

Ex-Ante Evaluation (for Japanese ODA Loan)

1. Name of the Project

Country: Republic of Moldova

Project: Project for Improvement of Medical Care Service

Loan Agreement: June 27, 2013

Loan Amount: 5,926 million Yen

Borrower: The Government of the Republic of Moldova

2. Background and Necessity of the Project

(1) Current State and Issues of the Health Sector in Moldova

After 1991 when the Republic of Moldova (hereinafter “Moldova”) became independent from the former Soviet Union, the financial condition of the health sector was under pressure because the government was obliged to cover all medical costs and also because an excessive number of hospitals had been established, and it became necessary to reform the system of medical services. Under such situation, measures were taken for the following urgent issues: a) reduction of expenditure by incorporating a new mechanism of medical budget and b) optimization of medical service system by restructuring hospitals for secondary and tertiary care and improvement of primary care. As a result of the sector reform conducted through cooperation of the World Bank, concerning issue a), the subscription rate of the newly incorporated public insurance reached 80% and the medical expenditure was reduced by 40% (1991-1998, the Ministry of Health, Moldova). As for issue b), while the number of hospitals was reduced by approximately 80% (public hospitals in 1991-2012, the Ministry of Health, Moldova), improvement of primary care and maternal and child care is expected to result in satisfaction of the relevant indicators of the Millennium Development Goals (MDGs). With such achievements, Moldova’s sector reform is highly appreciated by the international community.

In Moldova, medical and relevant expenditure accounts for 11.7% against GDP, which has already reached the level of advanced countries (2010, World Development Indicators), and transition of the disease structure is in progress toward that of advanced countries centering on non-communicable diseases. Also, rapid ageing of the society is foreseen in the future due to the demographic changes. Therefore, it is needed to integrate and concentrate hospitals in order to further improve efficiency of medical services mainly of secondary and tertiary care and to improve the medical quality of those core hospitals. Concerning the latter, the urgent issue is renewal of deteriorated equipment as well as procurement of new equipment, given that the medical personnel have already acquired a certain level of medical technology.

(2) Development Policies for the Health Sector in Moldova and the Priority of the Project

The Moldovan government announces its health policies in “National Health Policy 2007-2021” developed in 2007, and is intended to develop a legal framework in order to

strengthen preventive health care and ensure high quality medical services. The strategy for the policies, “the Healthcare System Development Strategy 2008-2017”, points out the issue of the quality deterioration of medical services caused by the outdated medical equipment, suggesting to resolve it by promoting large-scale investments and incorporation of the latest medical technology. The next step of the ongoing reform of medical services is to integrate and concentrate general and specialized hospitals for tertiary care in Chisinau, the capital of Moldova, and to invest intensively in core hospitals.

The Project for Improvement of Medical Care Service (“the Project” hereinafter) is intended to procure new equipment and renew the old equipment at the core hospitals mainly in Chisinau, which is highly prioritized on the aspects of policy and strategy of Moldova.

(3) Japan and JICA’s Policy and Operations in the Health Sectors in Moldova

Prioritizing on assistance in the social sector, Japan’s development plan for Moldova has so far provided medical equipment in two grant aid projects (“Project for Improvement of Medical Equipment for Mother and Child Hospital” (approved in FY1998) and “Project for Improvement of Medical Equipment for Secondary Care Medical Institutions” (approved in FY2000)) as well as solar electricity generation system for the National Cancer Center (“Project for Introduction of Clean Energy by Solar Electricity Generation System” (approved in FY2011)). Task-specific trainings related to health care have also been provided.

(4) Other Donors’ Activities

The World Bank supports modernization of hospitals and reconstruction of the medical service system by developing the master plan of the hospital sector as well as the restructuring plan of the regional hospitals. As a part of such support, the World Bank and EU have started to construct a separate surgical bloc of “Republican Clinical Hospital” which is subject to the Project.

(5) Necessity of the Project

Although Moldova’s reform of policies and systems is progressing smoothly and good quality of the medical personnel is observed, introduction of new medical equipment and renewal of the worn and outdated equipment are slow. To deal with this issue, the Project is intended to promote the sector reform by improving equipment of core medical institutions and improve the medical quality adapting to changes of the disease structure. The Project coincides with Moldova’s development policies and also with assistance policies of Japan and JICA, and it is highly necessary and relevant for JICA to implement the Project.

3. Project Description

(1) Project Objective

The objective of the Project is to improve and streamline the medical care and public health service by introducing new medical and laboratory equipment into tertiary and secondary

hospitals and other facilities in Moldova, thereby contributing to the improvement of the health care service for the citizens in the Republic of Moldova.

(2) Project Site/Target Area

Chisinau and others

(3) Project Components

- 1) Procurement and installation of medical and laboratory equipment (specific items to be determined based on the detailed design.)
- 2) Consulting services (bidding assistance, supervision for construction, etc.)

(4) Estimated Project Cost (Loan Amount)

6,651 million yen (ODA Loan Amount: 5,926 million yen)

(5) Schedule

June 2013-October 2015 (29 months). The project will be considered completed upon start of equipment operation (October 2015).

(6) Project Implementation Structure

- 1) Borrower: the Government of the Republic of Moldova
- 2) Executing Agency: Ministry of Health
- 3) Operation and Maintenance System: To be maintained generally by the budget allocated by each medical institution

(7) Environmental and Social Considerations/ Poverty Reduction/Social Development

- 1) Environmental and Social Considerations
 - Category: C
 - Reason for Categorization: In accordance with the “JICA Guidelines for Consideration of Environmental and Social Considerations” (April 2010), the Project is likely to have minimal adverse impact on the environment.
- 2) Promotion of Poverty Reduction: N/A
- 3) Promotion of Social Development (e.g. Gender Perspective, Measures for Infectious Diseases Including AIDS, Participatory Development, Considerations for the Persons with Disabilities, etc.): The Project includes indirect assistance for strengthening maternal and child health care and infectious disease control, thus contributing to promotion of social development.

(8) Collaboration with Other Donors

The two cases of grant aid mentioned in above item 2. (3) were implemented for hospitals in Moldova. The ODA loan Project is intended to expand the effects of the outcomes of those activities. It is planned to provide fee-based technical assistance for improving the equipment

maintenance capacity and the clinical skills. The Project includes installation of equipment at the surgical ward of Republican Clinical Hospital which will be constructed through assistance from the World Bank, etc., and Japan is responsible for procuring equipment. Details of the Project will be designed through fee-based technical assistance.

(9) Other Important Issues

It is planned to apply Japan's high technology of diagnosis for diagnosis equipment.

Attention shall be paid to ensure that each institution and the Ministry of Health carry out careful confirmation and necessary repair works concerning structures for housing heavy machinery and the infrastructure such as electricity, water and medical gas which will be necessary for installation of equipment.

4. Targeted Outcomes

(1) Quantitative effects

1) Operation and Effect Indicators (listed below are the typical indicators at the National Scientific-Practical Center for Emergency Medicine)

| Indicator | Baseline (Performance in 2011) | Target (2007) 【2 years after project completion】 |
|---|-----------------------------------|--|
| Average number of days of hospitalization for Patients with Endoscope intervention | 5.4 | 3 |
| Number of patients with ischemic heart diseases treated by endovascular interventions | 0 | 500 |
| Number of CT tests | 7,434 | 12,637 |
| Number of MRI tests | 0 | 3,000 |
| Number of angiography tests | 0 | 1,200 |
| Number of endoscopic interventions | 2,333 | 5,832 |

2) Internal Rate of Return

Internal rate of return is not calculated because conditions and types of procured equipment vary among hospitals and institutions and also because it is difficult to evaluate benefits exclusively from the equipment provided through the Project.

(2) Qualitative effects

Improvement of the medical services and health promotion throughout Moldova, clarification of role division among hospitals, etc.

5. External Factors and Risk Control

Securing of the infrastructure for constructing the surgical ward and installing equipment at Republican Clinical Hospital

6. Evaluation of Similar Projects in the Past and Lessons Learned therefrom

(1) Lessons from Similar Projects

Lessons learned from the ex-post evaluation of a similar project for improving health care institutions in the past (Thailand “Rural Health Infrastructure Strengthening Project” (loan agreement signed in September 1996, loan completed in October 2002)):

- i) In selecting medical equipment, the necessity, the relevance and the hospital's capacity of application and management must be sufficiently examined.
- ii) In a project to provide equipment to many beneficiaries, it should be noted that the managing capacity (keeping things tidy and in order, maintenance, user records, system of selecting equipment, etc.) varies among them. It is preferable to involve the hospitals in the equipment selection process, when their managing capacity is high enough.
- iii) Training plans should be made to focus on the equipment to be provided. It is also necessary to improve the maintenance capacity of the technical staff.

(2) Application to the Project

- i) The Project made a list of equipment considering each hospital's disease trends, skills and distribution of the medical personnel, human resource development plan, maintenance system and contracted maintenance services. The situation of installation site and the infrastructure such as electricity, water supply and drainage has also been confirmed.
- ii) As the managing capacity of target medical institutions including equipment maintenance is generally considered to be at a high level, specifications of equipment to be procured through the Project will be confirmed based on the interview surveys of each hospital or institution and during designing of details.
- iii) Effective application of provided equipment will be ensured through clinical training for Moldovan doctors and technical cooperation on equipment maintenance.

7. Plans for Future Evaluation

(1) Indicators for future evaluation

- Average number of days of hospitalization for patients with endoscope intervention
- Number of patients with ischemic heart diseases treated by endovascular interventions
- Number of CT tests
- Number of MRI tests
- Number of angiography tests
- Number of endoscopic interventions

- Number of microscopic interventions
- Total number of tests at the National Center for Public Health and the National Center for Local Public Health

(2) Timing of Next Evaluation

Two years after project completion