# Improving Population Health Through Multistakeholder Partnerships

NICOLE SWEENEY, BA; SARIKA AGGARWAL, MD, MHCM; PETER ARAN, MD; DEB DAHL, MBA; JOSEPH MANGANELLI, PHARMD, MPA; STEVEN PESKIN, MD, MBA; EMILY ALLINDER SCOTT, MHA; DAVID PARKER, PHD; JOSEPH CONOSHENTI, RPH, MBA; AND ANUPAM B. JENA, MD, PHD

#### ABSTRACT

Although recent payment and delivery reforms have shown some effectiveness. challenges remain in achieving the "quadruple aim" of better health of populations, improved quality care, lower costs, and sustained health of providers and caregivers. A working group of payer, provider, academic, and pharmaceutical industry stakeholders was convened to provide insight into these challenges and identify barriers to and opportunities for collaboration to address them. A series of structured discussions was conducted among workgroup members over several months in 2017. As the challenges were discussed, stakeholders identified 4 key areas for improvement and collaboration: to (1) better manage touchpoints of healthcare, (2) identify and focus on patients most likely to benefit from interventions, (3) better incorporate social determinants of health into population health interventions, and (4) better measure return on investment among interventions and improve its alignment with stakeholders. The working group further identified several major themes to enhance the frequency and impact of collaborative population health initiatives: Stakeholders should (1) seek to mine and cross-leverage the increasing volume of health-related data that they each develop independently, (2) collaborate to create patient touchpoint "ecosystems" in which patients are maximally engaged through a diverse and complementary set of contact channels and technologies, and (3) collectively determine the investments required for high-impact population health initiatives and how to allocate them, so that individual returns on the various investments can be estimated and calibrated according to the stakeholders' needs.

The American Journal of Accountable Care. 2018;9(3):e8-e11

he US healthcare system has struggled to achieve highquality, accessible care at affordable cost. Recent efforts to improve quality of care, expand access, and reduce costs have included insurance market reforms as well as novel payment and delivery system reforms that attempt to shift financial risk across key stakeholders while improving population health, particularly for the sickest and highest-cost patients.

Although recent payment and delivery reforms have shown some effectiveness, challenges remain in achieving the "quadruple aim" of better health of populations, improved quality care, lower costs, and sustained health of healthcare providers and/or caregivers. Consistently delivered high-value care remains elusive, and by some estimates, low-value care is estimated to cost the United States \$340 billion each year.<sup>1</sup>

In our view, an important contributor to limited progress is the lack of consistent communication and collaboration among key healthcare stakeholders. Patients, healthcare providers, drug and device manufacturers, and payers (eg, traditional managed care organizations, integrated delivery networks, pharmacy benefit managers) all have different perspectives and incentives that make the reality of high-quality care at affordable cost challenging to achieve.

To provide multistakeholder insight into these challenges, Novartis Pharmaceuticals convened a working group of payer, provider, academic, and pharmaceutical industry stakeholders. Providers represented integrated health systems and accountable care organizations, and payers represented commercial managed care organizations. The working group had the following objectives: to (1) bring together diverse healthcare stakeholders; (2) discuss the critical issues and challenges arising from the transforming healthcare environment, in particular related to population health; (3) brainstorm approaches to address current problems and future needs related to population health; and (4) identify barriers to multistakeholder collaboration and improved care.

Prior to convening the working group, we conducted comprehensive discussions with payers and providers to identify priorities of these stakeholders and inform selection of topics for working group meetings. Three separate meetings were held that focused on the following topics: (1) multistakeholder approaches to population health and wellness, (2) promoting medication compliance through patient engagement and education, and (3) building creative solutions to improve population health and patient engagement. Through these meetings, common priorities and challenges emerged.

Overall, all stakeholders are currently implementing their own population health programs with the key goals of improving quality of and access to care, preventing disease, decreasing avoidable healthcare utilization, and ensuring healthcare provider job satisfaction. However, there are significant challenges to the success of these population health programs, including fragmentation in their implementation and delivery and gaps in communication and collaboration.

For example, population health programs tend to be fragmented, as approaches are typically executed under 1 stakeholder's umbrella (eg, all population health activities occurring under the purview of the provider organization as opposed to collaboratively with payers and/or pharmaceutical industry partners). All working group members agreed that cross-stakeholder collaboration could leverage strengths of individual stakeholders, but there has been limited precedent for this collaboration. This inherent fragmentation leads to communication and collaboration gaps.

Although there are multiple payer-, provider-, and communitydriven programs that all touch the patient, there is limited communication among programs, resulting in both the reduction of individual programs' effectiveness and duplicative overlap in some programs' services.

The working group also identified a key unmet need of identifying which stakeholders are best suited to manage certain components of care and leveraging those strengths to achieve improved overall outcomes. For example, 1 component of improving heart failure care requires more local efforts by providers that can shift social determinants of health. A health plan may have strategies to improve heart failure management (eg, lowering co-pays, deploying nurse managers, notifying providers of heart failure hospitalizations, etc), but it may not have the on-the-ground capabilities to affect social determinants of health. Ideally, it could leverage the provider's influence in the community to meet these needs, resulting in an optimal approach of complementing payer and provider strategies. This level of collaboration is not broadly achieved today. These communication and collaboration gaps can impact both the patient experience and the ability to achieve positive health outcomes.

As these challenges were discussed, stakeholders identified 4 key areas for improvement and collaboration: to (1) better manage touchpoints of healthcare, (2) identify and focus on patients most likely to benefit from interventions, (3) better incorporate social determinants of health into population health interventions, and (4) better measure return on investment (ROI) among interventions and improve its alignment with stakeholders.

#### Better Manage Touchpoints of Healthcare

As patients move along the care continuum, the use of technology has been widely promoted to facilitate coordination (eg, telehealth). In addition to physicians, other individuals on the care team, such as nurse navigators who help guide patients and their families through a complex healthcare system, may also find significant benefit in new technologies such as telehealth. However, the promise of the potential of these technologies has not been achieved. Although the payers, providers, and pharmaceutical industry members of our working group are all engaging in programs utilizing telehealth/telemedicine to address key challenges, financial and patient compliance barriers impact the ability to successfully incorporate technological solutions to drive high-quality care. These barriers include the costly investment in the technology itself, payer reimbursement for the technology and service, personnel investment in the program to facilitate use of the technology (eg, nurses to monitor patients using a remote monitoring scale in a heart failure program), inability to accurately measure ROI, and patient engagement to promote compliance with the technology.

Although in the current environment it is challenging to measure ROI and financially justify technology-driven programs that manage patient touchpoints across the continuum of care, stakeholder collaboration and exploration of alternative financing models that more explicitly link financial rewards to assumed risks can support further expansion of these programs to recognize their potential benefits. For example, with the implementation of federal programs such as the Medicare Access and CHIP Reauthorization Act and the Merit-based Incentive Payment System, stakeholders are increasingly focused on meeting quality measures, as the federal programs have given these measures a greater financial impact on stakeholder payment. As a result, the ability of technology-based solutions to improve quality of care and support achievement of quality metrics should also drive their implementation across the care continuum.

# Identify and Focus on Patients Most Likely to Benefit From Interventions

Many current interventions aimed at reducing costs focus on identifying the highest-risk, highest-cost patients. However, this strategy may not be the most effective way to reduce costs to the greatest extent.

When developing interventions to address key issues such as medication adherence, the highest-risk and highest-cost patients may not be those for whom the needle can be moved with regard to outcomes and cost. This is because healthcare behaviors that are correlated with poor adherence and poor health outcomes will persist in some patients even if adherence itself is improved.

Therefore, stakeholders should be focusing on patients for whom the maximum benefit of an intervention can be realized both clinically and financially. Almost all stakeholders in our working group are implementing ways of analyzing data for this purpose. For example, 1 provider stakeholder in our working group described a risk stratification model that is applied to their data warehouse to identify patients in the top 1%, 2.5%, and 10% of cost and utilization. The top 2.5% to 10%, as opposed to the top 1%, are identified as "rising risk" and are thought to be the patients with the potential to change their health trajectories for the better, and where the greatest ROI from an intervention is possible.

As payers and providers seek to develop programs to better care for these rising-risk patients, there is the potential to harness advancements in data analytics to identify patients who are both high-cost and most likely to respond to healthcare interventions, as well as to partner with pharmaceutical industry stakeholders who are implementing patient-centered programs to improve engagement of these critical patients. Achieving this potential will require stakeholders to view each other less as adversaries and instead more as partners in identifying and delivering appropriate care to the right patients.

### Better Incorporate Social Determinants of Health Into Population Health Interventions

A theme stressed by all stakeholders in the working group was that improving the value of interventions, and ultimately quality of care and patient outcomes, requires addressing not only clinical but also nonclinical components of care (ie, social determinants of health). This is a key priority of payers and providers, both of whom are addressing social determinants of health in various ways. Providers in our working group identified several ways in which their organizations are attempting to improve quality and outcomes through nonclinical components of care, including creating a culturally sensitive diabetes cookbook, identifying which patients would qualify for or benefit from Meals on Wheels, identifying which patients are in greatest need of assistance with transport to medical appointments, and piloting house-call models in which primary care is provided in the patient's home for patients who are unable to reliably make visits to a physician's office. These traditional care management techniques are effective but financially burdensome for the provider. This misalignment of action and payment is a point of stress on the system.

These efforts were echoed among stakeholders; however, the integration of nonclinical components of care in interventional programs more broadly has not been achieved. Risk stratification models need to include community data from community needs assessments, as well as patient-specific data, to target "hot spots" for improving social determinants of health. Solutions offered by pharmaceutical industry stakeholders have not typically included social determinants of health in their design, possibly because they are viewed as inappropriately diffuse targets for investments whose returns need to be quantified. Nevertheless, as programs are developed moving forward, the most effective interventions will include these components and take advantage of stakeholders' unique abilities to influence social determinants. For example, with the powerful direct-to-consumer communication channels they have developed, pharmaceutical industry partners may be able to break through some of the social determinant barriers to facilitate program implementation.

## Better Measure ROIs Among Interventions and Improve Alignment With Stakeholders

A factor underlying all of these identified challenges and barriers is the measurement of ROI and the resulting impact on the ability to implement and maintain these programs. All stakeholders are concerned about the measurement of ROI; however, with so many touchpoints and interventions affecting the patient, it is difficult to ascribe ROI to a particular intervention or stakeholder's investment. Moreover, for most interventions, detailed data on intervention costs and any cost offsets associated with the intervention are frequently lacking, making it challenging to compare ROI across multiple competing interventions. Ultimately, these challenges make it difficult for individual stakeholders to financially justify many population health programs. In addition, stakeholders have different financial incentives, and the return derived from a particular intervention may not be aligned with the financial incentive of that stakeholder or even be realized by the stakeholder making the investment. For example, even as they take on increased financial risk, providers still are not typically accountable for pharmacy spending, so the ROI of interventions to improve medication adherence may not be realized by providers, even if they are primarily responsible for funding the intervention. However, as providers engage in alternative payment and care models, such as the Comprehensive Primary Care Initiative and the Oncology Care Model, and are more accountable for the care that they provide, there may be ways to evaluate the impact of interventions on cost and quality of care compared with that in traditional care settings.

One example from our working group was the provider implementation of a heart failure program that used telemonitoring to communicate with at-risk patients with heart failure. An enhanced weight scale used at home communicated patient information back to case managers, who would intervene if necessary. However, even though the program realized positive clinical outcomes, there was insufficient ROI to justify the costs of the technology and the case managers, and the program was subsequently terminated.

#### CONCLUSIONS

Despite potential opportunities for providers, payers, and pharmaceutical industry partners to collaborate to improve quality of care, including better population health, collaboration among these groups has traditionally been low, particularly with regard to engaging industry partners. This is in part due to misalignment of financial incentives, as well as difficulties in measuring and properly attributing returns on investments. Our working group brought together stakeholders from diverse organizations with the goal of identifying barriers to and opportunities for multistakeholder collaboration. The working group identified several major themes to enhance the frequency and impact of collaborative population health initiatives:

- Stakeholders should seek to mine and cross-leverage the increasing volume of health-related data that they each develop independently. Each type of stakeholder collects and curates a somewhat different data set; these data sets are useful independently, but together they enable exceptionally powerful patient targeting.
- Stakeholders can collaborate to create patient touchpoint "ecosystems" in which patients are maximally engaged through a diverse and complementary set of contact channels and technologies offered by providers, payers, and pharmaceutical industry members working together. Such ecosystems should be effective in modifying key patient behaviors and particularly powerful in affecting social determinants of health.
- Payers, providers, and pharmaceutical industry members need to collectively determine the investments required for highimpact population health initiatives and how to allocate them, so that individual returns on the various investments can be estimated and calibrated according to the stakeholders' needs. This collaborative approach also can facilitate the equitable sharing of the investment burden to overcome population health barriers recognized as meaningful, although diffuse.

Experience has taught us that we can expect only limited success in addressing population health challenges with fragmented single-stakeholder initiatives. Significant progress will require innovative thinking from the critical stakeholders—patients and their families, providers, payers, and pharmaceutical industry members—and a willingness to collaborate, in recognition that improved population health is a worthy goal deserving of unprecedented approaches.

*Author Affiliations:* Precision for Medicine (NS, DP), Boston, MA; Beth Israel Deaconess Care Organization (SA), Boston, MA; Blue Cross and Blue Shield of Oklahoma (PA), Tulsa, OK; Banner Health (DD), Phoenix, AZ; Montefiore Health System (JM), Yonkers, NY; Horizon Blue Cross Blue Shield of New Jersey (SP), Newark, NJ; Memorial Hermann Health System (EAS), Houston, TX; Novartis Pharmaceuticals (JC), Hanover, NJ; Harvard Medical School (ABJ), Boston, MA.

*Source of Funding:* This working group was convened by Novartis Pharmaceuticals and supported by Precision Health Economics, although participants were not compensated for their participation.

**Author Disclosures:** Dr Jena reports consultancies or paid advisory boards for Pfizer, Hill-Rom, Vertex, Novartis, BMS, and Precision Health Economics. The remaining authors report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

*Authorship Information:* Concept and design (NS, SA, PA, DD, JM, EAS, DP, JC, ABJ); acquisition of data (NS, DD, JM, EAS, ABJ); analysis and interpretation of data (NS, PA, DD, SP, DP, ABJ); drafting of the manuscript (NS, SA, PA, SP, JC, ABJ); critical revision of the manuscript for important intellectual content (NS, SA, PA, JM, EAS, DP, JC, ABJ); provision of study materials or patients (NS, PA); administrative, technical, or logistic support (NS); and supervision (DP, JC, ABJ).

*Send Correspondence to:* David Parker, PhD, Precision for Medicine, 2 Bethesda Metro Center, Ste 850, Bethesda, MD 20814. Email: david.parker@precisionformedicine.com.

### REFERENCE

1. Beaudin-Seiler B, Ciarametaro M, Dubois R, Lee J, Fendrick AM. Reducing low-value care. *Health Affairs* Blog website. healthaffairs.org/do/10.1377/hblog20160920.056666/full. Published September 20, 2016. Accessed September 13, 2017.