



Transforming Health Care in West Virginia

By Sarah Chouinard, M.D.

Improving the health status of rural West Virginia residents requires a new approach to chronic care supported by information technology.

Most experts agree on the need to reform our health care system but have not reached a consensus on how to achieve a more patient-focused, cost-effective integration of care. A recent study by the National Governors Association observed: "Our current health care system is designed to treat patients experiencing episodes of acute illness and is not organized to engage patients and providers in an ongoing relationship to manage chronic illnesses. Several structural limitations lead to costly and avoidable health complications for the chronically ill."

Transforming fragmented systems in states such as West Virginia presents an even greater challenge. West Virginia is the second most rural state, has the second oldest population, and has one of the highest levels of chronic disease and unhealthy behaviors in the nation. Many parts of the state have been designated as medically underserved and/or health shortage areas due to a lack of health care providers.

In light of these challenges, there is a great need to use technology and systems change together to improve access to care and to improve the health status of those living in rural areas. Analyses of many of the targeted disease conditions including diabetes, cardiovascular disease, asthma and depression indicate that fundamental changes in the health delivery system are needed to achieve health improvement objectives. As a result, a network of community health centers in West Virginia has launched a health improvement project that involves a systematic realignment of primary and preventive care by implementing open access scheduling, care management using a team approach to care delivery, strong patient education, accountability tools for self-management and an integrated electronic health management system with clinical reminders. This project already has produced some encouraging results.

Care Model Leads to Early Successes

West Virginia is one of the first states to begin to redesign its Medicaid program under the authority granted by the Deficit Reduction Act. The objective is to improve the health of enrolled members through enhanced access to preventive and disease management services, defined personal health management goals and responsibilities, and rewards for healthy behavior.

The Medicaid Redesign project builds on the early success of a demonstration project begun in 2005 with Primary Care Systems of Clay, Tri-County Health Clinic in Rock Cave, and Lincoln Primary Care Center of Hamlin, all in West Virginia. The project used a modified version of the Chronic Care Model developed by Ed Wagner, M.D., director of the MacColl Institute for Healthcare Innovation at the Center for Health Studies, Group Health Cooperative, and disseminated by the Institute for Healthcare Improvement.

The Chronic Care Model is an approach to delivering primary care that incorporates six key components: the community in which the primary care center resides, the health system itself, self-management support, delivery system design, decision support and clinical information systems. The result is patients who are given control of their own care and providers who have evidenced-based support for delivering care. At Primary Care Systems, we have used the key ideas presented in the Care Model to begin a team approach to care that incorporates empowering nurses as key parts of the care team. This team approach has resulted in more satisfied patients, nurses and providers because there is less emphasis on the one-on-one, traditional 15-minute office visit and more emphasis on incorporating all members of the health center into improving the health outcomes of patients.

One example of the early positive results of the program is a patient who, through the care team interventions, achieved an 80-pound weight loss through diet modification and regular exercise. This patient was on a number of antihypertensive and diabetic medications and is now able to control these conditions through lifestyle modifications alone. According to this patient, it was the combination of Primary Care's electronically supported team approach utilizing aspects of the Care Model, onsite education and tracking through our electronic health improvement tool that allowed him to succeed.

Health Management System Reflects Goals

This health improvement project builds on many of the recommendations of national groups including the American Academy of Family Physicians, the American College of Physicians and the American Academy of Pediatrics for a new model of more effective, patient-centered health care. The personal responsibility and accountability aspects of the program are complemented by a patient-centered approach to health care delivery. The project has several innovative features.

First, each participant receives appropriate screening, medical education (including self-management) and appropriate action plans to address chronic conditions and health risk factors. Then, the patient's health care team works with the patient to ensure that comprehensive care, age-appropriate prevention, acute care, chronic care and health management coordination are incorporated into a personal health plan based on the patient's health status and his or her readiness to make lifestyle changes and educational and social background.

Each participating patient has access to medical advice and on-site health coaching to ensure achievement of self-management health objectives and proper utilization of medical services. Open access scheduling also ensures appropriate access to care when follow-up or urgent interventions are necessary; the open schedule also discourages inappropriate use of hospital emergency rooms for non-emergency conditions.

Patients with multiple chronic conditions or a history of poor lifestyle choices or non-adherence receive intensive health management services to encourage active participation in their own care. These services can include family members as appropriate if the patient wishes.

In the future, health information systems will support remote monitoring of high-risk patients and telehealth access to special health management services, such as weight management and physical activity counseling and needed specialty care in the community setting.

A central component of this health improvement project involves the use of an electronic health management system, or a population-centered electronic health record. Primary Care Systems has joined with a number of other community health centers to form the Community Health Network of West Virginia. The purpose of the Network is to use shared technology and integrated resources to address the health challenges outlined above.

The Network has configured a version of the Indian Health Service's award-winning Resource and Patient Management System (RPMS) software for its electronic clinical system. The system, called MedLynks, uses an integrated population-based series of clinical reminders, notes, lab results, notifications and care coordination tools to facilitate consistent care management. Clinicians from the Network's member health centers developed the clinical specifications for MedLynks' configuration and operation. The system includes a number of clinical templates, order sets and implementation tools to complement the care system changes that have been made with the care teams.

The Community Health Network of West Virginia, working in partnership with the West Virginia Medicaid program, is striving to improve the health of West Virginians by delivering evidence-based medical care and managing that care with an electronic clinical system. This effort presents a unique opportunity to demonstrate the power that a rural health care delivery system has to transform itself. This transformation is well underway in central West Virginia, and early results are promising.

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