Chapter 1 : NIHR Biomedical Research Centres (BRCs)

Objectives Provide an overview of Biomedical Research, Health Service Technology and Technology Assessment Discuss the techniques in new technology Discuss the role of Technology.

Formerly known as the Agency for Health Care Policy and Research, AHRQ supports research and technology assessment, including implementations of health information technology. It contains billions of dollars in funding for science, engineering research and infrastructure, as well as funding for education, social sciences and the arts. Its greatest relevance to informatics is its major investment in the implementation of electronic health records and support for comparative effectiveness research. This capability also allows veterans to self enter personal health indicators, emergency contact information, test results, family health history, military health history, and other related health information 1. Certification Commission for Health Information Technology - A voluntary, private sector organization launched in to certify health information technology products such as electronic health records and the networks over which they interoperate. Centers for Disease Control and Prevention - A part of the US Department of Health and Human Services HHS with a mission is to collaborate in creating the expertise, information, and tools that people and communities need to protect their health. Clinical Decision-Support System - A computer-based system that assists a professional who must decide what actions to take in a given clinical setting, such as physicians or nurses making decisions about patient care. Comparative Effectiveness Research - Any research program intended to determine the relative efficacy of alternate approaches to patient evaluation or treatment, intended to develop evidence that supports one approach over another in a given patient or context. Computer-Based Physician Order Entry - A clinical information system that allows clinicians to record patient-specific orders tests, treatments, management plans, and the like for communication to other patient care team members and to other information systems. Sometimes called provider order entry or practitioner order entry. AMIA considers all informatics when used for healthcare delivery to fall in this category, regardless of the health professional group involved dentist, pharmacist, physician, nurse, or other health professional. Clinical informatics includes a wide range of topics ranging from clinical decision support to clinical documentation to provider order entry systems, and from system design to system implementation and adoption issues. It includes management of information related to clinical trials, community based research, and also involves informatics related to research use of clinical data. Clinical research informatics and translational bioinformatics are the primary domains related to informatics activities to support translational research, and thus clinical research informatics lies at the intersection between bioinformatics and clinical informatics. These include patient focused informatics, health literacy and consumer education. The focus is on information structures and processes that empower consumers to manage their own health; for example health information literacy, consumer-friendly language, personal health records, and Internet-based strategies and resources. Consumer informatics involves the intersection of clinical informatics and public health informatics, standing at a crossroads with other disciplines, such as nursing informatics, public health, health promotion, health education, library science, and communication science. These awards require a significant investment in biomedical informatics to support the translational science. They have accordingly been a boon to the development of translational bioinformatics and clinical research informatics. Principles of data stewardship apply to all the personnel, systems and processes engaging in health information storage and exchange within and across organizations. Federal Health Architecture - A collaborative body composed of several federal departments and agencies that provide a framework for linking health business processes to technology solutions and standards and for demonstrating how these solutions improve health performance outcomes. Health Information Management - The practice of acquiring, analyzing, and protecting digital and traditional medical information vital to providing quality patient care. Health Insurance Portability and Accountability Act [of] - A government act to reduce fraud and abuse in health care. Health Information Technology for

Economic and Clinical Health Act - A government act to enable coordination and alignment within and among states, establish connectivity to the public health community in case of emergencies, and assure the workforce is properly trained and equipped to be meaningful users of EHRs. Health Level 7 - An ad hoc standards group formed to develop standards for exchange of health care data between independent computer applications. Health Resources and Services Administration - A federal agency within the US Department of Health and Human Services HHS responsible for improving access to health care services for people who are uninsured, isolated or medically vulnerable. Ninth International Classification of Diseases-Clinical Modification - A coding system for medical diagnoses, symptoms, and nonspecific complaints. It is frequently used on insurance claim forms to identify the reasons for providing medical services ICDCM: International Standards Organization - Developer and publisher of International Standards that forms a bridge between the public and private sectors to enable a consensus to be reached on solutions that meet both the requirements of business and the broader needs of society. Meaningful Use criteria must be met by eligible professionals and hospitals if they are to collect financial rewards for the implementation of qualified, certified EHRs to achieve health and efficiency goals. National Committee on Vital and Health Statistics - An advisory body to HHS that deals with health data, statistics and national health information policy. National Institute for Standards and Technology - A non-regulatory federal agency within the US Department of Commerce to promote innovation and industrial competitiveness in the US by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life NLM: The Library collects materials and provides information and research services in all areas of biomedicine and health care. It is also an NIH institute and supports research and training in areas related to biomedical and health information management and information technology. National Center for Research Resources - A specialized center at NIH that supports research and development for multi-categorical research resources needed on an institutional, regional, national, or international basis for health-related research. This agency has organized and supported the CTSA program. Office of the National Coordinator [also referred to as ONCHIT] - Part of HHS that oversees and encourages the development of a national, interoperable compatible health information technology system to improve the quality and efficiency of health care. Personal Health Information or Protected Health Information - Information about patients that is protected from inappropriate disclosure under the privacy and security mandates of the Health Insurance Portability and Accountability Act of and subsequent related legislation. Public health informatics, and its corollary, population informatics, are concerned with groups rather than individuals. Public health is extremely broad and might even reflect an interest in information technology with regard to ecology, architecture, climate, agriculture, and such. Generally, AMIA focuses on those aspects of public health that enable the development and use of interoperable information systems for public health functions such as biosurveillance, outbreak response, and electronic laboratory reporting. Personal Health Record - An electronic health record that is maintained by the patient, typically combining information from a variety of encounters with multiple providers. Strategic Health IT Advanced Research Projects - An applied research grants program, funded by ONC, that supports research focused on achieving breakthrough advances to address well-documented problems that have impeded adoption of health IT and to accelerate progress towards achieving nationwide meaningful use of health IT in support of a high-performing, continuously-learning health care system. Telehealth- the use of telecommunications and electronic information to support long-distance clinical healthcare 6.

Chapter 2 : Health Services/Technology Assessment Texts (HSTAT) - NCBI Bookshelf

At a fundamental level, medical technology deals with -production of new equipment to provide more advanced health care. -the application of knowledge produced by biomedical research.

Chapter 3 : Biomedical (ASBREM) â€" Defense Innovation Marketplace

His landmark paper, "Technology transfer from biomedical research to clinical practice: measuring innovation performance," cited by the President of the United States and in over peer reviewed journals, concluded that it takes 17 years for biomedical research discoveries to reach clinical care.

Chapter 4 : Glossary of Acronyms and Terms Commonly Used in Informatics | AMIA

Methods: Biomedical research articles published in were accessed through the MEDLINE database. The number of articles (journal articles) originating from each of the countries of the world was elicited and normalized to publication per million population per year.

Chapter 5 : Biomedical Research Innovation Laboratory

Thanks to its consolidated collaboration with the world's major biomedical companies and constant innovation in technology and research, Kronosan is a reliable outsourcing partner that is well equipped to handle any activity relating to Clinical Engineering.

Chapter 6 : Health Technology Assessment

Search biomedical literature; Health Technology Assessment National Information Center on Health Services Research and Health Care Technology (NICHSR).

Chapter 7 : UMIT â€¢ Public Health, Health Services Research and Health Technology Assessment

Amazon Web Services (AWS) has joined the National Institutes of Health's Science and Technology Research Infrastructure for Discovery, Experimentation, and Sustainability (STRIDES) Initiative. Launched in July , the STRIDES Initiative aims to harness the power of commercial cloud computing for NIH biomedical researchers.

Chapter 8 : Pennington Biomedical Research Center

NCBI Bookshelf. A service of the National Library of Medicine, National Institutes of Health. Institute of Medicine (US) Council on Health Care Technology; Goodman C, editor. Medical Technology Assessment Directory: A Pilot Reference To Organizations, Assessments, and Information Resources.