Country Name	Project for Improvement of Maternal, Newborn and Child Health Service
Madagascar	

I. Project Outline			
Background	In Madagascar, reduction of infant and maternal mortality has been one of priorities in the national health policy. In particular, mothers and children in rural areas had limited access to health services. JICA had been supporting the Hospital Center of University of Mahajanga (CHUM) and the Basic Health Centers (CSBs), but more enhancement of integrated maternal and child health service system, including referral system, had been urgent issue due to large proportion of mothers and children among the patients referred to CHUM.		
Objectives of the Project	<ol> <li>Overall Goal: Government health policies and health programs especially in the field of improvement of maternal and child health service is reinforced in Madagascar.</li> <li>Project Purpose: High quality maternal and child health service based on evidence-based medicine is provided to the people in Boeny Region.</li> <li>Assumed steps for achieving the project goals<sup>1</sup>: The project establishes human resource development system to deliver humanized care (note 1) and evidence-based medicine (EBM) (note 2), and implements community health system, including accessible referral and counter referral model from community to CSBs and upper health institutions for perinatal emergency cases. By practicing a model of perinatal care in the target site, the project aims at provision of high quality maternal child health service based on humanized care and EBM. Through incorporating and dissemination of verified effects of the model of perinatal care, the national health policies/programs are reinforced in Madagascar.</li> <li>(note 1) a. satisfying care by the both sides of patient and health service provider by collaboration based on dialogues between the both sides, b. medicine based on evidence, c. user-friendly system which makes health service providers close to users as much as possible.</li> <li>(note2) the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.</li> </ol>		
Project Information	<ol> <li>Project site: Boeny Region, including the pilot sites of Mahajanga I and Mahajanga II (districts)</li> <li>Main activities: Trainings of humanized care and EBM for medical staff, implementation of community IMCI (Integrated Management of Childhood Illness), introduction of follow-up and evaluation system, development of accessible referral and counter referral models for perinatal emergency care and improvement of medical facilities.</li> <li>Inputs (to carry out above activities)         Japanese Side         Malagasy Side         Experts: 5 for Long term, 18 for Short term         Trainees received: 45 persons         Equipment: 83 items, including vehicles, PCs, delivery beds, other medical equipment for trainings, etc.     </li> </ol>		
Project Period	January, 2007 – January, 2010 Project Cost 280 million yen		
Implementing	Ministry of Health and Family Planning (since August 2011, change to Ministry of Public Health), Boeny		
Agency	Regional Office for Public Health (DRSP), Mahajanga University Hospital Center (CHUM)		
Cooperation Agency in Japan	International Medical Center of Japan (National Center for Global Health and Medicine since 2010)		
Related Projects	Japan's cooperation:       (Technical Cooperation: TA, Grant Aid: GA)         • The Project for the improvement of Mahajanga University Hospital Center (GA, 1999-2001)         • The Project for the Improvement of Mahajanga University Hospital Center (TC, 1999-2004)         • The Improvement of Provincial Mother and Child Health by Utilizing the Function of Mahajanga University Hospital Center (TC, 2005-06)         • Project for Development of Maternal and Child Health Complex in Mahajanga Province (GA, 2006-09)         Other donors' cooperation:         • Dispatch of expert to CHUM (France, 2004-05)         • Project for Strengthening Health Service in Mahajanga Province (GTZ, 1993-2007)         • Technical cooperation (Institut Régional de Coopération Développment Alsace, 2005-11)         • Integrated Management of Child Illness at Community Level (UNICEF, 2007-now)         • Management of Mother and Newborn at Home (UNICEF, 2009-now)		

## II. Result of the Evaluation

1 Relevance

This project has been highly consistent with the Madagascar's development policy, such as improvement of maternal and child health specified under "the Madagascar Action Plan (2007-2012)" and the Development Plan of the Health Sector and Social Protection (2007-2011), and development needs to reduce infant mortality and maternal mortality as well as to increase accessibility of the population to health services, as well as Japan's ODA policy to support human centered

<sup>&</sup>lt;sup>1</sup> Reviewed at the time of the ex-post evaluation.

development for poverty reduction, including the health and medical care. Therefore, relevance of this project is high. 2 Effectiveness/Impact

The project focuses on improvement of maternal and child health services based on the humanized care and EBM through capacity development of medical and health staff at the top referral health institution of Maternal and Child Health Center (CME) in CHUM (CME/CHUM) and the primary health institutions (CSBs) in Boeny Region. As a result, the project purpose has been achieved by the increase in practice of the humanized care<sup>2</sup>, the decrease in practice of the inappropriate medical interventions to be avoided, and the increase in the satisfaction of mothers who had delivery at CME/CHUM and sample CSBs<sup>3</sup>, as well as improvement of access of high risk parturient women to necessary medical intervention. The proportion of Caesarean section at CME/CHUM among the estimated number of parturient women having absolute maternal indications<sup>4</sup> was estimated to increase since the unmet obstetric need survey conducted by the project indicated a decrease in the number of high risk parturient women who could not have Caesarean section<sup>5</sup>. Also, training system



Physical exercises during the Mothers' Class at CME/CHUM

on humanized care and EBM for medical staff was established at CME/CHUM. At the community level, community IMCI and the referral system from community to the CSBs and CME/CHUM for perinatal emergency cases were introduced in the pilot sites in the region in order to complement the coverage of public health service by Community Agents (CAs, community health promoters) and Traditional Birth Attendants (TBAs). The activities of community IMCI has been continued under the support of the Ministry of Public Health and some NGOs supported by UNICEF through the trainings despite of the suspension of follow-up activities by the Regional Office for Public Health (DRSP) and District Office for Public Health (SDSP).

As for the overall goal, the Interim Plan of the Ministry of Public Health 2012-2013 prioritizes the institutionalization of the humanized care as one of the specific objectives for maternal and child health in the country. In addition, the training module on the humanized care and EBM has been utilized for trainings of medical and health staff in Fianarantsoa region under the follow-up cooperation of JICA. Also, the community IMCI has been applied in all the 22 regions of Madagascar since 2011.

Furthermore, the project has contributed to the decrease in infant mortality at CME/CHUM from 38.2 per 1,000 live births in 2011 to 35.6 in 2012. Introduction of Mothers' Class at CME/CHUM, which is one of useful tools to increase public awareness for perinatal care, has attracted pregnant women (40 participants with 8 sessions in 2008, 252 participants with 22 sessions in 2012) and enabled them to be confident of delivery at CME/CHUM. At the CSB level, no Mothers' Class is held due to no training opportunity for health staff on the activities.

Achievement of project purpose and overall goal			
Aim	Indicators	Results	
(Project Purpose)	(Indicator 1) Increasing rate of practice of	Terminal Evaluation: Increased the recommended practices such	
Provision of high quality	humanized care during delivery/birth care	as massage to ease parturient women. Ex-post Evaluation:	
maternal and child health	in the pilot zone of Boeny Region.	Improved humanized cares by WHO except offering meal to	
services based on		parturient women have improved since project completion.	
evidence-based medicine	(Indicator 2) Decreasing in inappropriate	Terminal Evaluation: Decreased interventions to be avoided such	
in Boeny Region	medical intervention for normal delivery in	as hourly gynecological internal examination at the active stage.	
	the pilot zone of Boeny Region.	Ex-post Evaluation: Keeping almost the same level as at the	
		terminal evaluation.	
		Terminal Evaluation: Increased since the inappropriate	
		interventions such as use of oxytocin decreased. Ex-post	
	zone of Boeny Region	Evaluation: No data available.	
	(Indicator 4) Increase in satisfaction level		
		relationship with medical/health staff from 23% to 9% at CSBs but	
	service in the pilot zone of Boeny Region	increased from 10% to 37% despite the high satisfaction with	
		medical service at CME/CHUM. <u>Ex-post Evaluation</u> : 98.2% of the	
		parturient women/mothers at the sample CSBs and CME/CHUM	
		satisfied with the health/medical staff and their care.	
		Terminal Evaluation: Improved knowledge and practices of health	
		staff at CME/CHUM and the CSBs on perinatal care. Ex-post	
		Evaluation: The interviewed mothers at the sample CSBs and	
	Region	CME/CHUM felt improvement of the capacity of medical/health	
		staff for practicing the humanized care.	
	(Indicator 6) Increasing rate of Caesarean	Terminal Evaluation: Estimated to increase in rate of Caesarean	

Therefore, effectiveness/impact of the project is high.

<sup>&</sup>lt;sup>2</sup> The practices of humanized care were verified by the baseline and the end-line surveys based on "Care in Normal Birth-a practical guide" by the World Health Organization (WHO).

<sup>&</sup>lt;sup>3</sup> CSBII Betsako, CSBII Boanamary and CSBII Belobaka were observed in the ex-post evaluation survey.

<sup>&</sup>lt;sup>4</sup> High risk cases which absolutely need Caesarian section due to the maternal condition such as threatened rupture of uterus. The

probability of parturient women having absolute maternal indication is estimated 1.1-1.3% of the total number of parturient women. <sup>5</sup> Unmet Obstetric Need can be estimated by the deduction of parturient women who had caesarean section by absolute maternal indication from the estimated total number of parturient women having absolute maternal indications.

	-	section by absolute maternal indications since the decrease in death case of parturient women by 23-24 cases. <u>Ex-post</u> <u>Evaluation</u> : The number of Caesarean section at CME/CHUM has kept almost the same level of 500 cases.
Reinforcement of policies and programs to improve	be reflected the government health	<u>Ex-post Evaluation</u> : Achieved. The humanized care was incorporated in the Interim Plan of the Ministry of Public Health 2012-2013
	Report Interviews with staff and parturier	Learning the second sec

Source : Project Completion Report, Interviews with staff and parturient women/mothers of CME/CHUM and the sample CSBs including CSBII Belobaka, CSBII Betsako and CSBII Boanamary.

Note: The data and information at the time of ex-post evaluation in the table are based on the interviews with parturient women/mothers at the sample CSBs and CME/CHUM.

3 Efficiency

The inputs were appropriate for producing the outputs of the project, and both the project cost and the project period were within the plan (ratio against the plan: 90.3%, 100%). Therefore, efficiency of this project is high.

4 Sustainability

In the policy aspect, dissemination of the humanized care introduced by the project is incorporated in the Interim Plan 2012-2013 despite that its implementation is uncertain due to the political instability. The institutional system for practicing the humanized care and the referral system for perinatal care between CME/CHUM and the CSBs has been well-functioning. In particular, CME/CHUM has been functioning as the top referral institution not only at regional level but also at national level. Also, collaboration between CME/CHUM and DRSP Boeny, which is responsible for regional health administration, has been reinforced. However, the number of health staff at CME/CHUM decreased to 58 staff in May 2013 from 70 staff at the beginning of CME in 2007, while the number of deliveries and the patients of CME/CHUM increased. Therefore, there is a concern about the deployment of the medical/health staff at CME/CHUM for the future. The support system for the community IMCI and newborn care activities, including referral from CAs or TBAs to CSBs and the upper health institutions has been continued as well. The community IMCI activities have been supported by the Ministry of Public Health and some NGOs. On the other hand, the supervision for CAs and TBAs by DRSP and SDSP has been suspended due to the budget constraint. In addition, the number of CAs/TBAs as well as health staff of DRSP and SDSP has not been sufficient. As for the technical aspect, trainings on EBM and humanized care have been continuously delivered to the health/ medical staff of CME/CHUM and CSBs by 32 well-trained trainers at CME/CHUM. Also, the medical/ health staffs trained by the project have kept their improved capacity to practice EBM and the humanized care. As well, CAs have kept their capacity to delivery IMCI for the mothers and children in the pilot site after the project. In terms of the financial aspect, there is no specific budget for trainings of EBM and the humanized care allocated by the Ministry of Public Health in order to disseminate the models of improved mother and child health care introduced by the project in other regions of Madagascar.

Therefore, sustainability of this project effect is fair.

5 Summary of the Evaluation

This project has largely achieved the project purpose and overall goal. The mother and child health care in the pilot site in Boeny Region have been improved by introduction of the models of EBM, the humanized care and the community IMCI and newborn care. Also, the models of the improved mother and child health care have been disseminated to other regions. As for sustainability, the dissemination of the humanized care is endorsed by the health sector policy; and the institutional system to continue the improved perinatal care in the pilot site, including the training system, has been well-functioning despite some problems in terms of institutional and financial aspect, such as due to insufficient number of health staff at CME/CHUM, DRSP and SDSP and CAs/TBAs and no specific budget allocated to trainings in order to disseminate the improved models of maternal and perinatal care in the country. However, the trained medical/ health staff and CAs have kept their capacity to practice the improved perinatal care.

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

## III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

[To CME/CHUM and DRSP]

It is essential to outreach Mothers' Class at CSBs since it can be a useful device to enhance awareness of the humanized care for pregnant women. It is expected that the trained health staff at CME/CHUM or the IEC (Information, Education and Communication) specialist will train the health staff at CSBs.

[To the Ministry of Public Health]

The budget allocation to continuously deliver the trainings for health staff is required in order to disseminate the models of maternal and perinatal care, the humanized care, at national level.

Lessons learned for JICA:

The effective models of maternal and perinatal care ensure sustainability of the project effect since the beneficiaries, such as pregnant women and mothers, recognize the positive effects of the improved care. The development of the successful model can be attributed to the synergy effect of the grant aid project for improvement of the health facilities and equipment and the technical cooperation project for improvement of capacity of medical and health staff to provide better health care services. Also, the follow-up cooperation by JICA contributed to disseminating the models from the pilot site to other region in the country.