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Population Health NEWS

Healthcare's Best Hope for Achieving Triple Aim: Care Coordination Software

by Kristin Stitt, DNP

Healthcare spending in the United States now totals $2.5 trillion a year, the most per capita in the world.[1] Unfortunately, the amount of money spent does not translate into better care, with Americans having poorer health outcomes than other first-world countries.

In the 2010 Affordable Care Act (ACA), the Secretary of the Department of Health and Human Services (HHS) was tasked with establishing a National Strategy for Quality Improvement in Health Care, or the National Quality Strategy (NQS). The purpose of the NQS was to set national goals to improve the quality of healthcare, and then develop and implement standards and regulations to measure the quality of care being delivered and the subsequent impact on health outcomes.

The NQS objectives were set and were logical: 1) improve accessibility and make sure care was patient-centered; 2) ensure care was affordable; and 3) address environmental social and behavioral influences on health and healthcare. Two of the priorities identified to help achieve these objectives included effective communication and care coordination, as well as person- and family-centered care.

Care coordination has been identified as a vital component of health and healthcare services and "fundamental to achieving and maintaining good health over time."[2] However, the concept, processes and implementation of care coordination remain widely varied across the United States. Little research exists regarding the optimum methods of delivery, or the true long-term clinical benefits of efforts to date.

Part of the issue is the lack of a consensus definition of the concept itself, with more than 40 definitions of care coordination recorded in literature. The NQF, in conjunction with the National Committee on Quality Assurance (NCQA) and the Agency for Healthcare Research and Quality (AHRQ), has attempted to ameliorate this issue by providing the following definition: "...care coordination is the deliberate synchronization of activities and information to improve health outcomes by ensuring that care recipients' and their families' needs and preferences for healthcare and community services are met over time."[3]

Healthcare outcomes are driven by multiple factors. The quality of the care delivered, including the utilization of evidence versus intuition, the accessibility of care and the affordability of care are just a few.

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In This Issue

Aging in Place: Critical for Seniors to Remain Independent

by Marilyn Rantz

America's 75 million aging adults soon will face decisions about where and how to live as they age. Current options for long-term care, including nursing homes and assisted-living facilities, are costly and require seniors to move from place to place. Quality of care in nursing homes has long been under scrutiny by the public and government regulators. Under this microscope, how can nurses improve quality of care in nursing homes?

Research at the Sinclair School of Nursing, University of Missouri, has found that nurses, coordinated care and technology all play pivotal roles in improving patient care and lowering healthcare costs for aging populations. Aging in place has proved to be the best model for seniors, both economically and in terms of patient care.

Aging does not mean that older adults suddenly lose their independence; instead, research shows that aging-in place-models allow seniors to remain independent as long as possible, while ensuring they also remain healthy. These models are successful in large part due to those on the frontlines of care—nurses.

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Making a Case for Population Health

A Selected Case Study in Population Health Management…

Impactability Scores Focus Resources, Maximize Return

by C. Annette DuBard, M.D., MPH

Objectives: The state legislature tasked Community Care of North Carolina (CCNC) with improving quality of care and controlling excess spending for the elderly and disabled Medicaid populations, who commonly experience multiple chronic physical and behavioral health conditions.

Objectives for the program included:

- Determine which interventions different types of patients needed and at what time.
- Reduce hospital readmissions for high-risk, high-cost Medicaid patients by identifying which interventions are best for individual patients and determining the optimal timeline for delivering care.

Program Description: CCNC, the physician-led, nonprofit that coordinates care for 1.5 million of North Carolina's Medicaid beneficiaries, launched a transitional care program in fall 2008. The aim was to help North Carolina's most vulnerable patients avoid costly and preventable hospital and emergency department visits, improving patients' quality-of-life while saving the state money.

"Today, CCNC provides transitional care support to approximately 2,600 Medicaid patients each month."

The core tenets of CCNC's transitional care program are comprehensive medication management; face-to-face, self-management education for patients and families; and timely outpatient follow-up with a medical home that has been fully informed about a hospitalization and any clinical or social issues that complicate a patient's care.

Today, CCNC provides transitional care support to approximately 2,600 Medicaid patients each month. CCNC's transitional care model has helped to reduce hospital admission rates among Medicaid recipients with complex chronic conditions by more than 10% over the last six years. Additionally, CCNC has refined its methodology and gained insight into when and how to intervene with patients for maximum benefit and cost savings.

CCNC's is among one of the largest and most widespread transitional care programs investigated to date. North Carolina initiated a statewide rollout of a population-based, transitional care initiative in the fall of 2008 for Medicaid recipients enrolled in CCNC's enhanced primary care case management program. The initiative used a community-based infrastructure for allocating care management resources to facilitate safe and effective transitions from the hospital to home, as well as coordinated linkage back to the primary care medical home.

"CCNC's transitional care model has helped to reduce hospital admission rates among Medicaid recipients with complex chronic conditions by more than 10% over the last six years."

Its transitional care efforts grew out incremental improvements that began with small-scale, pilot projects and gradually increased in complexity, number of populations served and geographic reach. The first medical home program for Medicaid recipients in North Carolina began in 1982, with a pilot aimed initially at reducing emergency department overcrowding in one rural county, Wilson. The medical home approach was so successful that physician leaders began similar pilots in other locations. Over the next decade, these local efforts began regional CCNC networks reaching more and more counties eventually serving all of the state's 100 counties.

The transitional care program is part of CCNC's contract with the North Carolina Department of Health and Human Services.

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

Evaluation Process: CCNC researchers aimed to evaluate the effectiveness of this large-scale program in reducing readmissions for patients with complex chronic conditions during the first year following hospital discharge. In a study of patients hospitalized during 2010-11 published in *Health Affairs,*[1] they found that those who received transitional care were 20% less likely to experience a readmission during the subsequent year compared to clinically similar patients who received usual care.

> ***"…they found that those who received transitional care were 20% less likely to experience a readmission during the subsequent year, compared to clinically similar patients who received usual care."***

CCNC found that patients benefited far longer than just for a 30-day period after discharge. In fact, reductions in the likelihood of a second and third admission over the course of the following year were observed. Benefits of the intervention were greatest among patients with the highest readmission risk. One readmission was averted for every six patients who received transitional care services, and one for every three of the highest-risk patients. A subsequent published study demonstrated that the transitional care program has also been effective among patients with schizophrenia and medical comorbidity, reducing the likelihood of readmission over the following year by 30%.

Results: CCNC's transitional care program has led to a substantial reduction in overall hospitalization rates for the N.C. Medicaid population. Among beneficiaries with multiple chronic medical conditions statewide, rates of hospital admission and readmission have declined by 10% and 16%, respectively, since 2008. These trends were driven entirely by successful trends within the CCNC-enrolled population (where admission and readmission rates per 1,000 beneficiaries have dropped by 10.3% and 19%, respectively), while these rates have continued to rise sharply among unenrolled beneficiaries.

Medicaid recipients who are not enrolled in CCNC are being admitted at almost twice the rate as recipients of similar clinical complexity who are enrolled in CCNC. In 2014, there were 932 admissions for every 1,000 high-risk, unenrolled Medicaid recipients, compared to 471 admissions per 1,000 patients who were enrolled with CCNC. Every avoided hospitalization translates into significant savings to the Medicaid program. A recent evaluation commissioned by the N.C. Office of the State Auditor concluded that CCNC's overall management model has yielded a 9% reduction in total Medicaid costs ($312 per member per year), with much of that savings driven by a reduction in inpatient utilization.

Over the past three years, CCNC has conducted a series of rigorous evaluations to further refine how to identify patients who require intervention, which interventions work best for specific patient populations and the optimal timeframe to intervene. Understanding the who, what and when of transitional care has helped CCNC allocate a workforce of care managers and other clinical resources in a way that maximizes the benefit to the patient through improved health outcomes and lower use of high-cost medical services.

CCNC has now operationalized all of its findings about what works for transitional care through the creation of the Transitional Care Impactability Score™. This score encapsulates findings from real-world evaluations of savings achieved from transitional care management, and allows CCNC to make more judicious decisions about which patients to prioritize for transitional care management, as well as who should receive specific intervention components, (e.g., a home visit). When compared to more typical tools for risk stratifying patients, the Transitional Care Impactability Score is able to hone in on a population that yields nearly twice as much savings, thus allowing CCNC to allocate its limited care management resources in a way that optimizes return on investment and benefit to the population.

> ***"A recent evaluation commissioned by the N.C. Office of the State Auditor concluded that CCNC's overall management model has yielded a 9% reduction in total Medicaid costs ($312 per member per year), with much of that savings driven by a reduction in inpatient utilization."***

Lessons Learned:

- Access to real-time, hospital data allows CCNC to know who is in the hospital so that interventions can occur in a timely fashion. Close participation in discharge planning is imperative. CCNC has established real-time, data connections with 87 hospitals in North Carolina, representing 78% of all Medicaid hospitalizations.
- Hospital-embedded, care manager and pharmacist teams establish relationships with patients to begin medication reconciliation as early as possible.
- Bedside visits and participation in discharge planning by CCNC behavioral health coordinators have improved behavioral linkage and follow-up upon discharge.
- "Connecting the dots" back to the patient's primary care medical home is imperative, assuring seamless communication across settings of care.
- For the right patients, home visits are extremely valuable and the best setting for medication reconciliation/medication management education. Additionally, the home visit provides optimal opportunity for a comprehensive assessment of patients, their environment and family dynamics, all of which are key to developing an effective patient-centered plan.
- Collaboration among network pharmacists, behavioral health coordinators and palliative care coordinators as part of a team greatly improves the management of transitions.

[1] Jackson CT, Trygstad TK, DeWalt DA, DuBard CA. "Transitional Care Cut Hospital Readmissions for North Carolina Medicaid Patients With Complex Chronic Conditions." *Health Affairs*. August 2013;32(8):1-9.

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Healthcare's Best Hope for Achieving the Triple Aim... *continued from page 1*

Factor in the prevalence of an aging population with proliferate, chronic comorbid conditions, treated by, on average, a double digit number of providers with disparate electronic health records, and the problem gets more convoluted. Probably the most complex, yet important element, is the patient and the accompanying myriad of behavioral, environmental and psychosocial factors that make each person unique.

Hypotheses now abound that personalized, patient-centered, evidence-based care is rudimentary to health reform; however, consistently defining, and more importantly, operationalizing the concept in daily care delivery is challenging. The historic "one-size-fits-all, top-down-authoritarian approach" to patient treatment and ensuing behavior modification has historically been ineffective, and is the antithesis of the now globally recognized term, "patient-centered care."

"WHO states that approximately 70% of health outcomes are related to these factors and that until it is possible to influence, understand and change behavior based on their modification, costly healthcare efforts will continue to be suboptimal."

In fact, the WHO states that approximately 70% of health outcomes are related to these factors and that until it is possible to influence, understand and change behavior based on their modification, costly healthcare efforts will continue to be suboptimal.[4] Understanding patient contributions (or lack thereof) in achieving evidence-based practice is imperative in pursuing an ever-increasing accountability for healthcare outcomes.

This is not a feat for the faint-hearted. Changing behavior is difficult. This difficulty is compounded by the time constraints encountered in the current care delivery system. To effectively assess and alter behavior, health systems will have to find mechanisms to identify, stratify, engage, modify and measure a patient's individual characteristics and ensure behavior as related to health outcomes—all of course in the context of being efficient and cost-conscious.

The most promising method to achieve this is via care coordination supported by software specifically built for the task, incorporating at a system level not only evidence-based, care pathways for coordinators but also connecting and communicating with effective patient engagement tools. Coordinated care has been deemed the hallmark of a successful and caring health system, yet quality assessment in this field has lacked actionable, outcome-focused measures.

Care management software sits at an important intersection of a patient, community and provider/health system. Research and experience have resulted in an evolution of thoughts about improving health outcomes, and the patient has continued to be at the center of change with care personalized to individual traits and characteristics of a patient.

With the accelerated migration to outcomes-based reimbursement, successful healthcare systems will need to fully understand how to manage an individual patient's health and healthcare across the care continuum, engaging the patient as an active, accountable participant in the process. Without an engaged patient, failure is all but guaranteed.

The care plan serves as the dynamic blueprint to guide this complex process. A robust care plan incorporates a person's medical and psychosocial needs, evidence-based interventions to address those needs and a person's individual preferences and values regarding the goals of proposed treatment plans. It captures the process designed to meet those goals and assigns accountability along the way.

A key to success is the ability to share data across a time/space continuum, across multiple care providers and settings, throughout multiple treatment phases. The information housed within a care plan should not be viewed as duplicit in nature. Rather, it is a succinct culmination of pertinent information and a "working document" providing visibility into the merging of a treatment plan, the assigned, specific and actionable interventions across the care team.

For successful care coordination platforms, it includes assessing a patient's readiness to change and providing education, coaching and interventions that move a patient towards self-efficacy. A critical component is monitoring and measuring a patient's response to evidence-based treatment and identifying in real time where breakdowns occur. By sharing this information with all members of a care team, a synchronized and organized delivery of evidence-based, patient-centered care is possible.

"A key to success is the ability to share data across a time/space continuum, across multiple care providers and settings, throughout multiple treatment phases."

Robust, care coordination software solutions have the potential to become the platform to extend and operationalize evidence based care—from the point of care to a defined patient outcome—capturing not only the treatment plans initiated, but also the individual patient choice and response, modifications to accommodate for both factors and progress toward mutually established goals.

Ultimately, the ability to translate evidence into practice, monitor the practice and adapt on an individual basis to achieve a defined outcome will drive improvement in health and healthcare.

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[2] "Priority Setting for Healthcare Performance Measurement: Addressing Performance Measure Gaps in Care Coordination: Final Report." National Quality Forum. 2014.
[3] *Ibid.*
[4] Heiman H, Artiga S. "Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity: Issue Brief." The Kaiser Commission on Medicare and Medicaid. November 2015.

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Aging in Place: Critical for Seniors to Remain Independent... *continued from page 1*

Coordination of Care, Value of Advanced Practice Registered Nurses (APRNs)

Coordinated care in aging-in-place facilities includes incorporating the fundamentals of care—walking, nutrition, hydration and toileting—as a means of improving program quality. The result is improvement in overall health outcomes for nursing home residents. A past study found that facilities that encourage staff to prioritize the fundamentals of care have much better health outcomes than those that do not. Best practices include staff walking with residents and presenting food in an attractive manner that encourage residents to eat.[1]

Research also shows that when APRNs are allowed to practice independently and to their full potential, quality of healthcare improves across entire states.[2] APRNs have graduate-level educations and advanced knowledge of the best evidence-based practices. The Centers for Medicare and Medicaid (CMS) Innovations-funded initiative, the Missouri Quality Initiative for Nursing Homes, is aimed at improving healthcare in nursing homes.

Launched in 2012, the initiative is a partnership among the University of Missouri, CMS, state Medicaid programs[3] and 16 collaborating nursing homes in St. Louis committed to improving care. The program provides full-time APRNs who work in each facility to coordinate care and help staff detect health changes early. In the four years since the program launched, the facilities have seen a 34.5% decrease in potentially avoidable hospitalizations, allowing more residents to age in place.[4]

Equalizing Reimbursement

One of the challenges nursing homes face in determining care is the amount of payment they receive from CMS. This disparity in payment, between what hospitals are paid and the significantly less amount nursing homes receive, leads nursing homes to hospitalize residents who could have been cared for in the home. For example, a physician can bill CMS $203 for a resident hospitalized with pneumonia, but a nursing home can only bill $136. This inequity means that decisions about resident care can come down to money, not what is best for the patient.

As a result of research, CMS has agreed to standardize payments under Medicare Part B for the treatment of qualifying conditions, increasing the amount paid to participating nursing homes for the treatment of conditions onsite.

The second phase of the Missouri Quality Initiative will take place at an additional 16 homes that have systems in place to manage the most common diseases associated with hospitalizations: pneumonia, dehydration, congestive heart failure, urinary tract infections, skin ulcers and asthma. Future study will investigate whether an incentive of increased payment will help nursing homes reduce their hospitalization rates.

Technology Assists Aging in Place

Based on years of research on how to improve long-term healthcare, an innovative, aging-in-place retirement residence in Columbia, Mo., has evolved, providing a service, research and practice environment.

The aging in place initiative envisioned that advances in technology had the potential to enable early intervention that could assist in proactive management of health for older adults and potentially reduce costs. The new residence utilizes video game technology, motion sensors, a hydraulic bed sensor under the mattress and at times, new radar systems to detect illness and prevent falls.[5] In recent evaluations, the sensor networks detected changes in residents' conditions that were not recognized by traditional healthcare assessments.[6] Researchers are perfecting the infrastructure at the model residence so that these technologies, along with supportive health care services, can be made available to seniors throughout the country. Studies on this technology have found that residents living with technology stayed longer in aging-in-pace residences if technology was used to assist their care. Moving people from place to place could be harmful but when nurses are able to provide necessary care for common ailments, such as pneumonia, through coordinated care, older people are able to avoid hospitalization.

These efforts are not only beneficial to nursing home residents, but they also are economical. Past research has found that long-term care facilities can see significant savings after implementing a quality care improvement program. In Missouri alone, research has indicated that facilities saved more than $6 million over a three-year period, in part from preventing hospitalizations.[7]

Effective care does not happen by chance or by simply working harder. It requires a coordinated effort from various disciplines and innovation, using new tools and technologies to help seniors remain independent. In addition, it is necessary for everyone, from administrators to service providers, to be on the same page.

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Community Health Assessments Can Help Define 'Population Health'

by Michael Kobernick, M.D.

Population health is a topic discussed in all segments of healthcare today, and yet confusion over its definition remains. There are questions over whether fee-for-value is considered population health, if social determinants of health should be incorporated into treatment plans and if programs reducing readmissions are considered population health.

In responding to those questions, to be successful in a fee-for-value reimbursement model, population health must drive care processes. Understanding the conditions in which people live—their demographics, support networks and care challenges—is essential to success of future healthcare models. Readmissions are often a symptom of disorganized care, which may be addressed by population health methods.

One classic definition of population health is "the health outcomes of a group of individuals, including the distribution of such outcomes within the group."[1] In 2012, the definition expanded to "a cohesive, integrated and comprehensive approach to the health outcomes in a population, the health determinants that influence the distribution of care and the policies and interventions that impact and are impacted by the determinants."[2]

The definition is more extensive than these two because they do not focus on improvement initiatives, the hallmark of population health. A definition must go beyond health problems of a population; to be population health, it must include action in response to an in-depth understanding of health in the context of members' specific social determinants. Population health should be a clearly defined process for evaluation and improvement of an individual's or community's health.

Clearly population health has many meanings and encompasses several approaches to meeting the Triple Aim. Given this variability, the best way to understand population health is through example. The commonly used community health needs assessment (CHNA) illustrates the principles of population health.

> ***" CHNA emerged as a government-mandated activity for not-for-profit hospitals to justify their community benefit to maintain their tax-exempt status."***

CHNA emerged as a government-mandated activity for not-for-profit hospitals to justify their community benefit to maintain their tax-exempt status. This mandate, found in the ACA, requires that not-for-profit hospitals must conduct a CHNA at least once every three years and provide a detailed implementation plan for meeting the identified health needs of a community.

CHNA is important because it helps institutions focus on the communities they serve, assesses their needs and implements programs specifically designed to improve the health of their populations. A CHNA includes stakeholder input: Members of a community sit on a CHNA steering committee to analyze data and help generate innovative ideas that will benefit the community they live in. CHNA requires collaboration with community agencies and has led to partnerships between hospitals and churches.

For example, Detroit-based St. John Providence Hospital Parish Nurse Program places nurses in local churches to assist individuals through advocacy, education and clinical services. A CHNA also requires hospitals to communicate a health needs data analysis to members of its communities and its plan for improvement interventions based on these findings. The CHNA process—interdisciplinary data analysis through intervention—is population health. A well-run CHNA teaches institutions how to apply principles of population health to other initiatives within their organizations.

The ACA does not specify the process an organization should use for completing an assessment. Given the approximately 2,800 American Hospital Association reported, not-for-profit hospitals, several approaches have been developed to perform an assessment. A basic approach includes forming a community group, data review, surveying community members, analyzing data, prioritizing health-related issues and developing and implementing initiatives.

With so much variability among organizations developing a CHNA, the author has designed a framework that incorporates input from organizational development project planning, health policy analysis, patient-reported, outcome evidence presentations, informatics and comparative effectiveness research methods. The template also could be applied to all population health assessments and initiatives because it differs from standard CHNA methodology by incorporating ideas from other disciplines that have added depth and consistent structure to the analysis and interventions.

The following outline, from assessing interdisciplinary needs through completing interventions to improve care, has been applied to a variety of population health-based activities:

1. Define the purpose, scope and population of an assessment to ensure it is focused, doable and encompasses the characteristics of a defined population.
2. Gather a representative team of stakeholders, including individual members of a defined population and relevant community agency representatives that have experience in areas related to an assessment.
3. Gather and evaluate data using readily available sources that are reliable and validated to effectively measure results of any intervention.
4. Prioritize issues among stakeholders, studying current and future status and what needs to be accomplished to reach goals.
5. Plan and implement initiatives by selecting an implementation team, defining a budget, creating a milestone roadmap and clearly defining measures to demonstrate results.
6. Communicate results of an assessment, proposed initiatives, on-going progress and a final report.

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Community Health Assessments Help Define 'Population Health' … *continued from page 6*

A CHNA has all the elements of a population health approach to healthcare improvement activities. It helps develop meaningful partnerships between not-for profit hospitals and health systems and the community. In areas where access to care issues have been identified, additional providers or appointments are made available. When high infant mortality has been discovered, community partnerships enhance pre-natal care and nutrition, reducing the morbidity and mortality of that population.

If transportation creates a barrier for patients to access care, conditions might exacerbate and force them to receive care at emergency rooms. As a result of assessments, communities are making efforts to make more public transportation available. A CHNA has clearly resulted in enhanced services to a community. It uses all the principles of population health and with modification, might be applied to any health improvement activity.

The framework outlined above incorporates processes from many disciplines. It helps clarify the definition of population health as a process that includes a defined problem and population, a representative group of stakeholders, data acquisition and analysis, prioritization of issues, improvement initiatives and communication.

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Industry News

AHRQ Toolkit Helps Health Care Organizations, Providers Communicate With Patients, Families When Harm Occurs

The Agency for Healthcare Research and Quality (AHRQ) recently released a new online toolkit to help hospital and health system leaders and clinicians communicate accurately and openly with patients and their families when something goes wrong with their care.

The toolkit will help expand use of an AHRQ-developed communication and resolution process called Communication and Optimal Resolution, or CANDOR, which gives hospitals and health systems the tools to respond immediately when a patient is harmed and to promote candid, empathetic communication and timely resolution for patients and caregivers.

Despite the best efforts of hospitals, doctors, nurses and other healthcare professionals, about one in 10 patients are harmed by the care they receive. Effective communication following harm can be challenging, leaving patients and families to wonder what happened and possibly seek legal action to find answers. The toolkit, which includes facilitator notes, slides and online videos, enables healthcare organizations to make care safer by implementing the CANDOR process to encourage proactive, open communication with patients and their families when harm occurs.

The CANDOR process was developed by AHRQ and is based on expert input and lessons learned from the agency's $23 million Patient Safety and Medical Liability grant initiative launched in 2009, the largest federal investment in research linking improved patient safety to reducing medical liability.

CANDOR is an example of a communication and resolution program, which some hospitals are already using. These programs help remove barriers to reporting near misses and errors and encourage open communication about how to prevent future harms. The CANDOR process was tested and applied in 14 hospitals across three health systems, which plan to expand its use.

Primrose Healthcare Launches Innovative Alcohol App to Help Hepatitis C Patients Overcome Alcohol Addiction

Phoenix, Ariz.—Primrose Healthcare has launched an innovative alcohol app designed to help hepatitis C patients, who often struggle with substance abuse, overcome alcohol addiction. Leveraging mobile technology and powered by Here and Now Systems, the alcohol app provides personalized education and resources through goal setting, alerts, coaching and ongoing feedback to better engage and support hepatitis C patients on their journey toward alcohol addiction recovery.

Leveraging mobile technology, the app helps hepatitis C patients control and manage alcohol urges so they can stop drinking and improve their health. It gives individuals easy access to useful tools, feedback and personalized coaching. This provides an extra layer of support, outside of counseling sessions and support groups, when hepatitis C patients need it the most—at the moment when alcohol urges occur. For patients who stopped drinking they saw a 29% percent reduction in risk for either a liver-related event or in-hospital death compared to those who continued to drink, according to an EASL study.

For physicians, this innovative app provides a valuable resource that begins to bridge the gap between behavioral health, typically used for substance abuse issues, and primary care for physical care. Gastroenterologists can prescribe the app as an additional resource that can be combined with referrals to more behavioral health-oriented services, such as a psychiatrist or support group. The physician can also be involved in monitoring a patient's use of the app and provide encouragement at follow-up visits as needed. The app is designed to enhance awareness of drinking and related problems, assist in goal setting and help manage triggers using "in-the-moment" tools. Patients initially build a profile that allows the app to provide customized interventions. For instance, patients input days and times when they typically drink. The app then sends them alerts and instruction on doing something different besides drinking during those times.

Industry News

Food Label Updates, Nutrition Apps Signal Gain for Population Health

The FDA recently announced updates to the nutrition facts panel that appears on the back of all packaged foods, and there are some major changes with implications for population health management.

Along with calories, fat, protein, fiber and sodium, the new labels will also tell people how much sugar has been added to a processed food, and how much potassium and vitamin D—two nutrients many people don't get enough of—the food contains. They will also include updated calorie information. For instance, the daily value for fiber will be 28 grams, up from 25 grams.

Serving sizes also will change to reflect what people actually eat, not what nutritionists and dieticians think they should eat. For example, a serving of soda will increase from eight to 12 ounces.

The changes are expected to cost the food industry about $2 billion.

The American Medical Association and the Academy of Nutrition and Dietetics praised the updates, saying the inclusion of added sugars would help prevent debilitating chronic conditions such as type 2 diabetes and heart disease; however, Tamara Melton, a dietician nutritionist and academy spokesperson, says the serving size change is not consistent with the U.S. Department of Agriculture's My Plate recommendation, which the academy supports.

Persons With Diabetes Face Financial Stress, Often Sacrifice Healthcare, Food

ANN ARBOR, Mich.—Some of the current fixes aimed at reducing the financial burden of chronic illness—including the ability to enroll in a healthcare plan under the Affordable Care Act—are not enough to save those with diabetes from the stress of having to figure out how to manage their health and put food on the table.

In a study about those living with the disease, researchers at the University of Michigan School of Public Health found a number of pressures led half of adults with diabetes to report perceptions of financial stress, and one-fifth to say they have experienced health and food insecurity. Insecurity means their household economic situation allows limited access to medications, supplies and food.

The study, reported in the journal *Medical Care*, examined various factors impacting cost-related non-adherence (CRN) within the diabetic population, the term to describe when patients can't follow doctors' orders because of the cost of doing so.

"Financial burden for people with chronic illness is complex," says Minal Patel, assistant professor of health behavior and health education, University of Michigan. "It's not as simple as offering reduced copays or co-premiums. It's a whole range of things that we need to address."

Persons With Diabetes Face Stress*...continued*

CRN is estimated to impact 20% of all patients in the United States, who, when faced with financial burden, often don't follow doctor's orders.

In the study of nearly 35,000 adults from the National Health Interview Survey, 11%, or 4,200, identified as having diabetes, and 14% of that group reported CRN to their medical plans. This was compared with 7% CRN from the general population without diabetes.

Close to a quarter of those surveyed reported food insecurity, which was strongly associated with CRN.

Patients with diabetes also face associated health problems of obesity, high blood pressure and eye-related conditions that are not addressed consistently through plans under the ACA, or require self-management resources that fall outside the scope of what a health insurance plan would typically cover.

The researchers found that talking with a healthcare provider about lower cost options helped mitigate CRN. Although patients with diabetes were more likely to have these conversations than others, only 27% of them were sharing concerns with their doctors.

Healthy Living Can Reduce Breast Cancer Risk for those in Highly Prone Category, Study Says

Making healthy lifestyle choices could help some women who face high risk for breast cancer lower their risk to that of an average woman, claim researchers in a new study published in the *Journal of American Medical Association* (*JAMA).*

The lifestyle data of about 23,000 high-risk, white women aged 30 to 80 years who were scanned were part of the study by scientists from various institutions, including the National Institutes of Health and Johns Hopkins University. Their aim was to ascertain whether changes in lifestyle could help reduce the probability of contracting cancer.

Robert Shenk, M.D., medical director at the Breast Center, University Hospitals Seidman Cancer Center in Cleveland, says the study findings might shed light on how to modify one's lifestyle to keep the deadly disease at bay.

There were several parameters for the women who were scanned, including smoking and drinking habits, weight indexes and use of hormones.

The report suggests that on an average, a 30-year-old woman has about 11% chance of developing breast cancer by the time she turns 80 years old. The risk of developing the disease, however, is much higher in some women—a 23.5 % risk—due to "non-modifiable" issues, such as family history, genetic markers and reproductive factors.

Authors associated with the study say women in the highest decile of risk owing to non-modifiable factors and those who had low BMI, did not drink or smoke and did not use menopause hormone therapy had risks comparable to an average woman in the general population.

Thought Leaders' Corner

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

Q. How Can Health Plans Control the Rising Price of Specialty Drugs?

Health benefits are critical for attracting and retaining valued employees. As plan sponsors, employers want an approach that supports both employees and family members. But most don't understand how to address plan performance—especially true for specialty drugs.

Over the past five years, the Midwest Business Group on Health (MBGH) has conducted employer surveys on biologics and specialty drugs.[1] While cost trend management is a top priority, employers only have moderate satisfaction with their pharmacy benefits managers (PBMs). Yet they STILL follow their recommendations and manage specialty the same way as traditional drugs, creating missed opportunities for cost management and patient outcomes.

As a result, we see reduced fill rates for specialty drugs with decreased compliance and abandonment of prescribed therapy, as well as out-of-pocket cost complaints. While high-deductible plans are not bad, they require thoughtful implementation, member support/education and better coordinated efforts by vendors managing use.

Innovation is coming from large and jumbo, self-insured private employers willing to try new things and to make their PBMs more accountable. Not all succeed, but they continue because better cost management and patient outcomes are critical.

This year's survey indicated a vast majority are considering new plan design strategies, such as narrow/high-performing networks, carving out specialty drugs and integrating vendor performance guarantees in contracts.

MBGH urges employers to play a more active role in driving accountability and innovation with their plans, PBMs and other vendors. It's critical to ensure employers are getting actionable data, rebates and other elements that support employer needs.

[1] "MBGH Releases Annual Survey of Employers on Specialty Drug Management." Midwest Business Group on Health. June 9, 2015.

Cheryl Larson
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Specialty drugs are the fastest growing driver of the pharmaceutical industry and represent one of the highest innovation areas in life sciences. Though specialty drugs constitute only a small fraction of all prescriptions, they are projected to constitute 50% of all pharmaceutical expenditures by 2018.[1]

Most experts have opined that this trend is not sustainable. In light of this, the U.S. Federal government has implemented a broad range of structural reform as part of the Affordable Care Act, which introduced the concept of measuring and paying for quality (i.e., improved outcomes, rather than fee-for-service). This single change marks a watershed moment in U.S. health-care and promises to completely change the dynamic between payers and pharmaceutical manufacturers moving forward.

In today's environment, health plans are increasingly looking to control expenditures on specialty pharmaceuticals by focusing on therapies that demonstrate best real-world outcomes. Real-world data and insights generated from these therapies, such as treatment pathways, are critical weapons in the hands of payers in demanding better economic value for drugs.

Specialty drug manufacturers have long relied on results from randomized clinical trials to showcase the value of drugs and protect their margins. With the huge impact of real-world data (claims, electronic health records) now influencing efficacy and effectiveness conclusions and driving health plan reimbursement decisions, the consumer stands to benefit through improved clinical outcomes as well as lower healthcare costs.

[1] "Drug Trend Report." Express Scripts. 2015.

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Thought Leaders' Corner

It's no secret that prescription drug prices have been increasing dramatically, led by specialty drugs that routinely top $5,000 per month. Because the cost is set by manufacturers, health plans focus on ensuring appropriate use of medications through utilization management.

Utilization management has many facets:

- Prior authorization to confirm that clinical criteria are met, such as ensuring that the requested drug is approved for a given condition.
- Step therapy to ensure that when multiple drugs are available for a certain condition, the most cost-effective drug is used, based on clinical evidence.
- Point-of-sale edits occur at the pharmacy as safeguards to make certain that the dose and quantity of a dispensed drug falls within guidelines approved by the U.S. Food and Drug Administration (FDA).

Once a prescription has been approved and dispensed, medication therapy management (MTM) programs are employed to help people effectively manage their prescription drugs.

MTM confirms those using prescription drugs:

- Are taking all of the medications they should be taking and not using those that are deemed inappropriate.
- Are taking their medications correctly (e.g., at the right time, with or without food).
- Aren't taking duplicate drugs in the same therapeutic class.
- Have their medications coordinated with all of their providers (primary care physicians and specialists).

Prescription medications are safe and effective only when used appropriately. Programs such as utilization management and MTM can ensure that medication use is evidence based and cost effective, providing positive clinical outcomes while managing overall drug expenditures.

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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.

Catching Up With Stephen Shortell … *continued from back page*

***Population Health News**: What are the components of total quality management, and how well is the healthcare industry doing in achieving it?*

Stephen Shortell: The Institute for Health Improvement (IHI) and the National Academy of Medicine (formerly the Institute of Medicine) have played key leadership roles in improving the quality of healthcare in the United States over the past 25 years or so. I think most observers would agree that the quality of care (in most areas but not all) has steadily improved using generally accepted measures. But the progress has been slow and uneven, and there is much work still to do.

Some of the key components of total quality management include:

- Setting priories consistent with an organization's strategic priorities.
- Training staff in quality improvement techniques and tools, such as those involved in planning, doing, studying and acting cycles, or the Plan-Do-Study-Act (PDSA).
- Developing the data infrastructure to support the effort.
- Learning to sustain and spread resulting improvement gains.

These are particularly challenging in healthcare because of the multi-level interdependencies involved in providing patient care. Thus, there is need for an overall systems approach to improvement. For example, a recent study of quality improvement in the Veterans Administration (VA) found that focusing on systems, structures and underlying processes was associated with greater improvements in quality than focusing on individual projects or staff training in isolation.

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Catching Up With Stephen Shortell … *continued from page 10*

These and related findings are calling increased attention to a new way of managing and leading our nation's healthcare organizations. One approach to this is the LEAN operating and management system most commonly associated with the Toyota production system. The major focus is on increasing value by eliminating waste, inefficiencies and redundancies that do not add value for patients using a variety of tools such as value process mapping. But the key to success appears to lie in developing a new model of leadership based on the leader as a student and learner of what frontline caregivers are doing and removing the barrier to their success. For those interested I strongly recommend reading *Management on the Mend* by John Toussaint, M.D.

***Population Health News**: How can the healthcare industry repair the payment system to enable population health management?*

Stephen Shortell: Moving away from the fee-for service payment of physicians and paying hospitals for each admission towards value-based payments that reward outcomes achieved is central to beginning to change behaviors that emphasize keeping people well and healthy. CMS is currently experimenting with a variety of these approaches, as is the private commercial insurance sector. There is much to be learned from these efforts. One key will be determining a core set of cost, quality and patient experience metrics that do not overburden providers in a measurement morass that benefits no one.

There also needs to be recognition that the measures provider organizations may use to improve care internally may not be the same measures desired for external reporting accountability purposes. But to the extent possible, they should overlap.

The current payment focus is largely on providing bonuses for hitting quality targets, some shared savings for providing care less than expenditure targets and bundled payments for selected conditions.

But ultimately, the most traction will likely be gained by upfront capitation payments (per member per month fee) or setting a global budget/payment. This creates the greatest incentive for innovations in care delivery to keep patients out of the hospital and emergency department and, indeed, to reduce the number of office visits as patients become increasingly capable of managing their own care and maintaining their health.

So far the term "population health" has been used primarily to refer to a given delivery system's or medical group's own population of patients. But more recently, there is growing recognition of the importance of the underlying social determinants of health in the community and the need to address true community/population-wide health. One approach has been the development of accountable communities for health (ACHs) or accountable care communities (ACCs) In which a cross-sector, community-wide coalition leadership group or "integrator" body accepts responsibility for payments (from multiple sources including wellness funds) for an entire community population to achieve predetermined community health goals. In addition to healthcare, typical sectors include public health, social services, education, housing and transportation. Initiatives are currently underway in a number of states including California, Minnesota and Washington and will be important to evaluate and summarize the lessons that will be learned.

***Population Health News**: What are the best ways to engage and empower patients?*

Stephen Shortell: The best way to engage patients is to meet them where they are. Instead of asking, "What is the matter with you?" ask, "What really matters to you?" Our Center at Berkeley, the Center for Healthcare Organizational and Innovation Research (CHOIR) is currently involved in several patient engagement research projects. These include examining the relationship between patient activation and engagement and patient reported outcomes of care. One of the things we have learned is the importance of considering the entire ecosystem of the provider/healthcare team and patient and family relationship. The way in which you use healthcare teams, health coaches, EHRs, patient portals and digital tools all come into play.

It is often helpful to stratify patients by their level of activation and knowledge of their condition and then jointly develop with them and their families their goals and treatment preferences. The ability of providers to effectively engage patients and their families will be increasingly important under the new payment models, particularly given the growing number of Americans with multiple chronic illnesses in the years ahead.

***Population Health News**: What are the best ways for physicians to partner with other healthcare entities, and what are the benefits of these alliances?*

Stephen Shortell: As physicians and the organizations with which they are affiliated become increasingly accountable for the entire continuum of care, they will need to form partnerships not only with each other (merger of medical groups, joining an independent practice association) but also with hospitals, integrated delivery systems, post-acute care facilities, health plans and related entities. They will be best prepared to do so by examining their own Strengths, Weaknesses, Opportunities and Threats or what is commonly called a SWOT analysis. They then should do the same in assessing potential alliance partners.

The key is to partnering with another organization that will bring strengths and capabilities to the table that you do not have and yet, their culture is compatible with yours. It is important that there be mutual goals and mutual respect. Ongoing communication is key—timely and accurate. Never surprise your partner. Keep each other informed about new developments. Look for opportunities to deepen the relationship. Celebrate successes. Share the credit.

In the coming years, we will see more vertical integration partnerships (between physician groups and hospitals and between hospitals and insurance plans), as well as horizontal (between physician groups, between hospitals and between insurance plans). By 2025, I predict that nearly all of the nation's hospitals will belong to a system or network, and there will continue to be consolidation of physician practices and more physicians practicing in groups of varying sizes. The major question, of course, is whether a more integrated, consolidated health system in the United States will produce any marked progress towards achieving the Triple Aim of better heath, better quality and a lower rate of growth in cost.

Catching Up With ….

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***Population Health News**: The industry touts integrated delivery systems, such as accountable care organizations, patient-centered medical homes, Kaiser and like organizations, but what will it take to move the entire healthcare system forward in their direction?*

Stephen Shortell: One way of thinking about this question is in terms of incentives on one hand and capabilities on the other hand. Both are needed to move the system toward more integrated care. Incentives that move away from fee-for-service payment toward value-based payment based on outcomes of care create the motivation for changing how care is delivered.

CMS is moving strongly in this direction with such payment innovations as shared savings arrangements with accountable care organizations (ACOs), bundled payments and the recently announced MACRA payment reform legislation that will reward doctors with a 5% bonus if they choose to practice in an ACO-like entity. They also could choose to be paid under an incentive program that depending on their ability to meet cost and quality metrics will reward them with additional income; however, If they fail to meet the metrics, they will be subject to loss of income.

But incentives alone are insufficient. One also needs to take into account the capabilities of providers to respond to the incentives, and this varies widely across the United States. Hence comes the need to calibrate the pace of change in rolling out new payment models with the ability of providers to respond to risk-based payments. It is encouraging that a number of technical assistance programs are being made available to small physician practices to acquire some of the skills that will be needed to succeed under the new value/risk-based payment models. These include support of electronic health record implementation, formation of healthcare teams, training in patient engagement methods, the use of health coaches and related approaches.

Among those providers that are currently ACOs or ACO-like entities, our research and that of others suggest six keys to success. These include:

1. Having a sufficient number of enrolled lives to spread costs and create economies of scale and scope. The more successful ACOs appear to be to those that have at least 35,000 and more patients under an at-risk contract.
2. Implementing innovative care management programs particularly for patients with high-cost/high-complex medical needs.
3. Having a high degree of electronic health record (EHR) functionality that facilitates real-time communication among all members of a healthcare team including patients.
4. Developing effective partnerships with behavioral health providers and post-acute care facilities in order to manage a full continuum of patient care.
5. Effectively activating and engaging patients as full participants in their care.
6. Being able to use a core set of actionable quality and cost measures for purposes of improving performance and external accountability.

Overall, I believe the movement toward more integrated delivery systems over the next five to 10 years will be gradual and unevenly distributed across the country. The extent to which incentives and capabilities can be calibrated will determine how rapidly integrated delivery systems will grow and spread.

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