Transforming Maternity Care Blueprint for Action
Development and Use of Health Information Technology

This document presents the content of the Transforming Maternity Care Blueprint for Action that addresses one of eleven critical focus areas. The complete Blueprint for Action can be accessed at http://transform.childbirthconnection.org/blueprint

Problems

Interoperability between health IT systems is limited
Current health IT is built on disparate, fragmented, and outdated existing information systems. Health IT vendors have developed idiosyncratic systems using proprietary formats, language, and code, rather than common standards or open-source models. Health care delivery systems have developed their IT systems to meet proprietary and local needs, not the larger values or goals of a woman- and family-centered maternity care system.

Data and health IT systems cannot be linked across time, settings, and providers
Even where health systems now have EHRs, those for maternity care lag behind other areas of health and are not designed to improve care coordination across locations and caregivers.

Recent efforts have been made to improve in-hospital coordination through EHRs in the intrapartum period, but they are not interoperable with external providers or integrated with other hospital clinical systems. Thus, documentation remains fragmented.

Most health care systems have also developed idiosyncratic identifiers for individual patients. The failure to widely disseminate and implement effective (and yet privacy protective) patient matching techniques is a significant barrier to interoperability and linkage across health IT systems, making it difficult to link patient information across provider entities and to develop population-based databases from multiple data sources. The failure to deploy effective patient matching techniques results in duplicative data collection across disease registries, and limits the capacity to understand and treat various conditions.

Content needed by various users is not yet available through health IT systems
Even as health IT systems become more widespread, they still may not provide information that key stakeholders need. Health care purchasers need performance and cost information about clinicians, facilities, and other health system components to be prudent purchasers of care for their employees or beneficiaries. Consumers need decision support tools and information on performance and value to select a clinician or care facility, evidence that health IT improves the quality of care they receive, and assurances that their privacy is protected.

Many priority performance measures, including those assessing crucial outcomes of care, cannot be systematically evaluated at present, owing to a lack of standardized data collection tools. Data elements that are critical to assess the performance of the health
care system for populations at risk (including race, ethnicity, primary language, and socioeconomic indicators such as education and income, and environmental exposures) are also not routinely collected according to consistent standards in EHRs.

**Implementing health IT is costly**
Investments in IT systems to improve patient care over the long run may not be a financial priority for care systems or providers. Short-term business imperatives can derail multiyear projects, making it difficult to develop a large, sophisticated, and interconnected IT system. Even with current federal subsidies to promote health IT adoption, it can be hard to make costly investments in an economic recession when benefits accrue over time and cannot be precisely estimated.

**System Goals**
- Better systems for the management and exchange of health information are developed to improve the quality and value of maternity care.
- Successful adoption and use of health IT increases as women and families better understand its role in improving the quality and value of maternity care and trust that their personal information is private and secure.
- The development of health IT systems is coordinated with development of priority performance measures, and payment reform to align payment with the provision of quality maternity care.
- Health care delivery systems play a central role in developing and using health IT.
- To realize their full potential as tools for high-quality, high-value maternity care EHRs and other components of health IT achieve interoperability.

**Major Recommendations and Action Steps**
1. Increase interoperability across all phases and settings of maternity care by creating a core set of standardized data elements for electronic maternity care records.
   - Create a set of standardized data elements for an EHR for the full episode of maternity care through a transparent multi-stakeholder process.
     - Identify core data elements needed for high-quality clinical care and high-quality performance measurement. This work should take place in coordination with proactive specification and development of a core maternity care performance measure set that can be implemented in EHRs or by enhancement of current administrative and other clinical data sources to assure that measurement of outcomes and other priority metrics can take place.
     - Consider building on progress to date of uniform maternity care dataset projects, including work of American Association of Birth Centers and Midwives Alliance of North America.
     - Guided by the Institute of Medicine report on *Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement* (Ulmer, McFadden, & Nerenz, 2009), the Department of Health and Human Services and the Office of the National Coordinator for Health Information Technology should adopt national standards for inclusion of data items on race, Hispanic ethnicity, granular ethnicity, and language in EHRs.
     - Create a data dictionary for internal use by facilities to ensure standardization of the core data elements for optimal clinical care, performance measurement, quality improvement, and research. Create a
geographic data dictionary for external use needed for segmental (e.g., hospital, geographic, demographic) reporting/benchmarking/resourcing.

- Accomplish this work through legislation that extends to childbearing women and newborns child health care quality improvement provisions of the CHIPRA, specifically to develop a core performance measure set and a model EHR for beneficiaries of Medicaid and CHIP.
- Pilot, evaluate, and refine the electronic maternity care record, and then disseminate it widely.

• Call on employer purchasers and payors to take the lead in advocating for accountability in the expansion of health IT to assure that policy makers regulate interoperability and enforce accountability in the dispersion of funding for health IT.

2. Increase interoperability and security among health IT systems through identification and authentication tools, as well as patient matching functionalities and other measures.

• Develop and implement methodologies to allow external public health entities to extract data for surveillance and tracking of population health data from EHRs.

- Develop and implement methodologies to permit accurate matching of data while still protecting patient privacy to enable comparative assessment and quality improvement and to foster accountability.
  - Bring together the various stakeholders to identify strategies that meet needs of patients, the public health, and purchasers.
  - Bring together state health data organizations to share their progress based on algorithms within states, with the goal of voluntarily agreeing on a standard approach for hospital, ambulatory, emergency department, and health plan data.
  - Explore a model based on work done by the Markle Foundation, which creates linked patient, provider, and care site data that could be accessed through a secure exchange entity if authorized by the patient.
  - Advocate for federal laws that protect the security of personal health information yet allow for appropriate exchange of data, such as those in the banking industry.

3. Explore ways to use health IT to improve clinical care quality, efficiency, and coordination and to enable performance evaluation in these areas, and implement incentives to drive wide-spread adoption of health IT for these uses.

• Identify and carry out research and quality improvement initiatives using standardized, routinely collected data in electronic maternity care records.

- Develop performance measures relating to accuracy, completeness, and other dimensions of the electronic maternity care record.

- Include maternal, newborn, and health IT measures in P4P programs, public reporting, and feedback to clinicians and facilities.

- Extend provider incentives for use of health IT within state Medicaid programs and safety net providers to maximize care coordination, and improve maternity care quality for populations experiencing disparities.

- Continue to develop, test, and expand health IT resources for simulation and computer-based training for high-risk maternity events (e.g., emergent cesarean section, shoulder dystocia, hemorrhage).

- Develop a health IT clinical decision tool to determine the optimal birth setting for predetermined high risk deliveries, considering geography, payor, and health status. Use standardized risk definitions and designations for level of care,
regional data on availability and capacity of maternity care facilities, and probability data on outcomes of care at each level.

4. Increase and improve consumer-based uses and platforms for health IT.
   • Use health IT platforms to develop accessible educational resources and decision tools, methods of communication with caregivers, and access to the personal health record for consumers.
   • Develop, offer and promote RSS or email subscriptions to “maternity information newsletters” to provide consumers with maternity care educational resources in convenient formats.
   • Gather and regularly update evidence-based information on maternity care best practices and outcomes into a central site (e.g., “mypregnancy”) that can be downloaded onto a computer or personal device, sent by internet or podcast, to consumers seeking trustworthy resources for care decisions.
   • Use technology similar to Google ad words to add tailored educational content and decision resources into consumer controlled personal health records.
   • Use health IT platforms to publicly report results of performance measurement in accessible, user-friendly formats that enable consumers to compare providers, hospitals, health plans, and so on.

Lead Responsibilities
Health IT development should be collaborative, based on multi-stakeholder efforts and support. Key stakeholders include maternity caregivers, health systems, purchasers and payors, consumers and advocates, national health IT agencies and organizations, federal agencies, health data organizations, quality organizations, performance measure developers, information specialists, and the NPP.

Reference