Biomedical and Health Informatics Lecture Series

Tuesday, November 1, 2011
12:00 - 12:50 p.m., Health Sciences, Room I-132

Bill Lober, MD, MS

Associate Professor, Biobehavioral Nursing and Health Systems,
Medical Education and Biomedical Informatics, and Global Health

"EMR-Lab information exchange as a design pattern for facility level architectures in resource poor settings"

Considerable attention has been paid to applying the principles of enterprise architecture (EA) to low resource settings, to address a variety of goals by facilitating the use and reuse of clinical information. These goals include improving the efficiency and quality of health care delivery, and the accuracy, completeness, and timeliness of population level data for reporting, program monitoring, research, and other uses. In low resource environments, standalone systems are often implemented to support specific care activities (for example, delivering antiretroviral therapy, treating malaria or tuberculosis, etc.). While some work has been done in developing interfaces between systems in these settings, it is important to take a systematic approach to the simplification and implementation of standards based interoperability to ensure the maximum reuse of design ideas and interface software, and provide a consistent way of interconnecting lab, pharmacy, patient registry, electronic medical record, and similar systems. This presentation will describe a scenario of use and information interaction interoperability profile based on our experience integrating EMR and Lab systems to support HIV care and treatment at multiple facilities within two resource-constrained countries. Specifically we will describe implementation profiles that describe the exchange of demographic, result, and order information, and the applicability of those design patterns to other facility level systems.

Bill's background is in computer engineering and emergency medicine. He works on the development, integration, and evaluation of information systems to support individual and population health. This talk includes his work on facility level systems and architecture (EMR, Lab systems, interoperability) to support health care in low and middle income countries. He is the Director of Informatics for the International Training and Education Center for Health (I-TECH) in the Department of Global Health

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