MADE IN IBM LABS:
New Data Sharing Technology Speeds International Collaboration to Identify and Respond to Infectious Diseases

First of a Kind System Paves Way for Exchanging Critical Public Health Information

San Jose, CA, June 2, 2008 – The ability to easily and securely share health information is essential to improving the quality of comprehensive patient care as well as public health and safety.

Video: http://www.youtube.com/watch?v=qBUeCUNw2Jo

IBM, in collaboration with the Nuclear Threat Initiative's (NTI) Global Health and Security Initiative and the Middle East Consortium on Infectious Disease Surveillance (MECIDS), has created a unique technology that standardizes the method of sharing health information and automates the analysis of infectious disease outbreaks, in order to help contain diseases and minimize their impact.

The secure, Web-based portal system, the Public Health Information Affinity Domain (PHIAD), is being deployed in the Middle East first, and the partners are pushing for international deployment.

This award-winning technology provides public health organizations with the right decision-making tools to implement a fast, effective response to infectious disease outbreaks – even across geographic and political boundaries. PHIAD uses near-real time information to facilitate fast response and enables the secure exchange of data on both national and international levels with appropriate protection of privacy at all levels.

With PHIAD, researchers at IBM's Almaden and Haifa labs have virtually eliminated the time-consuming, tedious tasks common in the public health community by creating an electronic platform that allows them to focus on critical tasks such as detecting emerging public health trends, pinpointing potential outbreaks and performing sophisticated analysis.

"This collaboration writes the newest chapter in a story of healthcare information technology innovation – innovation that progressively tackles head-on the lack of integration and communication between key players in the healthcare industry worldwide," said Dan Pelino, General Manager, IBM Healthcare & Life Sciences Industry. "Built upon the same, open-standards-based Health Information Exchange architecture that increasingly enables the use of electronic health records around the world, this new technology will take transformation higher, improving critical health information sharing between nations in an increasingly global economy – and helping the world's healthcare community to focus on prevention, wellness and the safety of patients and populations at large."

The rise of global economies and the increased reliance on global transportation and trade increases the risk of worldwide disaster due to infectious disease. Disease requirement reporting is required by law in most countries and under the International Health Regulations (IHR). The new IHR requires all countries to report any infectious disease outbreak of international significance. Today, most reporting is done via fax, spreadsheet or phone calls. Public health needs near-real time information to respond quickly to emerging infectious disease. The biggest technical challenge is the lack of interoperability and use of standards and uniform coding systems. The current methods of sharing information are slow, unwieldy and in many cases almost nonexistent.

NTI's Global Health and Security Initiative supported the development of an infectious disease surveillance system in the Middle East among Israel, Jordan and the Palestinian Authority. The partnership was up and running in the region when the first outbreak of bird flu was detected. MECIDS enabled rapid communication and coordination of efforts to contain the spread of the disease. The partnership has continued to function and grow, despite political tensions in the area. MECIDS participated in the development of PHIAD and will be an early adopter of the technology.

Currently, MECIDS members exchange information mostly on paper. By moving to a standards-based model of secure electronic information exchange that integrates public health reporting with the creation of clinical records, members can easily share and exchange key data to monitor and respond to potential outbreaks. The collected data can easily feed into IBM's pandemic disease modeling system, Spatio Temporal Epidemiological Modeler, which enables public health officials to visualize outbreak prevention strategies and perform forecast modeling.

"Nuclear Threat Initiative's Global Health and Security Initiative is working in some of the most complicated regions of the world to help develop regional disease surveillance networks such as MECIDS that can be the building blocks for improving the quality and effectiveness of global disease surveillance," said Terence Taylor, Nuclear Threat Initiative's Vice President for Global Health and Security. "IBM's PHIAD system will enhance the existing regional collaboration at several levels and allow health professionals to stay a step ahead of potentially dangerous disease outbreaks."

"The development of this project has solidified the overall partnership among the participating countries," said Dr. Adel Belbesi, MECIDS chairman. "It will greatly enhance our joint capabilities in countering infectious disease outbreaks, to the benefit of all of our communities."

The MECIDS project will use SNOMED CT® (Systematized Nomenclature of Medicine-Clinical Terms), an international standard that provides a core terminology for electronic health records. The International Health Terminology Standards Development Organisation (IHTSDO) has waived license fees for use of SNOMED CT® in this project on humanitarian grounds. This contribution enables MECIDS countries to standardize public health data so it can be used and consistently interpreted across borders and different health organizations.

PHIAD is available on IBM alphaWorks.

For more information about IBM, please visit www.ibm.com.

For more information about NTI's Global Health and Security Initiative and MECIDS, please visit www.ghsi.org

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