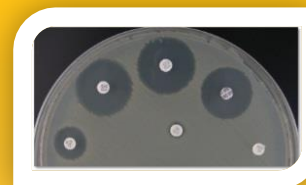


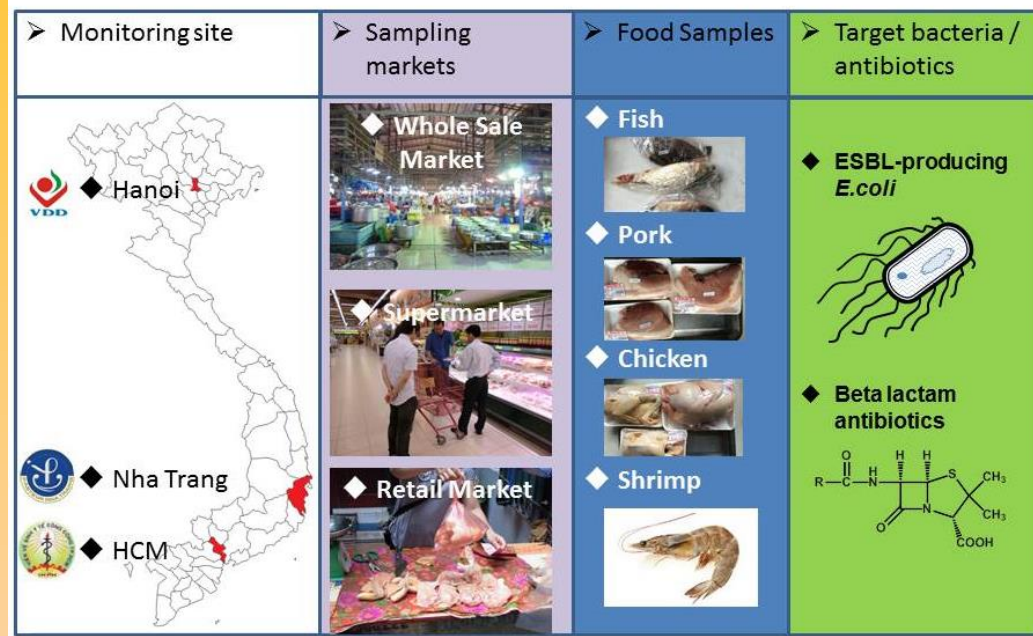
The project has been developing a monitoring system model for drug resistant bacteria and antibiotics in Hanoi, Nha Trang and HCMC since June 2014. This system is identifying the prevalence of ESBL-producing E.coli as well as Beta lactam antibiotic residues in samples from selected markets. Using the manual developed by the project, the microbiology team is screening ESBL-producing E.coli using the disk diffusion test and the pharmacology team is utilizing HPLC (High Performance Liquid Chromatography) to detect ampicillin. After validating the system, the project will recommend it to the MOH for use until the middle of 2016.

PROJECT NEWSLETTER

A project to "Determine the Outbreak Mechanisms and Develop a Surveillance Model for Multi-Drug Resistant Bacteria"



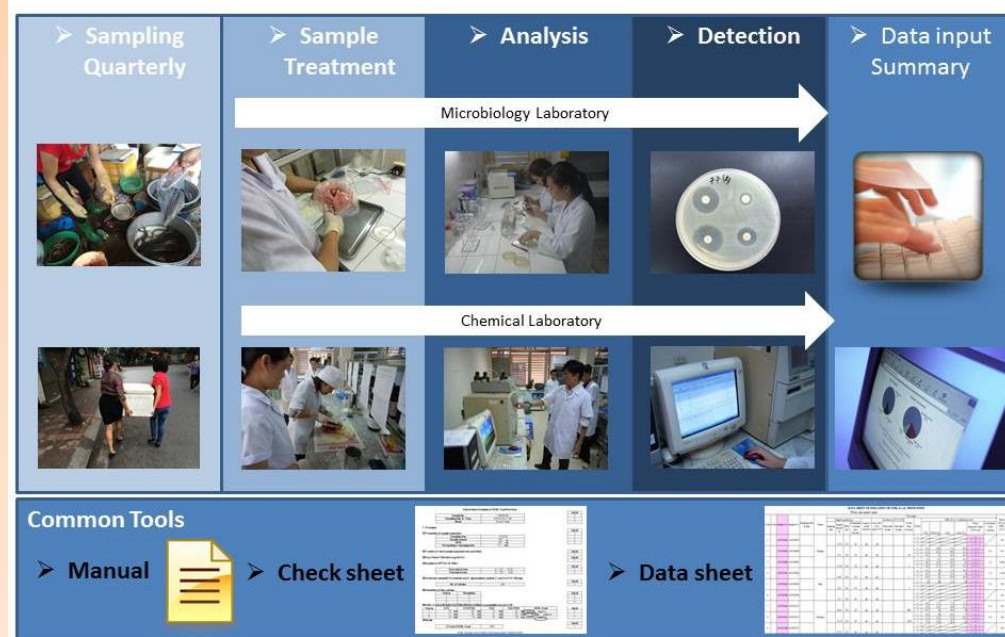
Outline of Monitoring System Model



NIN, the Pasteur Institute of Nha Trang (PINT) and the Institute of Public Health HCMC (IPH) are in charge of monitoring Hanoi, Nha Trang and HCMC respectively. From different types of markets (retail, wholesale and supermarkets), they are collecting 4 kinds of food samples. With 12 samples from each market, a total 36 food samples are tested by each institute per quarter.

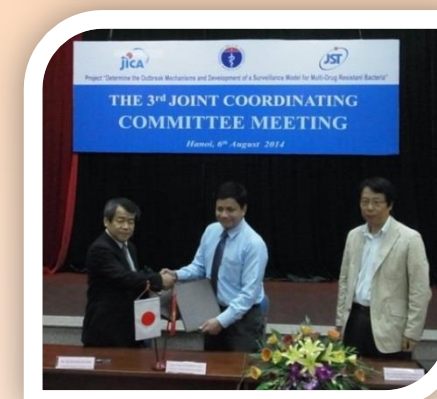
The project has developed a practical manual allowing each institute to operate a common procedure for monitoring drug resistant bacteria and antibiotic residues. To analyze whether drug resistant bacteria exist in food products, microbiology teams check for ESBL-producing E.coli. Using chemical processes, Beta lactam antibiotic residues (Ampicillin) are tested with HPLC equipment. After the analysis, detected data is recorded by each individual institute and later summarized by NIN.

Outline of Monitoring Activities



The 3rd JCC and Mid-term Review held at NIN, Hanoi

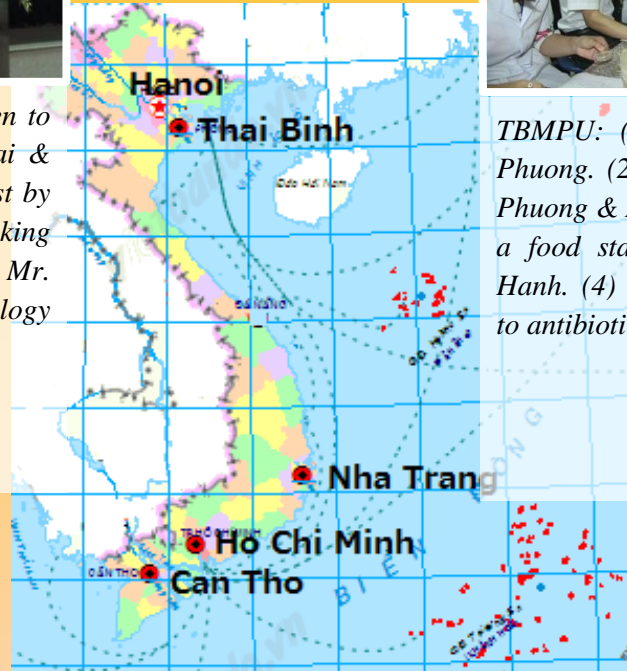
On August 6th 2014, the 3rd Joint Coordination Committee (JCC) was held at the National Institute of Nutrition (NIN), Hanoi. The JCC monitors the progress of the project and agreed with the results of a mid-term review proposed by JICA. A total of 40 participants took part in the JCC, from the Ministry of Health (MOH), Vietnamese and Japanese research institutes, the Embassy of Japan and the JICA.



➤ Agreement on the results of the mid-term review between the Project Leader, Associate Prof. Tuyen (NIN), the review mission leader Dr. Kanai (JICA) and the Project Chief Advisor Prof. Yamamoto (Osaka University)



NIN: (1) Research feedback given to the people of Bavi by Prof. Hirai & Dr. Huong. (2) Disk diffusion test by Dr. Hase & Ms. Phuong. (3) Checking the Bio Analyzer is Prof. Hirai, Mr. Ueda & Ms. Ngan. (4) Anthropology presentation by Dr. Son.



TBMPU: (1) Interview with a retailer, Ms. Phuong. (2) Disk diffusion test of E.coli, Ms. Phuong & Ms. Diep. (3) Checking for E.coli on a food stamp, Ms. Hoa, Mr. Ueda & Ms. Hanh. (4) Measuring the sensitivity of E.coli to antibiotics, Ms. Ha.

From October 13th to October 17th, a local training course was held at the NIN, Hanoi. The training course was designed to instruct technicians of NIN, PINT and IPH in a pharmacological method of monitoring antibiotics in food. The method, using HPLC was developed by Dr. Dung (NIN) in collaboration with Dr. Harada (Osaka University). Facilitated by Dr. Dung and Dr. Harada, a total 11 participants studied a common procedure to detect Ampicillin from chicken, pork, fish and shrimp. The method will be applied to the team's monitoring activities, specifically of beta lactam antibiotics.



- Lecture by Dr. Dung and Dr. Harada followed by practical training at NIN laboratory.
- Trainees were presented diplomas on completion by Dr. Lam and Dr. Harada.

Training in Japan

Three Vietnamese researchers were invited to participate in a short food monitoring course in Japan from August 24th to October 11th this year. A mixture of common lectures, basic laboratory practices, field visits and in-depth analysis kept the team busy. Lectures were held at Osaka University and they practiced laboratory skills at Osaka Prefecture Institute of Public Health. For the analysis, they travelled between Osaka Prefecture University, Tokushima University and University of the Ryukyus. During the final session they presented their results at Osaka Prefecture University.



IPH: (1) Research meeting featuring Dr. Phuc, Ms. Dao, Dr. Kumeda and Dr. Kanki. (2) Analysis at the microbiology laboratory. **BDWSM:** (3) Checking the stock of samples for chemical analysis, Dr. Harada and Dr. Dung, (4) Sampling instruction by Dr. Dung & Dr. Harada to Mr. Thanh.



PINT: Joint research meeting with Ms. Hue, Mr. Phong, Ms. Khanh, Mr. Vien, Prof. Yamamoto, Dr. Nakayama, Dr. Sumimura, Dr. Harada & Mr. Ueda.



CTU: (1)-(2) Fish sampling in Can Tho. (3) Joint research meeting with Dr. Ha, Dr. Ngu, Dr. Hoa, Dr. Harada, Dr. Sumimura & Dr. Nakayama.



- Ms. Dao (IPH), Ms. Ngan (NIN) and Ms. Van (PINT) training at Osaka Prefecture Institute of Public Health.

- Abbreviation: NIN=National Institute of Nutrition, TBMPU=Thai Binh Medical Pharmaceutical University, PINT=Pasteur Institute in Nha Trang, IPH=Institute of Public Health in HCMC, BDWSM=Binh Dien Wholesale Market Company, CTU=Can Tho University