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Health Policy Forums

Consumer Health Informatics and Healthcare Disparities

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Health care disparities are generally viewed to be related to societal, socio-cultural, behavioral, economic, environmental, and biologic factors. Dr. Gibbons discussed these issues at a recent Health Policy Forum and examined how technology might be used to address these disparities.

Dr. Gibbons set the framework for this presentation by describing current converging trends such as: the prevalence of chronic disease; increasing longevity and the burgeoning senior population; rising health care costs; and ingrained health care disparities. He emphasized that socio-behavioral and environmental factors are increasingly recognized as significant determinants of health and health outcomes. Dr. Gibbons raised the point that it is impossible to characterize health or disease by only one type of analysis, nor is it possible to characterize disparities in this way.

Dr. Gibbons described how information technology-based approaches may offer significant promise in gaining a more comprehensive understanding of disparity pathogenesis. He went on to describe a new basic research model of *socio-behavioral phenotypes* comprised of groups of individual and population level factors that coexist and thought or known to act cooperatively and influence health outcomes among specific populations. He also discussed *populovigilance,* which is the science of collecting, monitoring, and evaluating data from defined populations on the adverse effects of disparate health care, environmental hazards, behavior and policies.

Dr. Gibbons defines Consumer Health Informatics (CHI) as any electronic tool, technology or electronic application designed to interact directly with consumers with or without the presence of a healthcare professional, that provides or uses individualized information and provides the consumer with individualized assistance to help better manage their health and healthcare. Types of CHI tools include interactive web-based applications; educational websites; non-web-based computer feedback applications; personal monitoring; health risk assessments; patient decision aids; text messaging; and discussion/chat groups.

Although preliminary evidence suggests that CHI applications may improve certain adult clinical health outcomes, the role of these applications among children and other priority populations have not been thoroughly evaluated.

Dr. Gibbons raised the idea of digital disparities. Although the digital divide is changing, he discusses how differences in technology access, utilization patterns, and preferences among subgroups can lead to differential health benefits if they are not examined and understood. He further explained that this type of relationship to the technological environment might lead to an increase in disparities for those who are disenfranchised or not understood. Dr. Gibbons has a vision for the future of disparities in which clinicians and researchers understand all the social, environmental, and biological factors that contribute to ill health. It is hoped that one day health risks can be managed before they become diseases and before patients ever need to go to the hospital. He would like to see clinical interventions that can be easily delivered and customized and health information that is always accessible for providers and patients.