

# Primary Care in the United States: Lessons Learned to Inform Global Efforts to Improve Primary Care

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*The views expressed are those of the individual presenters and do not necessarily represent the views of Qualis Health or the Bill & Melinda Gates Foundation.*

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## INTRODUCTION

Jonathan Sugarman, MD, MPH, *Qualis Health*

Dan Kress, *Bill & Melinda Gates Foundation*

While the United States is a global leader and a source of ideas and inspiration in many domains, few would argue that the U.S. healthcare system should serve as a role model for the rest of the world. Indeed, while per capita costs far exceed those in other nations, the U.S. fares worse than many industrialized and developing countries for many important health outcomes. Among the contributing factors to the high costs and suboptimal outcomes is the fact that, by and large, U.S. healthcare is not organized around primary care.

Barbara Starfield, MD, MPH, a global thought leader in the field, described primary care as “that aspect of a health services system that assures person-focused care over time to a defined population, accessibility to facilitate receipt of care when it is first needed, comprehensiveness of care in the sense that only rare or unusual manifestations of ill health are referred elsewhere, and coordination of care such that all facets of care (wherever received) are integrated.” The U.S. excels in tertiary care and the use of highly sophisticated technology for those with access. Compared to many other industrialized nations, the U.S. healthcare system concentrates disproportionately on highly specialized care delivered by clinicians concerned with a specific disease or organ system in contrast to primary care focused on the whole person.

Despite the shortcomings of the U.S. healthcare system as a whole and the lack of appropriate balance between primary care and other

resources, the U.S. enjoys pockets of innovation and excellence in primary care that may provide important insights to others working across the world to develop and improve health systems. The U.S. experience provides lessons ranging from the macro level organization of healthcare delivery systems (such as the national network of community health centers and a number of vertically integrated delivery systems) to micro level insights about the characteristics of effective primary care at the level of clinical service delivery. Further, there are a growing number of examples of delivery systems that have expanded beyond the traditional medical care paradigm to focus on improving population health. Evolving primary care systems in the U.S. are beginning to implement innovative applications of information technology to support improved care delivery. High-income, industrialized countries already look to the pockets of excellence in U.S. primary care to guide improvements. Many of these reforms are affordable, improve outcomes, and can slow the rate of cost increase. These lessons may be useful for low- and middle-income countries, and many may inform thinking on primary care systems of the future.

In response to the emerging global recognition of the importance of strengthening primary healthcare systems, in 2015 the Bill & Melinda Gates Foundation, the World Bank Group, and the World Health Organization launched the Primary Health Care Performance Initiative (PHCPI). In addition to measuring the performance of primary healthcare and improving the quality of primary healthcare



data, a key goal of the PHCPI partnership is to collaborate with country partners and to provide a platform for countries to share lessons and co-develop tools for improving primary healthcare.

The Bill & Melinda Gates Foundation recognized that primary care in the U.S. could be a source of lessons and tools to inform the PHCPI partnership. The Foundation commissioned Qualis Health, a Seattle-based, not-for-profit population health organization, to convene a symposium showcasing learnings from U.S. primary care at the Gates Foundation headquarters on November 9, 2016. Sixteen experts from across the country shared examples of U.S. healthcare delivery that illustrate key elements of effective and high-

functioning primary care. Presenters from exemplary institutions and organizations introduced several U.S. models of primary care delivery system design and described key innovations resulting in improved care, better population health, and effective healthcare spending. Breakout sessions further explored the models and concepts introduced in the presentations. A distinguished reactor panel reflected on aspects of the American examples of interest to national health ministries, donors, and others in middle- and lower-income countries. This document captures key learnings from this symposium with an eye to applying them in other contexts.

[VIDEO: Symposium Welcome and Overview](#)

[SLIDES: Symposium Welcome and Overview](#)



## Community-Based Primary Care at Southcentral Foundation

Donna Galbreath, MD, *Southcentral Foundation*

### KEY POINTS:

- Substantial improvements in care delivery, population health, and community satisfaction resulted from the transition of a federally operated health system to one owned and operated by the Alaska Native population it serves.
- Southcentral Foundation uses the term “customer-owner,” rather than “patient,” to recognize and reinforce that Alaska Native and American Indian people own the health system, are valued stakeholders, and should be empowered partners in care.
- Southcentral Foundation’s Nuka System of Care emphasizes customer-owner participation in the development of a shared vision and mission to provide guidance, consistency, and a clear path to follow for all of those engaged delivering care.
- In addition to providing care in centrally located hospitals and clinics, delivery of care over great distances is handled through state-of-the-art telemedicine technology, clinical team travel, and community health aides.
- Nuka System of Care best practices heavily emphasize continuous improvement, utilization of data and measurement, integrated care teams, and the integration of traditional healing into primary care.

**Southcentral Foundation** is an Alaska Native-owned, nonprofit healthcare organization serving Alaska Native and American Indian people living in Anchorage, the nearby Matanuska-Susitna Valley and 55 rural villages over a 108,000 square mile service area. From the 1950s to the 1980s, healthcare for that population was primarily provided by the Indian Health Service (IHS), an agency of the U.S. Public Health Service. In the 1980s, the Southcentral Foundation began to deliver primary care and other healthcare services, initially under contract to the IHS. Over time, direct control, governance, and responsibility for healthcare was transitioned from the Federal government to the Southcentral Foundation, culminating in a transfer of ownership of the Alaska Native Medical Center’s primary care to the Foundation in

1998. Since that time, the Southcentral Foundation has evolved into one of the premier primary care-based delivery systems in the U.S.. Southcentral Foundation’s “Nuka System of Care” is the name of the approach used to work with the Alaska Native community to guide the design and delivery of care in order to achieve health and wellness for the population.

Dr. Galbreath introduced the Southcentral Foundation system, speaking on behalf of the 65,000 people in Alaska to whom they deliver primary care. *Nuka* is an Alaska Native word meaning something large and grand with connotations of family and friendship. The Nuka System of Care is the result of a customer-driven overhaul of what was previously a bureaucratic system controlled by the U.S. Indian Health Service. All corporate, division, work unit, and individual goals and objectives



flow out of the vision and mission's three "key points": shared responsibility, commitment to quality, and family wellness.

Comprised of organizational strategies and processes that work together based on relationships and the Alaska Native culture, the system fosters an environment of creativity, innovation, and continuous quality improvement. Southcentral Foundation's Nuka System of Care has led to improvements in population health and delivery system performance including reduced family violence, a drop in both ER and hospital admissions, top-in-class performance benchmarked nationally and internationally in utilization and quality, lower employee turnover, and high customer

and staff satisfaction. Alaska Native people have received national and international recognition for their work and have set high standards for performance excellence, community ownership and engagement, and overall impact on population health.

Following Dr. Galbreath's presentation, these concepts were explored further in a conversation with Andy Ellner, MD, MSC, Harvard Medical School Center for Primary Care, addressing the replicability of the Southcentral Foundation delivery model in other environments.

[VIDEO: Southcentral Foundation](#)

[SLIDES: Southcentral Foundation](#)

### America's Federally Qualified Health Center Program: Comprehensive Primary Care for Underserved Populations

David Stevens, MD, FAAFP, *Milken Institute School of Public Health, The George Washington University*

#### KEY POINTS:

- A national network of Federally Qualified Health Centers (FQHCs) provides care that is responsive to the needs of the communities they serve, with services provided to all regardless of ability to pay.
- FQHCs are governed by a community-based board of directors consisting of a majority of active patients, assuring accountability to local needs.
- The quality of care delivered by FQHCs to vulnerable populations is comparable or superior to that delivered in other U.S. settings, but at lower cost.
- Workforce development programs within the communities achieve two goals: providing work opportunities and cultivating a culturally competent workforce.
- A national system for collaborative learning, anchored in the health center mission and culture, has contributed to the continuous improvement of care among U.S. health centers.
- In addition to assuring accountability through a nationally-defined set of performance measures and a uniform data reporting system, effective health centers have an intense focus on local, data-driven continuous quality improvement.



**Primary care** is delivered through facilities referred to as “community health centers” in many low-, middle-, and high-income countries. These health centers represent a variety of models in diverse settings around the world. An understanding of the current structure and function of community health centers in the U.S., including innovative approaches to quality improvement, may be useful to those working to refine primary care delivery elsewhere. The U.S. has a nationwide network of over 1,400 community health centers (technically designated as FQHCs) that are partially funded by the U.S. Department of Health and Human Services. Most FQHCs are private, nonprofit organizations governed by a community board of directors consisting of a majority of patient users. In addition, although they do not receive federal health center funding, FQHC “look-alikes” operate and provide services consistent with FQHC program requirements. Like FQHCs, they are eligible for reimbursement under the FQHC Medicare and Medicaid payment systems, are eligible to purchase discounted drugs under a special federal drug pricing program, and may access National Health Service Corps providers. Both FQHCs and “look-alikes” must offer a sliding fee scale to patients and families based on a percentage of the current federal poverty guidelines to minimize financial barriers to care.

With roots in social medicine and the U.S. civil rights and anti-poverty initiatives of the mid-20<sup>th</sup> century, health centers have evolved into models of comprehensive, team-based care that both reflect and enrich the communities they serve.

FQHCs are majority governed by the communities they serve, ensuring awareness of and responsiveness to local needs. At least 51

percent of governing board members must be active patients of the health center. Approximately 24 million patients in urban and rural areas are served by FQHCs, which represents about 1 in 13 Americans and 1 in 10 American children. About 62% of FQHC patients are racial and ethnic minorities. Team-based comprehensive health services at FQHCs include family medicine, internal medicine, pediatrics, obstetrics, oral healthcare, behavioral health and care management. In addition, FQHCs are required to submit annual outcome and process measures as well as demographic data on the populations they serve. Numerous research studies have concluded that the quality of primary care delivered by FQHCs is commensurate with or superior to that delivered elsewhere in the U.S., but at significantly lower cost.

By cultivating a workforce from within the communities they serve, FQHCs accomplish two key goals: assuring cultural competence among staff, and providing local education and employment opportunities. Some examples include establishing a charter high school, youth programs, and college scholarships, all designed to encourage students to pursue careers in medical professions.

Health centers pioneered a collaborative approach to quality improvement that may be adaptable to other primary care systems in other countries. By building quality improvement infrastructure, sharing knowledge among health centers and applying common frameworks to improve and measure outcomes, care for specific diseases, preventive services, and organizational processes have been enhanced and improved.

[VIDEO: Federally Qualified Health Centers](#)

[SLIDES: Federally Qualified Health Centers](#)



## The Front Lines of Primary Care: A Case Study of an Exemplary Federally Qualified Health Center

Margaret Flinter, PhD, APRN, *Community Health Center, Inc., The Weitzman Institute*

### KEY POINTS:

- Over four decades, Community Health Center, Inc. evolved from a small storefront clinic to one of the leading independent, nonprofit primary care providers in the country.
- Community engagement and sustained leadership focus on continuous improvement have been required for system-wide, patient-focused transformation.
- An integrated, team-based model of primary care has improved health outcomes for underserved populations and built healthier communities
- The ability to respond to new and emerging problems (homelessness, HIV, opioid crisis) is a core strength.
- The integration of innovation and research has been critical for transformation, with new technologies incorporated into clinical practices.
- Patient-focused care teams have been enhanced by intensive workforce training and thoughtful evolution of care provider roles.
- The blend of an independent, nonprofit organization with a consumer/patient-dominated board of directors has supported entrepreneurial growth and expansion.

**Community Health Center, Inc. (CHC)** is the leading independent, nonprofit healthcare provider in the state of Connecticut, providing comprehensive primary care services in medicine, dentistry, and behavioral health to 100,000 people annually at more than 200 service locations. When CHC began providing care in 1972, the initial focus was to assure that all in the community who needed healthcare had access to it, regardless of ability to pay. Today, CHC is a statewide Federally Qualified Health Center (FQHC), relentlessly dedicated to building a world-class primary healthcare system, and focused on healthy outcomes and healthy communities. The CHC mission is not just to provide healthcare, but to transform healthcare through research, education, training, and performance improvement.

Dr. Flinter described the CHC's commitment to transform healthcare delivery with an ongoing pursuit of clinical excellence, the integration of innovation and research, and training for healthcare professionals. Over four decades, with perseverance, discipline, leadership, community engagement, technology, and partnerships with the public and private sectors, CHC has improved health outcomes for underserved populations. Every patient has a high-vitality, well-trained, and driven team of primary care, oral health, nutrition, and behavioral health clinicians. Each care team is supported with delivery of clinical and operational performance data. CHC was one of the first practices in the country to move to an entirely electronic health record (EHR), and using the EHR to report clinical quality measures has supported CHC in achieving a high



level of performance and clinical outcomes. With community care teams, case/care managers for high risk patients, school-based health centers, and a focus on key populations such as the homeless and patients living with HIV, CHC takes care directly to the patients.

CHC developed the first formal, postgraduate nurse practitioner residency training program in the U.S. CHC also offers a postdoctoral psychology residency program providing comprehensive training in the provision of psychological care in an integrated model, and is developing a psychiatric/mental health nurse practitioner residency program aimed at training new nurse practitioners in both high complexity care and high performance models of care delivery. CHC's models for postgraduate

residency-based training are now being adopted by organizations across the U.S.

The Weitzman Institute, the research and development arm of CHC, conducts original research, tests and scales promising innovations such as e-consults, and leads education and training efforts for primary care providers in the field through case-based distance learning. The Institute is the first community-based research center established by an FQHC, and is dedicated to quality improvement, practice transformation, and research in primary care for the underserved.

[VIDEO: Community Health Center, Inc.](#)

[SLIDES: Community Health Center, Inc.](#)

### Transforming Primary Care in a Community-Based, Academically Affiliated System: Cambridge Health Alliance

Soma Stout, MD, MS, *Institute for Healthcare Improvement*

#### KEY POINTS:

- The Cambridge Health Alliance (CHA) achieved large-scale cultural transformation through a human-centered design approach, thinking first of the customers who come to the system for care.
- Financial, clinical, and policy transformation must be aligned. Organizations must align financial incentives with clinical transformation in order to support the goals of integration and to achieve improved population health.
- Deep and meaningful engagement of patients in the design and continuous improvement of the delivery system is a powerful strategy.
- Organizational leadership must provide infrastructure such as data and performance measurement systems, a culture supporting continuous process improvement, and resources for workforce training in order to create and sustain the changes needed for transformation.

**Although many U.S. health systems** affiliated with academic institutions are dominated by a focus on medical and surgical sub-specialties

and delivery of tertiary care, some have successfully transformed into systems with a strong focus on primary care and population



health. One such exemplary academically affiliated system is the Cambridge Health Alliance (CHA). CHA is an integrated care delivery system serving 130,000 customers in the Boston metropolitan area, with nearly 4,000 employees across seven communities. Fifty percent of CHA's patients speak a language other than English. CHA operates the Cambridge Public Health Department, and also provides a safety net for underserved populations. CHA is a training site for Harvard Medical School, Harvard T.H. Chan School of Public Health, Harvard School of Dental Medicine, and Tufts University School of Medicine.

Dr. Stout recounted the human-system transformation undertaken by Cambridge Health Alliance (CHA) to reshape itself into a practice without walls. CHA arrived at the principles of the patient-centered medical home not through a checklist, but rather through a human-centered design approach, putting themselves in the role of customers coming to the system for care, and building a model for what they would want their health system to look like, making a difference in the lives of real people.

During the process of transformation, CHA learned some important lessons. Each population it serves has different needs, and meaningful redesign is best accomplished by seeking a deep understanding of, and engagement with, the specific populations to be served. That means patients must be engaged continuously and at the highest levels in the

oversight and creation of system transformation. Financial, clinical, and policy transformation must be aligned. Cultural transformation is required to evolve from traditional patterns of delivery system structure and function. These include redefining staff roles and responsibilities such that administrative staff are seen as integral members of care delivery teams, and training medical assistants to take on caregiving roles previously performed only by nurses and doctors. Staff motivation and performance is improved when professional development opportunities, the potential for job advancement, and living wage compensation are provided to employees at all levels. A deep and intensive focus on engaging patients in the design and functioning of the care delivery system has resulted in improved clinical outcomes and reduced resource use.

Dr. Stout reiterated the importance of empowered care teams. Before the primary care doctor comes into the room, a patient's care has begun. The entire system is built around the working of this team—colocation, co-scheduling, team huddles, weekly team meetings, and monthly meetings addressing the needs of patients who are not thriving. Other care providers are brought in as the patient needs it, and stepped care for mental health is integrated. Customizable electronic medical records support the care team by identifying individual patient needs.

[VIDEO: Cambridge Health Alliance](#)

[SLIDES: Cambridge Health Alliance](#)



## The Medical Home Model and Population Health Management in a Large, Vertically Integrated Health System

Wellesley Chapman, MD, *Group Health Cooperative*

### KEY POINTS:

- Team-based care has been a key factor in achieving high clinical quality, patient and staff engagement, and lower costs at Group Health.
- The team must have a primary care orientation, be interdisciplinary, have specialty support, and be coordinated through an effective electronic medical record.
- When spreading new models such as the patient-centered medical home across multiple locations, care teams must retain autonomy and the ability to adapt those models to local circumstances.
- For transformation to occur, Group Health found it necessary to challenge and redefine constraints of place (where care can happen), who does the work, and how communication among and between providers and patients is best accomplished.
- Promoting patients' use of shared electronic health records, including electronic communication, engages patients, maintains continuity, and improves access.

**Group Health Cooperative**, one of the leading integrated health systems in the country, is a member-governed, nonprofit healthcare system.\* Founded in 1947 and based in Seattle, WA, Group Health provides medical coverage and care to around 630,000 residents in Washington State and North Idaho. Care is provided by Group Health physicians and other clinicians at 26 Group Health-operated medical facilities. In service areas where Group Health doesn't own facilities, and for plans offering more choice, a network of nearly 9,000 community clinicians and 41 hospitals meets member healthcare needs. Group Health has a national reputation as a pioneer in evidence-based medicine, using information technology to improve care, applying research to clinical practice, and defining the ideal model for delivering care for patients with chronic diseases. Group Health's doctors and clinicians include primary care physicians (family

physicians, pediatricians, and internists), behavioral health providers, and more than 700 specialists trained in more than 60 medical specialties and subspecialties. Prepayment aligns patients, providers, and the financing mechanism around similar goals.

Dr. Chapman described a successful shift to population health management within GHC's large vertically integrated health system. Responding to the challenges of provider burnout and some declining quality measures, an innovation team spent two years focused on redesigning delivery and investing resources at one outpatient medical center. The resulting approach was referred to as the Group Health medical home. A key to their success was implementing a team-based care model with a continued focus on primary care, supported by specialty care, and team coordination through electronic medical records.



To help patients manage chronic conditions, the care teams created templated care plans and standing orders. Through patient records and registries, the care teams identified at-risk patients and reached out to encourage them to seek care. The clinic created multiple access channels for its patient population, including secure online communications. Today, about two-thirds of Group Health's care is delivered virtually, rather than face-to-face.

Group Health has since spread this approach to 26 clinics, and learned that in order to sustain the good results, relationships must be built in three ways. One, autonomy matters. Care teams must be given the leeway to adapt and evolve so that they feel ownership around the protocols and guidelines they are using. Two, to inspire care teams and meet the expectations of

patients for their care, the focus of work must remain on the customer and not solely on meeting quality measurement metrics. Three, most importantly, all transformations take time, and investments must be made in time and relationships to allow change in systems, change in clinics, and change with patients. Successful innovation happens when constraints—such as place, who does the work, and how communication happens—are systematically challenged and redefined.

\*In February 2017, Group Health was acquired by Kaiser Permanente, and is now the Kaiser Foundation Health Plan of Washington.

[VIDEO: Group Health](#)

[SLIDES: Group Health](#)

## Sharing Specialty Expertise to Enhance Primary Care: Project ECHO

Sanjeev Arora, MD, *University of New Mexico; Project ECHO*

### KEY POINTS:

- The ECHO model leverages technology to be a force multiplier that democratizes knowledge and amplifies the capacity to provide best-practice care for underserved people all over the world.
- Medical knowledge, which increases exponentially and is often siloed, can be effectively disseminated to primary care providers on the front lines to reduce disparities.
- Rural and underserved populations can receive best-practice care where they live by using technology to move knowledge, not people.
- Primary care provider self-efficacy in caring for various complex conditions, their sense of professional satisfaction, and their joy of work can be increased through ECHO's collaborative, tele-mentoring, community of practice.

**Project ECHO** (Extension for Community Healthcare Outcomes) is a lifelong learning and guided practice model that improves both capacity and access to specialty care for rural and underserved populations by linking multi-

disciplinary specialist teams with primary care providers in communities of practice via interactive videoconferencing. Project ECHO is a collaborative model of medical education and ongoing mentorship that empowers providers



everywhere to provide better care to more people, right where they live. Developed in 2003 in Albuquerque, NM, to respond to a growing hepatitis C health crisis, Project ECHO has since expanded to include over 110 replicating partners all over the globe including 67 academic medical centers in the U.S. that use the ECHO model to address more than 55 complex conditions. The Department of Defense, the Centers for Disease Control and Prevention, and other organizations have also adopted the ECHO model to enhance access to specialty care.

Dr. Arora explained Project ECHO's hub-and-spoke knowledge-sharing networks, which are led by specialist teams who use multi-point videoconferencing to conduct virtual clinics with community providers. The clinics leverage basic, widely available teleconferencing technology that requires minimal hardware and software. During the clinics, primary care providers from multiple sites present real, de-identified patient cases to the specialist team and to each other, discuss new developments relating to their patients, and determine treatment.

Through the networks, primary care doctors, nurses, and other clinicians learn to provide excellent specialty care to patients in their own communities, and underserved populations gain access to best-practice care guided by specialized medical resources of academic medical centers. Studies have found that patient outcomes are comparable regardless of whether the patient was served by the specialist clinic or the primary care teams trained through the network. Project ECHO has expanded across diseases and specialties, across urban and rural locales, across different types of delivery services, and even across the globe.

As the ECHO model scales globally, it is helping to address some of the healthcare system's most intractable problems, including inadequate or disparate access to care, rising costs, systemic inefficiencies, and unequal or slow diffusion of best practices.

[VIDEO: Project ECHO](#)

[SLIDES: Project ECHO](#)



## Assuring Lifelong Learning and Assessing Primary Care Physician Competence

Robert Phillips, MD, MSPH, *American Board of Family Medicine*

### KEY POINTS:

- Assuring provider competence is a cornerstone of providing high-quality primary care.
- To support population health improvements, physician assessment must move beyond summative evaluation to a process of continuous evaluation and helping clinicians improve clinical practice and care delivery.
- Physicians are intrinsically motivated by timely feedback but only if the measures matter.
- Physicians need help and are mourning the erosion of professional autonomy, angry about meaningless work, and scared about their ability to provide and document value.
- Physician organizations need to use their self-regulatory influences to better craft environments that leverage the intrinsic motivators that derive from professionalism. By structuring practice environments with intrinsic incentives and motivators of professionalism, physicians accomplish the triple aim because that is what they want to do.
- In the U.S., aligning board certification with value-based payment programs is a promising strategy.

### The American Board of Family Medicine

(ABFM) is one of 24 medical specialty boards that make up the American Board of Medical Specialties (ABMS). Through ABMS, the boards work together to establish common standards for physicians to achieve and maintain board certification. The boards were founded by their respective specialties to protect the public by assessing and certifying doctors who meet specific educational, training, and professional requirements. Established in 1969, the mission of the ABFM is to improve the health of the public through certification of family physicians and assisting them in maintaining high professional standards through professional development and lifelong learning; setting the standard for board certification training; conducting research on cutting-edge certification methods; and cultivating leaders in family medicine to expand the specialty's contribution to the health of the public.

Dr. Phillips described the ABFM and recent programs implemented and refined in the U.S. to integrate assessment and credentialing into healthcare. The ABFM helps 85,000 physicians maintain their certification and update their knowledge. Certifying boards in the U.S. were established separately from physician membership and advocacy organizations. Therefore, while physician certification boards are an intrinsic part of medical professionalism, the public is their key stakeholder, a different structure than is found in other parts of the world. A decade ago, the 24 boards of the American Board of Medical Specialties committed to moving beyond the summative evaluation of physicians to a process of continuously evaluating and improving the care they deliver. The four-part certification system introduced by ABMS focused on four areas: 1) demonstrating professionalism; 2) continually assessing knowledge and practice; 3) retaking



certification tests every seven to 10 years to assure that physician knowledge bases remain up to date; and 4) implementing quality improvement activities within physician practices. Maintenance of certification was not universally embraced by practicing physicians, many of whom believed that professional competence could be assured by documentation of continuing medical education or other means. The ABFM implemented the changes more slowly than some specialties, and is listening to diplomates and evolving to meet changing needs.

The ABFM is the first certifying board to launch a national registry, PRIME, that is designed to support primary care physician capacity for quality assessment, improvement, data-

reporting requirements, and population management in daily practice. It gives providers and practices a dashboard to look at quality measures across their population, dive in deeper to identify patients in the gaps, and recommend quality improvement activities that most align with the gaps. The dashboard feeds continuous certification, and provides data to report for value-based payment. The registry data also supports research, and will allow for an opportunity to redevelop measures, from disease-specific to high-value population health measures.

[VIDEO: Lifelong Learning](#)

[SLIDES: Lifelong Learning](#)

## Potentially Disruptive Innovations in U.S. Primary Care: Overview

Andy Ellner, MD, MSC, *Harvard Medical School Center for Primary Care*

### KEY POINTS:

- Capitated or global payment can support innovation that is nearly impossible when payments are transactional, visit-based units.
- Healthcare technology is shifting toward supporting more convenient interactions, with scalable primary care that includes virtual care and e-consultations to break down barriers between primary and specialist care.
- Technology allows for healthcare task sharing, both with patients through online resources and with care team members (supported by customer relationship management software) who can help manage care through digital communication.
- Leveraging big data and artificial intelligence can help predict risk and improve diagnostic accuracy and efficiency.
- Technology and data can allow us to become more sophisticated about identifying and overcoming behavioral health challenges.

**Disruptive innovation**, a term coined by Clayton Christensen, describes a process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually

displacing established competitors. Disruptive innovations are typically considered to be those that have fundamentally changed an industry, such as the impact that Uber has had on the taxi industry. Although innovation of that scale



has not yet happened in primary care, a number of new and innovative models and approaches are emerging. Dr. Ellner provided context for thinking about health system innovation and outlined five key trends (described below) that are enabling innovations in primary care.

Some important contextual points regarding innovation, global health systems, and U.S. primary care are applicable everywhere. As we transition toward sustainable development, increasingly focused on both expanding the number of people and range of services covered, system design becomes extremely important. As countries develop, the epidemiology of morbidity and mortality shifts from the dual burden of communicable diseases and maternal-child health to non-communicable disease and chronic conditions. Another key factor driving innovation in the U.S. is the crisis in value. Expenditures on healthcare in U.S. far exceed those in other developed countries, yet it has worse health outcomes than most other high-income countries. Finally, as the population increased, the availability of primary care providers has not kept pace with the need. Healthcare has not seen the gains in labor productivity over the past 20 years that other industries have seen.

Health system performance in the 21<sup>st</sup> century requires a change in focus from acute to chronic disease, from a health system that reacts and rescues to one that engages and empowers, from a passive to an active patient role, and a shift in provider competence from technical excellence to leadership. With this reorientation comes the need for better health information technology. This has been a particular challenge in the U.S., where many electronic health record systems have been built on platforms

primarily built for revenue capture and billing under a fee-for-service financing system.

Five key trends are enabling and driving innovations in primary care. First, capitated or global payment can support innovation that is nearly impossible with transaction-based, fee-for-service payments. Key elements of primary care such as continuity, access, comprehensiveness, and coordination, are difficult to support through transactional financing. High-functioning organizations that have made major care system improvements have leveraged payment approaches that are not based solely on fees for face-to-face visits. Second is a technology shift to more convenient interactions that include virtual care for acute and chronic conditions, incorporating better triage to help patients access appropriate care and reduce emergency department visits for non-emergent care, and e-consultations to break down barriers and provide opportunities between primary and specialist care. A third trend is task sharing that empowers patients to better use the thousands of hours of health-related activities that happen outside the clinic visit by, for instance, engaging online resources. These interactions can be facilitated by care teams (supported by customer relationship management software) who help patients manage care through digital communication methods and tools. Many elements of healthcare can be standardized with clinical protocols and translated into algorithms that can be followed by patients and staff at various levels, freeing up physicians and other highly trained clinicians to focus on areas of complexity. Fourth, leveraging big data and artificial intelligence can improve diagnostic accuracy and efficiency. Such techniques can also help predict risk for adverse events such as suicide or domestic abuse. And fifth, technology



can be leveraged both to identify behavioral health challenges and to support people to live healthier lives by addressing those challenges.

[VIDEO: Disruptive Innovations](#)

[SLIDES: Disruptive Innovations, Ellner](#)

## Disruptive Innovations in U.S. Primary Care: A Digital Health Example

Sean Duffy, *Omada Health*

### KEY POINTS:

- A digital, remotely delivered intensive behavioral counseling intervention program can help seniors at risk for diabetes and cardiovascular disease achieve significant weight loss, reduce risk, and achieve meaningful medical cost savings.
- Data science can help to overcome challenges to scaling chronic disease prevention programs.
- Underserved patients display high engagement and satisfaction with a digital program despite lower digital literacy skills.
- Collaboration between researchers and a digital health company enabled iterative improvements in technology implementation to address challenges in low-income populations.

**Omada Health** is a specialty provider of intensive digital behavior change counseling with a mission to inspire and enable people everywhere to live free of chronic disease. The company developed the Omada diabetes prevention program, which combines behavioral science, social support, and technology. The 16-week program, integrated to web, mobile, and smart devices, is designed to help individuals lose weight and reduce behavioral risk factors for developing type 2 diabetes. The program guides participants toward reaching modest weight loss and activity goals through nutrition and behavioral changes.

For the first time in global human history, preventable chronic diseases account for greater mortality than infectious diseases. In the U.S., an estimated 87 million people have pre-diabetes. Research sponsored by the U.S.

National Institutes of Health (NIH) demonstrated that a set of behavioral interventions can delay or prevent progression into type 2 diabetes. The Omada program was created to scale touchpoints with patients after the NIH's first successful DPP in 2002 which demonstrated clear risk reduction in 1,000 patients with pre-diabetes who were brought into high-touch behavior modification. Research has demonstrated success in weight loss and reductions in hemoglobin A1C, a reflection of blood sugar.

Omada helps people make change that leads to weight loss, with a referral relationship to primary healthcare. The moment people learn of a change in their risk profile—when they have been told they have pre-diabetes—can be a moment of patient activation. Although healthcare providers regularly counsel patients to lose weight in response to a diagnosis of pre-



diabetes, weight loss is extremely difficult, particularly without ongoing support. The multiple interactions from Omada provide support and caring outside of the clinic. *Omada* means “group” in Greek. The program matches people to groups and supports them with a health coach, facilitated peer support, and a curriculum with a clear cadence.

Data science has helped overcome the biggest challenges to scaling diabetes prevention programs to large populations. Omada uses the insights from current participants to improve the program for the next. Scientific and clinical experimentation drives continual improvement, supported by a clinical innovation team, a product engineering team, and a data science team. Omada is able to analyze specific behavior and demographic patterns to tune and

tailor the program. By monitoring use, real-time, randomized and controlled in-product experiments are conducted in order to refine the program. For example, modifying the frequency at which participants receive feedback and correlating the time frame to behavioral changes can assist in improving the impact of feedback. This is contributing to the quantification of contributions of various factors that support behavioral change, including important components like goal setting, timelines, and social pressures. The data from the Omada program is fed back to the primary care provider to assure coordination with ongoing care.

[VIDEO: Disruptive Innovations](#) (at 25:30)

[VIDEO: The Omada Health Experience](#)

[SLIDES: Disruptive Innovations, Duffy](#)

## Financing Advanced Primary Care

Asaf Bitton, MD, MPH, *Ariadne Labs*

### KEY POINTS:

- There is no one “best” financing model for advancing primary healthcare. Each model has trade-offs.
- Many primary healthcare delivery systems are designed to accommodate pre-existing financing mechanisms, rather than the financing systems being designed to support primary care delivery.
- Providers are highly responsive to financial incentives, and in the U.S. those operating under the traditional fee-for-service payment system operate near revenue-maximizing levels of staffing and service delivery.
- Modest per-member-per-month-based funding may support some transformation, but achieving the goals of advanced primary care in the U.S. will require more radical payment reforms that specifically target the delivery of desired services, and promotion of population health as the end outcome.

**The way in which** primary care is paid for has a profound impact on the way in which it is delivered. However, there is no single “best

method” for financing primary care, as each of the many available approaches requires certain trade-offs. Dr. Bitton provided an overview of



different types of financing mechanisms for advanced primary care.

Dr. Bitton observed that delivery systems in many developed countries have often been designed to succeed under existing financing mechanisms, in contrast to an approach whereby financing mechanisms are intentionally designed to support achievement of specific system and population outcomes from primary care.

Financing approaches can be viewed along a spectrum that is bounded on one end by fee-for-service payments for point in time transactions such as face-to-face visits, and on the other by capitation or even global budgets for a population. In between, there are pay-for-performance schemes, “per-member-per-month (PMPM)” payments to supplement fee-for-service, the addition of shared savings incentives, and bundled payments for defined episodes of care.

As the financing mechanisms change, incentives, trade-offs, and risks change as well. For instance, on the fee-for-service end of the spectrum, incentives favor productivity and volume of service rather than efficiency in achieving desired outcomes. Under bundled payment approaches that are not adequately tied to achievement of desired quality outcomes, there is a risk that needed care may be withheld to assure profit.

Dr. Bitton reviewed four examples of primary care financing mechanisms that moved beyond the predominant fee-for-service model that has been used in the U.S.

In 2004, the United Kingdom implemented a pay-for-performance program that linked up to 25% of income for family doctors to

achievement of various technical quality targets for 136 indicators. Initial substantial improvements on measures related to chronic conditions such as asthma and diabetes were not sustained over time. Further, among the unintended consequences were reductions in the quality of care processes not linked to performance incentives. Pay-for-performance programs in other advanced economies have similarly found that initial progress has been difficult to sustain, and have resulted in unintended consequences, especially around patients’ experience of care.

Dr. Bitton reviewed a number of U.S. patient-centered medical home (PCMH) payment pilots that incorporate a variety of hybrid models that remain based on fee-for-service, but include supplemental PMPM payments and occasionally shared savings.

Iora Health is a private provider entity that contracts with employers or insurers to provide primary care. In effect, the model represents a bundled payment for a year-long “episode” of primary care. Consumers receive wrap-around insurance for specialty and inpatient care. Early results are still in process, but the care and payment model may be promising.

Comprehensive Primary Care Plus (CPC+) is a large, 14-state multipayer payment model implemented by the federal Centers for Medicare & Medicaid Services. CPC+ has two tracks with different proportions of fee-for-service, per beneficiary per month care management fees, and performance-based incentive payments. One of the tracks provides an opportunity for physicians to receive a significant proportion of compensation in the form of per beneficiary capitation.



Dr. Bitton described a microsimulation approach that modeled the effects of various combinations of fee-for-service, PMPM, and pay-for-performance bonuses on primary care practice finances. He and his colleagues found that clinics are highly responsive to financial incentives and that on average U.S. primary care practices operate at over 95% efficiency under the fee-for-service model. Modest PMPM-based funding may support some initial practice transformation, but achieving the goals of PCMH will likely require more radical

payment reforms that specifically target the delivery of desired services. Models suggest that delivery of coordinated, team-based care that conforms to the PCMH approach is incentivized when the proportion of financing under capitation models is above approximately 65% of total revenue.

[VIDEO: Financing Primary Care](#)

[SLIDES: Financing Primary Care](#)



## BREAKOUT SESSIONS

### A Community Health Center-Hosted Project ECHO

Sanjeev Arora, MD, *University of New Mexico; Project ECHO*

Daren Anderson, MD, *Community Health Center Inc., The Weitzman Institute*

**Moderator:** Jonathan Sugarman, MD, MPH, *Qualis Health*

Dr. Anderson described a primary care-based variation on the Project ECHO model. With a mission of caring for underserved patients with complex conditions and chronic disease, Community Health Center, Inc. and Weitzman Institute realized the importance of connecting primary care providers and expert specialists to improve patient outcomes. Weitzman ECHO launched in 2012 and has since grown into one of the largest ECHO providers in the country, delivering sessions to more than 970 providers in 25 states.

Like the original Project ECHO, Weitzman ECHO first focused on treating patients with hepatitis C. Over time, Weitzman stakeholders identified other condition “hot spots” within their patient populations, such as HIV/AIDS, pediatric and adolescent behavioral health, substance abuse, complex care management, chronic pain, and

healthcare for the lesbian, gay, bisexual, and transgender community.

While the management of complex patients is greatly facilitated when presented to a multidisciplinary team of specialists, Weitzman recognized that not every case is complex enough to present in detail to a team in real time via the traditional ECHO model. Nonetheless, care can often be greatly improved with targeted specialist consultation related to a specific clinical question. Weitzman’s Project ECHO “Plus” includes e-consults, with access to an online network of specialists available to respond to primary care clinicians’ questions, usually within two days. Dr. Anderson noted that more than 80% of the time, the question and the patient’s issue are resolved through e-consult, and face-to-face visits with specialists can be avoided.

[SLIDES: Weitzman ECHO](#)

### Federally Qualified Health Centers

Margaret Flinter, PhD, APRN, *Community Health Center Inc., The Weitzman Institute*

David Stevens, MD, FAAFP, *George Washington University*

**Moderator:** Rashad Massoud, MD, MPH, *University Health Consortium, LLC*

Drs. Flinter and Stevens elaborated on their experiences with Federally Qualified Health Centers (FQHCs) and other Community Health Centers (CHCs), emphasizing the importance of developing an effective workforce, ideally drawn from the community the health center serves. Communities wishing to implement the

CHC model should first focus on providing services most closely aligned with local resources and local needs. After initial success can be demonstrated, funding for expansion is easier to secure. The early days of CHCs in the U.S. can be compared to current efforts in lower- and middle-income countries to launch



similar primary care settings. Today in the U.S., there is at least one CHC in every Congressional district, a distribution that gives voice to all patients and demonstrates that the need for affordable, accessible primary care crosses all

boundaries. Such widespread growth also relies on organizational leadership, as health centers only grow to the extent they have stable, effective, committed leadership.

### Vertically Integrated Systems

Soma Stout, MD, MS, *Institute for Healthcare Improvement*

Wellesley Chapman, MD, *Group Health Cooperative*

Donna Galbreath, MD, *Southcentral Foundation*

**Moderator:** Andy Ellner, MD, MSC, *Harvard Medical School Center for Primary Care*

Drs. Stout, Chapman and Galbreath responded to audience questions about vertically integrated systems and the challenge of providing consistent care, the role of data in care delivery, sustainable funding, and public and private sector partnerships. Addressing the difficulty of providing a uniform experience and quality of care across the system, the speakers emphasized the need to allow autonomy and ownership, provide ongoing education programs, and allow enough time for improvements to scale at the speed of relationship development. Data must be tied to outcomes relevant to patient care in order to motivate providers and inform key

constituencies. Outcomes must be shared with the community to build partnerships. Although front line staff training is effective for achieving continuous incremental improvement, one key element of successful transformative change in integrated systems has been the availability of staff with deep knowledge of improvement science and facilitation skills to coach others in transformation initiatives. Vertically integrated systems that are significantly or wholly compensated under capitated arrangements have greater freedom to design what patients need for better care than those working predominantly in current U.S. fee-for-service environments.

### Training and Growing the Primary Care Workforce

Margaret Flinter, PhD, RN, *Community Health Center Inc., The Weitzman Institute*

Jeff Hummel, MD, MPH, *Qualis Health*

Robert Phillips, MD, MSPH, *American Board of Family Medicine*

**Moderator:** William Phillips, MD, MPH, *University of Washington*

Drs. Flinter, Hummel, W. Phillips, and R. Phillips addressed issues related to the training and retention of an effective, culturally competent primary care workforce. Dr. W. Phillips described an approach to engaging health professions students in primary care through a unique academic course at the University of Washington. A key element of the course is a

focus on aligning the structure and capacity of primary care with local community needs. A focus on meeting community needs results in greater understanding of the potential contributions of different disciplines, and the value of team-based approaches to care delivery.



Dr. Hummel described the history of MEDEX Northwest, an exemplary physician assistant training program. The program attracts students from diverse backgrounds, and prepares students to delivery primary care with an emphasis on underserved populations. Much of the community-based training, both didactic and clinical, is decentralized and provided in rural and remote regions.

Dr. Flinter elaborated on the development of the first post-graduate primary care residency training program for nurse practitioners in the U.S. The program has now been replicated in a number of other U.S. community health centers. Dr. Flinter also described a community health center program to train medical assistants.

All of the speakers emphasized the importance of conducting primary care training in appropriate locations. Dr. W. Phillips stressed that primary care clinical training is best taught in community settings, and not in academic medical centers or teaching hospitals, in great part due to the patient mix seen in hospital settings. Dr. R. Phillips noted that research has

shown that U.S. medical residents who have done even a small portion of their training in community health centers, rural clinics, or rural hospitals are over 10 times more likely to go on to practice in those settings than residents without such exposure. Dr. Flinter reported that 87% of graduates of health center-based nurse practitioner residency programs continue to provide primary care in community health centers.

Dr. R. Phillips described two analytic tools developed to assist primary care physicians in understanding health data and disease prevalence among their populations. One tool extracts clinical data from electronic medical records and uses geocoding to provide patient-specific indices of social risk based on linkages with external data sets. The second uses data from large public data sets to characterize both rates of social determinants of health and disease prevalence in the catchment area served by practices. Both tools assist primary care providers in adopting a population health perspective that links medical care to public health.

### Innovations in Delivery System Design: Technology and Beyond

Carroll Haymon, MD, *Iora Health*

Wellesley Chapman, MD, *Group Health Cooperative*

Sean Duffy, *Omada Health*

**Moderator:** Andy Ellner, MD, MSC, *Harvard Medical School Center for Primary Care*

Dr. Haymon provided an overview of her primary care practice at Iora Health. Established in 2012, Iora Health operates a network of practices in dozens of communities across the U.S., each of which is designed to meet the needs of a defined population. The Iora model is based on four key concepts: relationship-centered care, value-based payment, robust

team care, and provision of an outstanding patient experience. Dr. Haymon's clinic provides care to Medicare beneficiaries under a fully capitated health plan. The patient population is primarily lower income, and is ethnically diverse. In comparison to typical U.S. primary care, Iora Health's practice teams have smaller panel sizes, enabling them to develop closer



relationships with patients. Behavioral health providers are integrated into the teams to support whole person care. Care teams include community health workers and health coaches who promote health using a variety of social and educational approaches that focus on self-management support and patient empowerment. While many electronic health records are optimized for billing and financial management, Iora is supported by health information technology that is focused on patient care. Technology is used to communicate with family caregivers as well as directly with patients. Patient outcomes reflect both high quality and cost-effectiveness. For instance, adjusted for the acuity of the population, Iora Health patients have hospitalization rates one-third lower, and emergency department visit rates approximately half of Medicare market averages.

Dr. Chapman and Mr. Duffy joined Dr. Haymon to discuss the role of technology in supporting integration and scale. Group Health uses technology almost exclusively to scale relationships, moving from exclusively face-to-face to virtual interactions. Currently, two-thirds of primary care interactions at Group Health are virtual. This was accomplished in part due by the introduction of an e-visit platform that facilitates care when patients are seeking transactions (such a prescription for a minor ailment that does not require a physical examination). On the other end of the scale, high-need populations are cared for by coaches who work with directly with patients outside of typical clinical settings. A messaging platform supports ongoing relationships between coaches and patients on a regular basis.

[VIDEO: Breakout 5: Innovations in Delivery System Design](#)

[SLIDES: Iora Health](#)



## REACTOR PANEL:

### Bridging the U.S. Experience to the Realities of Low- and Middle-Income Countries

Rashad Massoud, MD, MPH, *University Research Co., LLC*

Cheryl Scott, *McClintock Scott Group*

Susna De, MPH, MSc, *Bill & Melinda Gates Foundation*

Hong Wang, MD, PhD, *Bill & Melinda Gates Foundation*

The reactor panel reflected on the day's presentations and highlighted a number of themes and ideas that could inform various audiences working to improve primary care across the globe.

#### Issues of Governance

Several presentations throughout the day emphasized community governance of, and participation in, the systems in which they receive care. Panelists considered how some of the approaches might be applicable in developing nations.

Dr. Wang commented that despite the frequently repeated assertion that the U.S. doesn't have a primary healthcare system, he concluded that in fact such a system does exist. However, in contrast to the systems in many developing countries, which are highly centralized and structured, the U.S. has a very decentralized system. In the U.S. there are data and monitoring systems that include large groups of providers, and planning systems that reflect the diversity of the delivery sector. Symposium presentations described a number of settings in which system governance is closely connected with the community being served, including direct participation of patients in governance structures. The models presented demonstrated that it is possible for a decentralized system to be stronger than the centralized but dysfunctional systems in some low-income countries.

Ms. De observed that the term "customer owner" echoed throughout the day's discussion. In contrast to the models in which communities drive the priorities of their systems based on local priorities, in many countries external donors drive how and to whom services are delivered. Donor funding is often earmarked for specific conditions, such as HIV/AIDS or malaria, rather than strengthening the primary healthcare delivery system as a whole. Thus, healthcare system flow and design is piecemeal, based on the priorities of the funder. The idea of having customers, and systems designed to benefit the customer, is not an approach that is used in most low-income settings. We don't hear about patient-centered design.

In many developing nations, Dr. Kress noted, healthcare is provided either by an inefficient government sector that is decidedly not customer-focused, or by a chaotic private sector that does not have a community orientation. He speculated that mission-based organizations, such as those hosted by various religious communities in East and West Africa, might be able to integrate some of the approaches of the Federally Qualified Health Center (FQHC) program. If implemented, their examples might serve as a wedge to stimulate innovation in other primary care models within the same countries. A challenge in many low-income nations is that you need to disrupt the existing systems profoundly, or drive a much higher



level of competition, to create innovation for better care and better outcomes.

### Financing Systems

Dr. Wang observed that while FQHCs are not government organizations, they receive funding from the government on the condition they provide good quality care. That is not the model prevalent today in most developing countries, where healthcare is either both financed and operated by the government, or by private sector organizations, neither regulated nor financed by government. The alignment of public and private sector payers and providers described in some of today's presentations often doesn't exist.

Ms. Scott described a frequent problem with financing in low-income countries, where donors often come with their own "dance cards," including their own rules and reporting systems. A key barrier to making financing more rational is a lack of imagination. The Primary Health Care Performance Initiative (PHCPI) currently represents a promising opportunity to help donors and ministries of health in low-income countries reimagine delivery system design. You can't accomplish what you can't imagine. With respect to the system-level focus of the PHCPI, the missing piece is alignment with the vertical, condition-specific priorities of the donor landscape. In the U.S. there is, to some extent, alignment of policy priorities even in a public and private sector multi-payer environment. In the developing world, such alignment is rare. Ms. Scott reiterated that it is critical to engage donors to set aspirations for overall primary healthcare improvement. Speakers at the symposium described several

iconic technologies, such as Project ECHO, that are effective, scalable and can be rapidly deployed. Project ECHO and other delivery system innovations and ideas that have been successful in the U.S. multi-payer environment can still be deployed in countries with very different financing mechanisms.

### Leadership

What kind of leadership is necessary to make transformation possible? Dr. Arora commented that his efforts to introduce Project ECHO in new countries were universally unsuccessful when he began by approaching senior government leaders. Although such leaders often expressed interest in the model, their interest was not followed by action. Therefore, he sought clinical champions on the ground who were willing to host ECHO implementation. Leaders became engaged only after seeing a successful, in-country implementation of the model. Additionally, establishment of ECHO programs often resulted in an increased sense of accountability and self-efficacy among providers, leading to improvements in provider availability at service sites.

Ms. De added that while some countries have strong health sector leaders, others do not. When donors and outsiders attempt to fill the gap, sometimes even more chaos is created. The concept of overall population health is not part of the usual discourse among donors in many low-income countries because donors are focused on their own narrow condition-specific priorities. Some of the relevant learnings from the day—concepts such as population health, whole person engagement, and multidisciplinary primary care teams—need



wide dissemination among the donor community, and should be infused into the donor lexicon.

### Care Delivery

Throughout the day, presenters shared important elements of system improvement: healthcare teams, integration of patients into care redesign, measurement- and improvement-focused organizational cultures, appropriate technology support, and methods of disseminating innovations. Dr. Massoud identified a key theme expressed by several presenters: the importance of recognizing the emotional responses evoked by many of the system changes, and the changes needed in relationships among individuals. Such changes require time to implement, and cannot be seen simply through the lens of efficiency. Using the example of a Gates Foundation-funded project in Ghana, Ms. Scott reinforced the fact that culture change in clinics in low-income countries does not require technology heavy innovation. Rather, substantial improvements arise from continuous implementation of techniques such as rapid cycle tests of change using plan-do-check-act methods, and low technology measurement techniques.

Dr. Wang suggested that the concept of team-based care is an attractive way to overcome unfavorable perceptions of, and low trust in, primary healthcare in low-income countries. The successful examples presented during the symposium showed improved outcomes and engagement when every patient has a team. If this is something that a low-income country can learn, it could build trust in and utilization of primary care. Ms. De acknowledged that the

transformation to team-based care and integration of services is likely to require considerable effort in many settings that are currently designed around separate vertical programs. Integration and increasing scope of services will often require retraining, addition of staff, and additional funding.

Audience members offered comments suggesting that as community engagement and control of health systems increase, they are less likely to accept donor funding for projects or services that are not aligned with community priorities and approaches. Ms. Scott indicated that several more progressive low-income countries are already beginning to reject donor funding when it is not aligned with their priorities. One approach that has been successful in the U.S. is to include funders with interests in specific diseases or conditions as partners in the planning and execution of broader collaborative improvement efforts, such as the Health Disparities Collaboratives described earlier by Dr. Stevens.

### Leveraging Technology

Several presentations focused on leveraging technology to support primary care delivery. The widespread use of mobile technologies in low income countries suggests that such technology provides an opportunity for significant innovation. Ms. Scott cautioned that it is critical for the technology to be connected to solutions to real problems. While technology can be profoundly transformative, it must be supported with training and a shared vision of how it can result in better outcomes. In their absence, there will continue to be developing countries with supply shelves full of unused



iPads or mobile phones loaded with apps that have little real impact on the healthcare problems they are intended to address. Technology must be used in service of a broader strategy, with a whole systems approach. Dr. Wang concurred that health systems need to be ready to use technology, and that adequate human resources and

infrastructure need to be in place before technology is introduced. Ms. De added that even innovative technology and data systems that support specific, time-limited projects often lie dormant after the projects are completed unless they are connected to more comprehensive system transformations.

[VIDEO: Reactor Panel](#)



## CLOSING REMARKS

Jonathan Sugarman, MD, MPH, *Qualis Health*

Dr. Sugarman noted that the symposium presenters were asked to focus on concrete, real-world examples of effective primary care, rather than on general principles or theoretical frameworks that might guide primary care transformation. However, it might also be useful to acknowledge that several U.S. models have been developed that may be of interest to those working to transform primary care at the service delivery level in other countries. Dr. Stout alluded to participation of the Cambridge Health Alliance in the Safety Net Medical Home Initiative (SNMHI). The SNMHI was a five-year Commonwealth Fund-sponsored project led by Qualis Health to assist 65 U.S. health centers, homeless clinics, private practices, residency training centers, and other practices providing care to vulnerable populations in transforming to patient-centered medical homes. In the course of the initiative, Qualis Health collaborated with Dr. Ed Wagner and colleagues at the MacColl Center for Health Care Innovation to develop a series of eight evidence-based change concepts, as well as a series of key changes made by exemplary practices, that have been widely used to guide primary care transformation in other initiatives. The eight Change Concepts for Practice Transformation describe a specific sequence of activities that had been implemented by successful practices. First, successful practices laid a foundation for progress by assuring

engaged leadership, and by selecting and implementing a quality improvement strategy. Second, they focused on building relationships between providers and patients by the process of empanelment, and the development of highly functioning, interdisciplinary teams responsible for the continuing care of a defined panel of patients. With these elements in place, practices could successfully change the delivery of care by implementing an organized approach to assuring evidence-based care while fostering patient-centered interactions. Finally, practices turned their attention to reducing barriers to care by enhancing access to primary care, and implementing systematic approaches to care coordination.

Dr. Sugarman reviewed evidence that while application of this paradigm can result in meaningful progress toward system transformation over the short term, most of the examples presented today are the result of sustained effort over a period of years. While the path to exemplary primary care across the globe may differ from that described by the organizations represented today, lessons learned from the sustained efforts of high performers in the U.S. may help to point the way.

[VIDEO: Closing Remarks](#)

[SLIDES: Closing Remarks](#)

[Change Concepts for Practice Transformation](#)



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## PRESENTER BIOGRAPHIES



**Daren Anderson, MD,**  
*Community Health Center,  
Inc., The Weitzman  
Institute*

**Dr. Daren Anderson** is the Director of the Weitzman Institute and VP/Chief Quality Officer of Community Health Center, Inc. In this role, Dr. Anderson is responsible for ensuring that CHC delivers the highest possible quality of care to its patients, developing a strong quality improvement infrastructure across CHC, promoting research and development, and supporting CHC's mission to become a nationally-recognized center of world-class healthcare.

Previously, Dr. Anderson served as Director of Primary Care for the VA Connecticut Healthcare System, Assistant Professor of Medicine at Yale School of Medicine, Chief Medical Officer of Community Health Center, Inc., a consultant in the field of disease management, and a primary care provider at the Community Health Center of New Britain.

Dr. Anderson obtained his undergraduate degree at Harvard College and his medical degree from the Columbia University College of Physicians and Surgeons. He completed his residency training in internal medicine at Yale-New Haven Hospital and is a board-certified general internist.

Dr. Anderson researches, lectures and writes extensively in the areas of disease management, self management/behavior change, implementation science, and health services research. He has published articles in several top-tier peer-reviewed medical journals, including the *Journal of General Internal Medicine*, *Archives of Internal Medicine*, and *Diabetes Spectrum*. He is the 2010 recipient of the Society of General Internal Medicine's Hamolsky Award for his research on disease management for diabetes in a community health center.

**Dr. Sanjeev Arora** is the Director and Founder of Project ECHO. He is a Distinguished Professor of Medicine with tenure in the Department of Internal Medicine at University of New Mexico Health Sciences Center. Project ECHO® (Extension for Community Healthcare Outcomes) dramatically improves both capacity and access to specialty care for rural and underserved populations by linking expert inter-disciplinary specialist teams with primary care clinicians through teleECHO™ clinics, in which the experts mentor primary care clinicians to help them manage their patient cases and share their expertise via mentoring, guidance, feedback and didactic education. This helps rural clinicians develop knowledge and self-efficacy so they can adopt research findings and deliver best-practice care for complex and chronic health conditions.

The first teleECHO clinic was developed in 2003 to respond to a growing hepatitis C health crisis and has since expanded to cover over 40 other complex conditions at academic medical centers across the U.S.



**Sanjeev Arora, MD,**  
MACP, FACP  
*University of New  
Mexico; Project ECHO*



(*Dr. Arora continued*) and around the globe. The Department of Defense and the Centers for Disease Control and Prevention have also adopted the ECHO model™ to enhance access to specialty care. In 2011, ECHO published a prospective cohort study in the *New England Journal of Medicine*, to prove that treatment for HCV by primary care clinicians using the ECHO model is as safe and effective as treatment by specialists at an academic medical center.

Over the last 13 years Dr. Arora has received more than 30 million dollars of grant support. Dr. Arora has been awarded numerous prestigious awards including: the Teresa Heinz and the Heinz Family Foundation 19th Heinz Award for Public Policy, Second Rosenthal Award from the Rosenthal Family Foundation, and the American

College of Physicians and the American Telemedicine Association (ATA) President's Award. Dr. Arora was also recognized during World Hepatitis Day 2014, at the White House in Washington DC, DC as a leader in advancing efforts to address viral hepatitis and the goals of the Action Plan for the Prevention, Care, and Treatment of Viral Hepatitis.



**Asaf Bitton, MD, MPH,**  
*Ariadne Labs*

As a practicing primary care physician and health systems innovator, **Dr. Asaf Bitton's** work centers on improving the measurement and delivery of primary care nationally and globally. Dr. Bitton has a particular focus on the implementation and evaluation of new team-based models of primary care delivery, and their associated payment structures. In the past, Dr. Bitton studied the epidemiology and control of non-communicable diseases in low and middle income countries, with a focus on global tobacco control.

In addition to appointments at the Division of General Medicine at Brigham and Women's Hospital and the Department of Health Care Policy at Harvard Medical School, Dr. Bitton directs the work at Ariadne Labs for the Primary Health Care Performance Initiative ([www.phcperformanceinitiative.org](http://www.phcperformanceinitiative.org)). This joint effort with the Bill and Melinda Gates Foundation, the World Bank, the World Health Organization, along with Results for Development, aims to measure in both traditional and novel ways primary care functions and performance within low and middle income partner countries, with the goal of understanding variation in performance and tailoring improvement initiatives to address performance gaps.

Dr. Bitton also serves as a Senior Advisor to the Comprehensive Primary Care initiative at the Center for Medicare and Medicaid Innovation. This national multi-payer initiative launched in 2012 combines payment reform and practice redesign to transform 474 primary care practices in 8 states over 4 years with the overarching goal of improving quality of care, patient



*(Dr. Bitton continued)* experience, and reducing costs.

Dr. Bitton practices primary care medicine and is the Assistant Medical Director at the Brigham and Women's Advanced Primary Care Associates, South Huntington, a patient-centered medical home practice in Jamaica Plain, MA.

**Dr. Wellesley Chapman** is Medical Director of Innovation & Business Development at Group Health. He joined Group Health in 2008, serving as a Primary Care physician with obstetrics, Medical Center Chief, and Lean consultant prior to leading the Innovation team. The Innovation team focuses on designing new models of care delivery, using methods adapted from Design Thinking and Lean Startup models. New services developed by innovation include novel retail clinics, telemedicine services, care bundles, and most recently new approaches to high risk, vulnerable patients. Dr. Chapman has a BA in Economics from the University of Vermont and an MD from the University of Washington, and holds a Clinical Associate faculty appointment with the Group Health Research Institute.



**Wellesley Chapman,**  
MD, *Group Health*  
*Cooperative*



**Sean Duffy,** *Omada Health*

**Sean Duffy** is the co-founder and CEO of Omada Health, a digital behavioral medicine company dedicated to inspiring and empowering people everywhere to live free of chronic conditions like heart disease and type 2 diabetes. In 2016, Mr. Omada was named a Technology Pioneer by the World Economic Forum, and in 2015, the company was recognized as one of Fast Company's Most Innovative Companies.

An in-demand speaker and thought leader, Mr. Omada's accolades include a spot on The San Francisco Business Times' 2015 list of "40 Under 40," Diabetes Forecast magazine's list of "2014 Diabetes All Stars," and JPMorgan's list of the "100 Most Intriguing Entrepreneurs of 2014." Mr. Omada's past speaking engagements include Clinton Global Initiative Health Matters Summit, SXSW Interactive, the Society for Behavioral Medicine, the JPMorgan Healthcare Conference, and others. He has written extensively about digital health and the future of healthcare in The Wall Street Journal, Forbes, MedGadget, and TechCrunch, among other publications.

Prior to Omada Health, Sean worked at both Google and IDEO. A former MD/MBA candidate at Harvard, he holds a BS in neuroscience from Columbia University.



**Dr. Andy Ellner** is a primary care physician and an Assistant Professor of Medicine in the Division of Global Health Equity at Brigham and Women's Hospital and Director of the Program in Global Primary Care and Social Change at Harvard Medical School (HMS), where he was the founding Co-Director of the HMS Center for Primary Care. He is also co-founder and Chief Executive Officer of Firefly Health, which is building a digital and care team platform to deliver better, safer primary care at large scale. Dr. Ellner is a graduate of Harvard College and Harvard Medical School. He received an MSc with distinction from the London School of Hygiene and Tropical Medicine and the London School of Economics and completed his internship and residency in the Division of General Medicine Primary Care program at Brigham and Women's Hospital.



**Andy Ellner, MD, MSC,**  
*Harvard Medical School  
Center for Primary Care*

Dr. Ellner's work focuses on the redesign of health service delivery and medical training to incorporate advances in information technology, to hasten the adoption of higher functioning organizational models, and to better address the social determinants of health. He previously worked with the World Health Organization and Clinton HIV/AIDS Initiative on projects to improve health systems in low- and middle-income countries. He serves on the board of several non-profit organizations focused on advancing primary care and community health, including Primary Care Progress, of which is a co-founder.



**Margaret Flinter, APRN,**  
*PhD, FAAN, FAANP, c-FNP,*  
*Community Health Center,*  
*Inc., The Weitzman*  
*Institute*

**Dr. Margaret Flinter** is the Senior VP and Clinical Director of the Community Health Center, Inc. (CHCI), a statewide federally qualified health center serving 150,000 patients from its primary care centers across Connecticut, while leading practice transformation initiatives across the country. A family nurse practitioner since 1980, she has held progressive roles in the organization as both primary care provider and executive leader as CHCI transformed from a free clinic to one of the country's largest and most innovative FQHCs.

In 2005, she founded CHCI's Weitzman Center for Innovation, now the Weitzman Institute, which is CHCI's research, innovation, and quality improvement arm. Dr. Flinter also serves as the national co-director of the Robert Wood Johnson Foundation's Primary Care Teams: Learning from Effective Ambulatory Practices (LEAP) project, which is studying exemplar primary care practices across the country. Dr. Flinter has led the national development of a model of post-graduate residency training programs for new nurse practitioners and established the National Nurse Practitioner Residency and Fellowship Training Consortium as an independent organization to serve as an accrediting organization for such programs. Dr. Flinter is the Principal Investigator for HRSA's National Cooperative Agreement on Clinical Workforce Development. Since 2009 she has co-hosted, along with CHCI's CEO Mark Masselli, a weekly radio show,



*(Dr. Flinter continued)* “Conversations on Health Care,” which connects people with issues of health policy, reform, and innovation, and speaks widely on topics related to primary care transformation.

Dr. Flinter received her BSN from the University of Connecticut, her MSN from Yale University, and her PhD at the University of Connecticut. She is a fellow of the American Academy of Nursing and the American Academy of Nurse Practitioners, and an alumna of both the National Health Service Corps Scholars and the Robert Wood Johnson Executive Nurse Fellows Programs.

**Dr. Donna Galbreath** is the medical director of quality assurance for Southcentral Foundation’s (SCF) Medical Services Division. Donna provides direction in strategic planning and development of SCF’s comprehensive quality assurance program to ensure optimal healthcare delivery. Under Donna’s guidance, the organization achieved a Level 3 NCQA (National Committee for Quality Assurance) Patient Centered Medical Home status for high-quality healthcare improvement. She was also instrumental in creating a multidisciplinary peer review program at the Alaska Native Medical Center (ANMC), a 150-bed hospital co-managed by SCF and the Alaska Native Tribal Health Consortium.



**Donna Galbreath, MD,**  
*Southcentral Foundation*

Donna guided the whole-system redesign efforts for the Obstetrics and Gynecology Department and the Chronic Pain Program, which resulted in improved quality of services and increased customer satisfaction. She was essential in helping SCF achieve HEDIS outcomes between the 75th and 90th percentile for many of its services. She worked to improve and expand the cancer screening programs, which included colorectal and women’s cancer screenings, and she played a key role in the planning and development of the ANMC Cancer Service Program. She was also instrumental in helping the organization become a Malcolm Baldrige National Quality Award recipient for performance excellence in 2011.

With more than 10 years of service to SCF and the community, she also serves on several ANMC committees including the Executive Management Team, the Patient Safety Committee, and the statewide clinical directors meeting. She is active in the Association of American Indian Physicians and served as president in 2012. She services on The National Institute of Health Tribal Advisory Committee and is on the selection committee for the WWAMI Medical School Program.

Donna maintains an active clinical practice and presents nationally and internationally on quality assurance, corporate compliance, and SCF’s relationship-based Nuka System of Care.



**Carroll Haymon, MD,**  
*Iora Health*

**Dr. Carroll Haymon** is a family physician and geriatrician. She enjoys managing elderly patients with their complex medical problems and fascinating personal stories. Dementia, palliative care, polypharmacy, and advance care planning are her particular professional interests. Dr. Haymon is a Clinical Assistant Professor of Family Medicine at the University of Washington, and served as the Director of the Geriatric Medicine fellowship at Swedish Medical Center from 2009-2014. Since 2014, she has been the Medical Director at Iora Primary Care in Seattle, a primary care clinic for older adults. She is board-certified in family medicine, and has a CAQ in both Geriatrics and Hospice/Palliative Medicine.

**Dr. Jeff Hummel** has worked for Qualis Health since 2006 as Medical Director for Healthcare Informatics. His special interest is integrating information technology into clinical workflows to improve clinical outcomes in population management of chronic disease. He is currently involved in several national and regional projects designed to integrate oral health preventive services into primary care in a medical home setting.

Dr. Hummel is a general internist who started his career in a solo practice in rural Eastern Washington and Northern Idaho. Following that he spent 13 years at Group Health in Seattle combining clinical practice innovations in a multi-disciplinary care team with the emerging discipline of chronic disease management. He then spent another 11 years at the University of Washington Neighborhood Clinics involved in early efforts to use EHR data for clinical quality reporting in population health.



**Jeff Hummel, MD, MPH,**  
*Qualis Health*



**Rashad Massoud, MD,**  
*MPH, University Health Consortium, LLC*

**Dr. Rashad Massoud** is a physician and public health specialist internationally recognized for his leadership in global healthcare improvement. He is the Director of the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project. He is also the Chief Medical and Quality Officer, and Senior Vice President of the Quality and Performance Institute at University Research Co., LLC (URC), leading URC's quality improvement efforts in over 40 countries applying improvement science to deliver better results in global health priority areas. He has a proven record of strong leadership and management. Dr. Massoud is President Elect of the Alumni Council of the Harvard T.H. Chan School of Public Health Alumni Council and is a member of the Palestine Health Policy Forum.



**Dr. Robert Phillips** is well known throughout the health policy community as an effective leader, communicator, and investigator. Under his leadership, the Robert Graham Center emerged as an authoritative source of information to guide policy, particularly as it relates to primary care and all of its features that are crucial to improving the cost-effectiveness of healthcare. In 2012, Dr. Phillips moved to the American Board of Family Medicine Vice President for Research and Policy to contribute to the research base underpinning primary care improvement, and to continue as a translator of evidence into policy.



**Robert Phillips, MD, MSPH**, *American Board of Family Medicine*

Dr. Phillips' research and policy experience led him to his selection by the Secretary of Health and Human Services to serve on a Federal Negotiated Rule Making Committee for the redesignation of shortage and underservice areas. He was a consultant to the Australian National University and Australian Government on the data systems they need to implement new geographically-organized population health systems, and was a Fulbright Specialist to the Netherlands and New Zealand. He consults at local, state, national, and international levels and also serves as a role model for aspiring students and fellows.

Dr. Phillips recently served as Vice-Chair of the US Council on Graduate Medical Education and continues to advise Federal and State governments on health education policy. He was principal investigator on a study of Graduate Medical Education accountability measures which informed issues of stewardship related to \$15 billion spent on these programs annually. Dr. Phillips currently serves on the National Center for Vital and Health Statistics. He was elected to the Institute of Medicine of the National Academies of Science in 2010.



**William Phillips, MD, MPH**, *University of Washington*

**Dr. William Phillips** is the Theodore J. Phillips Endowed Professor in Family Medicine in the School of Medicine and Clinical Professor of Health Services and Epidemiology in the School of Public Health at the University of Washington, Seattle. He is founder and senior editor of the *Annals of Family Medicine*. He currently serves as a member of the U.S. Preventive Services Task Force.

Dr. Phillips teaches family medicine, primary care research, clinical epidemiology and preventive medicine to students in all health professions. His research focuses on primary care, medical education, doctor-patient communication and prevention.

Dr. Phillips practiced full-time, full spectrum family medicine for 20 years in Seattle and has worked in Alaska, Australia, New Zealand and Zimbabwe. He is past president of the North American Primary Care Research Group (NAPCRG) and past chair of the American Academy of Family Physicians



*(Dr. Phillips continued)* Commission on Clinical Policies and Research. He has served on key national expert advisory groups, including the Advisory Committee on Immunization Practices (ACIP), Medicare Coverage Advisory Committee (MCAC), NIH National Library of Medicine, and Technology Evaluation Center of BlueCross BlueShield Association of America. Dr. Phillips earned his M.D. and M.P.H. from the University of Washington. He completed residencies in Family Medicine at the Providence Medical Center in Seattle and in General Preventive Medicine at the University of Washington School of Public Health. He is a fellow of the American Academy of Family Physicians.

**Cheryl Scott** is currently a principal with McClintock Scott Group. McClintock Scott provides senior executive advice and counsel to healthcare delivery organizations. Up until June 2016, Ms. Scott was the Senior Advisor for Global Programs at the Bill and Melinda Gates Foundation. She joined the foundation in 2006 as Chief Operating Officer, overseeing all major operational functions.

Ms. Scott was previously president and CEO of the Seattle-based Group Health Cooperative. Her eight-year tenure as CEO capped a distinguished 25-year career with Group Health, which also included roles as the organization's Executive Vice President and Chief Operating Officer. Scott received her bachelor's degree in communications and master's degree in health management from the University of Washington. She currently serves on a variety of private and not-for-profit boards. In 2005, the University of Washington and Group Health created the Cheryl M. Scott/Group Health Cooperative Professorship in Health Care Leadership in the School of Public Health. Scott is a frequent speaker at health policy forums and is also a clinical professor in the University of Washington Department of Health Services.



**Cheryl Scott**  
McClintock Scott Group



**David Stevens, MD, FAAFP,**  
*George Washington University*

**Dr. David Stevens** is a consultant with the RCHN Community Health Foundation on their population health management grant program for community health centers. He is also an evaluation advisor for the Weitzman Institute, a community-based primary care research center in Middletown, CT, and part-time faculty in the Department of Health Policy and Management at the Milken Institute School of Public Health at The George Washington University. Dr. Stevens was Research Professor in the Department of Health Policy at the Milken Institute School of Public Health from 2007 to 2015 where he was co-principal investigator on a childhood asthma translational research study involving six community health centers. In addition to his faculty position at GW, from 2007 to 2014, Dr. Stevens also served as Director of the Quality Center and Associate Medical Director at the National Association of Community



*(Dr. Stevens continued)* Health Centers. Dr. Stevens was senior medical officer for quality improvement in the Agency for Healthcare Research and Quality (AHRQ) and its Center for Quality Improvement and Patient Safety from

2003 to 2007 where he worked on quality improvement, diabetes, and health disparity programs with health plans, state health departments, and Medicaid agencies.

Before coming to AHRQ, Dr. Stevens served for fifteen years as chief medical officer responsible for national clinical leadership of the Health Resources and Services Administration (HRSA) Community and Migrant Health Center Program, and for leadership of the HRSA/Bureau of Primary Health Care six-year initiative on eliminating health disparities in underserved and minority populations. Dr. Stevens established national quality improvement policies for clinical programs in health centers, including the opportunity for accreditation. With the CDC, he also implemented a major immunization quality improvement initiative, increasing immunization rates by 50% in 9 states and at over 100 health centers, affecting 150,000 underserved infants and children each year. A member of the National Health Service Corps, he was a practicing family physician and medical director for over seven years at community health centers in The South Bronx and in Brooklyn, New York.

As an officer in the commissioned corps of the US Public Health Service, Dr. Stevens has received numerous awards, including the Commissioned Corps meritorious service medal, the DHHS Award for Distinguished Service for contributions to diabetes care, and the Arthur S. Fleming Award, a private-sector award for outstanding federal employees who have made extraordinary contributions to government.



**Soma Stout, MD, MS,**  
*Institute for Healthcare Improvement*

**Dr. Soma Stout** has worked as a primary care doctor and health system transformation leader in the safety net for over 15 years and in global community and population health for over 20 years, working with healthcare systems and communities which have made remarkable strides to improve individual, community and population health, wellbeing and equity.

She currently serves as the Executive Lead of 100 Million Healthier Lives, convened by the Institute for Healthcare Improvement, to support 100 million people globally to live healthier lives by 2020. Previously, she served as Vice President for Patient Centered Medical Home Development at Cambridge Health Alliance (CHA), where she led a whole system transformation that aligned large scale payment reform with delivery system redesign to meet the needs of populations. The CHA transformation garnered numerous national awards for achieving



*(Dr. Stout continued)* breakthrough results in the Triple Aim of better health, better experience and lower cost while improving joy and meaning of work for providers and staff. In 2012, she was awarded the Robert Wood Johnson Foundation Young Leader Award for her contributions to improving the health of the nation. She has consulted with health system leaders from across the world in Guyana, Sweden, the United Kingdom, Singapore, Australia and Brazil.

She also directs the Innovation Fellows Program at Harvard Medical School Center for Primary Care, where she is helping to grow a generation of change leaders who can create the needed changes in healthcare, and continues as Lead Transformation Adviser at Cambridge Health Alliance.

**Dr. Jonathan Sugarman** is President and CEO of Qualis Health. The Seattle-based nonprofit is a national leader in improving population health. Qualis Health's services include healthcare care quality consulting, health information technology support, and care management services to a broad range of public and private sector clients across the US.

Dr. Sugarman's work leading healthcare improvement efforts began as an Indian Health Service physician on the Navajo Nation, and spans over three decades. He regularly serves as an advisor for government and private sector quality measurement and improvement initiatives. He is a frequent speaker to regional and national audiences on topics related to healthcare quality and accelerating healthcare transformation through implementation of models such as the patient-centered medical home. He has authored over 80 papers and book chapters on population health management, primary care practice transformation, health problems of vulnerable populations, and quality of care among Medicare beneficiaries.

He has served as President of the American Health Quality Association, President of the Washington Academy of Family Physicians, Chair of the American Academy of Family Physicians Commission on Quality, and a member of the Executive Committee of the AMA-convened Physicians Consortium for Performance Improvement. Dr. Sugarman was the founding Site Director of the Seattle Indian Health Board Family Medicine Residency Program.

Dr. Sugarman is a graduate of Harvard College, the Albert Einstein College of Medicine and the University of Washington School of Public Health and Community Medicine. He serves as Clinical Professor in the Departments of Family Medicine and Epidemiology at the University of Washington. He was appointed as Lecturer in the Department of Global Health and Social Medicine at Harvard Medical School in 2016 after completing a two-year term as Visiting Professor in the department.



**Jonathan Sugarman,**  
MD, MPH, *Qualis Health*