

**Middle East Consortium on Infectious Disease Surveillance (MECIDS)  
 Meeting  
 January 16-18, 2007, Amman, Jordan**

The Middle East Consortium on Infectious Disease Surveillance (MECIDS) met January 16-18 in Amman, Jordan. MECIDS is a coalition of Palestinian, Jordanian, and Israeli health and agriculture officials and experts. Its goals are to improve the ability of nations in the Middle East to detect and respond to infectious disease outbreaks and to increase trust among them. The meeting was facilitated by Search for Common Ground and hosted at the Cooperative Monitoring Center, Amman (CMC-Amman) with the support of the NTI Global Health and Security Initiative.

The participants shared data gathered via the MECIDS foodborne disease enhanced salmonella surveillance program, discussed the 2006 avian influenza outbreak, and planned next steps.

***Avian Influenza: 2006***

Each of the participating countries gave a brief presentation on their country’s experience of the previous year dealing with avian influenza.

***Avian and Pandemic Influenza: International Health Regulations***

Participants separated into two groups, each of which chose several sections of the International Health Regulations 2005 (IHR 2005) to adapt to regional cooperation to delay the spread of pandemic influenza.

***Article 18: Recommendations with Respect to Persons***

The three partner countries analyzed the WHO “recommendations with respect to persons” (presented in Article 18 of IHR 2005) according to their relevance for stages 5 and 6 of an influenza pandemic in the region. These recommendations describe measures that can be taken to monitor or control the movement of people through airports, sea ports, and land crossings. They agreed that the following recommendations are relevant:

|  |  |
|--|--|
| No specific health measures are advised (only for non affected area) | Not relevant.  |
| Review travel history in affected area                               | Relevant. There is a need to build formal forms in Hebrew and in Arabic. List of passengers and flying stations. |
| Review proof of medical examination and any laboratory analysis      | Not relevant   |
| Require medical examinations   | Relevant. Self reported fever  |
| Review proof of vaccination or other prophylaxis                     | Not relevant in this stage   |
| Require vaccination or other prophylaxis                             | Not relevant   |
| Place asymptomatic/contact suspect                                   | Relevant. He/she will wait 3 days under  |

|   |   |
|---|---|
| persons under public health observation                                     | the responsibility of the Ministry of Health of the hosting country. Home or relative observation. Will have to report the Ministry of health.                          |
| Implement quarantine or other health measures for suspect persons           | Relevant. Options:<br>To identify place in the airport and transform it to a place which capable to hold people for some days<br>Hotel<br>Hospital<br>Separate building |
| Implement isolation and treatment where necessary of affected persons       | Relevant. In hospitals. The hosting country will pay for the expanses. The decision will be made by a physician. A special ambulance will be dedicated.                 |
| Implement tracing of contacts of suspects or affected persons               | Relevant. A computerized information system.  |
| Agreement to share information – informal and formal.                       | Relevant. Will be discussed within a special group  |
| Refuse entry of suspect and affected persons                                | Not applicable.   |
| Refuse entry of unaffected persons to affected areas                        | Not applicable.   |
| Implement exit screening and/or restrictions on persons from affected areas | Accepted  |

The group discussed circumstances under which countries would assist each other during an influenza pandemic. The assumption is that the countries which can not afford will be helped by the countries which can afford themselves. In addition to legal commitments and international political commitments, there are professional reasons for providing assistance, including the fact that influenza is an airborne disease, it is difficult to restrict the movement of people, and all countries have an interest in stopping the spread of the disease. On the other hand, governments may be reluctant to provide material assistance because the moment it donates supplies from its own stockpile, from your stock pile, a country decreases its ability to protect its own people.

#### *Articles 6, 7, 8, and 46*

In the second group, participants discussed the articles regarding notification, information sharing, consultation, and the handling and transportation of biological substances, and they used the articles to upgrade the MECIDS Sub-Regional Common Plan of Action on Avian and Pandemic Influenza (Annex 1).

#### *Next Steps*

The participants called upon MECIDS to take the recommendations generated in the meeting to international experts for editing and refining and then present them to policy makers to be adopted in each MECIDS participating country.

The participants also recommended that there be a national table top exercise within each MECIDS country, and then all MECIDS countries should conduct a table top exercise at the subregional level to practice the prevention the spread of avian influenza.

The participants agreed that the IHR could be applied to foodborne diseases as well.

### **Foodborne Disease Project**

Researchers from Israel, Jordan and Palestine presented the data they gathered through the foodborne disease surveillance program, which has enhanced salmonella surveillance capabilities in the three countries.

#### *Jordan*

- Conclusions
  - System is useful and operates efficiently
  - Similar *Salmonella* rates in stools from patients (1.54%) & food handlers (1.53%)
  - Overall *Salmonella* rate in stool: 1.5%
  - Rates comparable to those of developing countries (1.8%) and tenfold lower than rates in developed countries (0.15%)\*
  - Higher than rates laboratory survey (0.3%), lower than rates in validation study (2.5%)\*
  - High *Salmonella* burden ([64+74]\*273~38,000 cases in 18 months)
  - High % of *S. enteritidis*
- Recommendations
  - At sentinel lab level
    - Continue *Salmonella* surveillance system
    - Add *Shigella* using same diagnostic procedures and mechanisms of reporting
    - Test for other entero-pathogens (*Campylobacter*, *E. coli*, etc.)
    - Establish electronic reporting from sentinel labs
  - At reference lab level
    - Use PFGE
    - Establish electronic reporting from reference lab
  - At regional level
    - Training?
    - Compare & publish data

#### *Israel*

- Conclusions
  - Stool cultures performed at the sentinel laboratories Total: 79906 (Jan. 05-March 06)

- *Salmonella* isolates (n=824) from stool specimens at the 9 sentinel laboratories from January 2005 to March 2006
- Five most often isolated *Salmonella* serotypes (Jan 05-Dec05)

| Salmonella serotype | Number of Isolates (%) |
|---------------------|------------------------|
| S. Enteritidis      | 185 (23%)              |
| S. Typhimurium      | 57(7%)                 |
| S. Virchow          | 72(9%)                 |
| S.Hadar             | 48(6%)                 |
| S. Infantis         | 35(4%)                 |
| Other               | 392(51%)               |
| Total               | 789 (100.0%)           |

- Population survey on the burden of diarrheal diseases
  - Conducted a nationwide population based survey to estimate the burden of diarrhea diseases among children and adolescents and assess the level of under reporting in Israel.
  - A telephone based population survey was conducted during August, September and October 2005.
  - 3141 phone number have been selected randomly from all the phone books of Israel.
- Case – control study on risk factors of *Salmonella* Virchow infections in Israel  
The total number of subjects investigated so far in the case control study is 314 (157 *Salmonella* C1 cases and 157 controls). All the *Salmonella* Virchow strains isolated from cases will be further characterized phenotypically and genotypically at the Central Labs (Ministry of Health, Jerusalem and Tel Aviv University).
- Physician's survey
  - The study questionnaire has been mailed to more than 400 physicians. More than 200 filled in questionnaires. Data entry has been completed and the analysis of data is currently performed.

### *Palestine*

- Conclusions

The following samples were identified and confirmed for salmonella during January – August 2006:

- **5107 food** samples were tested for both Gaza and West Bank , 72 samples were positive for salmonella, 62 from poultries, 4 from cheese and 4 from beef meat and they were serogrouped
- **129 water and waste water** were tested with 2 positive samples confirmed and serogrouped
- **Medical samples**, 5524 blood cultures and 912 stool cultures were tested with 36 positive isolates; 468 stools for food handlers tested with 2 positive isolate
- 19 positive salmonella isolates from ready plates cultures from which 22 are also serogrouped

- **Other 19 positive isolates** identified and serogrouped from poultry, ready plates, stool for the rest of the year 2006

- **Recommendations:**

- Continue salmonella surveillance project
- Selection of some salmonella isolates for serotyping process
- Supply the reference labs with genotyping materials and instruments to begin genotyping tests
- Supply the laboratories with other main needs including, kits, materials and training
- Add other foodborne disease pathogens to the surveillance system

*Future Activities:*

The participants at the meeting recommended the following future activities for the Foodborne Disease Project:

- Continue the surveillance and collection of salmonella positive data
- Meet needs for serotyping kits and laboratory equipment
- Compare isolated samples of salmonella with neighboring countries
- Release a publication with the findings of all three countries
- Enhance cooperation among veterinary and human health professionals
- Advance to other diseases such as shigellosis
- Conduct more developed training for all three countries together
- Strengthen research

### **IHR (2005) and Foodborne Disease**

An expert working group comprising veterinary and human health specialists made recommendations for how enhancement of salmonella surveillance and control could be used as a model for foodborne diseases in the region. (See TAB) The following research subjects were recommended to be performed in a joint manner:

1. Comparison of salmonella serotypes and genotypes isolated from poultry, food, food handlers, water and patients both at national and regional levels.
2. Possible vertical transmission of S. Virchow from layers to eggs.
3. Determination of the state of antibiotic resistance among salmonella isolates from poultry and human sources in the region.
4. Evaluation of the vaccination efficiency in poultry.

### **Executive Board Meeting**

The three countries' core groups met to discuss the future and next steps for the Middle East Consortium on Infectious Disease Surveillance (MECIDS). The group discussed a transitional business plan for the next 18 months, which will enable MECIDS partners to take more responsibility for the program and ultimately to make it self sustainable. The group agreed to create an interim executive board for MECIDS to start taking major decisions for the future of MECIDS.

The participants reviewed and edited the business plan. They agreed that a new draft must be written from NTI or Search for Common Ground and distributed to MECIDS executive board for a second review.

MECIDS executive board as well as Search for Common Ground, NTI, and the World Bank discussed the grant allocated for MECIDS Avian Influenza Prevention from the World Bank and proposed an adjustment to the budget.

### **Conclusion**

MECIDS partners decided to take more responsibility for the strategic direction and daily management of the consortium. They created an executive board with representatives of the three countries (Israel, Palestine, and Jordan) to lead the consortium in a more sustainable fashion. The executive board decided that they should meet every three months to discuss the development of the consortium. They all agreed that MECIDS is an important regional cooperation program and should be sustained for the benefit of all three countries.