

MEETING REPORT: Middle East Consortium on Infectious Disease Surveillance

**June 20-21, 2003
Larnaca, Cyprus**

The Middle East Consortium on Infectious Disease Surveillance (MECIDS) met for the third time on June 20-21, 2003. It is composed of governmental and nongovernmental specialists in public health and biological defense from Egypt, Israel, Jordan, and the Palestinian Authority, including the heads of the Centers for Disease Control of both Jordan and Israel. The aims of MECIDS are to reduce the region's vulnerability to disease outbreaks, whether natural or caused by a biological weapon; and to provide ways for health professionals to build trust and confidence across national lines.

In addition to making strides toward implementing several projects upon which they had agreed at their previous meeting, held in Brussels in March, 2003, the participants shared their experiences with the SARS crisis and agreed to develop a new rapid-communication mechanism based on these experiences. Specifically, the Larnaca meeting concluded with the following projects and future for regional cooperation plans in place:

- Establishing a surveillance system for food-borne disease outbreaks
- Designing a platform for data collection, management, sharing, and analysis of infectious disease incidents that is to be developed by a multinational working group hosted by Sandia National Laboratories this summer.
- Developing a week-long training course in interventional field epidemiology for public health professionals in the Middle East
- Establishing a new communication system on emergent diseases to facilitate rapid response mechanisms; this system will be tested by four simulations over the next six months.

MECIDS also members held an ad hoc session to discuss issues related to health and human security.

Breakout Session: Foodborne Disease Surveillance

This regional project is a joint effort to establish a surveillance system that can be used to detect outbreaks of enteric disease and identify common causes of a food-borne pathogens. It will address a common health concern, will build capacity to detect disease outbreaks, and will exercise the systems that would be used to respond to an outbreak caused by a biological weapon. During this session, participants built upon the discussions and plans of the previous months, identifying three distinct and interrelated mechanisms for the surveillance of food-borne disease:

1. Establishing a network of sentinel laboratory sites in the region that will collect stool samples to test for shigella, salmonella, and other pathogenic enteric disease from local clinics. MECIDS members suggested four types of health organizations that would be integral in the data collection process:
 - a. Reference laboratories: performing domestic and regional capability assessment
 - b. Emergency departments: identification of and rapid response to health incidents
 - c. Food testing laboratories: testing for potential pathogenic carriers

- d. Data analysis and sharing units
2. Registering all cases of diarrheal diseases that are treated in local hospitals, including addresses and other demographic information about patients.
3. Collecting and analyzing data through the use of updated registrars and platforms, creating questionnaires to be used by local clinics and hospitals to collect details about treated patients and samples. This data is then made available for research and comparison to assist in monitoring the rise and spread of enteric diseases.

The ultimate goal of these mechanisms is to quickly and efficiently share information about suspected disease outbreaks between the participating organizations in the region. Data collected about regional foodborne disease will be used as a sample test bed for through an analysis platform currently being designed and developed by another MECIDS project.

Breakout Session: Platform for data Collection, Management, Sharing, and Analysis

At the last MECIDS meeting, participants discussed the need to develop infrastructure—specifically a platform for data collection, management, sharing and analysis—to support cooperative disease surveillance. The next step is for participants to write a detailed proposal identifying their respective needs and recommendations to an appropriate funding organization under the guidance of Sandia National Laboratories' Cooperative Monitoring Center (CMC). Sandia CMC is hosting a working group of Egyptian, Israeli, Jordanian, and Palestinian public health professionals with diverse backgrounds from 10 July to 15 August 2003.

During the breakout session, participants discussed technical details for the data platform, including software, research protocol, data compatibility, and accessibility options. The group conceded that while developing compatible data systems was imperative, creating identical platforms was impractical as each participating group has its respective needs and concerns for which it gathers data. Some MECIDS members expressed legal and security concerns about what type of data would be accessible transnationally (i.e. raw data versus reports); it was decided that while raw data would not be made available through the platform, aggregate information and data reports would be accessible. The ultimate goals of the Sandia CMC training workshop are to provide a common baseline in using Geographic Information Systems (GIS), to analyze field data, and to author a funding proposal for the computer platform, for which they will receive appropriate training at CMC. Workshop participants will compile a report on their progress to be completed by 1 October and presented at the next MECIDS plenary meeting.

Breakout Session: Design for Interventional Epidemiology Training Course

Participants at the Brussels MECIDS meeting agreed to develop a training course in interventional field epidemiology for the Middle East. Designed for public health professionals involved in the control of infectious diseases, the course would be offered annually with the goals of building human capacity, creating rapid response capabilities, establishing professional relationships across borders. During this breakout session, members detailed the specific curricula and scope of the course, drawing on similar programs administered by Jordanian and Israeli Health Ministries for implementation through respective MOH in participating countries.

The course would be held over a period of one week, with regional facilitators who would be trained separately by WHO epidemiological specialists prior to the actual course. The course would bring together approximately 25-30 public health professionals. MECIDS members stressed that the course should emphasize practical aspects of field epidemiology with a minimum amount of lectures. To this end, all participants in the training course must have a common baseline in public health training and language to facilitate as much hands-on activity as possible. The workshops in the course are designed to cover the following suggested topics:

nutrition, surveillance, statistics, and pathogens that cause meningitis, salmonella, hepatitis, and West Nile virus.

MECIDS members suggested that the training for facilitators occur by February 2004 with the course to be held in March/April 2004. Also suggested for the future was the possibility of organizing more advanced courses as follow-up to the one-week training course.

Ad HOC Group Discussion: Development of a Multinational Early Warning System for Emergent Diseases

Ties among Jordanian, Palestinian, and Israeli public health officials, which had been broken since September 2000, were revived to manage the case of an Israeli traveler who spiked a fever while she was in the Amman airport waiting to go to Tel Aviv. While she was found not to have SARS, the authorities worked together to field questions from the press and reassure their publics. Based on this experience, MECIDS participants acknowledged a pressing need to develop an early warning system for the Middle East region to cope efficiently with emerging diseases that have cross-border transmission capability. The mission of such a system would be to recognize, identify, diagnose and share information on emerging diseases effectively for rapid response purposes.

To this end, members decided that two parallel communication lines should be established: formal (with members of the MOH in the respective countries as a central contact) and informal (MECIDS members, regional academics, and NGOs). Both lines of communications will have a rotating chair on a six-month basis to be shared equally by all countries represented; Jordan's participant holds the chair until the end of 2003.

The group designed a four-month initiation exercise, a collaborative effort between CMC Amman and Sandia, simulating an emergency situation with trans-border implications in order to evaluate the response capacity in the face of a sudden outbreak. In order to establish the most efficient and productive communication system, support is needed on four different levels: