



Value Added

The newsletter of the CVCR

February 2019

Implementing Team-based Primary Care

In 2013-2014 the Cleveland Clinic Health System implemented team-based models that redefined roles for medical assistants (MAs), licensed practical nurses (LPNs), and physicians across a diverse array of practice sites. In the “team-care” models, two MAs or LPNs assigned to one physician performed team documentation and administrative work. In a “modified—team care” model an additional MA assigned to a group of three physicians helped with administrative work. Through a comparative case study of nine primary care practices, Dr. Misra-Hebert studied the implementation of these models. Her research shows how physicians implemented either model, and the uptake of new team-based care delivery in how it relates to practices’ ability to respond to change and adapt team roles.

What made you want to study team-based primary care models?

As primary care delivery moves toward incorporating more team-based models, there is a need to understand context when these new models are implemented. In seeking to understand provider and patient perspectives at practice sites, we can gain a more complete understanding of why certain models work or do not work as planned.

Why are team-based care models important to primary care?

Physician and non-physician team members working together can provide the most comprehensive care to populations of patients in primary care.

What did you find?

Uptake of team-based models at the practice level was influenced by both practice ability to respond to change and to adapt workflow and team roles, mediated by local leadership and stable staffing. Higher performance on different quality metrics was associated with high uptake practices compared to the lower uptake groups.

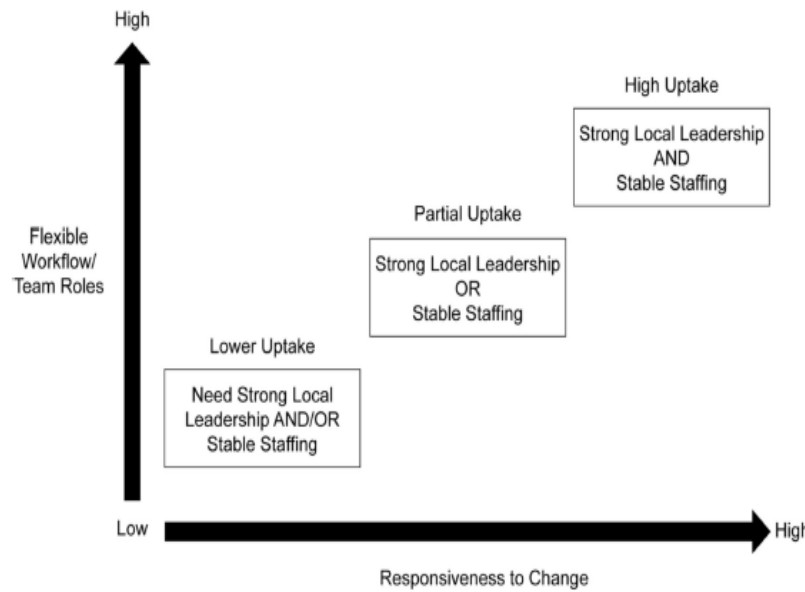


Table 4 Relative Performance on Qualitative Themes and Quantitative Metrics by Uptake Grouping Level

Theme/metric	Relative performance by level of uptake		
	Lower	Partial	High
Responsiveness to change	+	++	+++
Flexible workflow/team roles	+	++	+++
Value of relationships	+++	+++	+++
Practice challenges	+++	+++	+++
Concerns about future of primary care	+++	+++	+++
Adaptive reserve	+++	+++	+++
Emotional exhaustion	++	++	++
Depersonalization	+	+	+
Personal accomplishment	++	++	++
ACO—influenza vaccination	++	+	+++
ACO—pneumococcal vaccination	++	++	+++
ACO—colorectal cancer screen	++	++	+++
ACO—mammography	+	++	+++
ACO—diabetes control	++	++	+++
ACO—hypertension control	++	+++	++

ACO Accountable Care Organization

What were patient perceptions across higher, moderate and lower uptake practices’?

Patient opinions were similar across sites. Patients were satisfied with their care, and either did not notice significant changes in care delivery or felt the changes were positive. Even in lower uptake practices, the changes in team roles were viewed positively by patients.

How will your findings impact clinical care of the Cleveland Clinic?

Our findings can inform expectations for operational and policy leaders seeking to implement change in primary care practices. Better performance on quality metrics may identify high uptake practices as related to implementation of new team-based models.

[Implementing team-based primary care models: a mixed-methods comparative case study in a large, integrated health care system.](#)

Misra-Hebert AD, Perzynski A, Rothberg MB, Fox J, Mercer MB, Liu X, Hu B, Aron DC, Stange KC.

J Gen Intern Med. 2018 Nov;33(11):1928-1936. doi: 10.1007/s11606-018-4611-7. Epub 2018 Aug 6.

Featured Publication

Annals of Internal Medicine

Antibiotic Prescribing for Respiratory Tract Infections and Encounter Length: An Observational Study of Telemedicine

Kathryn A. Martinez, PhD, MPH; Mark Rood, MD; Nikhyl Jhangiani, MPH, MBA; Adrienne Boissy, MD; Michael B. Rothberg, MD, MPH

Spotlight: Recent Awards

CVCR Investigator awarded K award from NHLBI.

Matt Pappas, MD was awarded a career development award (K08) from NHLBI, titled “Personalizing Preoperative Stress Testing Using Machine Learning.” This grant will provide Dr. Pappas with 5 years of support to conduct research and participate in career development activities.

Featured study-in-progress: Developing a Primary Care Registry for 800,000 Patients

Overview

Electronic health records present opportunities for health services research but are primarily designed for clinical use. Extracting data for analysis by statistical programs is challenging and inefficient. We created an EHR-based primary care registry for >800,000 patients who visited an internal medicine or family medicine provider since 2006. It consists of 6.7 million primary care encounters and >600 variables. The results are in a single statistical file, providing researchers with immediately useful data for health services and epidemiological research. To date, researchers have used registry data to investigate preventive care delivery, pre-diabetes management, polypharmacy and prescribing practices.



Why does a primary care registry matter, and how does it highlight the uniqueness of Cleveland Clinic?

National data sources have important limitations. Many are cross-sectional, preventing follow-up of patients over time. The treating physician may be unknown or have just a few patients in the data set. Even though data are nationally representative, analyses which require a large number of patients to assess complex associations may be underpowered. Administrative claims data such as Medicare are often limited to specific populations (e.g., the elderly) and lack clinical information, such as smoking status and obesity. Cleveland Clinic’s primary care registry directly addresses these shortcomings in an easy-to-use format.

How can researchers access the registry?

We have developed a process to help with Institutional Review Board (IRB) approval. If you have a research project that may benefit from the primary care registry, please feel free to contact us.

Recent Publications

[Patterns of Use and Correlates of Patient Satisfaction with a Large Nationwide Direct to Consumer Telemedicine Service.](#) Martinez KA, Rood M, Jhangiani N, Kou L, Rose S, Boissy A, Rothberg MB. J Gen Intern Med.

[Anticipated Rates and Costs of Guideline-Concordant Preoperative Stress Testing.](#) Pappas MA, Sessler DI, Rothberg MB. Anesth Analg.

[Characteristics of Successful Internal Medicine Resident Research Projects: Predictors of Journal Publication Versus Abstract Presentation.](#) Atreya AR, Stefan M, Friderici JL, Kleppel R, Fitzgerald J, Rothberg MB. Acad Med.

[Association Between Number of Preventive Care Guidelines and Preventive Care Utilization by Patients.](#) Taksler GB, Pfoh ER, Stange KC, Rothberg MB. Am J Prev Med.

[Physicians’ Views of Self-Monitoring of Blood Glucose in Patients With Type 2 Diabetes Not on Insulin.](#) Havele SA, Pfoh ER, Yan C, Misra-Hebert AD, Le P, Rothberg MB. Ann Fam Med.

[Reducing age bias in decision analyses of anticoagulation for patients with nonvalvular atrial fibrillation - A microsimulation study.](#) Pappas MA, Vijan S, Rothberg MB, Singer DE. PLoS One.

[Comparative Antimicrobial Efficacy of Two Hand Sanitizers in Intensive Care Units Common Areas: A Randomized, Controlled Trial.](#) Deshpande A, Fox J, Wong KK, Cadnum JL, Sankar T, Jencson A, Schramm S, Fraser TG, Donskey CJ, Gordon S. Infect Control Hosp Epidemiol.

[Cost-Effectiveness of Competing Treatment Strategies for Clostridium difficile Infection: A Systematic Review.](#) Le P, Nghiem VT, Mullen PD, Deshpande A. Infect Control Hosp Epidemiol.

[Cost-effectiveness of the Adjuvanted Herpes Zoster Subunit Vaccine in Older Adults.](#) Le P, Rothberg MB. JAMA Intern Med.