

Country Name	Project for the Development of CHPS Infrastructure in the Upper West Region
Republic of Ghana	

I. Project Outline

Background	In Ghana, the maternal mortality ratio was 342 per 100,000 live births (2008) and the under-five mortality rate was 76.4 per 1,000 live births (2008). High maternal and child mortality compared to other African countries with similar socioeconomic indicators was a severe problem for the country. These figures were much higher in the Upper West Region than the national averages. The Ministry of Health commenced the program of “Community Based Health Planning and Services” (CHPS) to promote community and family health activities. Under this program, one of the objectives was expansion of health posts (CHPS compound) where community health workers would provide primary health services and referrals to the upper health facility. However, there was not a sufficient number of CHPS compounds in rural areas.			
Objectives of the Project	To expand maternal and child health services in Upper West Region, by constructing CHPS compounds and procuring related equipment, thereby contributing to improvement of maternal and child health conditions.			
Contents of the Project	1. Project Site: Upper West Region 2. Japanese side: Construction of 64 CHPS compounds, procurement of medical equipment for 75 sites. 3. Ghana Side: Land, extension and connection of electricity to the site, furniture (residential section), etc.			
Project Period	E/N Date	May 17, 2012	Completion Date	September 24, 2015
	G/A Date	May 17, 2012		
Project Cost	E/N Grant Limit: 989 million yen		Actual Grant Amount: 981 million yen	
Implementing Agency	Ministry of Health			
Contracted Agencies	Main Contractor(s): Suretrack Contracts Services Limited, Redebs Enterprise Limited, Beingod Limited, Bonfirm Limited, Ferokos Ferramenta Limited, Beautiful Creations Co., Ltd., MMAfrican Technologies (Pty) Limited, Japan Motor Trading Co., Ltd., Universal Hospitals Supply Limited, Eagle Scientific Ltd. Mendicraft Services Main Consultant(s): Mohri, Architect & Associates, Inc., Fujita Planning Co., Ltd. Agent: Japan International Cooperation System			

II. Result of the Evaluation

<Special Perspectives Considered in the Ex-Post Evaluation>

- For verification of the quantitative effects, the number of the antenatal checkups and mothers who received the checkups was confirmed as supplemental information.
- It is assumed that there have been synergetic effects with the “Project for Improvement of Maternal and Neonatal Health Services Utilizing CHPS System in the Upper West Region” (2011-2016) which was implemented at the same time.

1 Relevance
<p><Consistency with the Development Policy of Ghana at the Time of Ex-Ante and Ex-Post Evaluation></p> <p>In the “Health Sector Medium-term Development Plan (HSMTDP)” (2010-2013), improvement of the access to health and nutrition services was one of the objectives, for which expansion of CHPS Program was described. Additionally, the HSMTDP (2018-2021) promotes maternal and child health as part of fulfillment of the target of Universal Health Coverage.</p> <p><Consistency with the Development Needs of Ghana at the Time of Ex-Ante and Ex-Post Evaluation ></p> <p>The maternal mortality ratio and under-five mortality rate in the Upper West Region were much higher than the national average at the time of ex-ante evaluation, as there were not a sufficient number of CHPS compounds for providing primary health services and referral. Although the situation has been improved, continuous expansion of coverage was still essential as it would addresses equity gaps in service delivery.</p> <p><Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation></p> <p>In the Country Assistance Policy for Ghana (2012), one of the priority areas is set as “health and science/mathematics education,” aiming at reducing maternal, newborn and child mortality rates. The assistance includes construction of health facilities in rural communities especially in the Upper West Region, promotion of sensitization activities on health-related issues, and capacity development of health professionals.</p> <p><Evaluation Result></p> <p>In light of the above, the relevance of the project is high.</p>

2 Effectiveness/Impact
<p><Effectiveness></p> <p>All of CHPS compounds constructed by the project and all of procured motorbikes and refrigerators for vaccine storage have been utilized. The coverage of population by CHPS compounds exceeded the targeted 50% in 2016 and reached 63% in 2018 (Indicator 1). It has more than doubled from 29% in 2010 to 63% in 2018. The deliveries assisted by health personnel at the CHPS compounds have considerably increased to 69% in 2018 from 46% in 2010, although it did not reach the targeted 75%, due to the improved access to maternity services at upper level facilities as a result of gradual improvement in road network. This is also because not all CHPS compounds have midwives. (Indicator 2). Regarding the immunization coverage of</p>

Table 1: Number of antenatal checkups (Supplemental information)

	2015	2016	2017	2018
No. of mothers who received antenatal checkup	25,659	27,159	27,015	27,032
No. of antenatal checkups conducted	97,574	109,671	118,097	128,434

Source: CHPS Unit, Regional Health Administration.

DTP vaccines, data were not available (Indicator 3), because the coverage of penta vaccines (Hepatitis B and Hib added to DTP) that replaced DTP vaccines, has been accumulated, instead. The coverage of vaccination of penta has been fluctuating around 80%, because of intermittent cold chain challenges.

The number of mothers who received antenatal checkups at the CHPS compounds, as a supplemental information, has increased in the Upper West Region (Table 1). Also, the number of antenatal checkups that a mother received has increased, as the average of numbers has increased from 3.8 times in 2015 to 4.8 times in 2018. This was attributed to the strengthened capacity of CHPS compounds for providing more antenatal care, services than before, due to the improvement in infrastructure and equipment.

As qualitative effects, firstly, the CHPS compounds have been able to deliver more extensive and delicate maternal and child health services. For example, with the motorbikes procured by the project, more frequent home visit activities have been conducted by CHOs, and more frequent and timely reporting on maternal and child situations and so on to sub-district and district offices have been possible. Also, the CHPS compounds now can provide services related to adolescent health and family planning, as more attention can be paid on privacy at the CHPS rooms rather than at users' homes. Secondly, the CHPS compounds have satisfied their users as follows. According to community members interviewed at 10 target sites, since the construction of the CHPS compounds, services have become more beneficial, such as (i) reduction of cost and time to seek care in the nearby facility, (ii) availability of 24-hour services, (iii) referral services to district and sub-district level facilities with help of CHOs, and so on. Also, since the CHPS zones have been clarified, community members have become more active and cooperative, as they have participated in decision-making of the CHPS management and made a contribution in cash and in-kind in order to support expansion of the CHPS services.

<Impact>

Firstly, the incidence of health problems of mothers and children has been on a decreasing trend in the Upper West Region (Table 2). Secondly, the maternal mortality ratio and under-five mortality rate have decreased in the region since the project completion (Table 3), attributed to improved health promotion and increased antenatal care as well as improved skilled attended deliveries, according to the Regional CHPS Coordinator. On the other hand, the neonatal mortality rate has increased. This is due to the increase in the number of facility deliveries: Deliveries that had been assisted at home including complicated deliveries are now attended at or reported to CHPS compounds. It is presumed that no reduction of the neonatal mortality rate could be also explained by the situation that CHPS compounds are not supposed to treat newborns in a severe condition.

In the project, there was land acquisition from the communities at all the sites free of charge. However, the land had not been occupied and therefore no settlement was necessary. The land was donated by the community and no issue has been reported until the time of the ex-post evaluation.

As for impacts related to gender, as CHPS compounds have been built within the community, men who are usually busy with their work have had easier access than before, and it has become more convenient for women to drop by at CHPS compounds to consult family planning with the needed privacy. Another impact has been made as synergic effects with the "Project for Improvement of Maternal and Neonatal Health Services Utilizing CHPS system in the Upper West Region" (2011-2016). The technical cooperation project built CHOs' capacity for delivery of preventive health and basic curative health, while the project provided the venue and tools for CHOs' work, which resulted in quality maternal and child health care and services. Also, because the project involved community members in operation and maintenance of CHPS compounds, community's interest and participation in health care have been elevated.

<Evaluation Result>

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

Quantitative Effects

Indicator	Baseline 2010	Target 2016 After project completion	Actual 2015 Year of Project Completion	Actual 2016	Actual 2017	Actual 2018 Ex-post evaluation
1. Coverage of population covered by CHPS (%)	29	50	51	54	61	63
2. Deliveries assisted by health personnel (%)	46	75	46	66	69	69
3. Coverage of DTP vaccines (%)	83	90	-	-	-	-
<Supplemental information> Coverage of penta vaccines (%)	-	-	80	78	81	79

Source: CHPS Units and Regional Health Administration.

3 Efficiency

Although the project cost was within the plan (ratio against the plan: 99%), the project period exceeded the plan (ratio against the plan: 158%). This is because more time was spent on the discussion on the construction cost and the number of compounds to be constructed between the Japanese side and Ghanaian side than expected. Outputs were produced as planned. Therefore, the efficiency of the project is fair.

4 Sustainability

<Institutional Aspect>

The Regional Health Administration (RHA) takes the top-level decision on staff allocation, resource mobilization, etc. Basically, RHA

Table 2: Number of cases of mothers and children diagnosed at CHPS

	2015	2016	2017	2018
Hypertension	12,801	12,356	9,273	10,563
Intestinal worms	10,529	12,666	9,263	8,079
Uncomplicated malaria in pregnancy	6,799	5,656	5,926	5,610
Malnutrition	241	226	232	169

Source: CHPS Unit, Regional Health Administration.

Table 3: Number of cases and MMR, NMR, and U5MP

	2014	2015	2016	2017	2018
Maternal Deaths (MMR)	31 (NA)	30 (155.8)	25 (118.6)	26 (116.8)	22 (96.4)
Neonatal Deaths (NMR)	98 (NA)	53 (2.8)	78 (3.7)	129 (5.5)	139 (5.1)
Under 5 Deaths (UMR)	NA (NA)	178 (12)	270 (11.6)	277 (6.2)	233 (5)

receives reports from the District Health Administration (DHA) and the Sub-Districts which directly supervise CHPS compounds, quarterly and monthly, respectively. RHA and DHA are responsible for capacity building of CHPS staff. At least one CHO or Community Health Nurse (CHN) is assigned at each CHPS zone. Midwives have not been assigned to some of the constructed CHPS compounds, as it is not mandatory for all CHPS compounds. In 2015, many CHOs were encouraged to pursue the midwifery course and after the course completion in 2017, the number of midwives increased in the target sites. However, since some of the constructed CHPS compounds did not have a maternity room for safe delivery, they have been transferred to other zones. In accordance with the CHPS policy, midwives are to be assigned based on needs of each CHPS zone and the distance to a nearby better alternative care such as the Health Centre. Community Health Volunteers (CHVs) have been assigned at each CHPS compound and support community mobilization for meetings and special campaigns, surveillance by identifying and reporting new diseases and cases of new pregnancies to CHPS compounds. There have been four CHVs at each zone on average, but according to the CHOs interviewed at the target sites, the number is not sufficient to cover all community members.

<Technical Aspect>

According to interviewed Regional CHPs Coordinators and District Directors, CHOs and CHNs have a necessary capacity to undertake health promotion and basic treatments required at CHPS level, though some CHOs might need improvement in community engagement, which forms a core part of their work. Assigned midwives have skills to support deliveries as they finished the course. However, some midwives have reported lack of adequate space and amenities like electricity which may hinder their effective service delivery. CHVs have sufficient capacity to support health promotion activities. Since they are from the community, they not only easily get accepted by community members but also able to understand issues in the right context of the community. There are a number of training opportunities for CHVs and CHO/CHNs, organized by RHA or DHA. Training has been on record-keeping of maternal and child health services, Seasonal Malaria Chemoprevention (SMC) for malaria control, and so on.

Regarding maintenance of CHPS compounds, some CHOs do not have adequate knowledge for preventive maintenance of some equipment, though they basically do not require complex maintenance.

<Financial Aspect>

According to the District Director of Jiarapa, budgets of DHA for operation and maintenance of CHPS compounds have been mainly obtained from World Bank's Program on Maternal Child Health and Nutrition Programme and other programs such as Global Fund and Gavi. However, these funds have been insufficient for service delivery, procurement of medicines, maintenance of motorbikes, and so on. Besides, RHA has received financial support from development partners for training health personnel, and Sub-Districts have had internally generated funds obtained as reimbursement under the Health Insurance System and out-of-pocket payment from patients without issuance, but the funds have not been sufficient.

<Current Status of Operation and Maintenance>

As described, all the constructed compounds and procured motorbikes have been utilized. However, it was found that blood pressure apparatuses have been broken in some CHPS compounds. These have been regularly maintained by CHOs. CHPS compounds can purchase medicines and other consumable when they have no stock, by getting supply either from Health Centers or directly from local medical stores. For future repair of CHPS compounds, DHA has a plan but not yet officially approved one, as it needs to plan necessary budgets to the government or may ask the district assembly for financial support.

<Evaluation Result>

There have been some issues in the institutional, technical and financial aspects. Therefore, the sustainability of the project effect is fair.

5 Summary of the Evaluation

The project objectives have been achieved. Constructed CHPS compounds have expanded and improved maternal and child health services in the Upper West Region and CHPS. And, maternal and child health problems have decreased, and indicators maternal mortality and under-five mortality have decreased. Other impacts such as increased interests and participation of community members and synergetic effects by collaborating with the other technical cooperation have been reported. Regarding sustainability, although raised issues include an insufficient number of CHVs and unsecured funds of CHPS, needed capacity building of some CHOs for the facility maintenance, and so on, necessary personnel to undertake health promotion and basic treatments required at CHPS compounds have been secured. As for efficiency, the project period exceeded the plan, while the cost was within the plan.

Considering all of the above points, this project is evaluated to be satisfactory

III. Recommendations & Lessons Learned

Recommendations to Implementing Agency:

- It is recommended to the Ministry of Health and Ghana Health Service to urgently identify sources of finance for operational activities of CHPS, which are not covered by the Health Insurance Scheme.
- It is recommended to RHA and DHAs to organize preventive maintenance training for CHOs, CHVs, and midwives and set up uniform equipment inventory as well as equipment repair procedures to ensure that all malfunctioned equipment are dully repaired or replaced.

Lessons Learned for JICA:

- The project's effects (expansion and improvement of maternal and child health services, decrease in diseases and mortality rates, etc.) were enforced by technical cooperation projects. Specifically, contents and quantities of the procured apparatuses in the project were decided based on the experiences of the previously conducted technical cooperation project. Also, main actors were trained by another project. Combining other technical cooperation projects (or including technical training (soft component)) could enhance impacts of infrastructure projects. When an infrastructure project is designed, it is important to review experiences and recommendations from past projects and also to consider possible collaboration with other technical cooperation projects which have common goals.
- The project period exceeded the plan much, because time was spent on the negotiation on the number of compounds to be constructed within the given budget. The Ghanaian side considered that much more compounds could be built by lowering the cost per unit cost to the extent that met minimum standards in the building structure, as the needs for accessing health services were urgent. In order to avoid the delayed start of the construction work, it is necessary to fully discuss what construction standards should be required and how the minimum quality and needed quantity should be balanced during the preparatory survey.



Front view of Jang CHPS Compound in Jang District



Interior view showing vaccine fridge and other equipment in Chepuuri CHP Compound