Our emerging understanding of population health

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As payment and care delivery changes continue in health care, a theme is emerging around population health. Not population health in terms of a panel of patients as a population, but population health as in the health of the community.

National experts and thought leaders have begun to weigh in, from the Institute of Medicine roundtables and reports on the role and potential of communities in population health (September 2014) and financing population health improvement (July 2014) to the National Rural Health Resource Center’s guide for critical access hospitals to improve population health (March 2014). States have begun to pay attention. In Minnesota, this is exemplified by the Centers for Medicare & Medicaid Services funded State Innovation Model (SIM) and its prioritization of community and population health in the SIM efforts.

What does it mean from a quality and value perspective? It is recognition that the care a person receives while in the health system contributes only in a small way to the overall health of that person. Research tells us that 10 percent of a person’s health is determined by their physical environment, 40 percent by social and economic factors, 30 percent as a result of their behaviors and actions, and only 20 percent by what occurs in a hospital or clinic or other traditional care setting. To truly impact the health of a person and a community or population, active consideration of and engagement with these other factors is essential.

In the health system, we have known this for a long time. Yet there has not been much research or many best practices to inform us on how best to act on this information. And, for a very long time, there were not financial incentives to do so. Today, this is slowly changing. We are seeing more examples of how health care is building bridges to community resources. Reimbursement and incentives are starting to align with the concept of the comprehensive care of a person, from both the wellness/prevention and the illness/treatment perspective.

In clinical care, we are seeing more health care homes and supporting more primary care practices to actively engage with their patients regarding health behaviors and community support systems. Stratis Health continues to develop tools and resources which support the active involvement of public health, social services, long-term care, and behavioral health in improving population health. In health care infrastructure, Stratis Health has pioneered the embedding of community-based referral resources into a clinic’s electronic health record through the Community Transformation Grant program. In payment, accountable care organizations and other new payment models are forging the way to incent and support more comprehensive care of patients’ health, wellness, and illness—bridging the health care and community continuum.

You’ll find interesting and exciting examples of population health strategies throughout this issue of Quality Update, and we hope they can inspire and support continued learning and action.
As health care organizations and providers, we have designed our clinics and establishments to care for people when they are sick. Traditionally, we employ staff that has been trained to recognize diseases that can be identified through a series of tests and analyses that are linked to specific diagnostic codes. We then use these diagnostic codes to bill health plans to pay for the services we have provided. What is really ironic is that many of the services we are paid for do not have to result in finding the cause of illness or disease or even in our patients getting healthier.

If we compare the factors that influence health to health care spending, the misalignment is clear. We spend 84 percent of health care dollars1 to affect a 20 percent impact through access to care, diagnosing, and treating chronic disease. We spend only four percent to address the 30 percent impact of health behaviors. We do not spend enough of the health care dollars to address the preventive causes such as behaviors and social determinates which are 80 percent of the impact.2

A particularly compelling call to action issued by Dr. Rishi Manchanda in his recent Ted Talk lecture What makes us get sick? is for us to improve health where it begins. That is for health practitioners to have the confidence and resources to address the ‘upstream’ factors of health outside of the clinical walls of practice—addressing and treating the social, economic, and environmental factors of health. It also means expanding the health care team to include community health workers, public health professionals, housing advocates, employment, and educational specialists. It means cultural communities, underserved communities, and communities of color need to address health inequalities by including community and cultural elders as part of the health care team. And, it means factoring in the impact of racism, discrimination, and trauma on individual and community health.

While the approach of addressing root causes for health may seem overwhelming and impossible to health practitioners, I would say that it has existed for nearly 50 years in community health centers. Community health centers or federally qualified health centers (FQHCs) originated as models in underserved communities that integrated clinical health care with social services as a way to address the health of the communities they serve. The community health center that I work for, NorthPoint Health & Wellness Center, employs not only primary care physicians, nurses, dentists, psychologists, and pharmacists, but also community health workers, housing and employment specialists, social workers, and family facilitators. Our team-based approach to care is multi-disciplinary, with the patient and family as the center of the care model.

NorthPoint Health & Wellness Center also uses the approach of collective impact as a framework for bringing together community stakeholders to solve complex community health issues. We are using it to address chlamydia infection, access to healthy food, youth tobacco use, and smoke-free policies. We are increasing our community health focus because we believe that health happens in healthy communities, and healthy communities produce healthy people. As a health care provider, we know that we will have the greatest impact on the health of our patients when we are engaged with the community in addressing the factors that have the greatest impact on health. We also believe that when health payment reform creates reimbursement mechanisms to pay for these community-based interventions, we will see more emphasis on promoting health and wellness, value-based care, and root causes of health than on managing a system of sickness and disease.

2. University of Wisconsin Population Health Institute, www.countyhealthrankings.org
Emergency Department Transfer Communication in Critical Access Hospitals

Nearly 100 critical access hospitals (CAHs) across eight states worked on using measures to evaluate communication for transitions of care during emergency department (ED) transfers.

CAHs meet the basic acute care needs for their rural communities and service areas, for conditions like pneumonia and heart failure care. They also provide crucial stabilize-and-transfer functions when patients with more complex needs and conditions, such as acute myocardial infarction (AMI)/heart attack, stroke, or trauma arrive in their emergency rooms.

While the 1,329 CAHs, which serve as an acute care safety net for rural residents, were responsible for 417,000 Medicare inpatient stays nationwide in 2009, limited data is available to indicate how well they carry out their important stabilize-and-transfer role.

Nationally, all large hospitals are required to publicly report a set of core measures indicating their performance in care transitions. While some states, including Minnesota, require quality reporting of CAHs, many of the publicly reported measures are not relevant to the low-volume of services provided by CAHs.

**ED transfer project**

Stratis Health lead a one-year Centers for Medicare & Medicaid (CMS) special innovation project to assist eight Medicare Quality Improvement Organizations (QIOs), in Iowa, Maine, Missouri, Nebraska, Oklahoma, West Virginia, Wisconsin, and Wyoming, to train CAHs to collect and report seven composite ED transfer communication (EDTC) measures, identify gaps and opportunities for improvement, and begin planning to improve the transfer communication process and results.

The EDTC measures were originally developed by Stratis Health and the University of Minnesota Rural Health Research Center and endorsed by the National Quality Forum in 2007.

Participating CAHs abstracted medical records to collect data on the EDTC measures. CAHs submitted data through their QIOs to Stratis Health for benchmarking with other participating facilities.

“We want to look at measures that impact a larger number of our patients,” said Maureen Bruce, quality director, Moundview Memorial Hospital & Clinics, a CAH in Friendship, Wisconsin, a project participant. “For us, that can be transfers, sometimes in a life or death situation.”

**Improved process measures—56% relative improvement rate**

Participating CAHs increased their percentage of medical records meeting all of the EDTC data elements over the course of the project from 28.26 to 44.13 percent—for a relative improvement rate of 56 percent.

The hospitals used the results to develop and implement improvements focused on better documentation and communication processes.

With assistance from the Wisconsin QIO MetaStar, Moundview Memorial found that its relatively new electronic health record system has a robust transfer communication tool use which covers all seven EDTC measures. The CAH also found it could do a better job of making sure the patient’s emergency contact person was clearly documented.

**Different receiving facility, different levels of data transfer**

Analysis showed that CAH performance on the measures varied with where patients were transferred. The percentage of medical records containing all necessary patient data transferred in a timely manner was 36.79 percent for acute care hospital transfers, but only 20.19 percent for transfers to other health care facilities, such as nursing homes.

<table>
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<tr>
<th>Medical Records With All EDTC Patient Data</th>
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<tr>
<td><strong>CAH Transfers To</strong></td>
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<tr>
<td>Acute care hospital</td>
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<td>Other health care facilities</td>
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This data highlights an opportunity for improved transition communication from EDs to long term care facilities, by working with local nursing homes to develop standard communication and transition processes.

**What’s next?**

The EDTC measure is included in phase three of the Medicare Beneficiary Quality Improvement Project (MBQIP). Starting fall 2014, CAHs nationwide can collect and submit the EDTC measures. MBQIP is a program of the Health Resources and Services Administration (HRSA) funded Office of Rural Health Policy’s (ORHP) Medicare Rural Hospital Flexibility Program (Flex).

To better assess the value of our health care system, we should expand use of the EDTC measures as an opportunity to assess and improve coordination of care and communication between emergency departments and receiving facilities.

Stratis Health conducted this Centers for Medicare & Medicaid (CMS) special innovation project as the Medicare Quality Improvement Organization for Minnesota. The Emergency Transfer Communication Measure is part of the NQF Care Coordination Measures available at [www.qualityforum.org/Care_Coordination_Measures.aspx](http://www.qualityforum.org/Care_Coordination_Measures.aspx).
Health information technology (IT) is an essential component for success in health reform. For example, advanced information technology capabilities are cited as a key component for success as a Medicare Pioneer Accountable Care Organization. All of the Pioneer ACOs had advanced information technology capabilities, but those with the most advanced capabilities to conduct analysis around risk stratification and other actuarial functions had the greatest advantage, according to MedPAC. Considering that 12 of the original 32 Pioneer ACOs exiting the program cited financial concerns and losses, the ability to collect and understand data to manage programs and population health is increasingly essential in today's health care environment.

State Innovation Model
Investing in data analytics, infrastructure, and health IT is one of the three major areas of investment in Minnesota’s effort to achieve “more health for the dollar” through the State Innovation Model (SIM).

In line with the Pioneer ACO experience, the Minnesota Department of Human Services is funding a data warehouse to be used to aid predictive modeling, understand member risk, monitor and benchmark performance, and evaluate utilization variances, to support Medicaid ACO participants.

The other two major areas of SIM investment—care delivery and payment transformation; and community integration and partnership—are interdependent with the need for strong data capabilities.

E-health roadmaps foster community integration and partnership
One significant SIM e-health effort poised to launch in the near future is the development of an e-health roadmap to advance the Minnesota Accountable Health Model for the settings of long-term and post-acute care, local public health, social service, and behavioral health. This work will help branch health care support into the community and build new partnerships.

The approach rises to the challenge posed by Stephen Shortell, in an Institute of Medicine discussion paper, to link the health care delivery system with the public health system, the community, and social service sector, including education, housing, transportation, public safety, and others involved with the upstream environmental and social determinants of health.

Earlier this year, Stratis Health released health IT toolkits, funded by the Minnesota Department of Health (MDH), to guide these sectors in how to select a comprehensive electronic health record (EHR) system and effectively engage in e-health activities by optimizing the use of an EHR and facilitating information sharing through health information exchange.

Accountable communities
SIM funding will support 12 Minnesota Accountable Communities for Health which will aim to advance new and innovative relationships by engaging a broad range of stakeholders to plan for population health improvement activities and patient-centered coordinated care, with increasing financial accountability for outcomes.

From Minnesota’s three pilot accountable communities for health, the state identified strong IT infrastructure that enables information exchange as a factor that facilitates success. Similarly, Hennepin Health, an integrated, health care delivery program for adults, and a safety-net ACO in Hennepin County, is actively engaged in data-driven population health management strategies, including using total cost of care, predictive modeling, and risk stratification information to connect members to interventions and prioritize finite resources. Focusing on each member’s medical, mental health, and social needs, Hennepin Health has reduced per-member per-month by 16 percent over three years.

Great experimentation is afoot to improve care delivery and lower costs. Stratis Health plans to actively support accountable communities and others with e-health initiatives as Minnesota continues as a leader in health reform.

Current medication reconciliation processes in care transitions from hospitals to nursing homes pose risks for patient safety and result in significant time diverted away from patient care. Approximately half of hospital-related medication errors and 20 percent of adverse drug events are due to poor communication at transitions. A lack of consistent protocols for medication reconciliation across these care settings has been identified as a key issue.

Medication reconciliation acts as a safeguard for patients by comparing a patient’s current medication regimen against the physician’s admission, transfer, and discharge orders to identify discrepancies. It includes a medication evaluation which aims to prevent potential medication-related problems, such as issues that result from inappropriate use of antipsychotics for people with dementia.

How to improve medication management in care transitions

Stratis Health recommends three actions for improving medication management in transitions of care by improving workflow in health care settings. The recommendations are made from a quality improvement perspective, with the intent to give guidance to and support action by hospitals, nursing homes, and pharmacists. These recommendations also can inform policy and regulatory considerations and action.

1. Implement interventions that assure indications and diagnoses are documented for all prescribed medications.
2. Increase pharmacy’s role in medication reconciliation in transitions of care.
3. Implement an interdisciplinary approach to medication reconciliation that occurs before or during the care transition that includes hospital, nursing home, and pharmacy staff.

The white paper outlines a workflow for successful medication reconciliation in care transitions.

Find the white paper at www.stratishealth.org/whitepaper-medrec.html.
Over the past year, the Minnesota communities of Alexandria, Mora, and Waconia increased hospice admissions by 8.7% and increased length of stay in hospice for patients, after participating in a Stratis Health hospice utilization project.

These three communities were selected for the project because they had lower hospice utilization rates and greater potential to optimize hospice use than many other Minnesota communities, based on readmission rates for chronic and life threatening conditions, as well as their aging populations.

**Why increase hospice utilization?**

Coverage for hospice services is available through Medicare, yet is underutilized by beneficiaries across the country, including in Minnesota. Hospice is a win-win benefit because it:

- Provides patients who face a serious illness with relief from pain and symptoms
- Offers patients and their families specialized services for emotional and psychosocial issues associated with dying
- Saves money as hospice patients have lower rates of hospital and intensive care use, and fewer hospital readmissions

“Three or four months is about the perfect length of stay (LOS) for someone on hospice,” said Patrick Collins, director, Knute Nelson Hospice in Alexandria. “Patients get to know their provider and nurses—and they feel comfortable. We can get to know the family well to truly help them.”

When patients are referred to hospice, too many beneficiaries receive fewer days of care than afforded by Medicare. The national average LOS is 70 days per patient, compared to only 56 days for Minnesota Medicare patients in 2011. The national median LOS in 2013 was only 18.5 days and almost half of all hospice patients in the nation died or were discharged within 14 days of admission—well below the ideal LOS of 90 to 120 days.

**Elephant in the examining room**

Working with hospice programs and organizations that refer to hospice—physician clinics, assisted living facilities, hospitals, home care agencies, parish nursing, and long term care facilities, Stratis Health guided communities to identify barriers to hospice referral and optimization, assess end-of-life resources and patterns of care and service, and begin to build community action plans.

Using assessment tools, the three communities gathered feedback from lay persons and hospice patients and their families, which revealed a desire to obtain information about hospice in the event of a serious or life-limiting illness.

In discussions with health care professionals, patient denial and lack of acceptance of a serious illness/end of life emerged as the largest barrier to the use of hospice. This gap in perception between patients and health professionals was identified as the elephant in the room.

“Nearly all participants in the patient-provider relationship wanted to discuss hospice but wanted the other to broach the topic,” said Janelle Shearer, project lead for Stratis Health.

**Removing the elephant**

Based on the insights from the three communities, Stratis Health developed a toolkit for communities to help eligible patients receive hospice care sooner. A survey can be used to assess community readiness for hospice. Resources materials cover how to communicate with patients and families, and with providers.

“Sometimes people get caught up in the medical goals without really taking the step back.”

The communities found that patients often don’t really understand their prognosis. “Sometimes patients, families, and physicians get caught up in the medical treatment without really taking the time to step back to understand their medical goals, whether curative or palliative,” said Lisa Hurt, home health/hospice services director, Ridgeview Medical Center, Waconia.

To address this, patient tools use an “Ask Your Doctor” theme. The word “hospice” is used sparingly because of
perceived stigma. Brochures and wallet cards list the following questions for patients to bring to their doctors about their serious illness.

- Do I have a serious or life-limiting illness?
- Can my illness be cured?
- If my illness can’t be cured, are there treatments that can slow down my illness?
- What kind of care is available that focuses on making me comfortable?
- If my illness keeps getting worse, when is it a good time to think about getting supportive and comfort-focused care?
- Will you be the one to tell me when to contact hospice?
- Will you stay involved with my care even when I am no longer looking for treatment for my disease?

Provider tools encourage physicians to be more proactive in initiating conversations about serious illnesses. For example, after an initial conversation about expectations and prognosis with a patient, oncologists and other specialty care physicians should return to that discussion when the patient isn’t improving with treatment.

The three communities have started implementing strategies on both the patient- and provider-side to start conversations about hospice. Ridgeview Medical Center includes “Ask Your Doctor” materials in its advanced care planning presentations to the community. “The questions and information included in the material provide an opportunity for patients and families to reflect on ‘what does quality of life mean for me?’” noted Hurt.

Collins credits the project with helping to build awareness among providers in Alexandria. “Providers are more willing to make referrals when death is not imminent but therapies are not improving patient conditions. Also, now when we contact primary care physicians based on family referrals, they are more willing to sign standing orders.”

Stratis Health conducted this Centers for Medicare & Medicaid (CMS) special innovation project as the Medicare Quality Improvement Organization for Minnesota. The hospice toolkit is available at www.stratishealth.org/providers/hospice.html

Looking at the numbers: Hospital service areas within Minnesota counties

In today’s health care environment focused on population health and accountable care, knowing who provides care for consumers is critical for partnering to impact the health of individuals and populations. This information on hospital service areas (HSAs) serving Minnesota Medicare consumers is from 2011 Dartmouth Atlas data. The number of HSAs providing service in a single county ranges from one to seven, with an average of 3.4 HSAs serving each county. HSAs in Minnesota serve from one to nine counties each.
Stratis Health supports nursing home and prevention health IT initiatives nationwide for the Quality Innovation Network-Quality Improvement Organizations (QIN-QIOs), as part of the CMS QIN-QIO National Coordinating Center lead by Telligen. 

Donna’s Diary – Insights into Improving Nursing Home Quality, donnasnhdiary.org, was recognized with a 2014 Minnesota Health Strategy & Communications Network Award of Excellence. This site supported quality improvement in the 170 Minnesota nursing homes participating in the Acting Together to Achieve Excellence (ATTAX) learning and action network.

Stratis Health thanks our outgoing board members Bill Jacott served eight years, including as chair, and Clint MacKinney served nine years. “Stratis Health has diversified beyond serving as the Medicare QIO in my time on the board,” said Jacott. MacKinney added, “The organization has become a institution for health care value delivery to communities and patients. It is now focused on how to improve the environment and inspire health care in Minnesota and beyond.”

Jerri Hiniker was elected to a three-year term to the Minnesota Cancer Alliance Steering Committee, which is a broad partnership of organizations and leaders dedicated to reducing the burden of cancer across the continuum from prevention and detection to treatment, survivorship, and end-of-life care.

George Family Foundation honored Stratis Health leaders at its Celebrating Twin Cities Women Leaders event in September. Jennifer Lundblad, president and CEO; current board members Mary Jo Kreitzer and Jan Malcolm; and former board member Nancy Feldman were among the 84 exceptional women leaders making remarkable contributions to building the Twin Cities.

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Stratis Health is a nonprofit organization that leads collaboration and innovation in health care quality and safety, and serves as a trusted expert in facilitating improvement for people and communities.

Stratis Health works with the health care community as a quality improvement expert and clearinghouse, educator and trainer, consultant and supporter, convener and facilitator, and data resource.

Contact us to see how we can assist you with your quality improvement needs. Call 952-854-3306 or 1-877-787-2847 (toll-free), or email us at info@stratishealth.org.

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