STRENGTHENING **MEDICAID**

Health Information Technology: Innovative Applications for Medicaid

by Josh Seidman with David Barish

Overview

Health information technology (HIT) is a key tool that both public and commercial insurers are employing to improve patient care and increase efficiency in the health care system. HIT can help measure quality, facilitate coordination of care, and help to bridge fragmented delivery systems and gaps in coverage. HIT can also help meet the needs of medically fragile populations, minimize unnecessary procedures and reduce administrative costs. This paper identifies four separate HIT strategies that state Medicaid programs could use to help improve care for beneficiaries and achieve program goals.

Background

Like other insurers, Medicaid's information technology systems have historically focused more on administrative functions than on facilitating the sharing and use of health information to promote patient health.[2] But efforts are underway to pave the way for the federal government and states to invest in the next generation of health technology. The Centers for Medicare & Medicaid Services (CMS) and states have developed the Medicaid Information Technology Architecture (MITA) initiative to provide a technological framework to facilitate and guide investments in new, interoperable and more integrated and sophisticated approaches to Medicaid information technology.

While HIT has the potential to improve care in Medicaid and other health insurance programs, it is not a cure-all. For Medicaid, new HIT approaches need to be carefully crafted as part of a broader strategy to improve patient care. HIT approaches need to take into account Medicaid beneficiaries' relatively complex health needs as well as issues related to language, literacy, and access to technology. It is also important to consider the costs and ultimate "payoff" from HIT; it can require an expensive up-front investment that can be offset, at least in part, by long-term savings.

ST★TE **Medicaid HIT Strategy 1:**

Using Electronic Prescribing to Reduce Errors and Increase Efficiency

Electronic prescribing (e-prescribing) has the potential to improve patient care by reducing medication errors and preventing dangerous drug interactions. E-prescribing can also streamline administrative processes by improving prescription drug tracking, reducing fraud, and making the prescription and dispensing process more seamless. Currently, fewer than one in five physicians use e-prescribing.[3] But states—including Connecticut, Florida, Montana, Tennessee, New Mexico, New York and Alabama—have taken the lead by launching e-prescribing initiatives in their Medicaid programs**.**[4] These range from pilot projects targeted to particular areas (such as rural areas in Tennessee) to creating statewide infrastructures that lay the groundwork for interoperable electronic transmission of medication data among providers

Georgetown University Health Policy Institute
Center for Children and Families

and pharmacies.

Many of these programs were launched only recently, making it difficult to evaluate their impact. Recently Florida's Medicaid program contracted with eMPOWERx to begin an e-prescribing program. eMPOWERx distributed personal digital assistants (PDAs) for e-prescribing to providers in Florida that care for a disproportionate share of the state's Medicaid population. eMPOWERx increased efficiency, reduced costs and improved medication safety. The program alerted users to 12,136 drug interactions of a high or very high severity, avoiding serious or fatal complications and resulting in an estimated $2.8 million in reduced hospitalization costs in the second quarter of 2007.[5]

For many states, the biggest barrier to effective implementation of e-prescribing for Medicaid beneficiaries is ensuring that clinicians have the tools and training they need. Providers that focus on Medicaid and safety-net populations are more likely to have barriers in accessing capital to purchase and implement new technologies. The eMPOWERx initiative addressed this issue by distributing PDAs directly to targeted clinicians. Specifically, they used existing claims data to determine which providers account for the majority of care provided to Medicaid beneficiaries. Florida's approach of targeting high-volume Medicaid providers could be replicated elsewhere because, in many communities, a relatively small number of providers serve a large portion of Medicaid beneficiaries.[6] At the same time, e-prescribing efforts should ideally be developed in conjunction across insurers, which would minimize the need for providers to learn several different prescribing processes that vary by insurer.

ST★TE Medicaid HIT Strategy 2:

Conveying Health Information through Automated Telephone Systems

New technologies exist to reach large numbers of people efficiently through their telephones. Some technology companies have developed sophisticated automated interactive voice programs that communicate important health information via the phone. Cell phone prevalence has grown among the low-income population, which is twice as likely to rely on cellular phones as their only telephone service than are people at higher incomes.[7]

In 2003, the New Jersey Department of Health launched Project Vaccinate to maintain and improve timely, age-appropriate immunizations for pre-school children in Newark. Between 2003 and 2005, 47,700 Project Vaccinate calls were delivered to families enrolled in Medicaid with children two months to 18 months old. These personalized reminder calls were made within two weeks of a guideline-based immunization date. Immunization rates in Newark increased from 58 percent in 2002, the year before Project Vaccinate began, to 75 percent in 2005, close to the statewide average of 78 percent. For achieving such a substantial improvement, the city of Newark won awards from the Centers for Disease Control and the National Immunization Registry Conference.[8]

To improve chronic care management, one company has worked with a Medicaid managed care organization with plans in eight states to identify beneficiaries who could benefit from case or disease management outreach through an automated telephone health risk assessment (HRA).[9] Automated telephony can be customized to beneficiaries' needs, and can be delivered in different languages or accents to overcome language and cultural barriers. In this case, 25 unique scripts were written in English and Spanish. This approach reduced HRA costs by 60 percent and HRAs were completed in half the time that it took to complete mail surveys.[10] One feature that makes automated telephony effective is its ability to reach indi-

viduals at the time that they need intervention, when they are most likely to be receptive to the information.

The ability to deliver even more robust and targeted education, guidance and navigation over the phone will grow substantially over the next few years as bandwidth increases. For example, there already are several health content developers that have developed flash or video presentations that demonstrate how to use an asthma inhaler. In the near future, with increasing bandwidth and greater mobile phone functionality, those same tools could be delivered to people with asthma via cell phone, offering an opportunity to improve patient adherence and improve outcomes for a condition that is prevalent in the low-income population.

ST★TE

Expanding Use of Electronic Health Records (EHR)

Medicaid HIT Strategy 3:

Electronic health records can improve efficiency and care by reducing communication and coordination barriers that arise among providers. Estimates vary, but nearly one in four physicians report that they currently use EHRs in some capacity and almost one-third of the nation's hospitals report that they have a fully operational EHR system.[11] Yet, as mentioned above, providers serving the low-income population face particular barriers to implementing EHRs. These providers may be less likely to have access to the capital required to invest in such systems.[12]

Although EHRs can be complex and expensive, the movement toward open-sourcing of EHR applications offers one relatively inexpensive avenue for improving EHR adoption. Several such options now exist. The most notable is the Veterans Health Administration's VistA, which has been used for years to manage care for all veterans. The federal government has made VistA available broadly and at low cost, making it affordable to states that seek avenues for bringing Medicaid providers online on a common platform. Two state public health departments—Hawaii and the District of Columbia—have launched pilot projects to implement VistA with safety-net providers, but these efforts do not appear to be spearheaded by the Medicaid agencies in particular.[13]

Some states and communities have launched EHR expansion projects aimed at safety-net providers. Missouri's Medicaid department awarded a contract in 2006 to establish a community EHR as part of a chronic care improvement program.[14] The Primary Care Coalition of Montgomery County, Maryland (which promotes community health and operates free clinics providing care to 80,000 uninsured and underinsured people) has developed an open-source electronic health record for use by providers who treat vulnerable populations.[15]

ST★TE

Improving Access to Electronic Personal Health Records (PHR)

Medicaid HIT Strategy 4:

Wiring the providers is the first step, but fully engaging Medicaid beneficiaries requires them to have electronic access to their own personal health information (through personal health records or PHRs) in a way that they can understand and use it. A portable, user-owned, web-based PHR can provide Medicaid beneficiaries with flexibility to download critical personal health information at any time from a secure portal and communicate more effectively with providers.

Many Medicaid beneficiaries face considerable access barriers to technologies, as well as literacy and language obstacles. Some PHR demonstration projects have shown that these obstacles can be overcome. For example, MiVia (Spanish for "My Way") has shown that migrant farm workers can make great use of PHRs and suggests that PHRs can be valuable

and highly utilized tools for vulnerable populations. MiVia promoted continuity of care among a population that has sporadic and fragmented care.[16]

Some states have implemented PHR access projects for Medicaid beneficiaries, though few of these projects are far enough along to assess their impact. In Tennessee, TennCare and Tennessee BlueCross BlueShield launched a project in 2005 to eventually make PHRs accessible to all Medicaid beneficiaries in the state.[17] The project, which also involves the health plan's commercially insured population, has enrolled two million state residents with fewer than one percent of eligible Tennesseans opting out of participation.[18] Vermont is also considering a plan to use its Medicaid agency to make PHRs available statewide.[19]

Conclusion

Health information technology can help address the health care needs of Medicaid beneficiaries. Although low-income people may currently lack access to health information technology, recent research demonstrates that when information and the required technology are available, low-income people will make use of it. For example, a study in rural South Carolina demonstrated that "those who faced economic barriers to care" made greater use of self-care health information than the general population when residents in a three-county area were provided with access to electronic, written and call-center health content. It also resulted in significant health care savings from reduced emergency room use.[20]

HIT applications and strategies can improve continuity of care, address cross-cutting health issues, and assist beneficiaries in developing a stronger health identity. Work has also been done to help address concerns about privacy issues.[21] Medicaid agencies, providers, and other entities can leverage new technologies to address some of the cost, quality, and access problems. Consumer advocacy organizations, safety-net providers, and others can participate in the development of state-sponsored HIT initiatives to ensure that they appropriately address the unique needs of Medicaid beneficiaries.

FOR MORE INFORMATION

• **Patient-Centered Health Information Technology (PCHIT) Initiative:** This project—supported by funding from the California HealthCare Foundation, the United Hospital Fund, Kaiser Permanente, and the Group Health Community Foundation—involves the implementation of HIT applications with a patient-centered focus. Some of the project partners are safety-net providers and are addressing health literacy and disparities challenges in implementing their HIT applications. Visit http://www.pchit.org.

• Neil Calman, MD, is the Chief Executive Officer of the **Institute for Family Health (IFH)**, a network of federally qualified health centers in New York City. In his blog, he discusses strategies for implementation and recommendations that he has made to Congress regarding the progressive work IFH has done in HIT implementation. Visit http://neilcalman.blogspot.com/.

• The **Disparities Reducing Advances (DRA) Project** is a multi-stakeholder project to identify the most promising advances for bringing health gains to low-income and underserved populations and accelerating the development and deployment of these advances to reduce disparities. Visit http://www.altfutures.com/DRA/.

• The **Center for Health Care Strategies** is a not-for-profit policy research center that develops resources to improve the quality and cost-effectiveness of health care services in Medicaid and for low-income populations. Visit http://www.chcs.org/.

ENDNOTES

1. S. Alfreds, *et al.*, "Clinical Health Information Technologies and the Role of Medicaid," *Health Care Financing Review,* 28: 11-20 (Winter 2006-2007).

2. *Ibid.*

3. J. Sarasohn-Kahn, "The Magic Ingredient for E-Prescribing," *iHealthBeat,* (February 6, 2007), accessed at http://www.ihealthbeat.org/articles/2007/2/6/The-Magic-Ingredient-for-EPrescribing.aspx?a=1.

4. Information on the Medicaid transformation grant applications that have been awarded to date is at http://www.cms.hhs.gov/MedicaidTransGrants/02_012507awards.asp#TopOfPage.

5. Personal communication with Agency for Healthcare Administration, Bureau of Pharmacy Services, State of Florida (July 26, 2007).

6. For example, in Affinity Health Plan, a not-for-profit Bronx health plan that serves 230,000 Medicaid and SCHIP beneficiaries, 75 providers account for the primary care provided to 60 percent of plan members; personal communication with Carolyn Cocotas, Director, Department of Community Health Innovation, Affinity Health Plan (January 4, 2007).

7. S. Blumberg and J. Luke, "Wireless Substitution: Early Release of Estimates Based on Data from the National Health Interview Survey, July-December 2006," National Center for Health Statistics, (May 14, 2007).

8. Eliza Corporation, *Eliza Corporation and Horizon BCBSNJ Contributions to "Project Vaccinate" Lead to Dramatic Increase in Immunization Rates in Newark,* Press Release (March 6, 2007), available at http://www.elizacorp.com/eliza_today/press/ProjectVaccinate.pdf.

9. The eight states are: New Jersey, Rhode Island, Florida, Maryland, Wisconsin, Nebraska, Texas and Arizona.

10. Personal communication with Margot Walthall, Director of Product Marketing, Silverlink, Burlington, MA (July 19, 2007).

11. Centers for Disease Control and Prevention, *More Physicians Using Electronic Medical Records*, Media Advisory, (July 21, 2006); and Healthcare Information Management Systems Society, 18th Annual HIMSS Leadership Survey, (April 10, 2007), available at http://www.himss.org/2007Survey/healthcareCIO_final.asp. These data may overstate EHR functionality because many physicians have not deployed all key clinical EHR features—ordering of all tests and medications, reporting tests, and physician notes.

12. The Robert Wood Johnson Foundation, "Health Information Technology in the United States: An Information Base for Progress," (2006), available at http://www.rwjf.org/files/publications/other/EHRReport0609.pdf.

13. D. Goldstein, P. Goren, S. Ponkshe, & M, Wine, "Case Studies of VistA Implementation – United States and International" in *Medical Informatics 20/20: Quality and Electronic Health Records through Collaboration, Open Solutions, and Innovation,* (Boston, MA: Jones and Bartlett Publishers, 2007) 223-284, available at http://www.jbpub.com/samples/0763739251/39251_CH09_223_284.pdf.

14. *Op. cit.* (1).

15. Personal communication with Maria Triantis, Vice President, Primary Care Coalition of Montgomery County (September 2006).

16. See www.mivia.org.

17. *Op. cit.* (1).

18. Z. Martin, "Tennessee Network Shares Patient Data via PHRs," *Health Data Management* (February 1, 2007), available at http://healthdatamanagement.com/portals/article.cfm?type=managed_care&articleId=14627.

19. Personal communication with Helen Riehle, Executive Director, Vermont Program for Quality in Health Care (June 2007).

20. For example, see the Partners Health Initiative in Anderson, South Carolina; and research led by Clemson University and John Ureda, InSights Consulting, Columbia, South Carolina, (August 2001, and February 2003).

21. S. Rosenbaum, P. MacTaggart, & P. Borzi, "Medicaid and Health Information: Current and Emerging Legal Issues," *Health Care Financing Review,* 28: 21-29 (Winter 2006-2007).

About this Project

The Center for Children and Families (CCF) at the Georgetown University Health Policy Institute, working with health policy consultant Vikki Wachino, is initiating a project, **"Strengthening Medicaid"** designed to develop fresh ideas to strengthen the Medicaid program and to engage policy-makers and stakeholders at the state and federal levels in discussion about how these ideas might be translated into policies. These approaches will focus on (1) promoting access to high-quality, cost effective care that meets beneficiary's needs; (2) improving coverage options; and (3) assuring sustainable financing while ensuring that available resources are used in the most efficient way. These approaches, which will be presented through a series of short policy papers, will represent some of the best ideas from a number of experts in different areas, including some who will bring their expertise from outside of Medicaid to the Medicaid context. The policy papers are edited by Joan Alker, Deputy Executive Director of CCF and consultant Vikki Wachino.

To visit our project website, please go to http://ccf.georgetown.edu/strengtheningmedicaid/

About the Authors

Joshua Seidman, PhD, is President of the Center for Information Therapy, Washington, D.C.. More information can be found at http://www.ixcenter.org/about/seidmanbio.cfm.

Dave Barish is a graduate student at Georgetown University's Public Policy Institute.

Georgetown University Health Policy Institute
Center for Children and Families