Rural Innovation Profile

Using Data to Drive Change: Targeting High Service Utilizers

What: Using data to identify and focus clinical and operational strategies to match patient needs and deliver care in the most appropriate care setting.

Who: University of Oklahoma Health Sciences Center and Oklahoma University Physicians.

How: Identifying patient data sources, analyzing data, disseminating findings to health care providers, shifting the care focus to prevention, and addressing the social determinants of health.

The Patient Protection and Affordable Care Act of 2010 aims to reduce health care costs and increase the affordability and rate of health insurance coverage in the United States while improving health outcomes and streamlining the health care delivery system. To accomplish these goals, the health care delivery system will have to change. Specifically, health care providers will need to better understand their patients’ needs, focus on high-need/high-cost patients, and improve health outcomes by delivering care differently. Rural health care providers are well positioned to make these changes because they serve a small community and likely know the circumstances surrounding their patients’ family, work, economic, home, and social environments—their “social determinants of health.” Rural providers should use available data to better understand their patient population and determine how best to target and use available resources.

Key Points

- All health care organizations have access to patient data. In a clinical setting, access may be available through an electronic health record, patient medical records and billing, or state sources, such as Medicaid.
- Focus on high-need/high-cost patients: use data to better understand the patient population served and how best to target services to meet patient needs.
- To improve patient health, providers should address prevention and social determinants of health.
- Rural health care providers are well positioned to address prevention and social determinants of health.

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On May 17, 2013, Dr. Dale Bratzler, professor and associate dean of the College of Public Health at the University of Oklahoma Health Science Center, presented at the 16th Annual Primary Care Conference in Oklahoma City, Oklahoma. Dr. Bratzler aimed to show conference attendees that patient outcomes can be improved by focusing on the social determinants of health and by applying knowledge of high-need/high-cost patients to best meet patient needs and control medical expenditures. Dr. Bratzler presented data on the high-need/high-cost patients served by Oklahoma University Physicians. For example:

- 1% of the Oklahoma University Physician patients using the emergency department (ED) accounted for 10% of ED utilization
- 19% of patients accounted for 50% of ED utilization
- 2% of patients accounted for 10% of hospital admissions
- 28% of patients accounted for 50% of admissions

Dr. Bratzler presented 2 patient case examples to further illustrate the opportunities to better align services with patient needs:

Patient 1: Female, 9 hospital admissions, 44 inpatient hospital days, diagnosis of diabetes with ketoacidosis
Patient 2: Male, 7 hospital admissions, 21 inpatient days, diagnosis of obstructive chronic bronchitis with acute exacerbation and chronic obstructive asthma

Both of these patients received the wrong care, in the wrong place, at the wrong time. Both would have been better served in a non-hospital setting. Dr. Bratzler’s analysis showed that the current health care system is reactive to health crises, not proactive in preventing the crises. In response to these findings, Oklahoma University Physicians are asking new questions:

1. What data will tell us about the patient population we serve?
2. Who are our patients, and more importantly, who are the high-need/high-utilization patients?
3. Where are patients seeking care and could their care be better managed in a different care setting?
4. Do patients have a primary care physician, and are primary care physicians aware of their patients’ needs and overall service utilization?
5. How can this data be used to effect systemic change with a focus on prevention?

“‘We are asked to manage the health care of a population of patients with the realization that the majority of the time, we are not in contact with them.’ – Dr. Bratzler

Although the Oklahoma University Physicians practice is urban, Dr. Bratzler’s analysis can be directly translated to rural locations. For example, rural providers should consider using their patient billing data to determine who, why, what, where, and how patients are seeking and receiving care. These questions will lead to a short list of the patients most frequently accessing care. Although there will be some patients who are high need because of certain illnesses (e.g., cancer), many will be better served through a new care model that anticipates patient needs. When a health plan or practice conducts analyses of patient utilization patterns, the results should be shared with each patient’s primary care providers. Primary care providers can then address individualized care management needs and engage care managers, use community-based resources, and participate in community education and awareness building. Rural primary care providers are especially well situated to know their patients and the many environmental and social factors affecting their health, and to know the community resources and support available. Drawing on this knowledge and these resources, primary care providers have the ability to address social determinants of health and improve care management for patients in a targeted way.

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