Republic of the Philippines

DOH

Republic of the Philippines

Collaboration Program with the Private Sector for Disseminating Japanese Technologies for iSPEED Disaster Medical Mission Operating System in Philippines

Completion Report

Summary

June 2017

Japan International Cooperation Agency

Tokyo Electronic Systems Corporation

OS
JR
17-052

Table of Contents

Chapter 1: Background to the Project and Feasibility of Contributions through Target Technology 1

1.1. Background to the Project 1
1.2. Technology Targeted for Dissemination by the Project 2

Chapter 2: Purposes and Goals of the Project 3

Chapter 3: Content of Project Activities 3

3.1. Activities in Japan 3
3.2. Activities in the Philippines 4
3.3. Details of Content Implemented 5
3.3.1 Phase-1 Activities in the Philippines 5
3.3.2 Phase-2 Activities in the Philippines 6
3.3.3 Phase-3 Activities in the Philippines 7
3.3.4 Phase-4 Activities in the Philippines 7
3.3.5 Phase-5 Activities in the Philippines 8
3.3.6 Training in Japan 9

Chapter 4: Prospects for Business Expansion at the Present Stage and Basis for Judgment 9

Chapter 5: Issues, Countermeasures and Policies pertaining to Business Development 10

5.1. Issues Pertaining to Future Business Development 10
5.2. Plans for Future Business Development 10

Chapter 6: Potential for Tie-ups with ODA Projects 11

Map

Source: http://cco.ndu.edu/Media/Images/igphoto/2001545095/

List of Abbreviations

Abbreviation	Term in Full
BIHC	Bureau of International Health Cooperation
DOH	Department of Health of the Philippines
EVRMC	Eastern Visayas Regional Medical Center
EMT	Emergency Medical Team
FMT	Foreign Medical Team
HEMB	Health Emergency Management Bureau
IC Net	IC Net Limited
ISIS	Integrated Surgical Information System
JDR	Japan Disaster Relief Team
JICA	Japan International Cooperation Agency
KMITS	Knowledge Management and Information Technology Service
NCMH	National Centre for Mental Health
NCR	National Capital Region (Office)
NDRRMC	National Disaster Risk Reduction & Management Council
OCD	Office of Civil Defense
OCHA	UN Office for the Coordination of Humanitarian Affairs
OHO	One Health Organization
OPCEN	Operation Center
OS	Operating System
PC	Personal Computer
PGH	Philippine General Hospital
RO8	Regional Office 8
SMART	Smart Communications
SPEED	Surveillance in Post Extreme Emergencies and Disasters
TECS	Tokyo Electronic Systems Corp.
TMC	Tondo Medical Center
UNICEF	United Nations Children's Fund
WHO	World Health Organization
WPRO	World Health Organization Western Pacific Region

Chapter 1: Background to the Project and Feasibility of Contributions through Target Technology

1.1. Background to the Project

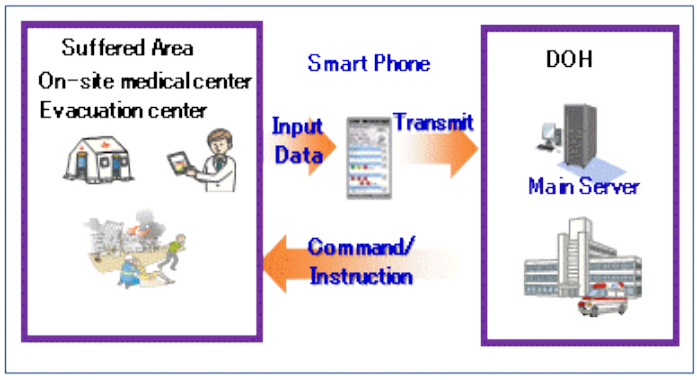
Geographically situated on the path of tropical cyclones, the Philippines is also a country prone to earthquakes located in the so-called Pacific Ring of Fire, giving rise to a high rate of incidence of natural disasters that seriously impact on the development of the nation compared to many other countries. Moreover, the Philippines is an island country with a territory comprising more than 7,000 islands, making it difficult to respond to disasters when they occur. The Government of the Philippines too has cited disaster risk mitigation and management as a matter of cross-sectional concern and clearly stated the importance of countermeasures in its development plan (2011–2016).

The Department of Health of the Philippines has established "SPEED," an emergency medical care system, and collects information pertaining to medical care during disasters. SPEED was also used during the disaster caused by Typhoon "Yolanda" in 2013 to substantial effect and by Japanese emergency medical care personnel participating as an international disaster relief team to understand the local situation.

Believing that it had potential for application in Japan because of its high level of usefulness on this occasion, the Japanese emergency medical care team members recommended the introduction of SPEED in Japan, leading to its commercialization as "J-SPEED" jointly with Tokyo Electronic Systems Corporation (TECS). During the process of commercialization, improvements were made to resolve problems with SPPED (for example, troublesome text input, unavailability for use unless symptom codes were known) and some input items were changed to fit circumstances in Japan. The greatest advantage of the system is that smart phones can be used as devices to input information in the field so that any member of medical care staff can immediately input information, a measure that makes it possible to collect information from the initial stages of a disaster. TECS further evolved J-SPEED, a system that is essentially an improved version of SPEED, to develop iSPEED, a system compatible with the information systems currently in use in the Philippines (a group of medical information systems including SPEED) and MDS (disaster medicine information format) recommended by WHO, leading to improvements in the accuracy of medical information systems used during disasters in the Philippines and promoting mitigation of damage caused by disasters and the optimization of measures. It is anticipated that iSPEED will contribute to the enhancement of disaster risk management capabilities.

1.2. Technology Targeted for Dissemination by the Project

The technology targeted for dissemination is the "iSPEED System," which comprises smart-phone applications for information input and data management server applications. Data that can be input is compatible with both SPEED and the format recommended by WHO (MDS). In addition, in accordance with clients' wishes, the system can be supplied in the form of devices for input using software (smart phone with Android OS or iOS) and as a total system including server equipment, management and maintenance. Moreover, while there is a strong probability that network environments including mobile telephone networks will be fragmented during disasters, the iSPEED system is furnished with a function that stores input data in smart phones and sends all the stored data to the server once communications are up and running again. The system is also equipped with functions that makes it possible to build small-scale networks using compact Wi-Fi routers at each evacuation center or first-aid station so that medical staff working at the same first-aid site can perform tasks such as checking each other's data and analyzing the medical status at their site. These features make it possible to collect data on site from the hyper-acute phase of the disaster and, at the same time, track changes in the situation in chronological order backward to the initial stages of the



disaster as communication with the server is restored. To deploy the system locally, all that is required is to take a set of equipment such as that shown in the photograph to the disaster site to enable immediate input and analysis of medical information. The features of the system are listed below.

i. Common international base for the collection and transmission of medical information
ii. Integrated management of emergency medical mission information
iii. Total support for medical care activities in emergencies
iv. Portable system with high deployment capability

Chapter 2: Purposes and Goals of the Project

1. Disaster medical care personnel in the Philippines recognize the usability and effectiveness of the iSPEED system and begin studies into introducing the system.
2. Through exchanges with stakeholders of the Philippines and other ASEAN countries, not only the goal described in the paragraph above is achieved, but also stakeholders of other ASEAN countries recognize the iSPEED system as a tool for international information sharing and coordination.

Chapter 3: Content of Project Activities

3.1. Activities in Japan

a) [Learning about an overview of Japanese disaster medical assistance teams and international standardization of medical information formats, and exchanges of views]
TECS and our Filipino counterparts confirmed the Japanese system of disaster medical assistance and the procedure of international standardization of MDS-centered medical information formats based on cases, and reached a consensus on how to proceed with our work in the Philippines.

b) [Fostering human resources and observing JDR-MOS at intermediate-level international disaster relief team workshops]
By observing training sessions using the actual equipment of the iSPEED system and the systematic program content on human resource development, our Filipino counterparts deepened their understanding on human resource development in the Philippines.

c) [Learning about iSPEED technologies and applications]
By learning such matters as the method for collecting information when the connection between terminals and a server is cut off and how to use iSPEED in a wide area through a cloud server, our Filipino counterparts gained a better understanding of iSPEED technologies.

d) [Formulation of a future iSPEED action plan]

TECS and our Filipino counterparts agreed on a basic policy on the iSPEED system during the period between the termination of the project and the start of onerous provision of service, and made and shared the minutes of the meeting.

e) [Observing the training of the Thai team at the National Disaster Medical Center]
TECS and our Filipino counterparts learned about the formation of a disaster medical assistance system by the Thai government based on the Japanese system. In addition, we reached a consensus on the importance of MDS as a means of international information sharing and partnership.

Activity	Duration of Activity	Destination	Content of Activity
First training session in Japan	February 23–28, 2017	National Disaster Medical Center Tachikawa Disaster Prevention Learning Center Tokyo International Center (JICA Tokyo) Tokyo Electronic Systems Corporation head office	Observing the disaster medical system in Japan Training in and observation of medical information systems Interviews with disaster medical personnel Collaborative meeting after the conclusion of activities

3.2. Activities in the Philippines

a) [Coordination with entities such as the Department of Health of the Philippines and other relevant bodies to select sites for verification]
Based on the typical typhoon routes of typhoon disasters in the Philippines, we selected Eastern Visayas and Metro Manila as verification sites. Through the selection, we verified the effectiveness of iSPEED in situations that bear a close resemblance to the reality.

b) [Verification of iSPEED operation]
In the verification sites above, we entered patients' data into iSPEED at hospitals, and then collected, analyzed, and shared the data at local administrative offices. In doing so, we conducted the verification in line with the actual emergency operating procedures.

c) [Sorting of conditions and discussions for the purpose of setting up a human resources training system using iSPEED]
In a meeting with stakeholders from all over the Philippines, we announced a policy to train trainers on iSPEED.

d) [Study into the feasibility of introduction to medical facilities in regions throughout the country]
TECS and our Filipino counterparts agreed to introduce iSPEED at 70 hospitals under the jurisdiction of the DOH.

e) [Study into the status of usage of information pertaining to emergency medical care including in times of disaster]

The DOH uses the information above as basic data to decide what kind of medical resources to deliver in the field. The National Disaster Risk Reduction & Management Council (NDRRMC) uses part of the information that pertains to specific aspects of medical care.

f) [Introducing iSPEED in a meeting in which ASEAN stakeholders take part]
In 2017, the Philippines will host the ASEAN summit in which a meeting on disaster medical care is to be held. TECS and our Filipino counterparts agreed to see if the Philippines would be able to introduce iSPEED in the meeting.

Activity	Duration of Activity	Destination	Content of Activity
First visit to the Philippines	April 17–23, 2016	DOH WPRO WHO General Hospital JICA Globe Telecom University of the Philippines Embassy of Japan	Introductory meeting with personnel in the Philippines iSPEED demonstration Studies in preparation for iSPEED verification testing Survey of the status of disaster medical care information
Second visit to the Philippines	June 26–July 2, 2016	DOH Philippine Red Cross NDRRMC JICA Globe Telecom	iSPEED demonstration Studies in preparation for iSPEED verification testing Survey of the status of disaster medical care information
Third visit to the Philippines	September 5–8, 2016	DOH TMC NCR JICA	iSPEED demonstration Studies in preparation for iSPEED verification testing Discussions regarding the introduction of iSPEED after completion of the project
Fourth visit to the Philippines	October 17–22, 2016	DOH TMC EVRMC RO8 NCR JICA	iSPEED demonstration Studies in preparation for iSPEED verification testing
Fifth visit to the Philippines	Nov. 27–Dec. 7, 2016	DOH TMC EVRMC RO8 NCR JICA	iSPEED verification testing Discussions on the introduction of iSPEED after completion of the project

3.3. Details of Content Implemented

3.3.1 Phase-1 Activities in the Philippines

Activities during this phase were centered on the collection of information to form a foundation for studies into matters such as how to go about introducing iSPEED and building relationships with our counterparts. Specifically, we collected information on the existing SPEED system and visited stakeholders for the expansion of business outside the DOH. Based on an advance survey and through

Mr. Kubo, a member of external human resources, we contacted Dr. Law of the DOH and Dr. Herbosa of the School of Medicine of the University of the Philippines, whom we visited and interviewed. In addition, through JICA, we received an introduction to Ms. Jocelyn, the liaison for international cooperation at the DOH, whom we interviewed after obtaining information on personnel involved with the SPEED system in the DOH.

As a result, we obtained favorable views on iSPEED from the DOH and received useful comments regarding points for improvement. We will use this input for future iSPEED development and will provide feedback on our next and subsequent visits. In addition, although we gained a clear picture of the outline of the SPEED system currently in use, we decided to investigate it in greater detail from our next visit. Moreover, during discussions on iSPEED verification testing, the parties concerned expressed a desire to proceed and offered to cooperate with the undertaking. It was decided to discuss details on our next visit.

Regarding expansion of iSPEED outside the DOH, we interviewed entities such as universities and telecommunications companies that left us with the impression that there was ample potential. We decided to conduct studies in greater depth through surveys.

3.3.2 Phase-2 Activities in the Philippines

We discussed with the DOH arrangements for iSPEED verification testing in greater detail. Approval was given to conduct drills in November and for arrangements to be made by the relevant personnel headed by the HEMB. It was decided to settle on sites for implementation and details of the schedule on our next visit.

Believing that it was important to build relationships with people involved in disaster medical care outside the DOH, we interviewed relevant bodies that we were unable to visit during our first visit. We obtained information to the effect that SPEED training was regularly held at the Philippine Red Cross and asked that we be allowed to take part beginning with our next visit if observation of training was possible. We were able to obtain information on disaster-response systems at the NDRRMC where it was commented that, depending on the method of information collection used by iSPEED, the system could be used not only for medical care, but also for disaster-management measures. Based on the comments at the NDRRMC, we decided to look into the feasibility of support by TECS.

During activities on this visit, we were able to give a presentation of iSPEED, gain introduction to a wide range of people involved, and field a Q&A session at a quad cluster meeting at which divisions involved in epidemiology at entities engaged in the field of health (e.g. DOH, WHO and UNICEF) all meet at a single venue. This was a major accomplishment in the project. iSPEED was also accorded high acclaim at the meeting, suggesting the possibility of cooperation with implementation of demonstrations.

3.3.3 Phase-3 Activities in the Philippines

Through meetings with the DOH, details of iSPEED verification testing in November were finalized as shown below.

a) Verification testing will be carried out at two locations during the last third of November.
- Manila: Tondo Medical Center (TMC), Schedule: November 23 and 24
- Tacloban: Eastern Visayas Medical Center (EVRMC), Schedule: November 28 and 29

b) Flow of iSPEED information during testing
- Manila: TMC → DOH Operation Center → NCR Operation Center
- Tacloban: EVRMC → DOH Operation Center → Regional Office VIII

c) On-site surveys will be conducted at the above two locations during the second third of October.
- Securing the communications environment, testing sites, etc.
- Interviews with personnel from TMC, EVRMC, DOH, NCR and Regional Office VIII participating in testing

3.3.4 Phase-4 Activities in the Philippines

The following matters pertaining to iSPEED verification testing were confirmed during discussions with the DOH.

- The verification testing sites (pilot test sites) will be NCR, TMC, RO8 and EVRMC.
- Although a request has been placed for verification testing to be performed at NCR on November 23 and 24, the dates will be set to November 24 and 25 because adjustments are still ongoing.
- The DOH will bear expenses for local stakeholders who are invited to the verification testing.
- TECS will lend out materials and equipment.

In addition, we visited the verification test sites in Manila (TMC, NCR) and Tacloban (EVRMC, RO8) where we checked and examined specific structures and sites for implementation on the day, the telecommunications environments and other relevant matters. Personnel involved from each of the entities concerned extended positive support and details of items such as the structure for drills were essentially finalized.

Moreover, because the development of iSPEED is perceived as still ongoing, it is not possible to say at this point that appropriation of budgetary provisions for the introduction of iSPEED is feasible. Comments were made to the effect that, if, after completion of development, evaluation suggests the possibility of adoption by the DOH, it may be possible to take steps such as allocating part of the current SPEED system budget.

Regarding the timing of activities to promote introduction in the Philippines, we reported that the initial schedule of November 2016 had been changed to February 2017, and this was approved. The reason for

the change is that iSPEED verification testing was conducted in November, making tight the schedules in both Japan and the Philippines.

3.3.5 Phase-5 Activities in the Philippines

iSPEED verification testing was conducted in Manila and Tacloban. Testing was performed with smart phones with iSPEED software installed used to input data, which the management team monitored in real time via the internet. In Tacloban, Doctors Tomioka and Igarashi, who had participated in on-site activities as Japanese JDR team members at the time of the Typhoon Yolanda disaster, also took part as external human resources. Moreover, the Deputy Resident Representative of the JICA Philippines Office took part in the verification testing in Tacloban.

On the day before the testing, a workshop was held on how to input data. For many of the participants from the Philippines side, this was a first-time experience with iSPEED and, while they had to learn how to input data there and then, they quickly grew accustomed to the procedure. This also demonstrates that costs required to start using the system, even in the event of a disaster, can be kept down and many of the participants commented that it would be possible to use such a system right away. On the day of the testing, participants were able to input data with even greater speed and, because the tasks of inputting and monitoring were completed before the time allocated elapsed, the input and monitoring teams gathered to exchange opinions and fill out a questionnaire. At Manila and Tacloban, the system scored more than 4.5 points (out of a top possible score of 5 points) on the questionnaire, while the score was 3.7 points at OPCEN. All respondents (100%) indicated their high hopes that the system would be introduced. (Attached documents)

Photographs: Scenes from iSPEED Verification Testing

The usefulness of the system also won high acclaim during discussions held with the DOH after the completion of verification testing. The Philippines will be the host country for the ASEAN Summit next year (2017) and expressed the wish to propose the iSPEED system as a standard tool at the summit jointly with Japan, and TECS expressed willingness to provide support. It was confirmed that TECS and the DOH would also continue to maintain ties after completion of the project and it was decided to

discuss details during the visit to Japan by relevant persons from the Philippines during activities to promote introduction in the Philippines.

It was agreed to make arrangements for the visit to Japan to take place in the second half of February for training in Japan.

3.3.6 Training in Japan

Four stakeholders from the Philippines took part in training in Japan. They observed systems at disaster-base hospitals in Japan, took part in intermediate-level disaster relief team training, saw general disaster-prevention-information public relations facilities, and exchanged views with personnel engaged in disaster medical care in Japan. During the intermediate-level training, the Filipino trainees participated in sessions on the introduction and methods of usage of iSPEED where they recognized the need for similar training in the Philippines and gained an understanding of the specifics of the introduction of iSPEED.

On the last day, a debate on activities after the completion of the project was held at the head office of TECS and the participants agreed to cooperate to bring about realization of an iSPEED demonstration at the fire-prevention drill in Manila in July 2017. In addition, TECS offered to provide an iSPEED server free of charge for the introduction of iSPEED testing and support for training on the introduction of iSPEED. It was agreed that talks on details would continue.

Chapter 4: Prospects for Business Expansion at the Present Stage and Basis for Judgment

At the present time, preparations for commercialization are underway and arrangements for the necessary procedures are in progress with the DOH for gratuitous provision of service to begin in 2018 and onerous provision of service in 2019, while infrastructural preparations are also being done. The basis for the above is as follows.

From the results of talks with the DOH and the implementation of iSPEED introduction drills, it has been determined that local needs for a new disaster medical care information system and expectations for iSPEED are extremely high. Moreover, because, once full-scale introduction begins, it has been confirmed that the DOH will target medical facilities at seventy or more locations throughout the country, it is envisaged that, in terms of business, the venture will become profitable within a single fiscal year immediately after introduction. Subsequently, costs for services such as server maintenance and management and system maintenance can be factored into the outlook.

Furthermore, because expansion of business to ASEAN countries has been factored into thinking from the outset, the promoting company aims to expand business by promoting sales to such countries with

the start of operations in the Philippines as the springboard. The declaration by ASEAN on enhancing cooperation in disaster management adopted at the 23rd ASEAN Summit held in 2013 expressed the provisioning of ODA for packages for the enhancement of disaster management cooperation and projects sharing views in the fields of medicine and the environment; TECS perceives this as a business opportunity. The "Collection of and Research into Information Relating to Disaster and Emergency Medicine in ASEAN Countries" by JICA reports that tools for the smooth coordination and promotion of disaster and emergency medical care need to be developed. Subsequently, on February 7, 2017W, HO adopted the disaster medical care information standardization technique (Minimum Data Set: MDS) formulated by a working group headed by JICA as an international standard.

iSPEED has conformed with MDS from the start and, because development is underway factoring in elements such as circumstances unique to the Philippines and internationalization, it can fulfill the role of "a tool for efficient regional coordination relating to disaster medical care." Rather than limiting itself to a single country, TECS will promote business development on an international scale.

Chapter 5: Issues, Countermeasures and Policies pertaining to Business Development

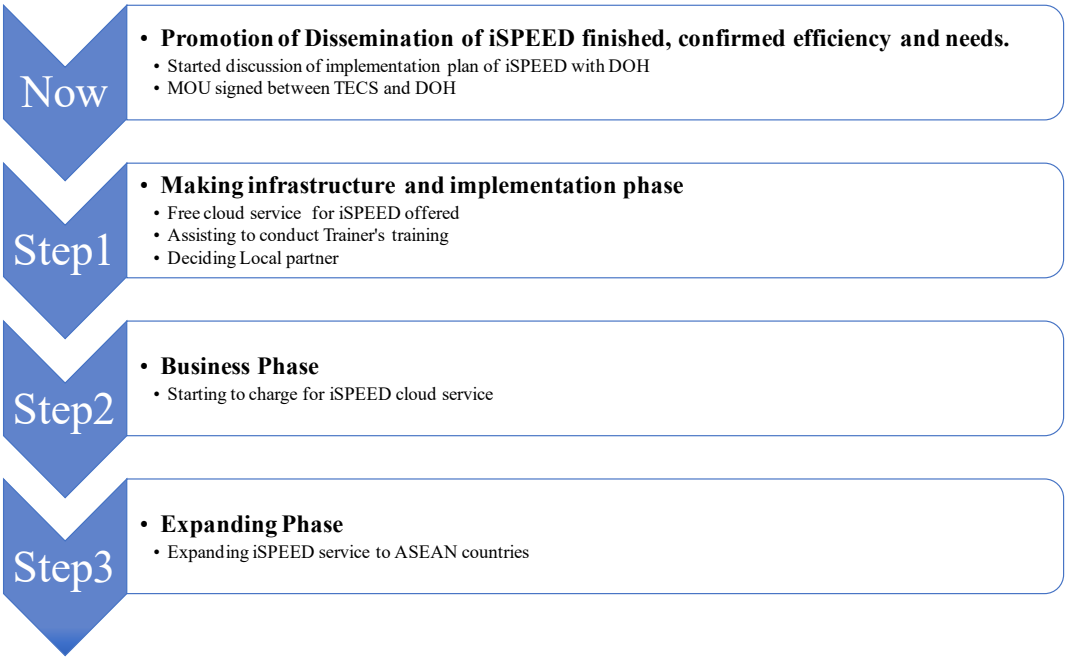
5.1. Issues Pertaining to Future Business Development

As described above, while we believe that there is a sufficient business market, it is important to ascertain how specific budgetary provisions will be made by the Philippines. We are aware that there are still challenging issues in actually securing and implementing a budget in the Philippines. As one course of action, because the DOH has a budget for the use of SPEED in its present form, in the future, the possibility of using this budget for the use of iSPEED could be considered. Thus, rather than securing a new budget, the existing budget could be used, increasing the certainty of securing funds. This project has served to strengthen ties between TECS and personnel directly involved within the DOH, setting a broad direction. Because they also felt the need to evolve SPEED, personnel involved in the DOH have high regard for iSPEED and are taking a proactive attitude toward securing a budget.

5.2. Plans for Future Business Development

TECS decided to provide a server for use in iSPEED testing for a fixed period at no cost after completion of the project. During this period, research into iSPEED will be carried out throughout the Philippines with the cooperation of the DOH to instill an awareness of merits such as the superiority and efficiency of iSPEED over the existing SPEED, leading to the next step of full-scale introduction. At the same time, undertakings such as ODA projects to improve the capabilities of human resources involved in disaster medical care and research into iSPEED with TECS and the DOH working together will be implemented.

The figure below shows an overview of future development.



Chapter 6: Potential for Tie-ups with ODA Projects

The results of on-site verification testing during this project showed that all participants (100%) in testing supported the introduction of iSPEED, with local medical practitioners and DOH personnel also rating the system highly. In addition, the decision to use the MDS format adopted by WHO as the standard reporting format for international medical cooperation activities gave rise to expectations for use as a tool shared with entities such as foreign medical teams (FMT), indicating that tie-ups between activities could be facilitated.

The declaration by ASEAN on "Enhancing Cooperation in Disaster Management" adopted at the 23rd ASEAN Summit held in 2013 announced the provisioning of ODA from Japan for packages for the enhancement of disaster management cooperation and the sharing of views in the fields of medicine and the environment. Subsequently, the "Collection of and Research into Information Relating to Disaster and Emergency Medicine in ASEAN Countries" was performed by JICA (from November 2014 to August 2015). The undertaking above reported as follows: "To promote the smooth coordination of disaster and emergency medicine, studies need to be conducted into ensuring that medical teams can obtain efficiently the information they require and that materials such as standard operating procedures that set out the bare minimum items and health needs assessment tools need to be developed to enable sharing of information in regions as a common language relating to disaster medical care and flexibly conform with circumstances in various countries." WHO announced a technique for the standardization of disaster medicine information (MDS) headed by JICA and, in future, amidst the dissemination of MDS in undertakings such as EMT training coordination centers and international practice drills

conducted by WHO for ministries and departments of health in each country, the iSPEED system mounted with MDS will satisfy requirements for standardization as an international coordination tool at the earliest possible opportunity and meshes with "development of a tool for efficient regional coordination pertaining to disaster medical care," one of the outcome goals stated above as a technical cooperation project. The promotion of coordination with ODA projects that follow the "Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project)" launched in July 2016 under the auspices of ODA is expected to be of major benefit to the development of disaster and emergency medical care infrastructures not only in the Philippines, but in all ASEAN countries. Envisaged ODA projects are listed below.

Year	Title	Content	Envisaged Scheme
2017–2018	iSPEED Trial	Free provision of iSPEED cloud service Use in local disaster training drills Holding training seminars	At company's own expense
2018–2019	Technical Cooperation for the Enhancement of Disaster Medicine Coordination including Times of Disaster (Provisional title)	Education for trainers and users, cooperative use, launch of use targeting 70 hospitals under the jurisdiction of the DOH in a total of 17 regions in the Philippines	Technical cooperation project
From 2019	Promotion of Dissemination of Emergency Medicine Support System in Thailand	Based on successful cases in the Philippines, introduction and development will be promoted as an emergency medical care system in Thailand in accordance with the ASEAN policy of the Japanese government.	Project for the promotion of dissemination of civil technology or technical cooperation project

添付資料

添付１：システム比較表

添付２：iSPEED 実証実験内容と結果

添付３：iSPEED 実証実験アンケート結果

添付４：iSPEED 実証実験患者情報入力時間

添付５：Detailed Schedule_iSPEED visit Japan program

添付 A：iSPEED 実証実験報告会資料

添付 B：本邦活動時の議事録

参考文献

なし。

資料１：システム比較表

System comparison table

Doc.No.M93316EU0004

Purpose, Function	SPEED		iSPEED		JDR-MOS	
The purpose of the system	-	early warning disease surveillance system	-	early warning disease surveillance system	-	Medical-records storage, early warning disease surveillance system
Management information item	-	Age, Sex, Disease	-	Age, Sex, Disease, photograph	-	Age, Sex, Disease, photograph
Data input means	-	Character (character code) input	-	Follow the contents of the display and screen touch (check)	-	Follow the contents of the display and screen touch (check). Numerical input, Text input for details
Means of communication (terminal device)	-	Mobile phone network (Mobile phone)	-	Internet, Wi-Fi network (Smart phone, Tablet PC)	-	Internet, Wi-Fi network (Tablet PC)
Patient specification	△	No Function	○	Patient ID, Photograph	◎	Patient ID, Photgraph, Medical-records
Traceability (patient)	△	No Function	○	Specify by GPS information, GPS information is recorded every medical check and treatment place	○	Specify by GPS information, GPS information is recorded every medical check and treatment place
Disease item	-	21 established syndromes	-	34 established syndromes	-	34 established syndromes
Addition of the Disease item	△	No Function	○	Easily add and delete items at disaster(emergency medical) site	○	Easily add and delete items at disaster(emergency medical) site
Data statistics and analysis	△	Manual check by manpower	○	Automatic total, Graph creation	○	Automatic total, Graph creation
Report generation support	△	Based on the summary sheet	○	Automatic report generation, display, output to Excel	◎	Automatic report generation, display, output to Excel. Automatic report form

- iSPEED is code name of a product under development. - All data contained herein is subject to change without notice.
- All brand names and product names are trademarks or registered trademarks of their respective companies.

iSPEED ITEMS

Illness division	No	Syndrome / Health event	Description
Severity	1	Un-walkable	Un-walkable (after onset of disaster)
Trauma / Environment disoder	2	Wound, (organ) injury	Wound, (organ) damage
	3	Fracture	Fracture-fracture doubt
	4	Burn	Skin/respiratory burn
	5	Drowning	Drowning and hypothermia, Episode of drowning
	6	Crush Synd.	Long sppression of the body and unconsciousness/incontinence/oliguria
	7	Animal Bite	
Cirdiovascular	8	DVT/Stroke/MI	Dyspnea, chest pain, inconsousness, red swelling lower extremities (after vehicle stay)
Symptom	9	Fever	Fever (Definition may be a judgment of the registrant)
	10	Hypertension(>sBP140(or)dBP90)	BP > 140/90 (either)
Infection	11	ARI	Cough, chills, sore throat, fever (either)
	12	Acu Watery Diarrhea	Watery diarrhea, nausea and vomiting
	13	Acu Bloody Diarrhea	Bloody diarrhea, nausea and vomiting
	14	Measles	Fever with rash
	15	Tetanus	Trismus, stiffness of the neck and lower jaw
	16	TB	Chest X-ray examination doubt opinions (nodule shadows with the cavity, etc.)
Chronic disease	17	Known DM	
	18	Asthma	Dyspnea and wheezing
Skin / Each department	19	Skin	Skin diseases other than burn-trauma
	20	Eye, ENT	
	21	Musculoskeletal	
	22	Gynecology, Urology	
Mental	23	Stress related Symp(Insomnia, etc.)	Insomnia, headache, dizziness, loss of appetite, stomach pain, constipation, etc.
Public health	24	Not relevant to disaster	Conditions not associated with disasters (doctor judgment)
	25	Lack of drinking water/food	Lack of safe drinkable water (3L/day), food.
	26	Damage on housing, Move by disaster	Move from house due to the disaster

資料２：iSPEED 実証実験内容と結果

場所	EVRMC	RO8	TMC	NCR	OPCEN
実証実験日	2016/11/28,29	2016/11/29	2016/12/1,2	2016/12/2	2016/12/2
主な活動	患者情報入力	サーバモニタリング	患者情報入力	サーバモニタリング	サーバモニタリング
責任者	Dr. Lory Ruetas	Dr. Fidelita Dico	Dr. Myrna Rivera	Ms. Mylyn dela Cruz	Ms. Maria Lovelle Rago
現地参加者	13	14	13	8	2
配置要員	2	6	2	3	
内訳: TECS	1	3	1	2	
JDR		2			
コンサル	1		1		
通訳		1		1	
持込機材	スマホ3台	ノートPC1台	スマホ3台	ノートPC1台	なし（既設PC利用）
	患者情報入力用	サーバモニタリング用	患者情報入力用	サーバモニタリング用	サーバモニタリング用
通信環境	モバイルルータ接続	既設Wi-Fi	既設Wi-Fi	既設LAN	既設LAN
実験内容	EVRMC		TMC		
	・1チーム3名構成（ドクター、ナース、アシスタント）		・1チーム3名構成（ドクター、ナース、アシスタント）		
	・30名の模擬患者カルテの内容をスマホに入力		・30名の模擬患者カルテの内容をスマホに入力		
	・入力データはiSPEEDサーバへ自動送信		・入力データはiSPEEDサーバへ自動送信		
	RO8		NCR		OPCEN
	・iSPEEDサーバに登録される患者情報をモニタリング		・iSPEEDサーバに登録される患者情報をモニタリング		同左
	・患者発生状況をリアルタイム集計		・患者発生状況をリアルタイム集計		同左
	・質疑応答		・質疑応答		
	・アンケート評価		・アンケート評価		同左
患者情報入力	EVRMC		TMC		
	トレーニング前： 3分31秒／人		トレーニング前： 3分43秒／人		
	トレーニング後： 3分22秒／人		トレーニング後： 2分2秒／人		
アンケート評価	**4.5 （5段階評価）**		**4.8 （5段階評価）**		**3.7 （5段階評価）**
回答者数	3	14	13	7	2
導入希望	**100%**		**100%**		**100%**

資料３－１：iSPEED 実証実験アンケート結果　（集計結果）

iSPEED Questionnaire & Survey

(Nov. 29 2016, at DOH Regional office 8 and EVRMC, Tacloban city philippines)

Question			Result		
			Ave.	People	Score
1. Is it agreeable in collecting data of the each patient?			**4.7**	17	80
2. Is it agreeable for the collection of patient photographs (include a face photograph)?			**3.9**	17	66
3. Evaluation of number (SPEED + MDS) 50-piece of items?					
	A:	☐Too much (should be minimized	**6.7%**	1	–
	B:	☐Appropriate and manageable	**86.7%**	13	–
	C:	☐Should be expanded and catch more essential items	**6.7%**	1	–
4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?			**4.7**	17	80
5. Smart phone based input system, is it intuitive and easy to understand?			**4.6**	17	79
6. Is the patient list screen of collected information effective?			**4.7**	17	80
7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?					
	Y:	☐Yes	**100.0%**	17	–
	N:	☐No	**0.0%**	0	–
		Total	**4.5**		385

(Dec .2 2016, at NCR office and Tondo Medical Center, Manila philippines)

Question			Result		
			Ave.	People	Score
1. Is it agreeable in collecting data of the each patient?			**5.0**	20	99
2. Is it agreeable for the collection of patient photographs (include a face photograph)?			**4.6**	20	91
3. Evaluation of number (SPEED + MDS) 50-piece of items?					
	A:	☐Too much (should be minimized	**5.0%**	1	–
	B:	☐Appropriate and manageable	**75.0%**	15	–
	C:	☐Should be expanded and catch more essential items	**20.0%**	4	–
4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?			**4.7**	20	93
5. Smart phone based input system, is it intuitive and easy to understand?			**4.9**	20	98
6. Is the patient list screen of collected information effective?			**4.8**	20	96
7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?					
	Y:	☐Yes	**100.0%**	20	–
	N:	☐No	**0.0%**	0	–
		Total	**4.8**		477

(Dec .2 2016, at DOH-OPCEN, Manila philippines)

Question			Result		
			Ave.	People	Score
1. Is it agreeable in collecting data of the each patient?			**4.0**	2	8
2. Is it agreeable for the collection of patient photographs (include a face photograph)?			**2.5**	2	5
3. Evaluation of number (SPEED + MDS) 50-piece of items?					
	A:	☐Too much (should be minimized	**50.0%**	1	–
	B:	☐Appropriate and manageable	**50.0%**	1	–
	C:	☐Should be expanded and catch more essential items	**0.0%**	0	–
4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?			**4.5**	2	9
5. Smart phone based input system, is it intuitive and easy to understand?			**4.0**	2	8
6. Is the patient list screen of collected information effective?			**3.5**	2	7
7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?					
	Y:	☐Yes	**100.0%**	2	–
	N:	☐No	**0.0%**	0	–
		Total	**3.7**		37

資料３－２：iSPEED 実証実験アンケート結果　（QA シート）

iSPEED Questionnaire & Survey

Each questionnaire, please fill in an evaluation index (numerical value) to apply to in ☐.
(5: strongly agree, 4: Agree a little, 3: Neither, 2: Disagree a little, 1: Strongly disagree)

1. Is it agreeable in collecting data of the each patient?
Free Comment : (　　) ☐

2. Is it agreeable for the collection of patient photographs (include a face photograph)?
Free Comment : (　　) ☐

3. Evaluation of number (SPEED + MDS) 50-piece of items ?

☐Too much (should be minimized
☐Appropriate and manageable
☐Should be expanded and catch more essential items

Free Comment : (　　)

4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?
Free Comment : (　　) ☐

5. Smart phone based input system, is it intuitive and easy to understand?
Free Comment : (　　) ☐

6. Is the patient list screen of collected information effective?
Free Comment : (　　) ☐

7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?
Free Comment : (　　) (☐Yes / ☐No)

If you have any other comments or opinions that you can share with us, please describe in below form. We will read this carefully. Thank you (Please fill in the back, if insufficient.)

(The good point, furthermore if it emphasizes good point etc.)

(The point, the request, etc. which wish to improve)

Date:　　/　　/2016
Affiliation:
Job: ☐:Administrative　☐:Doctor　☐:Nurse　☐:Logistics

資料３－３：iSPEED 実証実験アンケート結果　（QA シート記入内容）

NCR-1

iSPEED Questionnaire & Survey

Each questionnaire, please fill in an evaluation index (numerical value) to apply to in □.
(5: strongly agree, 4: Agree a little, 3: Neither, 2: Disagree a little, 1: Strongly disagree)

1. Is it agreeable in collecting data of the each patient?
Free Comment : ( ) 5

2. Is it agreeable for the collection of patient photographs (include a face photograph)?
Free Comment : ( ) 5

3. Evaluation of number (SPEED + MDS) 50-piece of items ?
□Too much (should be minimized
☑Appropriate and manageable
□Should be expanded and catch more essential items
Free Comment : ( )

4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?
Free Comment : ( ) 5

5. Smart phone based input system, is it intuitive and easy to understand?
Free Comment : ( ) 5

6. Is the patient list screen of collected information effective?
Free Comment : ( ) 5

7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?
Free Comment : ( ) (☑Yes / □No)

If you have any other comments or opinions that you can share with us, please describe in below form. We will read this carefully. Thank you (Please fill in the back, if insufficient)

(The good point, furthermore if it emphasizes good point etc.)
* SMARTPHONE - BASED SYSTEM
* USER - FRIENDLY SYSTEM
* CAN BE STORED IN SERVERS AND OR IN THE CLOUD

(The point, the request, etc. which wish to improve)
* INTEGRATION WITH OTHER DISASTER REPORTING & OTHER SYSTEMS NOT ONLY OF THE DEPARTMENT OF HEALTH BUT ALSO TO GOVERNMENT AGENCIES IN-CHARGE OF DISASTER RESPONSE AND MANAGEMENT

Date: 12 / 02/2016
Affiliation: DOH-NCRO
Job: ☑Administrative □Doctor □Nurse □Logistics

TMC-3

iSPEED Questionnaire & Survey

Each questionnaire, please fill in an evaluation index (numerical value) to apply to in □.
(5: strongly agree, 4: Agree a little, 3: Neither, 2: Disagree a little, 1: Strongly disagree)

1. Is it agreeable in collecting data of the each patient?
Free Comment : ( ) 5

2. Is it agreeable for the collection of patient photographs (include a face photograph)?
Free Comment : ( ) 5

3. Evaluation of number (SPEED + MDS) 50-piece of items ?
□Too much (should be minimized
☑Appropriate and manageable
□Should be expanded and catch more essential items
Free Comment : (Category is better if Medical / Surgical as MAIN Category)

4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?
Free Comment : ( ) 5

5. Smart phone based input system, is it intuitive and easy to understand?
Free Comment : (Please make it downloadable to Google App, very easy to use, even a layman can report emergency cases) 5

6. Is the patient list screen of collected information effective?
Free Comment : ( ) 5

7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?
Free Comment : (It will be very useful to report emergency cases during disaster) (☑Yes / □No)

If you have any other comments or opinions that you can share with us, please describe in below form. We will read this carefully. Thank you (Please fill in the back, if insufficient)

(The good point, furthermore if it emphasizes good point etc.)

(The point, the request, etc. which wish to improve)
Probably you can input / add categories like Critical / Surgical Emergency / Medical Emergency / Minor Case

Date: 12 / 2/2016
Affiliation:
Job: □Administrative ☑Doctor □Nurse □Logistics

DOH-1

iSPEED Questionnaire & Survey

Each questionnaire, please fill in an evaluation index (numerical value) to apply to in □.
(5: strongly agree, 4: Agree a little, 3: Neither, 2: Disagree a little, 1: Strongly disagree)

1. Is it agreeable in collecting data of the each patient?
Free Comment : (yes but I think it will take time during disaster) 4

2. Is it agreeable for the collection of patient photographs (include a face photograph)?
Free Comment : (injury is applicable rather than [illegible] patient) 3

3. Evaluation of number (SPEED + MDS) 50-piece of items ?
□Too much (should be minimized
☑Appropriate and manageable
□Should be expanded and catch more essential items
Free Comment : ( )

4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?
Free Comment : ( ) 5

5. Smart phone based input system, is it intuitive and easy to understand?
Free Comment : (yes it is easy to understand) 4

6. Is the patient list screen of collected information effective?
Free Comment : ( ) 4

7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?
Free Comment : (yes but some regional hospital they not have capacity to buy the equipment) (☑Yes / □No)

If you have any other comments or opinions that you can share with us, please describe in below form. We will read this carefully. Thank you (Please fill in the back, if insufficient)

(The good point, furthermore if it emphasizes good point etc.)
Easy to understand, Disaggregated data Analysis easy to understand

(The point, the request, etc. which wish to improve)
Alert Notification if there are reports coming in

Date: 12 / 5 /2016
Affiliation: [illegible]
Job: □Administrative □Doctor ☑Nurse □Logistics

R08-1

iSPEED Questionnaire & Survey

Each questionnaire, please fill in an evaluation index (numerical value) to apply to in □.
(5: strongly agree, 4: Agree a little, 3: Neither, 2: Disagree a little, 1: Strongly disagree)

1. Is it agreeable in collecting data of the each patient?
Free Comment : (Patient's consent necessary) 4

2. Is it agreeable for the collection of patient photographs (include a face photograph)?
Free Comment : (Patient's consent necessary) 4

3. Evaluation of number (SPEED + MDS) 50-piece of items ?
□Too much (should be minimized
☑Appropriate and manageable
□Should be expanded and catch more essential items
Free Comment : (Expanded or shortened / [illegible] as necessary)

4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?
Free Comment : (As necessary in the affected area appropriate) 5

5. Smart phone based input system, is it intuitive and easy to understand?
Free Comment : ( ) 5

6. Is the patient list screen of collected information effective?
Free Comment : ( ) 5

(Margin note: would be agreed upon by the members of the responding team based on objectives of the response)

7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?
Free Comment : (Useful in some situations Phil-speed still works in some situation.) (☑Yes / □No)

If you have any other comments or opinions that you can share with us, please describe in below form. We will read this carefully. Thank you (Please fill in the back, if insufficient)

(The good point, furthermore if it emphasizes good point etc.)
New technology such as android phone and i-phone made the i-speed easy to implement / understand.

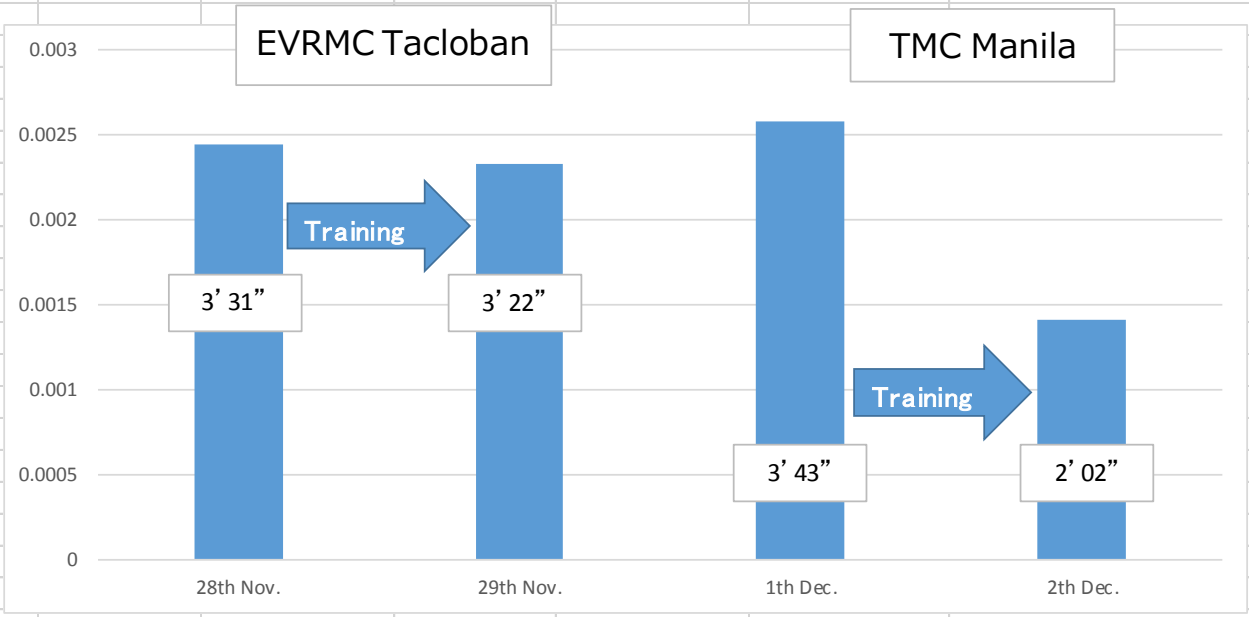
(The point, the request, etc. which wish to improve)

Date: Nov / 29 /2016
Affiliation: DOH Regional office 8, Palo, Leyte
Job: □Administrative ☑Doctor □Nurse □Logistics

資料４：iSPEED 実証実験患者情報入力時間

Operation Time (Smartphone)

	Team	Number of Doctor	Total Input Time	Number of Patient	Average of Input Time par Patient
28th Nov. EVRMC (training)	Team A	3	0:29:00	10	0:03:13
	Team B	3	0:50:00	10	0:05:33
	Team C	3	0:16:00	10	0:01:47
	All	9	0:50:00	30	**0:03:31**
29th Nov. EVRMC	Team A	1	0:23:00	10	0:02:33
	Team B	1	0:33:00	11	0:03:18
	Team C	1	0:38:00	10	0:04:13
	All	3	0:38:00	31	**0:03:22**
1th Dec. TMC (training)	Team A	3	0:22:00	10	0:02:27
	Team B	3	0:28:00	6	0:05:36
	Team C	3	0:28:00	10	0:03:07
	All	9	0:28:00	26	**0:03:43**
2th Dec. TMC	Team A	3	0:31:00	10	0:03:27
	Team B	3	0:20:00	14	0:01:32
	Team C	3	0:10:00	10	0:01:07
	All	9	0:31:00	34	**0:02:02**
				Average (ALL)	0:03:09



添付５：Detailed Schedule iSPEED visit Japan program

DETAILED SCHEDULE

Date: Feb.21 2017

Survey Title:	Collaboration Program with the Private Sector for Disseminating Japanese Technology for iSPEED Disaster Medical Mission Operating Systems in the Philippines.
Program Period:	February 23, 2017 ~ February 28, 2017
# of persons:	4

Purpose of Program :	Learn, Experience and Exchange the opinions of Disaster Medical Mission Operating System and the international standardization of a medical information format.
Expected Results of Program :	(a)Learn the outline of the Japanese disaster medical assistant team, and the international standardization of a medical information format. (b)Learn and experience human resource development workshop of the Japanese disaster relief medical team middle-class study session. (c)Learn and experience the iSPEED techniques and its application. (d)Draw up the iSPEED future action plan.

Date	Time	Itinerary	Lecturer/Program Coordinator			Language	Place	Hotel
			Name	Organization/Title	Contact			
February 23	14:00	Arrive at Tokyo						
		PR 422 (Philippine Airlines)						
	17:00	Program orientation Briefing	Hideki Tanaka Toshiyuki Ohara	Tokyo electronic systems corporation Chief examiner	TEL: 042-367-5181	English		
February 24	9:30-10:30	The outline of the disaster medical assistant team (DMAT), the role, the role of the disaster key hospital	Yuichi Koido	National Hospital Organization disaster medical center Clinical study division manager	TEL: 042-526-5706	English	National Hospital Organization disaster medical center	
	10:30-11:00	Minimum Data Set Activities.	Tatsuhiko Kubo	University of Occupational and Environmental Health Public health Assistant Professor	E-mail: kubo@med.uoeh-u.ac.jp	English	ditto	
	11:10-12:00	Inspection in the disaster medical center					ditto	
	12:00-17-00	Tachikawa Life Safety Learning Center disaster prevention experience tour					Tachikawa Life Safety Learning Center	HOTEL MYSTAYS PREMIER AKASAKA
February 25	9:30-15:00	Workshop of the Japan Disaster Relief Team medical team middle-class study session.	Shota Suzuki	Japan Disaster Relief Team secretariat Emergency assistance first division Specialized duties.	TEL: 03-5226-6360	English	JICA Tokyo	
	15:00-16:00	Movement (Hatagaya > Akasaka)						
	16:00-17:00	Workshop review	Hideki Tanaka	Tokyo electronic systems corporation Chief examiner	TEL: 042-367-5181	Japanese	Hotel	
February 26	-	Day-off						
February 27	9:30-10:30	iSPEED technology and its application	Hideki Tanaka	Tokyo electronic systems corporation Chief examiner	TEL: 042-367-5181	Japanese	TECS	
	10:30-12:00	iSPEED future action plan	ditto	ditto	ditto	ditto	ditto	
	12:00-17:00	Evaluation meeting	ditto	ditto	ditto	ditto	ditto	
February 28	15:05-	Departure						
	-	PR 421 (Philippine Airlines)						

添付 A：iSPEED 実証実験報告会資料

iSPEED demonstration experiment summary report

TCCS Tokyo Electronic Systems Corporation

Contents

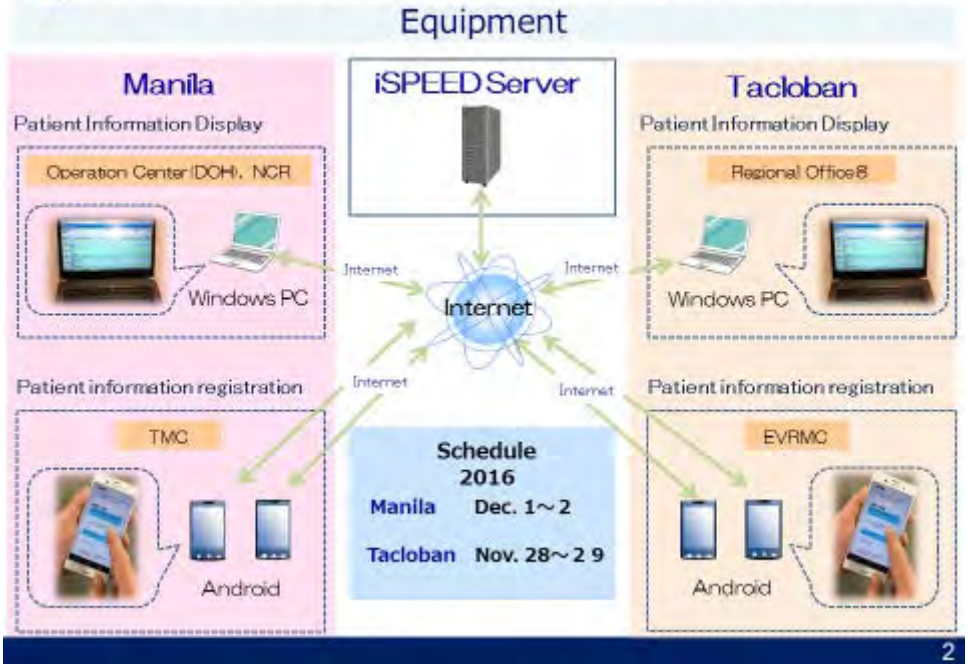
Overview of
iSPEED demonstration expriment ---- P2

iSPEED demonstration expriment ---- P3

Result Of Questionnaire & Survey ---- P13

Future activities ---------- P18

Overview of iSPEED demonstration expriment



iSPEED demonstration experiment

In Tacloban

- Date : 28th Nov. & 29th Nov. 2016
- Location : Eastern Visayas Regional Medical Center (EVRMC)
  Regional Office 8 (RO8)
- Number of participants : EVRMC - 13, RO8 – 14
  Total - 27

EVRMC

RO8

3

iSPEED demonstration experiment

In Manila

- Date : 1th Dec. & 2th Dec. 2016
- Location : Tondo Medical Center (TMC)
  National Capital Region Office (NCR)
- Number of participants : TMC - 13, NCR – 8
  Total - 21

TMC

NCR

4

Presentation by JDR Team in Tacloban

Dr. Joji Tomioka

Dr. Yutaka Igarashi

5

EVRMC

Nov. 28 2016, at EVRMC, Tacloban city Philippines

6

RO8

Nov. 29 2016, at DOH Regional office 8, Tacloban city Philippines

7

TMC

Dec .2 2016, at Tondo Medical Center, Manila Philippines

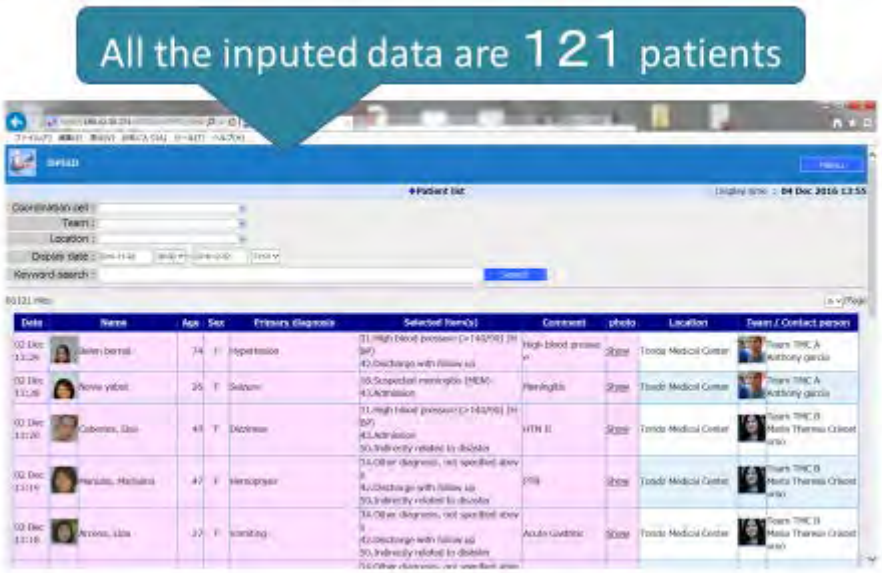
8

NCR

Dec .2 2016, at NCR office , Manila Philippines

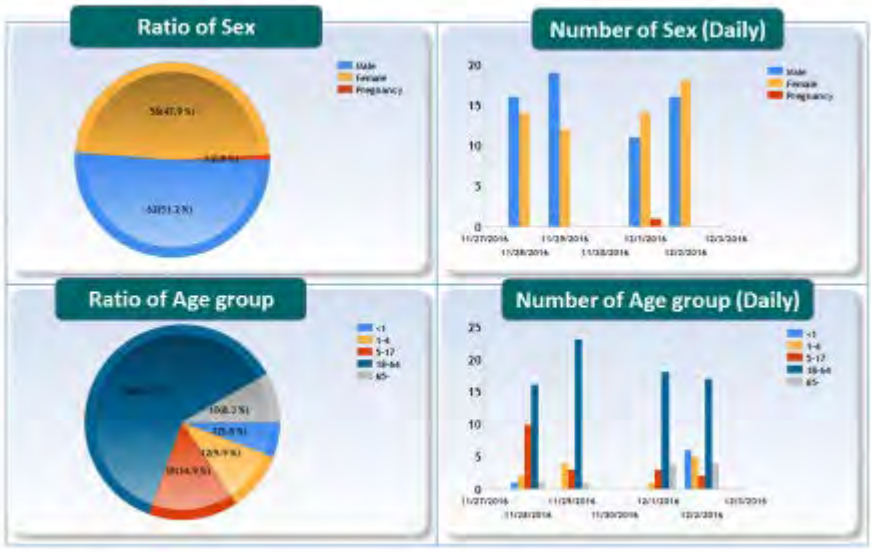
9

Number of input patient Data



10

Inputed patient information



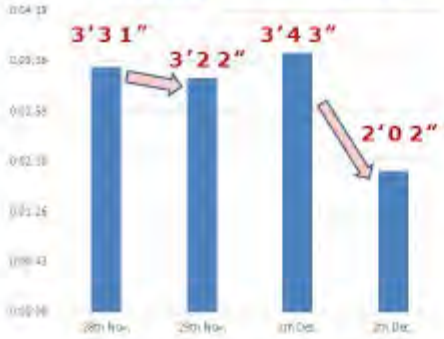
11

Operation Time (Smartphone)

3 minute 9second (Average input Time / Patient)

※4 Days Ave.

Tacloban Manila



Team	Number of Member	Interval	Number of Patient	Average of Input Time per Patient
28th Nov. EVTMC (training)				
Team A	3	0:29:00	10	0:03:13
Team B	3	0:30:00	10	0:03:00
Team C	3	0:16:00	10	0:01:47
All	9	0:75:00	30	0:03:31
29th Nov. EVTMC				
Team A	1	0:21:00	10	0:02:06
Team B	1	0:33:00	11	0:03:19
Team C	1	0:33:00	10	0:04:12
All	3	0:87:00	31	0:03:22
1th Dec. TMC (training)				
Team A	3	0:22:00	10	0:02:11
Team B	3	0:28:00	6	0:02:48
Team C	3	0:23:00	10	0:03:10
All	9	0:28:00	26	0:03:43
2th Dec. TMC				
Team A	3	0:31:00	10	0:03:21
Team B	3	0:32:00	14	0:01:23
Team C	3	0:10:00	10	0:01:0
All	9	0:31:00	34	0:02:02

✓ Input time of patient information at Manila was the speed of 1.6 times than Tacloban.

12

Result Of Questionnaire & Survey

13

Result Of Questionnaire & Survey

Question

Each questionary, please fill in an evaluation index (numerical value) to apply to in ☐

(5: strongly agree, 4: Agree a little, 3: Neither, 2: Disagree a little, 1: Strongly disagree)

1. Is it agreeable in collecting data of the each patient?

2. Is it agreeable for the collection of patient photographs (include a face photograph)?

3. Evaluation of number (SPEED + MDS) 50-piece of items ?

4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?

5. Smart phone based input system, is it intuitive and easy to understand?

6. Is the patient list screen of collected information effective?

7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?

14

Result Of Questionnaire & Survey

Nov. 29 2016, at DOH Regional office 8 and EVRMC, Tacloban city Philippines

Question			Result		
			Ave.	People	Score
1. Is it agreeable in collecting data of the each patient?			4.7	17	80
2. Is it agreeable for the collection of patient photographs (include a face photograph)?			3.9	17	66
3. Evaluation of number (SPEED + MDS) 50-piece of items?					
	A	☐Too much (should be minimized	5.7%	1	–
	B	☐Appropriate and manageable	88.7%	13	–
	C	☐Should be expanded and catch more essential item	5.7%	1	–
4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?			4.7	17	80
5. Smart phone based input system, is it intuitive and easy to understand?			4.6	17	79
6. Is the patient list screen of collected information effective?			4.7	17	80
7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?					
	Y	☐Yes	100.0%	17	–
	N	☐No	0.0%	0	–
		Total	4.5	80	385

7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?
Yes - 100%

✓ Total Average : 4.5 / 5

15

Result Of Questionnaire & Survey

Dec. 2 2016, at NCR office and Tondo Medical Center, Manila Philippines

Question			Result		
			Ave.	People	Score
1. Is it agreeable in collecting data of the each patient?			5.0	20	99
2. Is it agreeable for the collection of patient photographs (include a face photograph)?			4.6	20	91
3. Evaluation of number (SPEED + MDS) 50-piece of items?					
	A	☐Too much (should be minimized	5.0%	1	–
	B	☐Appropriate and manageable	75.0%	15	–
	C	☐Should be expanded and catch more essential item	20.0%	4	–
4. In future disaster correspondence, is it agreeable in adding an item of MDS to SPEED?			4.7	20	93
5. Smart phone based input system. Is it intuitive and easy to understand?			4.9	20	98
6. Is the patient list screen of collected information effective?			4.8	20	95
7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?					
	Y	☐Yes	100.0%	20	–
	N	☐No	0.0%	0	–
		Total	4.8	100	477

7. Do you think that it will be useful for usual surveillance if iSEED is introduced into the whole region in Philippines?
Yes : 100%

✓ Total Average : 4.8 / 5

16

Result Of Questionnaire & Survey

Typical Question and Answer

1. (Q) What kinds of technology will be used for security? For instance, access control to the system.
   (A) Access limited only admitted person.
2. (Q) A doctor analyzed the judgment of the infectious disease of SPEED to see count data. How about iSPEED?
   (A) iSPEED sum up patient data automatically, but does not analyze it.
3. (Q) It is better that a system can be used without electronical power and telecommunication. How about iSPEED?
   (A) iSPEED operates with battery. When communication link down, patient data will save in a terminal and it transmit when communication recovered.
4. (Q) Can it grasp the place of evacuation site, clinic, area where the patient is?
   (A) The medical treatment place can register freely, and patient data can total per place.

17

Future activities

Next step

WHO is trying to develop a medical information framework.

iSPEED takes initiative of the medical information system during and after disaster internationally as iSPEED follows the framework.

Philippines will be the first country, which implements the iSPEED system that follows the framework recommended by WHO.

This is a proposal from TECS.
Detail should be discussed between DOH and TECS.

18

Future activities

1.TECS provides iSPEED server and infrastructure free of charge

(a)iSPEED server:	Use Cloud server
(b)Application:	For Server and Terminal (Android OS)
(c)Training manual:	Digital copy available (Download)
(d)Period:	Start in 2017 and required period.

2.DOH prepares

(a)Smartphone (Core future)
- (1): Android 5.0 or later
- (2): Camera function
- (3): Connectivity to Internet (via any of 3G, 4G and/or Wi-Fi)

19

Future activities

1.TECS provides iSPEED server and infrastructure free of charge

(a)iSPEED server:	Use Cloud server
(b)Application:	For Server and Terminal (Android OS)
(c)Training manual:	Digital copy available (Download)
(d)Period:	Start in 2017 and required period.

2.DOH prepares

(a)Smartphone (Core future)
- (1): Android 5.0 or later
- (2): Camera function
- (3): Connectivity to Internet (via any of 3G, 4G and/or Wi-Fi)

19

Future activities

3.Workshop

(a)Place: Manila or a place where DOH decides.

(b)Target Participants:
- 264 Medical staff in total.
- Three staff from each hospital.
- The hospitals are 17 region Hospitals and 71 DOH Hospitals.

(c)Training:
- 1 day Training. 44 participants per a workshop.
- Six times workshops in total.

(d)Estimation cost for workshop:
- Total cost : 3,469,000 PHP (about 7,920,000 JPY)
- No. of Participants X No. of training days X Cost of accommodations = total cost

※The proportion of cost will be decided by discussion.

20

Future activities

4.Deploy to ASEAN

(a) TECS will support activities that purpose is that Philippine operation center becomes the model case of the iSPEED system, and iSPEED is used among ASEAN countries.

(b) iSPEED data format follows the electronic format called MDS, which WHO is now developing, to exchange information between other medical systems.

5.Contract

(a) DOH and TECS make a contract upon agreement through mutual consultation.

資料 B：本邦活動時の議事録

Doc No.A29117EW0006

Meeting Minutes

Collaboration Program with the Private Sector for Disseminating Japanese Technologies for iSPEED Disaster Medical Mission Operating System in Republic of the Philippines (hereinafter "The Philippines")

Meeting Date: 2/27/2017

Meeting Location: Tokyo Electronic Systems Corp.

Recorded By: Toshiyuki Ohara

1.ATTENDANCE

Name	Title	Organization
Dr. Arnel Z. Rivera	Chief, Response Div	Health Emergency Management Bureau. Department of Health, The Philippines
Dr. Ronald P. Law	Chief, Preparedness Div.	Health Emergency Management Bureau. Department of Health, The Philippines
Dr. Myrna T. Rivera	Head, Emergency Dept.	Tondo Medical Center, Department of Health, The Philippines
Dr. Lory L. Ruetas	Medical Specialist IV	Eastern Visayas Regional Medical Center, Department of Health, The Philippines
Mr. Kazuyuki Hashimoto	Director	Tokyo Electronic Systems Corp.
Mr. Noboru Jyogo	Director	Tokyo Electronic Systems Corp.
Mr. Tatsuru Oozono	Manager	Tokyo Electronic Systems Corp.
Mr. Hidesige Tanaka	Manager	Tokyo Electronic Systems Corp.
Mr. Toshiyuki Ohara	Manager	Tokyo Electronic Systems Corp.
Mr. Yasuhiro Ando	General Manager	Toshiba Corp.
Ms. Mayuko Osawa	Manager	Toshiba Corp.

Doc No.A29117EW0006

2.MEETING DATE AND TIME

February 27th, 2017
Start from 10:00 to 16:00(JST)

3.MEETING PLACE

Tokyo Electronic Systems Corporation
Headquarters. Conference room, #7114, #7110

4.AGENDA

Agenda1: To draw up the iSPEED future plan
To proceed iSPEED implementation in The Philippines

5.MEETING ACTION ITEMS

Action	Assigned To	Deadline
Getting a comment from KMIT on the idea of a cloud server or servers to be installed in Japan	DoH:Mr.Rivera	March 6, 2017
Providing the ballpark cost of the iSPEED server(s) after 2-years free usage for the following two options; a. the iSPEED server(s) located in Japan b. the iSPEED server(s) located in Philippines	TECS:Mr.Ohara	March 13, 2017
Notifying the preferable timing of giving iSPEED ToT (Training of Trainers) to the selected participants in The Philippines	TECS:Mr.Ohara	March 22, 2017

6.DECISIONS MADE

*The following notes are to be reviewed by the DoH of The Philippines and TECS. Both parties will cooperate to fix the final agreement about the detail of demo and ToT to be held in 2017 and the official implementation of iSPEED in The Philippines expected in 2018.

Schedule and the detail operating procedure of the demo, the ToT and the official implementation of the iSPEED will be determined on MoU or on other documents between the DoH of The Philippines and TECS Corporation.

1. The DoH of The Philippines and TECS to get the budget for a demo of iSPEED scheduled in the 3rd week of July for each party's own expense.

[Post-meeting request from TECS to the DoH of The Philippines for consideration]

After reviewing the full cost of the demo to be held in July this year, we have realized that it will be much greater than expected and we'd appreciate your reconsideration on payment for TECS's travel cost such as air tickets and accommodation relating to the demo and the ToT.

Expected cost for TECS consists of a) labor cost, b) the server(s) implementation and operating cost and c) the travel cost.

TECS is to cover the entire labor cost associated with the demo and ToT such as;

- the labor cost for preparation of the demo and ToT including the user manual and training manual preparation.
- the per diem during the demo and ToT excluding the travel cost and accommodation.

On top of its labor cost, TECS is to offer the free of charge usage of the server(s) to the DoH of The Philippines during the demo and the ToT.

It will be greatly appreciated if you could possibly consider our request. We look forward to your response by M/April.

Please be noted that the travel cost depends how the demo is to be operated. i.e. the number of the location, the number of the participants and the number of the patients.

Thank you for your understanding and assistance.

2. TECS to have proposed to use a cloud server or servers installed or to be installed in Japan for iSPEED official implementation in The Philippines (hereinafter "the Project"). The DoH of The Philippines to have agreed with the idea and to inform KMIT about it and get an official approval by 6th March.

3. TECS to have proposed free of charge usage of the server(s) for 2 years for the Project to The Philippines under the condition that the server will be physically located in Japan.

Doc No.A29117EW0006

4. To have discussed the installation and operating cost of the server for the Project after 2 years of free of charge usage. The possible options are as follows;
   a. To implement a server or servers physically located in Japan.
   b. To implement a server or servers physically located in The Philippines.

   TECS to give a ballpark idea of the cost in two cases by 13th March.

5. TECS to modify the iSPEED software for improving security countermeasures etc.

6. The DoH of The Philippines to have suggested the timing of the Project launch as starting from Jan 2018 and will be lasting for 2 years. The iSPEED software to be available free of charge for the participants in The Project during the Project period on their smartphones and tablets which are specially registered for the project. If the DoH of The Philippines or TECS has a different idea on this, each party to inform the other party and discuss about it and get a reasonable agreement.

7. TECS to try to conduct ToT in The Philippines by the end of 2017. The company to inform the possible timing of ToT by 22nd March. The initial target of ToT is July 2017. If TECS is not able to conduct ToT in July 2017, the company to inform the DoH of The Philippines about the reason of the change and the alternative timing.

8. TECS to provide the user manual of the iSPEED and the training manual.

9. Video components for the training will be appreciated by DoH of The Philippines. TECS to consider the idea.

10. TECS to provide an Android based App as well as iOS based App for the smart phone users in The Philippines. TECS to try to provide the iOS based App by the end of 2017, however it might be adjusted depends on circumstances.

11. Smart phones and other terminals like tablets for the Project and their communication costs are to be provided by The Philippines for their participants for demos and for the official Project launch as well.

    TECS to provide the specification (OS) for the smart phones and tablets.