

Title: Lasting Collaboration: Improving Diabetes Care in Roane County, West Virginia

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Abstract

Primary care and public health have mutual goals of health promotion and disease prevention. However, the very natures of the two fields create division; contributing to short-lived, non-sustainable partnerships. While there is no single method for collaboration across primary care and public health, this essay argues that effective, lasting partnerships are fostered when each partner contributes its strengths, expertise and resources in a way which builds mutual respect, trust, and allows for change. The authors explore a long-lasting, dynamic primary care/public health partnership at Roane County Family Health Care, located in Spencer, West Virginia, as a means of informing other primary care, public health, and academic institutions striving for sustainable collaboration for the purpose of improved patient care.

Primary care and public health have mutual goals of health promotion and disease prevention.¹⁻³ However, the very natures of these two components of the health system create division as primary care attends to the individual patient and public health looks more broadly to population health.^{1, 4, 5} Given that challenge, there have been various attempts at building models for collaboration.^{3, 4, 6, 7} The Chronic Care or Planned Care Model exemplifies the movement toward a clinical integration of primary care and public health.^{1, 2} The Care Model, which grew in popularity through federal initiatives such as the National Health Disparities Collaborative, brings a population perspective to chronic disease prevention in primary care and led to the development of the Patient-Centered Medical Home – a more current effort to link primary care and public health for improved care and health outcomes.^{2, 5, 8-11} While there is no single method for collaboration across primary care and public health,⁸ effective and lasting partnerships are fostered when each partner contributes its strengths, expertise and resources in a way which builds mutual respect, trust, and allows for change.^{2, 4, 12}

The West Virginia University Office of Health Services Research (OHSR) and the West Virginia Bureau for Public Health (BPH) have a three decade history of collaboration centered on chronic disease quality of care improvement. This historic partnership has resulted in many successful and innovative programs, resource sharing, program planning and implementation. A more recent effort is a three-way partnership (primary care, public health, and university) to improve chronic disease quality of care in West Virginia (WV) community health centers and clinics through the integration clinical information systems, development of quality improvement teams to use data to inform population level patient care, and teaching of practice guidelines. Currently, 32 primary care centers across the state share quarterly de-identified registry and

electronic health record data with OHSR, totaling more than 50,000 patients with conditions such as diabetes, cardiovascular health conditions, and asthma.

Roane County Family Health Care (RCFHC), located in Spencer, WV, serves as a case study for sustained, successful collaboration between primary care and public health/university. RCFHC is a federally qualified health center providing care to patients that are generally underserved, of low socioeconomic status, and at high risk for development of chronic diseases such as diabetes. Roane County has an estimated 8.4% prevalence of diabetes among a population of less than 15,000 residents,^{13, 14} within a state with adult diabetes prevalence significantly higher than the national average (11.7% state compared to 8.7% national).¹⁵ Concurrent to entering the National Health Disparities Collaborative in May of 2006, RCFHC began a partnership with OHSR and the West Virginia Diabetes Prevention and Control Program (DPCP) located in the BPH.¹⁶ OHSR served as clinical information systems support to RCFHC and other community health centers for their participation in the National Health Disparities Collaborative; resulting in improved diabetes outcomes.¹⁷ When the National Collaborative ended, the three-way quality improvement partnership between RCFHC, OHSR and the DPCP continued to develop. Three main factors help this collaboration mature: 1) practice-driven redesign; 2) shared expertise; and 3) allowance for change. This essay addresses these three critical elements of successful, sustainable partnership.

Practice-driven redesign

Practice redesign is a well-established method for improving quality of care,¹⁸ yet how redesign occurs can vary.¹⁹ While OHSR and the DPCP provide resources and expertise that assist in quality of care improvement, the sustaining factor is that RCFHC takes ownership of their quality improvement process. As noted by Emma White, RN, Director of Nursing at

RCFHC: *"Roane County Family Health Care began using CDEMS in 2006 when we joined the Health Disparities Collaborative for Diabetes. Once we began running the data we realized that we were lacking in several areas with our diabetic population. We partnered with West Virginia University, Office of Health Services Research for CDEMS installation and support and we have worked with this office since that time. WVU-OHSR has been instrumental in our efforts to use our CDEMS data in a meaningful way. We as a Center knew from the beginning that we simply did not want to just report the data. We wanted to use the data to improve the care and health outcomes of our diabetic population. We use the Diabetes Summary Report within CDEMS to track practice-wide health outcomes over time. This has led to a complete change in our approach to Quality Improvement and a complete change in our Quality Improvement Plan such as identifying weaknesses in care. Using CDEMS, we recognized that we were not completing the Diabetic Foot Exam on a large percentage of our patients. By using this data, we were able to add a DM foot exam object to our Electronic Medical Record Note Template therefore prompting providers to complete the exam. We have noted an increase in the numbers of exams completed as well as patients with neuropathy have been identified and appropriate treatment and referrals have been completed. We have also identified patients who have not had a retinal exam by using CDEMS data. A prompt is placed in the EHR to remind providers and nurses to ask about retinal exams. If the patient has had an exam in the past year, the date is documented. If the patient has not had the exam, a referral is made to an ophthalmologist. Using CDEMS data we recognized an obvious weakness with getting patients to have an A1c every six months therefore we purchased a Point-of-Care HbA1c machine to use in the office. We have found that since we started the in-office testing our rate of A1c every six months has increased. Providers*

and patients are pleased that changes to their treatment plan can be made at the time of the appointment lessening confusion for the patient and increasing compliance.”

Shared expertise

Not only does RCFHC leverage quality improvement tools made available by OHSR and the DPCP, but this health center also helps to design the tools. Clinical information systems, be it a registry or an electronic health record (EHR), help to document care, benchmark outcomes according to guidelines, provide decision support and help inform practice change²⁰⁻²⁵. However, for the tool to be fully integrated it often needs revision to meet practice needs and preferences. Emma White adds: *“As a Federally Qualified Health Center we are required to submit Uniform Data System data to HRSA each year in order to qualify for our Federal 330 grant. This grant allows us to provide care to those who otherwise could not receive health care due to financial constraints. WVU-OHSR has customized the CDEMS reporting feature to allow us to accurately report the required diabetes data each year thus allowing us to continue to provide care regardless of a patient’s ability to pay. We also use CDEMS to populate a list of patients who are lacking an HbA1c, flu and/or pneumonia vaccine or a visit. We then send these patients a customized letter (Figure 1) reminding them that these services are due. WVU-OHSR has been instrumental in customizing these letters and the entire CDEMS program to meet our needs.”*

Allowance for change

While clinical information systems such as registries and EHRs alone are not sufficient to improve health outcomes, effective quality improvement activities are facilitated when these systems are integrated into the delivery of care.^{22, 23, 26-31} At RCFHC, registry use and public health partnership with OHSR/DPCP were spurred by the National Health Disparities Collaborative. However, as the National Collaborative ended RCFHC’s partnership with public

health grew. The rapport and trust built among the three partners during this initial period, characterized by clear, frequent, informal communication, provided a foundation for a lasting relationship. Even as RCFHC adopted an EMR, they chose to continue their public health partnership and use of the registry. From Emma White: *“Roane County Family Health Care uses data generated from CDEMS to drive all our diabetic QI initiatives. We have found that the reports from CDEMS are by far superior to any report feature of any EHR we have reviewed. Our current EHR does not have the capability to give us accurate data about any health maintenance initiatives or chronic disease management.”* Use of multiple clinical information systems for patient care and tracking is common, and found elsewhere in the literature.⁸

With the increased emphasis on demonstrating quality of care improvement, the onset of Medical Home, and the push toward meaningful use of EHRs, this primary care/public health partnership has never been more needed. What began as a registry for one particular initiative has become a catalyst for continual care improvement for the community of Roane County, WV. As noted by Emma White: *“As I stated above, we thought we were doing everything right until we looked at the reports and began to drill down the data. Each month every provider receives a report of how their diabetic panel of patients is doing (Figure 2). The information in this report reveals the average HbA1c, % of DM foot checks, retinal exams and many other diabetic findings. The providers use this data to give better care and to continue to work toward the goals our practice and QI program has set. Without the data, we would have continued to think we as a center were doing everything right.”*

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Figure 1: Registry-Generated HbA1c Reminder Letter



Roane County Family Health Care

146 Williams Drive,
Spencer, WV 25276

Phone (304) 927-1495

Fax: (304) 927-8198

July 18, 2011

Ms. Sample Patient
123 A Street
Samplecity, WV *****

Dear Ms. Patient,

We would like to remind you that your HbA1c is due. It is important to have this test regularly. The date of your last HbA1c was 2/5/2010 with a value of 8.2%. (Values should ideally be 7.0 or below).

The HbA1c helps to show how well your blood sugar has been in control over the last several months. As you know, high blood sugar can cause many complications, including blindness and foot numbness, and current recommendations for the treatment of diabetes include a regular HbA1c test.

To make an appointment for your HbA1c, please call Roane County Family Health Care at (304) 927-1495. You may come in for lab tests at any time. We also ask that if you have had an HbA1c elsewhere, please call to let us know so that we can update our records.

We hope that you will take this opportunity to take care of your health. Our staff is dedicated to helping you with the management of your diabetes.

Thank you,

Provider

Figure 2: Diabetes Dashboard

Roane County Family Care - Provider Dashboard (Sample Provider)

