among them about the importance of participating in health check-ups, and giving more publicity to HLCs.

4.2.2 Recommendation to JICA

None.

4.3 Lessons Learned

(1) Importance of implementing necessary programmes so that the required treatment will be given to the people, while developing a system for carrying out NCD health check-ups and

⁴³ The mortality statistics maintained by the Ministry of Health is the number of deaths in public hospitals and does not include number of deaths in private hospitals and at homes. Therefore, it is not statistically perfect, but has continuity as it is published every year. Statistics maintained by the Register General’s Department have the number of all deaths. However, those after 2009 were not published due to a delay in summarizing information. Therefore, it has low potential to be used as a baseline data.

⁴⁴ For example, in the case of colonic NCDs such as (a) diabetes mellitus, hypertension and hypercholesterolemia, one dies by (b) heart attack or cerebral hemorrhage - (a) is the secondary cause, while (b) is the primary or direct cause. It is important to identify deaths according to the (a) secondary causes, which are the root causes of the death, when collecting the numbers of deaths of those aged below 60 for the purpose of investigating the level of achievement of the policy objective.

guidance.

Implementing models for NCD prevention and control were developed by this project, and a plan for carrying out nationwide NCD health check-ups was formulated at the time of project completion. The need to provide necessary treatment to the high-risk groups and patients who were identified in the health check-ups will certainly increase when health check-up activities are implemented all over the country according to the plan. The Ministry of Health and JICA have started an ODA loan project and a technical cooperation project with the aim of enhancing the capacity of secondary medical institutions to provide treatment and control for NCDs during this project in order to meet the above-mentioned need without an interruption. It was found in the ex-post evaluation that this timely implementation of the projects was ensuring sustainability of the effect of this project. It is important for JICA when it assists a developing country to enhance NCD prevention and control that it implements a programme in time to meet the increasing need for treatment for high-risk groups and patients, who were identified in the health check-ups, while developing a system for health check-ups and guidance.

(2) A reference to similar kind of project about the method and process for developing implementation models for NCD prevention and control adopted by this project

This project is one of the pioneering projects for JICA on NCD prevention and control. NCDs are becoming a serious problem as a result of changes in lifestyle and an aging population in a lot of developing countries. Therefore, the importance of JICA's assistance for NCD prevention and control will further increase in future. The method of trial implementation of NCD prevention and control programme, guidelines and formats developed in the project are useful for similar kind of projects in the same sector, which would be implemented by JICA in future.