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Population Health NEWS

Measuring Total Investments in Health

by Robin Arnold-Williams and Laura Summers

Research has shown a positive relationship between spending on social services and improved health.[1] As researchers, policymakers and the general public begin to better recognize the many factors influencing individual and population health beyond direct clinical care, some localities, states, federal agencies and research organizations have shown interest and engaged in efforts to measure the total investments being made to produce health. The overall goal is to develop a broader and more encompassing definition of health and health spending.

An assessment, focusing on aggregating and reporting on total spend on health (or expenditures that extend beyond traditional clinical care costs or total cost of care measures, including costs related to the social determinants of health), describes these efforts. The assessment includes a literature review, interviews and convening thought leaders engaged in this work.[2]

Research related to total spend on health is growing due to the value it provides end users. When considering why this research is occurring and the potential value of measuring total spend on health, several key themes emerge:

- Total spend on health analyses help reframe the issue of what produces health and prompts consideration of more than just medical spend.
- Total spend on health analyses aid policymakers and other stakeholders in understanding the synergy between various sectors and multiple determinants of health.
- Having a more complete and clearer picture of current health spending assists in weighing decisions regarding resource allocation—specifically whether more resources are needed or if existing resources should be expended differently to address identified needs.
- Total spend on health analyses can also be used to help inform the design, implementation and evaluation of emerging healthcare delivery and payment models, such as accountable care and global budget models.

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In This Issue

Meeting Consumers' Demands in Safety Net Health Systems

by Cindy Ehnes, Esq.

Fee-for-service medicine is often tagged as the culprit in fostering a fragmented, inconvenient, costly health system. These costs of inconvenience, poor system quality and high hidden expense impact every individual patient and healthcare consumer. In addition, many commentators believe that the healthcare system revolves around what's most convenient for physicians and other caregivers, as opposed to the actual healthcare consumer.

Consumers well understand what they want and expect from their interactions with the health system—low-cost, high-touch and convenient, community-based care. While well-heeled health systems are better equipped to deliver on these increasing consumer expectations, safety net systems are greatly challenged in accessing needed capital and risk-based contracts from payors to reward strategies that reduce inpatient revenue and require large-scale, infrastructure build.

Under the current administration, the Centers for Medicare and Medicaid Services (CMS) and other policymakers have been making macro moves to push health systems to improve quality, enhance the patient experience and lower healthcare costs. CMS has advocated that health systems move into risk-bearing relationships with payors to incent higher quality, less costly care. Given continued cost pressures, the federal push for enhanced quality and patient experience, with costs controlled under capitation or a similar value-based, payment framework, is likely to continue under the new administration.

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Making a Case for Population Health

A Selected Case Study in Population Health Management…

Penn Medicine and Twine Health: Hacking Primary Care through Health Activation

by Megan Mariotti, N.P., MPH, Nicole McHenry, R.N., and Matthew Rusk, M.D.

Program Objectives:

- Reduce the number of Penn Medicine employees with uncontrolled hypertension.
- Help 100% of program participants with uncontrolled blood pressure reach healthy target blood pressure within three months.
- Eliminate barriers to blood pressure management by providing innovative care using new technology and findings from behavioral economics.

"Fifty percent of those with the condition have uncontrolled hypertension, are unaware that they have it or are aware, but they are not adhering to care instructions."

Program Description: In May of 2015, Philadelphia-based Penn Medicine launched a pilot program targeting its employees with hypertension. Untreated high blood pressure is one of the most expensive health conditions in the United States, with uncontrolled hypertension resulting in approximately 1,000 deaths per day.[1]

Although most patients with high blood pressure can be easily controlled with medication, the traditional reimbursement model of healthcare requires that patients receive treatment for hypertension at a doctor's office—a process that can burden the patient with travel and missed time at work. About 50% of those with the condition have uncontrolled hypertension, are unaware that they have it or are aware, but they are not adhering to care instructions.[2]

Penn Medicine estimated that of its 26,000 employees, 2,700 had uncontrolled hypertension. The pilot, which is now an official program called the Employee Hypertension Program, currently has 105 patients enrolled. The goal of the program is to make Penn Medicine normotensive (having normal blood pressure) by eliminating barriers to blood pressure management. To help achieve its goals, the Employee Hypertension Program brought in Cambridge-based startup Twine Health, a patient-centered, cloud-based, health activation platform.

Twine blends the capabilities of a patient engagement portal, peer support network, care management solution and an outcomes analytics tool. The app allows Penn Medicine to remotely monitor its patients' blood pressure. Participants are supported between visits, enabling them to better understand and manage their own condition. The core element of the program is a fundamental belief that a patient is the most important member of a care team.

With the Employee Hypertension Program, Penn Medicine employees that have uncontrolled hypertension can participate in a new model of care that's built to help them begin to understand, manage and command their own health. They receive coaching from a registered nurse (RN) trained in health coaching techniques; reminders to take their medications and log their blood pressure readings; medications; and an automated blood pressure cuff for at-home readings. A strong partnership with the Penn Medicine pharmacy allows for easy access to medications.

During the first consultation, a patient meets with a physician and RN for a comprehensive assessment and physical exam. The RN and patient discuss patient goals and create an initial action plan. These action plans typically last two weeks and encourage patients to continue thinking about their health once they leave the office and to achieve small goals that inspire confidence in their ability to make progressively larger, sustainable behavior change.

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Making a Case for Population Health *…continued from page 2*

After the initial appointment, patients use the Twine app to track their actions, monitor their progress and connect with the employee hypertension clinical team. The RN and care team use Twine to monitor the patient's progress and periodically check in through simple, secure messages to keep patients motivated and to celebrate achievements.

Over time, as patients accumulate data about their health and behavior change, they gain a view of the correlation between their health actions and their blood pressure readings. They start to see very quickly—often for the first time—how what they do has an immediate impact on their health. For example, patients can see and understand the correlation between taking their blood pressure medication and their blood pressure readings. These small insights give patients the confidence to take larger steps toward managing their own health.

Results: Penn Medicine employees are able to effectively monitor their blood pressure readings, medication and goal adherence, as well as connect and communicate with their clinical teams. The Employee Hypertension Program has observed measurable results in the first year of the program's launch. Each person who started the program had two documented blood pressure readings of greater than 140 over 90.

"Overall, 91% of patients hit their target blood pressure within three months of starting the program, and 90% sustained control at one year."

Patients who have been in the program the longest—17 months—have seen their blood pressure drop to 113 over 74, on average. Overall, 91% of patients hit their target blood pressure within three months of starting the program, and 90% sustained control at one year. Most of the patient communication is handled by the RN, so the team estimates that physician time for hypertension care decreased by two to 2.5 hours per patient per year. Program satisfaction was measured using the Net Promoter Score, which asks patients, "How likely are you to refer a family member or colleague to this program?" Patients gave the program a top rating of 100.

Lessons Learned: Hypertension research tells us that it will typically take one full year of standard care for just 30% of patients to reach normal blood pressure. There is a real opportunity here to change the way organizations approach chronic disease by empowering patients and putting them at the center of their care.

[1] "High Blood Pressure Facts." Centers for Disease Control and Prevention. 2015.
[2] *Ibid.*

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Measuring Total Investments in Health *…continued from page 1*

Despite the growing interest in total spend on health research, key challenges potentially limit future work. Challenges in establishing consistent definitions and methodologies have resulted in disparate calculations across different initiatives. Some of these key challenges include:

- **Defining parameters and determining sources.** It can be difficult to determine what factors influence health when nearly everything can or should be counted as a factor. However, among the factors that are associated with health, not all of them have the same degree of influence so that it can be difficult to determine the specific impact or relative weighting of individual factors. Related to the challenge of defining parameters is determining appropriate sources of expenditures to incorporate into analyses.
- **Defining social services.** Another challenge is differing approaches to the definition of social services. For some, the term reflects programs commonly associated with a formal, publicly financed and administered social or human services delivery system. For others, the term reflects a much broader set of publicly financed programs and services designed to address a societal need associated with the health of individuals and populations.
- **Data.** There are multiple challenges relating to data. First, it is generally acknowledged that accessible and reliable expenditure data related to a significant portion of social determinants of health are not available, not readily accessible or do not use common definitions or reporting standards. Secondly, due to the nature and sensitivity of data associated with social services programs and spending, acquiring data can be difficult at best and may be impossible due to privacy concerns. Thirdly, given that data used in total spend on health analyses come from many different sources, the lack of standardization in definitions and units of reporting can compromise the reliability and usability of data for analyses. Finally, there are shortcomings in data analytic capacity because some organizations do not have the infrastructure in place to gather or share data.

"…due to the nature and sensitivity of data associated with social services programs and spending, acquiring data can be difficult at best and may be impossible due to privacy concerns."

- **Methodology and measurement.** To date, there is little to no consensus on how total spend on health should be presented; however, there is consensus that an audience and end user should determine how total spend on health is presented. In some cases, a ratio may be appropriate whereas in other cases, an expenditure total is needed for budget analysis and decisions. Ultimately, a combination of different approaches might be most effective.

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Measuring Total Investments in Health …continued from page 3

Advancing the concept of total spend on health. Moving forward, the following steps have been recommended for advancing the measurement of total investments being made to produce health:

- **Determine appropriate timing for moving toward consensus.** There is a divergence of views on how best to define, measure and calculate total spend on health; however, this is not inherently a negative point. It shows that thought leaders involved in these efforts are committed to their individual initiatives and projects and to getting the total spend on health definition and measurement "right." Given this outcome, the first step in advancing the concept of total spend on health is to determine whether it makes sense to seek establishment of a national or consistent definition.

  Because total spend on health analyses are so specific to the end user, it may not be advantageous to force a consistent definition or methodology; instead, it might be more beneficial to allow initiatives to differ—particularly at the local vs. national level.

- **Make sure all relevant voices are included.** There may be critical voices that have had limited involvement in total spend on health efforts to date who need to be included in order to gain greater consensus. These voices include, but are not limited to, public health, social services, education, transportation, economic development, housing, behavioral health, consumers, community stakeholders, policymakers, budget/fiscal staff and other individuals, who are ultimately responsible for making and tracking expenditure decisions using the total spend on health calculations.

- **Determine a strategy for establishing guiding principles or a national framework for total spend on health calculations and gain adoption of these principles.** This should happen if and when it is determined that the time is right and the appropriate stakeholders have been engaged. This includes achieving greater consistency in total spend on health methodologies.

- **Move from theory to action.** The final step is moving from theory to action and learning from those who are already engaged in these initiatives. The total spend on health movement is active and continuing to gain traction among researchers and policymakers. The need for guiding principles or a framework for total spend on health calculations should not slow the research and individual initiatives currently taking place. Meaningful work is being accomplished that can inform and provide lessons learned for the development of guiding principles.

Thought leaders and researchers engaged in measuring total investments in health have accomplished meaningful work. As they continue this work, they should look for opportunities to enable greater consistency through increased collaboration. This in turn provides an opportunity to drive more widespread acceptance of total spend on health and increase its use in policy decisions.

[1] "Measuring Total Investments in Health: Promoting Dialogue and Carving a Path Forward." Leavitt Partners and the Robert Wood Johnson Foundation. Oct. 17, 2016.
[2] *Ibid.*

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Meeting Consumers' Demands in Safety Net Health Systems …continued from page 1

A similar push for change is coming from consumers—both as patients and as payors for health services. Consumers have enough financial "skin in the game" to rightly question why health insurance and health services often lack basic service standards that govern most of their retail experiences.

Here are the top five things that healthcare consumers want clinicians and health systems to deliver besides good care:

1. **Treat me as an individual, not as data**. Patients want adequate time with clinicians to get at the heart of physical and emotional issues. When patients come to a visit with a binder full of information about their anticipated diagnosis, they hope to be seen as engaged partners with their health professionals. Comprehensive care management is a team sport, and consumers want to be a part of a team.

2. **Don't surprise me with poor coverage and balance bills.** Consumers want their private or public coverage to provide predictable and affordable costs of care. This necessitates comprehensive health coverage because unlike auto coverage, in which risks of an accident and severity are statistically well-grounded, it is virtually impossible to predict one's health needs down the road. The majority of Americans are not financially prepared for the devastating monetary impact of chronic conditions, major accidents, disabilities or major medical events. That is why the Affordable Care Act's standardization of essential benefits coverage is vital from the standpoint of most insurance regulators. Consumers want reasonable bills and don't want surprises, such as balance billing by non-contracted personnel when they access an emergency room.

"The majority of Americans are not financially prepared for the devastating monetary impact of chronic conditions, major accidents, disabilities or major medical events."

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3. **Envision care from my eyes.** Consumers want innovation and ease of doing business, including use of mobile technology to personalize care. This includes extended hours for urgent care services, walk-in access for routine care and scheduled appointments. They want virtual visits and the ability to get lab results and order pharmacy services online. Consumers want clinical integration with system reminders at the point of care. They do not want to see a physician who is still using paper charts, requiring patients to carry photocopies of their medical records to a specialist.
4. **Don't fence me in.** Consumers want all the benefits of an integrated system without actually being in a closed network. Consumers instinctively love the word "choice" even though it has largely brought them disconnected, fragmented health services. Integrated delivery systems meet those expectations, comprised of robust panels of primary and specialty physicians, including behavioral health, linked organizationally and electronically to quality hospitals, clinics and community care.
5. **Help coordinate this bewildering healthcare cosmos.** Disconnected care puts the onus on the patient to figure out how to link providers, understand differing diagnoses and reconcile multiple medications. A care delivery system that focuses on and coordinates the care of the highest risk patients should be a reasonable expectation of consumers.

It's easy to rattle off the above list of an empowered consumer's demands. What many, if not most, of these "wants" have in common is patient centeredness and a very clear expectation of a more seamless healthcare experience. While often at odds on many issues, consumers and health plans share an abiding belief that high-quality, high-performance care should be a core capability of a system, not an expensive add-on.

But as experience has shown, health systems differ widely in their capabilities to transform the healthcare experience. All systems are facing reduction in hospital patient revenue, the staple component of hospital system budgets; however, many safety net systems serve the sickest and most means-challenged patients.

For many safety net hospitals, a majority of their patient population is covered by Medicaid, has been uninsured and/or homeless, is comprised of racial and ethnic minorities and tends to have more complex health and behavioral health issues. A quality consumer experience in this unique context takes on an enhanced scope that extends well into the community through ties with community-based organizations meeting social, behavioral, housing and economic needs.

To maintain or increase bottom line, financial performance while also improving quality and patient experience, many safety net health systems flirt with a risk-based, contracting strategy, in which payors will hopefully financially reward cost reductions and improved patient experience. These health systems often take some steps to build an appropriate supporting infrastructure toward population health management; however, the same systems generally maintain their clearest footprint on a discounted fee-for-service path, which relies on inpatient revenue.

This muddled strategy is both understandable and likely inescapable without a clear roadmap. Often it is based on magical thinking, "If we build it, they (payors) will come and reward our efforts." However, if the contracts with payors are not in place from the outset, the upfront costs of building a data or care management infrastructure are not supported by a payment stream and potentially reduce traditional sources of revenue. If health systems are not rewarded for these "big-build" projects in a formal contract negotiation with a payor, these efforts may prove unsustainable.

What is needed in its place is an articulated strategy that gradually builds the elements of an integrated delivery system that consumers anticipate. These phased innovations should address discrete problems and should have immediate impact on patient care. For example, improvement in standardization of care management is an absolute key to quality improvement and accountability in a system. Expansion of primary care services, including patient-centered medical homes (PCMH), is another baseline strategy. Integration of clinical services and best practices should then be jointly developed with PCMH and key specialty leaders in targeted therapeutic areas.

From this foundation, staff could dedicate itself to care management and case coordination, with particular attention to care transitions and individuals with highest utilization. Both centralized (telephone or virtual) and field-based, care management are vital. Information systems must support care management through clear care team roles, development of a single care plan and IT support of workflow. In addition, higher levels of analytic capabilities are also necessary to succeed under financial, risk-bearing arrangements.

"Consumers want a high-quality, high-touch, seamless experience whenever and wherever they touch the healthcare system."

To be clear, these clinical improvements are essential linchpins to improved consumer experiences. But sustainable success over the long haul will ultimately hinge on safety net health systems negotiating profitable, risk-based financial contracts with payors. Retrospective value payment and shared savings are a good starting place. However, prospective payment streams are essential, starting with risk-adjusted care coordination fees for the sickest patients and then moving into broader risk payments, such as capitation, as capabilities and confidence build.

Consumers want a high-quality, high-touch, seamless experience whenever and wherever they touch the healthcare system. Safety net systems face many competing demands and tight margins. They must be focused and deliberate to achieve these consumer expectations and remain in service to their communities.

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The Last Mile of Population Health Management

by Egor Kobelev and Daniel Piekarz

(This article first ran in Health IT Outcomes *on Nov. 30, 2016, and has been slightly revised.)*

The concept of population health was first introduced in 2003, when David Kindig and Greg Stoddart defined it as "the health outcome of a group of individuals, including the distribution of such outcomes within the group."[1] Population health management means taking responsibility for managing the overall health of a defined population and being accountable for its health outcomes. A population is usually comprised of individuals sharing characteristics, such as living in the same geographical area, being the same age or gender and having similar health conditions.

A set of aggregated metrics, including percentage of chronic conditions, number of admissions, readmissions and emergency room visits, could define the overall health of a population. Finally, population health management implies a goal—achieving measurable improvements in the health of a defined population; however, the concept does not suggest how to achieve that goal.

While Kindig and Stoddart might have introduced the concept, they did not necessarily invent population health. The term has been well known in the United Kingdom and Canada, and some of its components were recognizable in the United States during the 20th century. For example, in 1973, Congress passed the Health Maintenance Organization Act, which encouraged rapid growth of HMOs. Historically, this was the first form of managed care organizations (MCOs). Nobody was thinking about these MCOs might attempt to implement population health management, but some of managed care approaches were clearly in line with the population health movement.

Regulatory Considerations of Population Health Management

Moving from concept to implementation requires a legal framework. Unfortunately, while the HMO Act spurred growth of managed care, it focused too much on cost reduction through utilization management and review techniques rather than on health improvements. On the other hand, the ACA serves as a legal base for population health management.

The introduction of accountable care organizations was an attempt to learn from the mistakes of MCOs and provided the essential legal foundation to establish the population health management paradigm. Another important provision of ACA was the introduction of Meaningful Use criteria, which led to a substantial rise of electronic health record (EHR) usage. This was probably the moment when improvements in patients' and practitioners' experience—whether it was scheduling appointments online, preregistering for a visit or using touch-screen devices instead of paper clipboards to check in—became notable. Health information is finally becoming digital and could be used as a technical foundation to take the next step toward the goal of population health management.

> ***"The introduction of accountable care organizations was an attempt to learn from the mistakes of MCOs and provided the essential legal foundation to establish the population health management paradigm."***

Today there are several active initiatives and regulation provisions that could lead to even more fundamental changes in the U.S. healthcare system, among them MACRA, which strongly advocates for rewarding providers for providing better care, not just more care. Although MACRA looks very promising, it may be too early to discuss its practical implications. Much better examples are the Health Homes (HH) Program,[2] launched in several states, and the Delivery System Reform Incentive Payment (DSRIP),[3] originally introduced in California and later followed by Texas, Massachusetts, New Jersey, Kansas and New York.

Along with other provisions, ACA created an optional Medicaid State Plan benefit for states to establish health homes and coordinate care for people with chronic conditions who have Medicaid coverage. The Centers for Medicare & Medicaid Services (CMS) expected states' health home providers to operate under a "whole-person" philosophy: Providers will integrate and coordinate all primary, acute, behavioral health, long-term services and support to treat an entire person.

In turn, the idea behind DSRIP is a transformation of the healthcare system with the ultimate goal of creating a financially stable structure that meets the needs of its specific community as measured, in part, by a 25% reduction in avoidable hospital use.[4] Health Homes is critical to this transformation as it provides care management services to the segment of the population covered by Medicaid, who are driving more than 50% of this avoidable use.

> ***"…the idea behind DSRIP is a transformation of the healthcare system with the ultimate goal of creating a financially stable structure that meets the needs of its specific community as measured, in part, by a 25% reduction in avoidable hospital use."***

Even though the Health Homes Program was kicked off earlier and independently of DSRIP, Health Homes is a key tool for Performing Provider Systems (PPS)—partnerships of regional care providers who will collaborate to better transition from fee-for-service payment to a risk-based, pay-for-performance approach—to leverage in order to achieve DSRIP goals. It may be easier to think of these programs in terms of an efforts/impact matrix. Improvement to care management requires a relatively small effort but could potentially have a huge impact on population health—a quick win.

Population Health Management in Action

There is a Medicaid analytics performance portal (MAPP) built by New York State, which supports both HH and DSRIP performance management technology needs. These programs require the exchange of patient health information to and from the MAPP system in order to provide New York with necessary information to gauge the program's performance and enrollment.

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While all lead organizations within HHs and PPSs have direct access to MAPP (which allows direct information entry), most, if not all, interface with the system through a batch file exchange. Every health home is responsible for accepting members assigned to them by the state, which facilitates the identification of potential enrollees.

When new members are identified, a health home then attempts to reach out to these patients to assess their interest in the HH program. Once members consent, the home must enroll them through tracking that involves creating an enrollment date with the MAPP system, which checks member eligibility for the program and Medicaid, and ensures they haven't been previously enrolled with another organization.

After members are enrolled, participating community care clinics or a care management agency (CMA) work with members to provide a lead organization with clinical data and encounter information, which in turn is sent to MAPP to complete billing support. Then services can be billed directly to Medicaid by either a lead organization or a member's MCO. Finally, lead organizations or MCOs are responsible for disbursing payment to a CMA. All of this workflow is tracked and reported through the MAPP portal.

As mentioned previously, the core of data transmission is the manual batch files exchange. With an Internet browser, lead organization staff should be able to manually upload and download files from MAPP; however, the rest of the business requirements and workflows could easily be automated to minimize the amount of human mistakes—especially when it comes to tracking and billing processes. An automated software solution should be able to generate files containing well-formed, consistent data and be sophisticated enough to regenerate tracking and billing data if any discrepancies are found later on in the process. The solution should perform as a synchronization layer between a lead organization's software infrastructure and a state portal, leveraging the following important features:

- Solid and straightforward user experience for all workflows. It should lead the user from one action to another leaving no chance for human error.
- Review and validation of all data files downloaded from MAPP and uploaded into the system. It saves staff making many last minute data corrections, which can cause new errors.
- Backend to store both current snapshots of data, as well as all the historical activities. This information provides an opportunity to revert actions taken by mistake at any point and recover the data exchange flow.

The greatest challenge is integrating a software solution into an organization's unique software ecosystem and harmonizing the data stored and updated within the organization with data coming from a state. This task requires a deep understanding of a healthcare organization's typical software setup, including its practice management system, EHR and billing software, as well as a solid knowledge of the way a state portal works, transmits and operates data.

"The greatest challenge is integrating a software solution into an organization's unique software ecosystem and harmonizing the data stored and updated within the organization, with data coming from a state."

Needless to say, there are no off-the-shelf products on the market that can cover all aspects of the aforementioned workflows while being tailored to the specific needs of an organization. It is becoming critically important for a leading organization to have a trusted vendor, who has the capabilities necessary for a timely reaction to initiatives and programs, including health homes targeting children.

It is time for the discussion on population health management to move beyond a high-level concept to actual regulations, initiatives, programs, clear business requirements and finally, to the last mile of population health management—custom software.

[1] Kindig D, Stoddart G. "What Is Population Health?" *American Journal of Public Health*
[2] . March 2003;93(3):380-383.
[3] "Health Homes." Medicaid.gov. Accessed Jan. 5, 2017.
[4] "Delivery System Reform Incentive Payment (DSRIP) Program." Department of Health. New York State. Accessed Jan. 5, 2017.
[5] *Ibid.*

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Mari Edlin serves as editor of *Population Health News*. She invites you to submit bylined articles on population health issues and case studies illustrating successes with the model. She can be reached at MLEdlin@comcast.net.

Thought Leaders' Corner

Each month, *Population Health News* asks a panel of industry experts to discuss a topic suggested by a subscriber.

Q. What Constitutes an Integrated Model of Healthcare Delivery?

Mental illness and substance use disorders affect 25% of the population[1] and have profound effects on physical as well as behavioral health and well-being. More than one-half of individuals with behavioral health conditions will not receive the care they need, in part, because the health system is siloed with inadequate collaboration between primary and specialty care providers. Additionally, there is a need to better address the physical health of people most significantly impacted by behavioral conditions, also known as serious mental illness (SMI).

Providing an integrated care system is not just simply collocating medical and behavioral health services, sharing a common electronic medical record or providing telephonic case management. Nor can it be achieved solely through educating primary care physicians (PCPs) or focusing only on screening without a comprehensive treatment plan. The solution requires broader systems changes.

Beacon believes the most effective integrated care is through a collaborative care model (CCM) that includes five components, which when applied collectively, improve health outcomes:

- Patient-centered, team care.
- Population-based care.
- Measurement-based care.
- Evidence-based care.
- Accountable care.

For people with SMI who are not optimally served by primary care, we advocate a model of coordinated specialty care to complement CCM. This team-based model integrates primary care expertise into outpatient mental health clinics, where individuals with SMI have their principal connection to the healthcare system and receive regular care.

Successful integration demands shared accountability among payors, physical and mental health providers and broader system stakeholders.

[1] "Data on Behavioral Health in the United States." American Psychological Association. Accessed Jan. 5, 2017.

Martin Waters
Vice President
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Boston, Mass.

An integrated model of healthcare delivers better care by having a patient at the center of care, with all parties committed to coordinated care utilizing evidence-based practices and maintaining the highest standard of quality. This model transcends departmental and organizational walls, fostering better teamwork among physicians, practices, hospitals, pharmacies and health plans.

Recently, KLAS gathered 52 executives from provider, IT vendor, payor and healthcare services organizations and asked them to identify the tools and technologies required so all are coordinated and working toward the same goals alongside patients. The executives identified six major capabilities required to complete an integrated delivery model: 1) data aggregation; 2) data analysis; 3) care coordination/health improvement; 4) administrative/financial; 5) patient engagement; and 6) clinician engagement. The integrated model is complete only when these six capabilities exist at a robust level and the supported systems are interoperating and delivering timely support at the point of care.

Mark Allphin
Director of Research
Value Based Care
KLAS Research
Orem, Utah

Thought Leaders' Corner

An integrated model is when a physician, insurer, patient and other healthcare companies work together and collaborate to get the best outcome for each patient. Ideally, these efforts should all be linked through a patient's EMR to best track the care and resources provided. When it comes to prescriptions, patient adherence has always been an issue, even more so now with prescription drug prices skyrocketing. This leads patients to take matters into their own hands to try making their prescriptions last longer or not even filling them.

Technology plays a huge role in integrated healthcare delivery. In the case of prescription drug adherence and price management, FamilyWize Community Service Partnership developed emRxcel® as an integrated healthcare solution. Implemented at major health systems, most notably Trinity Health, it allows for prescription savings information to reach both pharmacists and patients via EMRs. Now when patients visit their pharmacies, all the information needed to receive a prescription discount is in the notes field for the pharmacist to see and process.

As we know, when patients are able to afford their medications, they are far more likely to become and remain adherent. This is the main goal of emRxcel® and integral to the mission at Linked Healthcare Solutions (LHS), which is why FamilyWize is the foundation on which the company was built.

LHS is providing both insured and uninsured people a way to receive all the information and help they need from one integrated source.

Dan Barnes
Founder/CEO
Linked Healthcare Solutions
Chairman/Cofounder
FamilyWize Community Service Partnership
Bethlehem, Pa.

An integrated model of healthcare delivery combines the expertise of multiple providers across disparate healthcare settings to deliver better, more impactful care. An example could include enabling communication between electronic health record systems to share important information about patients' care and prescription information between doctors' offices and pharmacies. This connectivity can help provide a more holistic view of patients and identify potential medication or adherence issues, which can inform healthcare decision making and result in better health outcomes.

In addition, disease management programs could leverage multiple experts all working together to improve accessibility, affordability and effectiveness of care for both patients and payors. For example, pharmacy-based programs to address chronic diseases can incorporate personalized counseling and clinical care from pharmacists and nurse practitioners, digital tools for patients and cost containment strategies—all working together to improve health outcomes for patients while keeping costs low for both payors and patients.

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Woonsocket, R.I.

Subscriber's Corner

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We encourage you to contact us any time with feedback of any kind regarding *Population Health News*. We especially would like to hear from you regarding what topics you'd like to see addressed in future issues.

Thought Leaders' Corner

The recent shift from volume- to value-based care has seen a renewed emphasis on population health and the associated management of chronic diseases. Providers must approach the management of those chronic diseases with evidence-based treatment plans and provide care that is coordinated among all providers to manage clinical variation. While hospitals will continue to be the primary venue to manage the acute episode of care, progressive health systems are transitioning patients to the next level of care. Physician practices, hospitals, skilled nursing facilities, rehab and home health are coming together to form integrated delivery networks (IDNs) to contribute to value-based care and population health. Successful IDNs achieve improved financial, clinical quality and patient care outcomes.

Healthcare fragmentation is a symptom of the lack of coordination across multiple providers of care. An advantage of IDNs is the ability to better coordinate the transition of care from all providers through all care delivery sites. One trend is the use of transition coaches or patient navigators with the knowledge and skills to manage patient care throughout an episode of care.

This navigator takes care management outside the hospital, coordinating the patient's care prior to admission from the primary provider's office or the emergency department, within the acute care setting, and post-discharge for 30 to 90 days. This approach ensures patients are transitioned appropriately from one level of care to the next in a timely manner, receive appropriate discharge planning to the least restrictive environment and are followed after discharge to minimize readmission.

Nancy Lakier
Founder/CEO and Managing Principal
Novia Strategies
Poway, Calf.

An integrated model of healthcare delivery is exemplified by healthcare teams (hospitals, physicians, labs, payors) working in lockstep to treat patients with the goal of achieving the best outcomes in an efficient manner, including reaching diagnoses faster and determining appropriate treatment. As wellness initiatives, such as population health and disease prevention initiatives, continue to be worked into the folds of our healthcare delivery, the data generated by clinical labs—which represent 80% of a patient's electronic medical record and help drive at least 70% of medical decisions in hospitals—become more important to the success of an integrated model of healthcare delivery.

The expansion of test capabilities of clinical labs of the future no doubt will produce greater volumes of data and result in a proliferation of new, actionable opportunities to track and improve patient outcomes and lower healthcare costs—also bolstering the success of an integrated, healthcare delivery model. In addition, clinical labs could serve to connect inpatient and outpatient care and aid in physician outreach programs to help build bridges and strengthen the lines of communication between physicians and health systems, supporting an integrated model of healthcare delivery.

Jeff Osborne
CEO
Accumen
Phoenix, Ariz.

Industry News

Priority Health Engages Employees With Diabetes Through New Product

GRAND RAPIDS, Mich.—Priority Health is working with local employers to assist in managing the health of their workforce, while controlling health care costs. The result is PriorityCares—a diabetes prevention and management (DPM), a product aimed to help employers improve the health of employees diagnosed with pre-diabetes or diabetes. The DPM product is participation and outcomes based, providing financial rewards of up to $320 to those who are engaged in their personal healthcare plan.

Once enrolled, the Priority Health care management team works with members and their doctors to develop a personalized plan and connects members to community-based resources, including certified diabetes education programs. Members have the opportunity to earn money by completing an annual online assessment, maintaining healthy weight and blood pressure, being active and visiting their doctor.

"We're focusing on a three pronged approach with PriorityCares: incentives, personalized nurse support and technology," says Marti Lolli, senior vice president, commercial markets for Priority Health.

Industry News

Pursuant Health Nabs $12.8M to Expand Population Health Platform

Health kiosk company Pursuant Health, formerly known as Solo Health, has raised $12.8 million in Series A funding to expand its population health platform through new channels. These channel expansions include texting, mobile, digital and incentive management capabilities, providing broader program administration, engagement and collection of health data.

Founded in 2010, the Atlanta-based company conducts population-level, health screenings that follow United States Preventive Services Task Force (USPSTF) Guidelines.

Under these guidelines, the health kiosk network of more than 3,600 FDA-cleared, HIPAA-compliant, self-service medical devices located within 10 miles of 79% of the U.S. population are utilized for non-invasive biometric screenings that determine risk based on age, gender and biometric data.

Based on the risk level indicated by the screening results, a user may be directed to seek out additional testing in the form of blood work, home test kits or other lab procedures. By utilizing multi-channel, communication strategies, convenient care settings and real-time, incentive management capabilities, Pursuant Health engages a wide range of at-risk, historically hard-to-reach members.

According to Pursuant Health, the company surpassed 130 million health screenings and more than three million active account holders.

Catching Up With Tamara Cull *…continued from back page*

Prior to population health models, health systems focused on their health system delivery processes and how to increase efficiency inside the walls of their hospitals. To succeed in value-based care models, you become responsible for managing "total health" of a population across all care continuums for usually a 90-day episode of care. The knowledge and skills required to manage a population outside the walls of a hospital requires new skills and additional training in order to succeed.

One example of this new leadership skill set is the development of a post-acute, care network to help manage populations after they leave a hospital setting. You must establish high performing partners in the areas of outpatient services, home health and skilled nursing facilities that will collaborate with your team to build successful care protocols for success. Once those protocols are in place, you must then monitor your preferred partners and hold them accountable, and truly function as a cross-continuum team that is all working together on the success of your population.

***Population Health News**: How do you rate the progress thus far in the move from volume-based to value-based care? What more needs to be done?*

Tamara Cull: The progress in moving to value-based care models has been mixed. Some of the larger models such, as Medicare Shared Savings (MSSP), requires a great deal of infrastructure and staffing, which takes time to develop and implement, so those programs seem slow to get started and even slower to show triple aim success. The physician-based models, such as the Comprehensive Primary Care Initiative (CPCI), are complex to implement but once in place, they show rapid success. The model that CHI has shown the most progress with is the Bundled Payment for Care Improvement Model (BPCI). The BPCI model fits in easily with CHI's work around team-based, clinical care improvement efforts, and the population sizes are small enough in the BPCI model that teams can more easily get control of a population quickly.

Overall CHI teams have embraced the episode-based, care models much more rapidly and have been able to show early triple aim success that keeps the teams engaged. The physicians in the episode-based, care models also were easier to engage and keep engaged with the rapid progress the models produced. In the larger population health models, some of our teams have gone two years into the program without triple aim success, which impacts team engagement and morale to keep pushing in that work.

For continued growth, CMMI and other payors need to continue to focus on "all-payor" models that will allow health systems to use the same care redesign models for all payors. In addition, smaller, more focused populations (episode-based models) are the best fit for most organizations as larger populations require such a heavy investment in staffing and infrastructure.

***Population Health News:** Because you are involved in teaching health policy, how do you translate that information into hands-on caring for patients?*

Tamara Cull: The work of CMMI and other payors on the aggressive move to value-based care has led to a renewed interest in understanding health policy for those that are in healthcare today and for those that are planning a career in healthcare in the near future. As a health policy faculty member, the ability to use "real world" examples of health policy "in action" with my students has been a once-in-a-lifetime, learning experience for them. The current health care landscape and the examples of what CMMI has been able to accomplish have engaged my students in learning and understanding more about health policy than ever before.

In addition, the ability to share with my students the extensive partnership of CHI and CMMI on multiple care models across the country has allowed students to see in-depth both the challenges and successes that value-based care is facing today. The recent presidential election also offered many valuable lessons for how health policy in 2017, and beyond, might be impacted, which has allowed students to reflect on how they as future healthcare leaders can be agents of change.

Catching Up With ….

Tamara Cull, DHA, MSW, LCSW, ACM, is vice president, market development for Medecision, a leader in population health management and connected care solutions for risk-bearing entities. Prior to joining Medecision, she served as national director of population health account management for Catholic Health Initiatives (CHI), a nonprofit healthcare system based in Englewood, Colo., where she was responsible for value-based programs and operations and for population health account management. Tamara also serves as adjunct faculty for the masters in health administration (MHA) program at the University of Arkansas, Fort Smith, where she teaches health policy and organizational behavior and theory.

- Former System Director, Care Management and Clinical Documentation, CHI, St. Vincent Health System
- Featured Speaker, population health, episode-based payment models of care
- B.A. and M.A. degrees, social work, University of Arkansas
- Doctorate degree, health administration, Medical University of South Carolina

***Population Health News**: How have your education and experience in social work contributed to your role as national director of population health account management?*

Tamara Cull: Social workers are trained to see the holistic picture of a person and how medical, emotional and social influences contribute toward a person's total health. So social workers are uniquely trained to be able to function in a total health/population health framework. In fact, I believe that social workers have essentially always been population health workers. By using a social work lens, it is much easier to identify all the factors that might be influencing a person's health and then create interventions that address those factors.

A great example of such work is the CHI program called Health Connections Initiatives (HCI). The program is designed and focused around addressing all determinants (medical, emotional and social) of health for some of our most medically complex patients. The program uses a home-based, team model that includes a nurse, social worker, pharmacist, dietician and community health worker that work together in the home with patients and families to address their total health picture. This model is a "high-touch" model but is highly successful as we clearly see that most often the social and emotional factors are the barriers that are keeping medical needs from being met.

CHI hopes to continue to include models of care in its population health work that focus on identifying and addressing social determinants of health, indicating impressive outcomes in this approach and remaining directly connected to the CHI mission and ministry of being partners in each community it serves.

***Population Health News**: What have been the biggest drivers of population health?*

Tamara Cull: The Affordable Care Act and the formation of the Centers for Medicare and Medicaid Innovation (CMMI) have been the biggest drivers of the current focus on population health. CMMI has moved rapidly to develop and launch multiple population health models (both voluntary and mandatory) that have established a clear path for CMS to move to a value-based, care model. CMMI has been deliberate in launching a variety of models with different accountable parties (accountable care organizations, physicians and hospitals) that allow a variety of models to be tested at one time. Health systems that wanted to gain expertise in these new population health models were able to join forces with CMMI and "practice" these new approaches at no financial risk, allowing for a rapid knowledge transfer in this type of work.

The rapid CMMI pace also put pressure on commercial insurance plans and state Medicaid agencies to join this work and launch their own population health models, which continue to grow daily and bring additional opportunities for collaboration in this new population health space. In addition, CMMI and many private insurance payors are now forming partnerships and launching value-based, care models together (i.e., Oncology Care Model), which is the first such collaboration that we have seen.

***Population Health News**: What do think have been the main reasons that population health has so permeated the industry that many healthcare organizations and universities have added separate departments or divisions targeting the discipline?*

Tamara Cull: Population health and value-based, care models are innovative models that require special training and new leadership techniques to be successful. Most current health system leaders were trained in volume-based, care delivery, which is highly different from value-based care so new training is required to shift the paradigm and learn new techniques for success. In addition, the CMMI (and other payors) care models are highly complex and require intensive knowledge of clinical care redesign across an entire care continuum.

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