## COMMUNITY HEALTH

# Meaningful Use of Electronic Behavioral Health Data in Primary Health Care

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In August 2011, scientists and policy-makers held a conference entitled "Using IT to Improve Community Health: How Health Care Reform Supports Innovation." One of the conference sessions was entitled "Electronic health records: Meaningful use implementation challenges, innovation, and regulations." This meeting report discusses the meaningful use of behavioral health data for the treatment of mental health and substance abuse conditions and optimization of behavioral wellness by primary care physicians.

## INTRODUCTION

Within the next 5 years, policies resulting from the 2010 U.S. Patient Protection and Affordable Care Act (PPACA) and the 2008 Paul Wellstone Mental Health and Addiction Equity Act will expand health care coverage to previously uninsured and underinsured patients and will provide mental health and substance abuse treatment benefits at parity with medical and surgical benefits. The resulting transformation likely will increase the demand for mental health and substance use care services. Meeting these demands will require strengthening service delivery through an integrated system based in primary care (1).

Electronic Health Record Systems (EHRS) (2) can track medical care processes and health outcomes, develop and refine best practices, and enable rapid discovery and medical innovation (3). Unfortunately, there has been a dismal level of development and diffusion of standardized interoperable EHRS that contain common behavioral and psychosocial data elements capable of supporting the integration of behavioral health and primary care. In the Think Tank session at the U.S. Clinical and Translational Science Awards national conference on information technology and community engagement (August 2011), participants explored challenges and opportunities for the development and meaningful use of EHRS to improve behavioral and psychosocial health. The highlights of the session are summarized here.

## COMMON DATA ELEMENTS

In May 2011, the National Institutes of Health and the Society for Behavioral Medicine held a meeting in which a three-step process was devised to develop consensus on common data elements (CDEs) for patient-reported factors in the behavioral, psychosocial, and patient-characteristic domains. Such patient-reported variables are both health outcomes themselves and major determinants of other additional health outcomes. This information can enhance the quality, patient-centeredness, and efficiency of patient–health care team encounters. Collection of standardized behavioral and psychosocial data and the meaningful use of those data present tremendous potential to improve health outcomes; indeed, these collections will facilitate sharing of patient information among mental health treatment, substance abuse treatment, and other primary care settings to promote integrated care for persons with co-occurring behavioral health conditions.

In phase 1, expert panels were convened to review existing measures and to develop initial recommendations for two to four measures that would be practical for use in primary care settings. In phase 2, the Grid Enabled Measures (GEM) (4) wiki was used to present the recommendations from the expert panels and collect feedback from a wide range of stakeholders. In phase 3, a town hall meeting was held to enable broad discussions among various interested parties. This gathering was followed by a meeting of key stakeholders—health care service providers, biomedical researchers, policy-makers, and patient advocates—who worked together to generate consensus on final recommendations. Consensus was reached on CDEs for 9 of 13 domains (Table 1).

Subsequent efforts will focus on harmonizing the identified CDEs into a single behavioral health risk assessment (HRA) survey, conducting cognitive testing in patient populations, and performing rapid pilot demonstrations of the HRA use in various types of health care systems; goals of these efforts are to identify health risks, promote behavior change, and improve health outcomes (5). The resulting product HRA and clinical implementation guidelines will be made available for public use.

## HEALTH INFORMATION EXCHANGE AND THE PUBLIC TRUST

Widespread implementation of EHRS and Health Information Exchange (HIE) is essential to integrating behavior health into primary care practice. However, it also raises concerns about privacy, security, and confidentiality of individually identifiable health information. Privacy issues are of paramount concern for patients with mental health and substance use problems because of stigma, discrimination, potential prosecution, and loss of employment.

These issues are being addressed in at least two ways. The first approach is through establishing balanced policies that protect patient privacy while allowing providers to access critical health information to practice best medicine. The Health Insurance Portability and Accountability Act of 1996, under Code of Federal Registry (CFR) title

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45, Parts 160, 162, and 164 (6), provides broad national standards and federal regulations to protect patient privacy. The Confidentiality of Alcohol and Drug Abuse Patient Records regulations (regulated by 42 CFR Part 2) (7) add more protection for patients who seek treatment for substance use disorders. Fair HIE practices must be guided by the following principles: (i) Who needs what information and when? (ii) Who determines who needs what information and when? (iii) How should psychotherapy notes be treated as part of the patient record?

The application of advanced health information technology is essential to enable granularity in establishing different levels of privacy

**Table 1.** Consensus behavioral and psychosocial CDEs. Diverse stakeholders came to consensus on CDEs that are sufficiently brief, valid, feasible, and actionable in primary care for nine behavioral domains. CDEs were identified from well-validated survey instruments. Recommendations were also made for the optimal frequency of use for risk assessment.

| Domain | Data element source* | Recommended frequency of risk assessment | Survey questions |
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| Eating patterns | Modified from starting the conversation | Annual | Over the past 7 days: |
| | | | a. How many times a week did you eat fast food or snacks or pizza? (Revised item # 1) |
| | | | b. How many servings of fruits/vegetables did you eat each day? (Combine items # 2 and 3) |
| | | | c. How many soda and sugar-sweetened drinks (regular, not diet) did you drink each day? (Revised item # 4) |
| Physical activity | The Exercise Vital Sign parameters | Annual | a. How many days of moderate to strenuous exercise, like a brisk walk, did you do in the last 7 days? |
| | | | b. On those days that you engage in moderate to strenuous exercise, how many minutes, on average, do you exercise at this level? |
| Risky alcohol intake | Single-question screener | Annual | How many times in the past year have you had X or more drinks in a day? (X = 5 for men and 4 for women) |
| Tobacco use | Single-question screener | Annual | Have you used tobacco in the last 30 days? |
| | | | Smoked cigarettes: Yes/No |
| | | | Smokeless tobacco product: Yes/No |
| Substance use | Single-question screener | Annual | How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons? |
| Anxiety and depression | Patient Health Questionnaire (PHQ-4) | Annual | Over the past 2 weeks, have you been bothered by these problems? |
| | | | a. Feeling nervous, anxious, or on edge |
| | | | b. Not being able to stop or control worrying |
| | | | c. Feeling down, depressed, or hopeless |
| | | | d. Little interest or pleasure in doing things |
| Stress | Distress thermometer | Annual | Please circle the number (0 to 10) that best describes how much distress you have been experiencing in the past week including today. |
| Sleep quality | Two-question screener | Annual | a. Do you snore or has anyone told you that you snore? [from the Behavioral Risk Factor Surveillance System (BRFSS)] |
| | | | b. In the past 7 days, I was sleepy during the daytime… |
| | | | Never, Rarely, Sometimes, Often, Always (from Neuro-QOL) |
| Demographics | The Health Information National Trends Survey (HINTS), Phenotypes and Exposures (PhenX), and the California Health Information Survey (CHIS) | Variable | Twelve items: Sex, date of birth, race, ethnicity, English language fluency, occupation, household income, marital status, education, address, insurance status, veteran's status |

*Includes names of existing health surveys.

when health information is exchanged. Balance between patients' desires for privacy and providers' need to access critical health information may be achieved through data segmentation. With data segmentation automation technology, a patient's consent directive would be the main driver of the level of privacy and disclosure of the protected health information, but health care providers may be given certain rights to override the masked information so that they can administer the best health care.

To realize an integrated health care system as described in the PPACA, we need to be attentive to an array of issues; these include the development of technologies that support the integration of behavioral health and primary care, the optimization of systems to promote behavior changes, minimization of the burden on the health care system while maximizing outcomes, the improvement of patient engagement, the protection of patient privacy, and ensuring that data collection supports both clinical care and biomedical research. Much challenging work will be required to build a strong infrastructure that enables meaningful exchange of critical behavioral and psychosocial health information. However, a well-designed and implemented EHRS has the potential to have a powerful impact both on health care quality and on clinical and translational biomedical research.

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Editor's Summary

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