Internal Ex-Post Evaluation for Technical Cooperation Project

conducted by Pakistan Office: December, 2018

Country Name	**The District Health Information System Project for Evidence-based Decision Making and Management**
Islamic Republic of Pakistan	

I. Project Outline

Background	Pakistan's Health Management Information System (HMIS) was developed by USAID in 1992. However, there were emerging requirements for the HMIS to make it compatible with the information needs from the provincial and district levels, particularly in the context of health systems devolution from the central government to the local government in 2001. Under this situation, the District Health Information System (DHIS) was developed as a product of the JICA-supported "Development Study on Improvement of Management Information Systems in Health Sector" (2004-2007). National Health Information Resource Center (NHIRC), the national authority on the information system, formulated a plan for nation-wide scale-up of the DHIS, which was not kept in a proper use mainly due to the prolonged mixing of the HMIS and DHIS at primary and secondary medical facilities.		
Objectives of the Project	Through the installation of DHIS software and training on the DHIS such as data collection, data input and data use, the project aimed at evidence-based routine operation and budget planning with the use of the DHIS in the project districts, thereby developing evidence-based policy and strategies for health services with the use of the DHIS nationwide in Pakistan. 1. Overall Goal: Policy and strategies for health services are developed in an evidence-based manner, through sustainable DHIS, nationwide in Pakistan. 2. Project Purpose: Routine operation and budget planning are practiced in an evidence-based manner, through newly introduced DHIS, at the selected districts in Pakistan.		
Activities of the Project	1. Project Site: Islamabad and 100 districts in Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, etc.[1] 2. Main Activities: Installation of DHIS software; training on DHIS such as data collection, data input, and data use; operation of DHIS at Provincial Health Departments (PHDs) and District Health Offices (DHOs) in the project distircts; and monitoring activities by the Japanese experts. 3. Inputs (to carry out above activities) Japanese Side 1) Experts: 9 persons 2) Operation cost (including the cost for installation and maintenance of DHIS software and training cost) Pakistan Side 1) Staff allocated: 3 persons at the federal level; 26 persons at the provincial level 2) Office space for Japanese experts 3) Local cost (including training cost and cost for replacing HMIS report forms with DHIS report forms at health facilities)		
Project Period	July 2009 – July 2012	Project Cost	(ex-ante) 320 million yen, (actual) 306 million yen
Implementing Agency	National Health Information Resource Center (NHIRC), Ministry of Health (MOH) (up to June 2011) National Institute of Health (NIH) (after July 2011)		
Cooperation Agency in Japan	System Science Consultants Inc.		

II. Result of the Evaluation

<Constraints on Evaluation>

In this ex-post evaluation, we included the four provinces (Punjab, Sindh, Khyber Pakhtunkhwa, and Balochistan) and the federal government because of the following reasons: 1) the number of the target districts among thesse 4 provinces covers 85% of all the target districts, and 2) these are low risk security areas. Further, not much information was provided from Khyber Pakhtunkhwa and Balochistan where we could not visit and thus relied on the questionnaire only.

< Special Perspectives Considered in the Ex-Post Evaluation >

The logical framework of this project does not mention the target year for the Overall Goal. Based on the Ex-Ante Evaluation Sheet that planned ex-post evaluation in around July 2015, three years after project completion, we regarded 2015 as the target year.

1 Relevance

<Consistency with the Development Policy of Pakistan at the Time of Ex-Ante Evaluation and Project Completion>

"National Health Policy" (2001) holds strengthening of capacity of district-level health administration in such key areas as "to remove professional and managerial deficiencies in district health system". "Generate reliable health information to manage and evaluate health services" is included in Six Policy Objectives of "National Health Policy" of 2009 (Final Draft, July 2009). For this purpose, NHIRC was envisioned. Due to the devolution of MOH in June 2011, NHIRC was integrated into NIH. Accordingly, the implementation and scaling up DHIS were to be continued in each province based on provincial health strategy.

<Consistency with the Development Needs of Pakistan at the Time of Ex-Ante Evaluation and Project Completion >

There was a need for the DHIS at the time of ex-ante evaluation as mentioned in "Background" above. At the time of project completion, PHDs and DHOs needed to use the DHIS to decide and manage public health matters based on the DHIS data as confirmed by the terminal evaluation team for this project.

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

"Program for the Improvement of Regional Community Health" in "Ensuring Human Security and Human Development" was one of the priorities of Japan's Country Assistance Program for Pakistan (2005).

<Evaluation Result>

[1] The total number of districts (including non-target districts) in the target provinces was 134 as of June 2012.

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of Project Completion>

The Project Purpose was achieved by the time of project completion as the indicators achieved the target: 87% of the target DHOs in all target provinces were using the DHIS introduced under this project for budget planning (Indicator 1) and routine operation (resource allocation) (Indicator 2) for district-level health services.

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have partially continued to the time of ex-post evaluation. In the four target provinces that we surveyed, all of the target districts continue to use the DHIS as far as the collection of information (such as disease data) is concerned. However, regarding the usage for routine operations and budget planning, the usage is limited. According to the Ministry of National Health Services Regulation and Coordination (MoNHSRC) of the federal government[2], the DHIS data is used at the health facility level for resource allocation, i.e., requests for medicines to its respective district and human resource posting. On the other hand, information provided by the DHIS offices (DHIS Cells) of the target provinces are mixed: in the two provinces we visited, districts use the DHIS data for routine operation/resource allocation (procurement of medicine) and budget planning (through district action plans), while one of the other two provinces said districts do not practice planning based on the DHIS (the reason is not provided), and the other one did not provide information.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal was partially achieved in the target year (2015) and the situation remains the same at the time of ex-post evaluation. The roles of the federal government and provincial governments have changed. Provinces are leading the DHIS, and the federal government is in a supporting role. According to MoNHSRC, the DHIS is implemented in all provinces based on the priority of the federal government on health information systems (see "Sustainability" below), and the federal government receives the DHIS data from all the provinces for the purpose of analysis and planning at their end. However, it is difficult to single out any policy and strategies made based on the DHIS exclusively, since data is used collectively from all the information systems data. In addition, MoNHSRC commented that the quality of data collected through the DHIS should be improved to provide reliable data for sound policy making.

<Other Impacts at the time of Ex-post Evaluation>

No negative impacts and other positive impacts of the project have been confirmed.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is fair.

Achievement of Project Purpose and Overall Goal

<table>
<tr><th>Aim</th><th>Indicators</th><th>Results</th></tr>
<tr><td rowspan="2">(Project Purpose)
Routine operation and budget planning are practiced in an evidence-based manner, through newly introduced DHIS, at the selected districts in Pakistan.</td><td>Indicator 1: At least one item of health services budget planning at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs (=100%)</td><td>Status of the Achievement: mostly achieved (partially continued)
(Project Completion)
87%. DHOs in 87 out of 100 target districts were practicing routine operation (resource allocation) and budget planning based on the analysis of DHIS data collected for more than three consecutive months. Replacement of the DHIS monthly report form by the one developed under the project was delayed in the rest of the target districts.
(Ex-post Evaluation)</td></tr>
<tr><td>Indicator 2: At least one item of health services routine operation (resource allocation) at district level is supported, underpinned and justified by the DHIS in the relevant PHD and DHOs (=100%)</td><td>
<table>
<tr><th></th><th>Indicator 1: Use for budget planning</th><th>Indicator 2: Use for routine operation (resource allocation)</th></tr>
<tr><td>Punjab</td><td>n/a</td><td>Yes for all districts</td></tr>
<tr><td>Sindh</td><td>Yes for all districts (district action plans)</td><td>Yes for all districts (e.g., procurement of medicine)</td></tr>
<tr><td>Khyber Pakhtunkhwa</td><td>n/a</td><td>n/a</td></tr>
<tr><td>Balochistan</td><td>No</td><td>No</td></tr>
</table>
</td></tr>
<tr><td>(Overall Goal)
Policy and strategies for health services are developed in an evidence-based manner, through sustainable DHIS, nationwide in Pakistan.</td><td>Indicator: At least one item of the national health strategy/policy at the federal level is supported, underpinned and justified by the DHIS.</td><td>(Ex-post Evaluation) partially achieved
All the health information systems parallel running in the country (including the DHIS) sends their data to MoNHSRC. The data is compiled at the MoNHSRC. After compiling the data, the federal government uses the data for different purposes such as for analysis purposes and using it for making plans and policies (though the usage for planning and policies is limited). However, data from all the information systems are used collectively; therefore, it may not be possible to name any policy or plan that used the DHIS exclusively.</td></tr>
</table>

Source: Project Completion Report; questionnaire/interview to MoNHSRC; questionnaire to Provincial DHIS offices in the four target provinces; interviews to Provincial DHIS offices in Punjab and Sindh.

Number of districts operating DHIS

Province	Total No. of districts at project completion (No. at present in parentheses)	Total No. of project districts	No. of project districts operating DHIS at project completion	No. of districts operating DHIS at present
Punjab	36 (36)	36	36	All 36 districts
Sindh	23 (increased to 29)	11	11	All 29 districts
KPK	25 (25)	24	24	All 25 districts
Balochistan	30 (increased to 32)	14	14	14 project districts
Total	114 (increased to 122)	85	85	104 districts

Source: Project Completion Report; Provincial DHIS offices; Pakistan Bureau of Statistics

3 Efficiency

[2] In June 2011, MOH was dissolved as the healthcare service was transferred to provinces, and MoNHSRC was formed as a ministry responsible for national public health.

Both the project cost (Japanese side) and the project period were within the plan (the ratio against the plan: 96% and 100%, respectively). Regarding the Outputs, the number of target districts was reduced from all districts (i.e., entire nation as all provinces in the nation were targeted) to 100 districts as some districts had not secured sufficient budget for the project activities. Judging based on the project cost borne by the Japanese side, the efficiency of the project is high[3].

4 Sustainability

<Policy Aspect>

All provinces have the provincial health policy which outlines the priorities of the health sector in the specific province[4]. Similarly, the health policy document is also prepared at the federal level though the implementation is the domain of the provinces. These health policies emphasize the importance of the health information systems, and the government envisages revamping the DHIS.

<Institutional Aspect>

At the federal level, NHIRC / the Health Planning, System Strengthening & Information Analysis Unit (HPSIU) of MoNHSRC is responsible for all the health information systems working in the country including the DHIS. All the allocated seats for the NHIRC/HPSIU are vacant. The staff working currently in NHIRC/HPSIU is the staff hired by MoNHSRC, not for NHIRC/HPSIU (currently two persons are working in this section), which makes it difficult to disseminate and use the DHIS.

In each province, DHIS Cells of provincial and district governments, respectively, are operating for implementing the DHIS. The available information on the number of staff at DHIS Cells is fragmentary (e.g., three persons are allocated to the provincial level and two persons to the district level in both Punjab and Sindh), but many seats are vacant (e.g., 16 positions are not filled at the provincial DHIS Cell Punjab due to the ban imposed on the recruitment).

<Technical Aspect>

At the federal level, the staff mentioned above has skills to use the DHIS data along with other information system data. At the provincial/district levels, the technical level is enough to operate the DHIS. According to provincial DHIS Cells, provinces and districts can install the DHIS software and do the basic maintenance but may not have enough technical skills to design or modify the system if required. It seems that DHIS Cell staff have general skills to utilize the DHIS data for health administration since the data is utilized to analyze and report (at the provincial level) and for day to day management (at the district level). Master trainers are available at the district level, but the refresher courses are required to be provided to uplift the technical level to design or modify the system if required.

<Financial Aspect>

At the federal level, no specific budget for the DHIS is secured as there is no real activity going on (training is provided only when external support is available). At the provincial level, the available budget is mostly for salaries of the staff and can only support the basic activity to operate the DHIS. The budget is not enough for any new ideas or improvement in the system. At the district level, the budget is provided from the provincial budget. Information on a separate budget for the districts is not available.

Budget for Provincial DHIS Cell (unit: million rupees)

	2015	2016	2017
Punjab	24	45	22
Sindh	n/a	n/a	n/a
Khyber Pakhtunkhwa	63.5	50	31
Balochistan	5	15	15

Source: Provincial DHIS Cell

<Evaluation Result>

Therefore, the sustainability of the effects through the project is fair.

5 Summary of the Evaluation

The project achieved the Project Purpose of having the DHIS used for health service routine operation and budget planning in the 100 target districts. The effects of the project partially continued after project completion as the DHIS is used but often for information collection only, and the Overall Goal of having the DHIS used nationwide was partially achieved as the role of the federal government in the DHIS diminished after the devolution in 2011. As for the sustainability, some problems were found on the policy, institutional, technical and financial aspects mainly due to understaffing and lack of budget, while basic conditions for implementing the DHIS (i.e., responsible organizations with some human resources with basic skills and minimum budget allocation) are to some extent in place in the target provinces. Considering all of the above points, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

The implementing organizations (PHD in each province) recommended the followings. The PHDs are responsible for securing the required budget to implement the recommendations, and they need to negotiate with their respective government for securing the budget.

1. The budget needs to be enhanced so that the DHIS Cells could put new ideas or improvement into practice. The current budget is only supporting the salary of the staff and enables only basic activity to operate the DHIS.
2. Refresher training should be provided to the master trainers at the district level to uplift the technical level to design or modify the system if required.
3. Appropriate number of staff should be allocated to the DHIS Program.
4. The capacity (in terms of utilization of DHIS) of the health manager (decision makers of the health departments at the provincial and district levels) needs to be enhanced for encouraging them to use the DHIS regularly for routine operations and budget planning.
5. The facilities for the DHIS should be kept in a good condition and updated to ensure real-time data collection and processing.

MoNHSRC is recommended to encourage provinces to roll out the DHIS at the tertiary level facilities to use the data more effectively.

Lessons Learned for JICA:

1. The Overall Goal of the project was compromised after the devolution of the health sector in 2011 since there was no organization

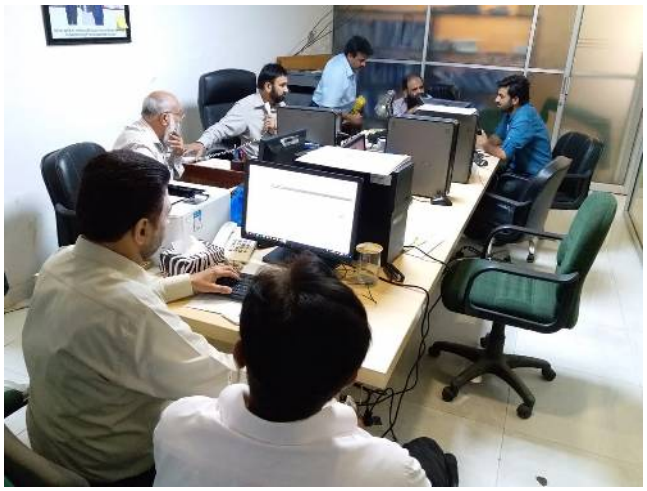
[3] According to the JICA's internal ex-post evaluation framework, efficiency of technical cooperation projects is evaluated based on the project cost borne by the Japanese side and the project period. Also, in evaluation of technical cooperation projects, verifying whether the changes of cost/period and the change of outputs (project scope) are proportionate or not is quite difficult. Therefore, simple comparison of the difference between the planned cost/period and the actual cost/period is applied in principle.

[4] Federal Level: "National Health Vision 2016-2025"; Khyber Pakhtunkhwa Province: "Health Sector Strategy 2010-2017", Sindh Province: "Sindh Health Sector Strategy 2012-2020", Punjab Province: "Health Sector Strategy 2012-2020"; Balochistan Province: "Health Sector Strategy (2013-2020)".

which could have been the focal point for implementing DHIS in whole Pakistan, therefore the unified usage of the DHIS was not as such achieved, but each province independently implemented the DHIS. This concern was acknowledged before the end of the project. Clarification of and consensus on responsible organizations after devolution should have been sought/developed with the Government of Pakistan to resolve this issue before the end of the project.

2. Issues at the government of Pakistan end such as allocation of budget, the appropriate number of staff for the DHIS, and training system after the devolution is completed should have been addressed at the project formulation stage by negotiating with the government of Pakistan side. The consensus developed through negotiation should be documented that may be referred in future. In case of this project, the project planning may have been too much focused on the system that existed at that time and lacked a longer-term perspective about such issues, which may have led to partial continuation of the project effects.

Interviewing the Provincial DHIS Focal Person



Provincial DHIS Monitoring Room