

Health Services Research: Challenges and Opportunities in Safety Net Hospital Systems

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AcademyHealth is a leading national organization serving the fields of health services and policy research and the professionals who produce and use this important work. Together with our members, we offer programs and services that support the development and use of rigorous, relevant, and timely evidence to increase the quality, accessibility, and value of health care, to reduce disparities, and to improve health. This brief is part of a three-part series examining the use of health services research and other evidence by safety net hospitals to help inform the delivery of care. This project was conducted as part of the Innovators-in-Residence Program, an initiative of AcademyHealth's Translation and Dissemination Institute, and supported by a grant from Kaiser Permanente.



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This issue brief highlights findings from three profiles of initiatives at safety net hospital systems. The profiles were developed based on interviews conducted in winter 2015 with the following individuals:

Contra Costa Regional Medical Center and Health Centers, Martinez, California

- Anna Roth, RN, MS, Chief Executive Officer
- Sara Levin, MD, Internist
- Rajiv Pramanik, MD, Chief Medical Informatics Officer
- Duffy Newman, MHA, Strategic Partnerships

MetroHealth/Case Western Reserve University, Cleveland, Ohio

- Sherrie Williams, MD, MHS, President of the Medical Staff Associate Professor, Case Western School of Medicine
- Daryl Thornton, MD, MPH, Co-Director, Center for Reducing Health Disparities, Associate Professor, Case Western School of Medicine

Grady Health, Atlanta, Georgia

- Leon Haley, MD, Executive Associate Dean of Clinical Services for Grady Memorial Hospital at Emory University School of Medicine
- Anekwe Onwuanyi, MD, Chief of Cardiology, Morehouse University School of Medicine

Each of the profiles in this series provide a “snapshot in time” intended to illustrate how a safety net hospital and its partners used research and other evidence to help inform program development. The profiles do not represent a comprehensive analysis of a particular program or partnership.

This issue brief describes initiatives at three safety net hospital systems designed to improve the health of their respective patients and overcome the challenges providers have faced in finding relevant research to support their efforts. Despite recent progress, significant disparities persist in both the health status and the health care delivered to the nation’s underserved and minority populations.¹ The field of health services and policy research is instrumental in building the evidence base for the clinical treatments and policies that reduce disparities. Yet, disease conditions and treatments in minority populations remain insufficiently studied.² Researchers can help reduce health disparities by addressing the knowledge gaps that safety net clinicians and administrators uncover as they work to improve the health of the patients they serve.

Across the country, safety net hospital systems—both public and nonprofit—serve millions of low-income, racially and ethnically diverse patients. As the nation’s population grows increasingly diverse, research and initiatives in patient care developed at these hospital systems offer insights into addressing disparities and improving health outcomes, but safety net providers often find little guidance in published studies. The relative absence of research on the health conditions of diverse low-income populations and on the social determinants of health requires providers to build a knowledge framework that relies heavily on their own experiences and

research into their patient populations rather than on an established evidence base. The lack of an evidence base hampers research design, evaluation and dissemination.

This issue brief describes initiatives developed to meet pressing patient needs at three safety net hospital systems and tailored to the unique settings of each institution. The three initiatives are distinct, yet they share an entrepreneurial approach, building on organizational strengths and supporting each system’s strategic objectives. In each instance, clinicians turned initially to published studies for guidance and found a lack of relevant research on safety net populations. They addressed the gaps in the research by identifying similar efforts in other safety net systems, evaluating current efforts at their own institution, and studying their own patients. The results build on the unique attributes of each institution and reflect a comprehensive understanding of the institutions’ respective patient populations.

The initiatives profiled here demonstrate how the limited research on the health conditions of underserved populations and on the social determinants of health presents major barriers to effective, patient-centered care. In each of the three safety net hospital systems, hospital leaders, physicians, and other providers, faced with the inadequacy of the research, developed distinctive initiatives grounded in the unique characteristics of their institutions, their communities, and the needs of their patients. The profiles suggest a need for research that is guided by safety net organizations and that permits researchers to address the practical challenges in patient care faced by these institutions in providing effective, high-quality care to underserved patients.

Improving Patient Health in Safety Net Hospital Systems

For at least the past decade, Contra Costa Regional Medical Center and Health Centers (CCRMC) in the San Francisco Bay area has used various approaches to help patients with social resource needs that challenge or prevent their ability to achieve and maintain good health. CCRMC has adopted a “culture of continuous improvement,” an ongoing effort to improve care delivery. Over the years, CCRMC physicians and other providers have helped patients affected by insufficient food, housing, and financial resources. The county’s public health system and the hospital work closely with community-based organizations. The hospital and health clinics employ health aides and promotoras to assist patients. The partnership with Health Leads, a national program that connects patients to needed resources outside the health system, represents a recent effort to test a comprehensive process for improving care delivery.

In Cleveland, Case Western Reserve University and MetroHealth, a major academic safety net health system, established the Center

for Reducing Health Disparities, partly in response to the lack of research into the issue of health disparities. The center's comprehensive approach—research, education, and community partnerships—derives from the unique characteristics of the university/safety net health system partnership. The center is housed at Metro-Health but is a joint initiative with Case Western. The Case Western imprimatur attracts academicians to the study of health disparities and provides a network of potential research collaborators. Metro-Health enjoys a long history as an essential part of the Cleveland community, and the center's location at the hospital facilitates collaboration with neighborhood organizations.

The Affordable Care Act (ACA) imposes penalties on hospitals for patients readmitted within 30 days for all causes; heart failure for patients over age 65 is the leading cause of readmissions.¹ For several years before passage of the ACA, physicians at Grady Health in Atlanta had worked to address the issue of heart failure, particularly through patient and family education. In 2010, the chief of cardiology at Morehouse University School of Medicine led a task force to examine heart failure care and readmissions at Grady. A review of the heart failure readmissions literature revealed that most studies focused on suburban, middle-class patients unlike Grady's largely African American and Hispanic low-income urban population. Without relevant studies as guidance, the Grady team conducted its own retrospective analysis of Grady's patient data on heart failure readmissions.

Addressing Social Needs at Contra Costa Regional Medical Center

Contra Costa Regional Medical Center and Health Centers (CCRMC), a public hospital system dedicated to building a “culture of continuous improvement,” is recognized for its commitment to patient-centered care.² In 2014, the nationally acclaimed program Health Leads established its first partnerships in the San Francisco Bay area with CCRMC's West County Health Clinic and with the Kaiser Permanente Medical Center in Richmond. Health Leads has been recognized by the Robert Wood Johnson Foundation as “. . . an innovative yet practical approach to removing social barriers to good health.”³

CCRMC, a division of Contra Costa Health Services, operates a 164-bed hospital in Martinez and 11 community health centers that annually provide over 500,000 outpatient visits and about the same number of mental health visits. CCRMC's family medicine residency program is affiliated with the University of California at San Francisco's Department of Family and Community Medicine and for 35 years has trained physicians committed to caring for the underserved.

The medical teams and leaders at CCRMC face continuing challenges in caring for patients who experience serious barriers to health, including inadequate housing or lack of nutritious and sufficient food. To address these challenges, Contra Costa Health Services (the county health system) and CCRMC have adopted a range of approaches and tools to help patients. For many years, CCRMC has worked closely with community-based organizations (CBO) in the county to address patient social needs. To help patients navigate the health system, the hospital employs health aides and promotoras. Within this context, the Health Leads model uniquely builds on existing community assets, playing a connecting role among CBOs and the health system. CCRMC leaders initiated the partnership with Health Leads in 2014 as part of a continuing process to identify effective models for addressing the social determinants of health and advance CCRMC's commitment to patient-centered care.

Under the Health Leads model, trained volunteers become part of the West County Health Clinic team, enabling providers to write a prescription for resource needs, such as housing or food, and assisting with challenges that can prevent patients from addressing health issues. The volunteers work with patients to secure needed resources by identifying appropriate county and community agencies, managing referral processes, and following up with patients until the social issue is resolved. Health Leads provided a tested model that CCRMC's team adapted to fit the hospital system's well-established commitment to patient-centered care.

The Role of Research

The CCRMC team noted that research, defined broadly, was an important factor in the selection of Health Leads as a program to address their patients' social and medical needs. The leadership team described its research approach as comprehensive but unstructured, conducted through informal literature reviews, Google searches, and discussions with peers in similar organizations. Before approaching Health Leads, a steering committee researched various models that offered an approach to connecting a patient's social and medical needs, but found little information on clearly designed models, on understanding the return on investment, and little guidance as to whether models were the right ones for CCRMC. The team studied existing models such as the use of community health workers, patient navigators, and the county's 211 system. In addition, individual clinicians noted what approaches were effective with their own patients. To ensure that their strategy would address the needs of patients at CCRMC, the team designed a process to assess patient need, to identify the initial patient target population, and to determine which model aligned social resources with health care. Patient assessments were conducted at the West County Health Clinic through surveys of approximately 230 patients.

Reducing Health Disparities at Metro Health/Case Western Reserve University

The Center for Reducing Health Disparities at Case Western Reserve University and MetroHealth, a major safety net health system, is one of 18 national comprehensive Centers of Excellence created by the National Institute on Minority Health and Health Disparities. The centers, located in research universities and major medical schools, aim to reduce health disparities through research, training, education, and community engagement. The centers emphasize translational research while developing partnerships with researchers and community organizations to broaden the centers' impact.⁴

Founded in 1837 to care for the poor and to combat smallpox and cholera, MetroHealth in Cleveland is one of the nation's oldest public hospital systems. MetroHealth's Level 1 trauma center is the only Level 1 in greater Cleveland. The hospital system cares for over a million patients annually in inpatient stays, outpatient visits, and over 100,000 emergency department visits. MetroHealth is a leading public academic medical center in partnership with the Case Western Reserve University School of Medicine. Over the years, MetroHealth has expanded its mission to include a commitment to improving the health of the community while remaining dedicated to its role of caring for the most vulnerable.

A little over a decade ago, two important factors converged to support the development of a center—housed at MetroHealth—to address health disparities at Case Western Reserve University and MetroHealth: increased interest among researchers and the medical community regarding the prevalence and impact of health disparities and significant funding opportunities from both the private sector and government to support research. Given the growing awareness within the university that health disparities were a major problem in Cleveland, the creation of a center to address the issue seemed a natural fit for the university and the health system. The center was envisioned as an organizational home for researchers and others working on disparities to enable them to collaborate and find support for their interest in understanding and reducing unequal health outcomes.

The Role of Research

The center was founded partly in response to the general vacuum in research around the issue of health disparities. Although the center's research agenda often derives from the clinical interests of the co-directors, the scope of the center's research is broadly defined to address the disparities component prevalent in many health issues and in recognition of the cost to society of unequal health outcomes for large segments of the population. The center's work is aimed at researchers across the Case Western campus and the MetroHealth system, community-based organizations, and Cleveland policymakers. The center's work intersects with almost every aspect of medicine.

From the outset, the center defined its mission comprehensively to address three key priorities: research, education, and community and policy engagement. The center's three priorities are interrelated; in fact, the center conducts community-based participatory research and clinical trials involving MetroHealth's patient population. The center's research framework reflects the clinical specialties of its co-directors: understanding the root causes and mechanisms of chronic disease health disparities in nephrology, pulmonary disease, and the ICU and identifying effective interventions to reduce these disparities. The center's health services research focuses predominantly on outcomes in the treatment of chronic kidney disease, ICU care, and pulmonary disease. The disparity in treatment and outcomes for racial minorities and women, for example, drives the center's work in organ donation and transplantation.

Transforming Clinical Care Delivery at Grady Health

Transforming Clinical Care, an initiative at Grady Health to reduce readmissions in heart failure patients, was the recipient of the 2013 Gage award given by America's Essential Hospitals (AEH) for excellence in improving the quality of patient care. The Gage awards recognize successful and creative programs established by AEH members that provide better care to vulnerable patients. Grady Health in Atlanta is Georgia's largest health system and one of the largest public hospital systems in the nation.

Atlanta residents have long valued Grady Health and held the hospital in special regard. Founded in 1892 by Henry W. Grady, editor of the Atlanta Constitution, as a hospital to provide high-quality health care for the city's poor, Grady Health is today one of the nation's largest public health systems. Over the years, Grady has become an essential part of Atlanta's health care system, serving as a teaching hospital for two major medical schools, Emory University School of Medicine and Morehouse University School of Medicine; providing one of the five Level 1 trauma centers in the state; and offering a full range of specialized medical services to the entire community. In 2011, Grady Health cared for over 600,000 patients in its 950-bed hospital, in its outpatient services and six neighborhood clinics, and in its emergency department.

In 2010, Grady Health established its award-winning heart failure clinic. For the previous 10 years, however, the cardiology department had addressed the issue of heart failure by developing educational programs for patients, organizing patient and family seminars, and conducting a major annual conference with caretakers. In 2010, several factors contributed to a renewed effort at Grady to reduce patient readmissions from heart failure: concern about improving patient care to reduce persistently high readmission rates for heart failure, the adoption of an electronic medical record system, and impending penalties under the ACA for heart failure readmissions.

The Role of Research

At the outset, the chief of cardiology reviewed the heart failure readmissions literature in the major clinical journals, noting that most studies did not involve patients similar to Grady's; in fact, most of the recommendations were tailored to a suburban, middle-class population. Members of a task force studied heart failure programs at other institutions and received helpful advice, particularly with respect to challenges and potential pitfalls. The task force leaders spoke to the chiefs of cardiology at New York University Hospital and locally at Emory University and Piedmont hospitals in Atlanta, where Grady sends many patients requiring advanced care. The team also contacted colleagues at public institutions similar to Grady, including Parkland Memorial in Dallas and Bellevue in New York City, both large metropolitan safety net hospital systems with patient populations comparable to Grady's.

To better understand the reasons for heart failure readmission at Grady, the chief of cardiology, with the assistance of a research associate, conducted a retrospective analysis of patients readmitted within 30 days for heart failure from November 2009 to October 2010. The retrospective study pointed to a set of patient issues that were contributing to the high number of readmissions for heart failure. Notably, patients ran out of the one-week supply of medications they received at discharge and were unable to refill their prescription in a timely manner. As a result, many patients went without medication for extended periods, causing their condition to worsen and often leading to readmission. As the task force reviewed post-discharge processes, it found that it was often difficult to ensure that patients saw a physician a week after discharge. Even with a scheduled appointment, patients sometimes did not show up. In addition, the study revealed that many readmitted patients were unable to read and/or unable to understand the patient information literature on heart failure. In developing the heart failure program, the team selected best practices from similar institutions but tailored to the findings from its internal study of Grady patients.

Discussion

Hospital administrators, physicians, and other providers in safety net hospital systems recognize the value of research in their efforts to deliver high quality, patient-centered care. Even though the safety net systems profiled here are unique in many respects, their experiences in identifying and implementing innovations in care reflect several commonalities, including:

- Review of existing literature. A review of the published literature is the first step in creating initiatives and building partnerships. In each experience described here, providers looked to existing research for guidance on how to address pressing issues affecting their patient populations. However, in each case, the published literature did not reflect the characteristics of safety net populations, limiting the usefulness of the evidence.

- Connecting with peer organizations. The experiences of safety net hospital systems can provide valuable models, lessons learned, and best practices for use by other provider organizations. In assessing how best to reduce heart failure readmissions, the leaders of a Grady task force spoke with staff at other large metropolitan safety net hospital systems with comparable patient populations. Before initiating their partnership with Health Leads, CCRMC leaders spoke with peers in similar organizations about strategies for addressing patients' social needs.
- Adapting models for local needs. Safety net hospital systems rely on in-depth knowledge of their patient populations to implement successful models or build on ideas gleaned from peer organizations. Grady's heart failure program reflects best practices from other institutions, combined with findings from an internal study of Grady patients readmitted for heart failure. The Center for Reducing Health Disparities prioritizes community-based participatory research, with a focus on issues affecting MetroHealth patients.
- The importance of partnerships. From the success of the MetroHealth/Case Western collaboration to CCRMC's longstanding relationships with community-based organizations to Grady's connections to two major medical schools, these examples highlight the crucial role of partnerships in helping safety net hospital systems best serve their patients.

Among the most significant and persistent barriers to the use of research in safety net health systems is the lack of clinical studies and health services research into safety net populations. In the examples profiled here, clinical studies and health services research into safety net patients and the safety net delivery system provided insufficient or irrelevant information. Those responsible for developing the patient care initiatives in the three systems noted that much of the research into various clinical conditions, such as kidney disease or heart failure, focuses on a suburban, middle-class population. As a result, the research offers little guidance for addressing an overarching issue such as the social resource issues that affect safety net patients. For example, despite widespread recognition of the social determinants of health, there are no clear models for integrating the delivery of health care with efforts to address a patient's social resource issues.⁵

In addition, safety net health systems, especially those not affiliated with an academic medical center, often do not command sufficient resources to conduct research internally and instead turn to external researchers. As one of the physicians leading CCRMC's Health Leads partnership noted, most of the resources in safety net institutions go to the delivery of care and are not available to support research into the quality or efficacy of an approach. Because there is

insufficient study of underserved and racially and ethnically diverse patients, recommended interventions for disease conditions often do not apply to safety net patients. The hospitals profiled here found limited utility in extrapolating from published research to their own patient populations as they addressed the social determinants of health, treated heart failure, or addressed health disparities.

Conclusion

The effect of the lack of research into the health of low-income, racially and ethnically diverse populations has important implications for the nation's health care system. The absence of research poses a barrier to developing new models of patient care or bringing appropriate programs to scale. These missed opportunities have immediate relevance under the Affordable Care Act and its focus on cost, effectiveness, and efficiency as millions of previously uninsured patients enter the health care system. Health services researchers could contribute to the improved health of underserved patients and help reduce health disparities by addressing the practical challenges faced by safety net providers in caring for vulnerable patients. To that end, researchers should work with safety net organizations on program design and evaluation, ensuring that research is driven by the needs and characteristics of the patients and shaped by the culture of the institution rather than by an externally determined research agenda.

These partnerships could be instrumental in addressing the widespread, yet fundamental, gaps in the knowledge base for improving the health and care for the underserved.

About the Author

Linda C. Cummings, Ph.D., of Health Services Research LLC, provides research and program development consultation focused on the health status and health care of underserved populations. Dr.

Cummings was formerly Vice President for Research at America's Essential Hospitals, where she directed the Essential Hospitals Institute. In that capacity, she developed the organization's research agenda around system redesign, quality performance and improvement in patient care, health disparities, and the financial and operational characteristics of safety net hospitals. Dr. Cummings served as an Innovator-in-Residence at AcademyHealth from January to March of 2015.

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Endnotes

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