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Hennepin Health: A Safety-Net Accountable Care Organization For The Expanded Medicaid Population

ABSTRACT **Health care payment and delivery models that challenge providers to be accountable for outcomes have fueled interest in community-level partnerships that address the behavioral, social, and economic determinants of health. We describe how Hennepin Health—a county-based safety-net accountable care organization in Minnesota—has forged such a partnership to redesign the health care workforce and improve the coordination of the physical, behavioral, social, and economic dimensions of care for an expanded community of Medicaid beneficiaries. Early outcomes suggest that the program has had an impact in shifting care from hospitals to outpatient settings. For example, emergency department visits decreased 9.1 percent between 2012 and 2013, while outpatient visits increased 3.3 percent. An increasing percentage of patients have received diabetes, vascular, and asthma care at optimal levels. At the same time, Hennepin Health has realized savings and reinvested them in future improvements. Hennepin Health offers lessons for counties, states, and public hospitals grappling with the problem of how to make the best use of public funds in serving expanded Medicaid populations and other communities with high needs.**

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The US health care system is in the midst of major transformation spurred by the Affordable Care Act (ACA). New models of payment and care delivery are being tested for their potential to achieve the Triple Aim of improving population health and the patient experience of care and reducing per capita cost.[1]

Simultaneously, there has been a growing recognition among state and local governments that improving population health requires tailoring care models to the needs of local communities and incorporating health considerations into decision making across social sectors and policy areas that have not previously collaborated.[2] Alternative delivery models and payment methods—such as accountable care organizations (ACOs) and bundled payment—challenge providers to be accountable for health outcomes. As a result, participating providers have shown a new interest in partnering with community organizations to better address social and economic factors that can adversely affect patients' health.

To illustrate how a collaborative effort to address social determinants of health can work in practice, this case study presents an in-depth examination of Hennepin Health, a county-based safety-net ACO in Minneapolis, Minnesota, and surrounding suburban communities. Although it is a Medicaid demonstration project, Hennepin Health is not limited to a demonstration period and has no set end date. It was created in 2011 through a partnership involving four organizations: the Hennepin County Human Services and Public Health Department; Hennepin County Medical Center, a Level I trauma center and medium-size public hospital and safety-

net medical system; NorthPoint Health and Wellness Center, a federally qualified health center; and Metropolitan Health Plan, a nonprofit, county-run, state-certified health maintenance organization that serves Medicare and Medicaid enrollees. Hennepin Health began enrolling patients in January 2012. Together, the four organizations have built a workforce to deliver high-quality care that is based on the integrated delivery of medical, behavioral, and social services for an expanded population of Medicaid beneficiaries.

By explicitly bringing health care and social services together, Hennepin Health has been able to target many of the social determinants that drive poor health. Hennepin Health's goal is to increase the use of preventive care and reduce preventable hospital admissions and emergency department (ED) visits in the high-risk population it serves. Preliminary results suggest that the program has had an impact in shifting care from the hospital to the outpatient setting, and in improving the quality of care for patients with chronic conditions.

Previous research has suggested that local community health teams providing integrated services might reduce high-cost utilization and improve the quality of care for Medicaid beneficiaries.[3] However, detailed information about the composition of these teams and their scope of services has been lacking. The case of Hennepin Health demonstrates how principles that have repeatedly been espoused by policy makers can be applied in the current era of delivery system and payment reform.

This case study is particularly relevant for several reasons. First, it is the first in-depth study of a collaboration that included a public health and human services department, interdisciplinary providers, and a health plan to address multiple dimensions of need in a safety-net population. This article describes how these diverse partners have successfully adapted their health care workforce to address public health and community development needs beyond those traditionally encompassed in the term *health care*.[4,5]

Second, the participation of all of Hennepin Health's partners in a full financial risk-sharing agreement puts the collaboration at the forefront of a growing movement to take advantage of health reform initiatives to improve state-run Medicaid programs.[6] The sharing of capitated funds across the partners enables an innovative use of the health care workforce and makes Hennepin Health a model for other localities that are grappling with the problem of how to provide high-quality care to expanded Medicaid populations and other medically underserved groups.

The success of Hennepin Health has been supported by the favorable climate for health reform in the state of Minnesota.[7,8] However, the lessons learned from the collaboration offer insights that are relevant to others working toward the same population health goals.

Structuring A Community Approach To Health

The Minnesota state government and other major stakeholders in the state have a long history of health care collaboration and reform. Numerous coalitions involving both providers and payers have emerged in recent decades to address issues such as the quality of care, market transparency, and the use of data to improve health outcomes.[9] The provider market is dominated by relatively large integrated delivery systems.

Hennepin Health was created in 2011 in response to two specific policy changes. First, Minnesota passed legislation granting two counties the authority to develop and implement innovative health care delivery systems.[10] Second, Minnesota chose to voluntarily expand Medicaid benefits under the ACA to approximately 84,000 childless adults whose incomes were below 75 percent of the federal poverty level.[11]

With the support of county commissioners, four organizations formed a county-based ACO specifically designed to meet a wide range of needs within the population in Hennepin County that is newly eligible for Medicaid under the expansion.[12] People living in the county who are newly eligible for Medicaid can choose from among four health plans. Metropolitan Health Plan, doing business as Hennepin Health, is one of the options. Hennepin Health is also the default enrollment for people in the county who are newly eligible for Medicaid and who fall within its service area but do not select another health plan listed in material they receive in the mail.

A FOUR-WAY PARTNERSHIP The four partners were all operated by or were affiliates of the Hennepin County government, but they were accustomed to functioning independently. They created the Hennepin Health ACO by signing a business agreement to share full (that is, two-sided) financial risk for newly enrolled Medicaid beneficiaries. The partners were motivated by the fact that working together under global capitation, with all parties at financial risk, would enable a more coordinated, comprehensive care model.

Hennepin County Medical Center and NorthPoint Health and Wellness Center had previously launched individual initiatives to provide coordinated care to safety-net populations. However, the ACO (including the four-way partnership and

Hennepin Health has been able to target many of the social determinants that drive poor health.

the shared-risk model) was new, and it created an incentive for the partners to further expand services and work together on common goals such as reducing hospital admissions.

THE PAYMENT MODEL As a Medicaid demonstration project that includes a licensed health plan, the Hennepin Health ACO assumes full risk for the Medicaid expansion patients who are enrolled in the plan. Hennepin Health receives a per member per month capitation payment from the state to cover the cost of all Medicaid services for the enrolled population. The medical providers (Hennepin County Medical Center, NorthPoint Health and Wellness Center, and county public health clinics) are reimbursed through fee-for-service payments from Hennepin Health. Hennepin Health contracts with additional affiliated providers to ensure that service needs (including for vision, behavioral health, pharmacy, and primary care) are met in the geographic area of coverage.

Social services provided by the Hennepin County Human Services and Public Health Department are paid for with human service funds from preexisting state and county sources when applicable, supplemented by the health plan's per member per month payments. Monthly social service expenses are tracked with the goal of analyzing whether the savings in medical care are offset by an increase in costs for social services.

There is a strong correlation between social service needs and poor health status. Thus, investments in expanded services (such as chemical dependency treatment, intensive behavioral health care management, and placement in stable housing) are made with the expectation that they will further reduce health care costs. In addition, by coordinating investments made in health and social services, the county anticipates lower total costs for the high-risk target population across funding silos. For example, officials expect reduced expenditures on emergency shelters, detoxification centers, and incarceration.

At the close of each year, all four partners are at financial risk for any gains or losses relative to the per member per month capitation payments that Hennepin Health has received during the year. Once annual financial accounting is completed and claims and administrative costs have been paid, the remaining funds are reconciled. To date, expenses have been lower than per member per month payments.

A portion of the funds left over at the end of the year is distributed to the individual partners to offset some of the costs of operating the model. The remainder is collectively reinvested in defined projects to further improve the model, which creates the potential for future savings.

There was an initial investment of approximately $1.6 million to fund expanded staffing and data infrastructure. At the end of subsequent years, Hennepin Health has been able to share funds with each of the partners according to a prearranged gain-sharing formula. The partners can distribute these funds within their organizations at their own discretion.

In addition, Hennepin Health has put the remaining reinvestment funds—totaling approximately $2.4 million for the first two years combined—into projects designed to achieve strategic goals. It has been able to do this despite absorbing reductions in per member per month revenues each year as a result of statewide Medicaid rate-setting processes.

THE PATIENT POPULATION Hennepin Health was created specifically as a model of care for people newly eligible for Medicaid because of the expansion. Thus, only adults without dependent children are eligible to enroll. As of September 2014 there were 9,054 people enrolled in Hennepin Health—which is approximately 25 percent of all county Medicaid expansion beneficiaries—and new members continue to enroll. Under an option that became available to states under the implementation of the ACA to improve continuity of care, Minnesota grants the target adult population twelve months of eligibility for Medicaid before renewal is required, instead of the six months that is the period of eligibility in many other states.

Hennepin Health members often face considerable physical, behavioral, and social challenges. Seventy percent of the people who enrolled in Hennepin Health in its first eighteen months of operation are members of racial or ethnic minority groups.[13] Of the 4,884 Hennepin Health members who sought medical care at least once during this eighteen-month period, 90 percent had a diagnosis of mental illness, and 60 percent had a major psychiatric diagnosis such as major depression, bipolar disorder, or schizophrenia.

In the period 2012–14,[14] 2,228 Hennepin

Health members were verbally administered a comprehensive lifestyle survey to document enrollees' needs. Sixty-five percent (1,452 members) reported a lack of social support, 43 percent (959) reported housing needs, and 24 percent (535) reported concerns about drug or alcohol use. Other reported problems were related to transportation, food, employment, and the cost of medication.

INNOVATIVE USE OF THE WORKFORCE TO MEET COMMUNITY NEEDS To serve this high-need community, Hennepin Health uses an interdisciplinary model designed to meet patients' physical, behavioral, social, and economic needs, recognizing the important role that each set of needs plays in a patient's overall health.

Patients are stratified into risk tiers, allowing Hennepin Health to direct finite care coordination resources and interventions to the members with greatest risk for high costs. Hennepin Health has historically performed risk tiering based on patients' past utilization. Work is under way to adopt a prospective risk scoring model that is designed to place patients into risk categories to determine the amount and type of care coordination resources they need.

The Care Model

The Hennepin Health care model is anchored by interdisciplinary care coordination teams that are located in primary care clinics. The teams consist of registered nurse care coordinators, clinical social workers, and community health workers (these roles are described in more detail in the "Health Workforce Roles" section).

In addition, Hennepin Health supports the extension of the traditional clinic-based care coordination teams to include nonclinical services that are believed to be important determinants of health. Access to these services, such as housing and vocational support, is prioritized based on an assessment of members' risk for high cost.

The Hennepin Health population as a whole tends to have greater risk of high costs than the overall population served by safety-net providers. However, Hennepin Health stratifies its members into risk categories to tailor the model of care to meet individual patients' needs and prioritize the need for care coordination resources.

LOW-RISK PATIENTS Hennepin Health members are considered to be relatively low risk if they do not have documented physical or behavioral issues and have not been hospitalized in the previous year. Medical care for these patients is delivered at primary care clinics and focuses on health maintenance and disease prevention. Social service needs are assessed and addressed either by social workers located in the clinics or through referrals to partner organizations.

Hennepin Health members often face considerable physical, behavioral, and social challenges.

INTERMEDIATE-RISK PATIENTS Members at intermediate or rising risk generally require ongoing management of chronic diseases, including behavioral health conditions. They are more likely to have been hospitalized at least once, used the ED multiple times, or both in the previous year, compared to the general population.

In addition to the primary care–based care coordination and preventive care offered to all patients, these patients often receive ongoing disease management and enhanced support from their care coordination team during care transitions. Patients also have access to a dedicated team of social workers in the county's Human Services and Public Health Department, who connect them using case-by-case referral to services to address their socioeconomic needs (such as for housing).

HIGH-RISK PATIENTS The Hennepin Health members identified as high risk are likely to have had multiple hospitalizations during the previous year. They generally have significant comorbid physical and behavioral health conditions in addition to facing significant social challenges.

Because these patients are the highest priority for intervention, care coordination teams reach out to them and assign a primary coordinator from the team to each patient. High-risk patients with multiple behavioral health hospitalizations or a history of inpatient chemical dependency treatment (or multiple detoxification visits) in the previous year are treated by licensed alcohol and drug counselors and other behavioral health specialists.

Care coordinators assist by developing patient-specific plans based on need and connecting patients with primary care and county social services, such as residential treatment facilities and community support groups. In addition, all high-risk patients are eligible for a referral to transfer their care to a unique multidisciplinary care team based at the Hennepin County Medical Center's Coordinated Care Center. The center

functions as an "ambulatory intensive care unit" for patients who might otherwise require frequent hospitalization.[15]

Each team at the Coordinated Care Center serves approximately 125 patients and includes a half-time physician, an advanced practice provider (that is, a nurse practitioner or a physician assistant), a care coordinator, a social worker, and a psychologist. Additionally, pharmacists, licensed chemical dependency counselors, and a part-time addiction psychiatrist support the work of the teams. Two teams are currently in place at the Coordinated Care Center. Funding is in place to double the number of teams in 2014, and staffing of the new teams has begun.

Health Workforce Roles

Exhibit 1 illustrates the health workforce roles designed to meet the needs of the Hennepin Health patient community. Most staff who treat Hennepin Health members are hired by the partners out of their own operating budgets. Thus, the staff are not dedicated exclusively to Hennepin Health members. However, some—for example, community health workers based at sites such as the county's mental health center and correctional facility—are funded exclusively by Hennepin Health reinvestment funds.

One of the central problems that ACOs seek to address is the fragmentation of care—that is, when care is provided by multiple people in different settings with limited communication or coordination.[16,17] Hennepin County has addressed this problem through a sizable investment in health workers, chief among them being care coordinators and community health workers.

CARE COORDINATORS Care coordinators, most of whom are registered nurses, are embedded in the primary care clinics of Hennepin Health partners and generally serve as the primary coordi-

EXHIBIT 1

Health Care Workers And Their Roles In Addressing Physical, Mental, And Social Issues Among Hennepin Health Members

Worker	Role
Care coordinator	Care coordinators (generally registered nurses) are embedded in primary care clinics. They oversee care needs and identify gaps in care for members with the most medically complex conditions.
Pharmacist	Pharmacists fill prescriptions and perform medication reconciliation to increase patient understanding and compliance and to reduce medication interactions and duplication.
Dentist, hygienist, dental assistant	Dental care providers are employed at NorthPoint Health and Wellness Center and Hennepin County Medical Center. Coordination between the two centers allows patients to be granted same-day access and in some cases to be escorted to an on-site dental clinic, saving costs and possibly removing the need for a pain medicine prescription.
Behavioral health "in-reach" staff member	A social worker specializing in behavioral health interventions is assigned to the ED to provide "in-reach"—that is, to help members with psychiatric symptoms access primary care and outpatient behavioral health services.
Clinical social worker	Clinical social workers address behavioral health needs of patients that have often been unmet. The social workers are co-located with medical clinics at Hennepin County Medical Center and NorthPoint Health and Wellness Center to facilitate access for patients.
Community health worker	Community health workers reach out to and establish relationships with members to help them understand their care plans, provide follow-up on missed appointments and referrals, resolve barriers to treatment, and facilitate social support.
Housing or social service navigator	These navigators arrange preferred placement for members with medically complex conditions who are seeking housing. Navigators also function as the interdisciplinary care coordination team's liaison to a variety of social service needs and work directly with members in the community
Vocational services counselor	Available through a referral, these counselors work on employment goals with members who have a recent history of behavioral health hospitalization or residential treatment.
Emergency medical services (EMS) staff member	Working at the front desk of a homeless shelter, EMS staff assess cases and distinguish those that can be handled through an outpatient appointment or urgent care visit from those that require urgent attention.
Data analytics professional	Health care data analysts serve as a bridge between the technical world of data and the operational world of providing health care, sorting through complexities in the data, putting data together, and looking for patterns to help improve the care process. Data architects and developers create frameworks for bringing diverse data sources together, automate the integration processes, and set up tools to allow access to the data. Electronic health record (EHR) analysts build the technology interfaces within the EHR to support the work flow and patient care. Health care privacy officers work together with Hennepin Health leaders to find ways to share data to improve care within the accountable care organization while complying with changing laws and regulations.

SOURCE Authors' analysis.

nator for patients with the most medically complex conditions. These coordinators oversee patients' care plans and coordinate the work of various team members across the Hennepin Health care network. They also have access to timely information about members' Medicaid renewal deadlines, to help members maintain continuity of care and avoid patient "churn."

There are approximately forty care coordinators across the provider sites that serve Hennepin Health members. Care coordinators who serve patients in the high-risk tier are assigned a significantly smaller patient panel than those managing patients in the low-risk tier.

COMMUNITY HEALTH WORKERS As laypersons with special training, community health workers work with others on the care team to support patients in their navigation of the health care system and assist with patient education, goal setting, and social support. Recruited from the communities they serve, community health workers can also help translate health information for patients, using language or cultural contexts that are familiar to them.

Because of limited family and social support for adults in this population, follow-up phone calls or texts from a community health worker may be one of the few sources of social connection for patients. The flexibility of Hennepin Health's funding structure makes it possible to purchase items such as cell phone minutes, so that a patient with high psychological or social needs can connect with his or her community health worker during stressful times.

DENTAL CARE Investing in services provided by dentists and dental assistants has been an important feature of Hennepin Health. Early on, Hennepin Health leaders noticed that a large number of patients were visiting the ED for tooth pain that could be better treated at a lower cost by a dentist. Through the efforts of Hennepin Health, patients who present at the ED with tooth pain are granted same-day access to an on-site dental clinic.

Care coordinators report that being able to access dental services is a high priority for patients and is sometimes more attractive than access to a physician or behavioral health counselor. Once a patient has visited the dental clinic, the fact that it is located in the same place as providers of medical and behavioral health services makes it easy to introduce the patient to other services.

PHARMACY SERVICES Pharmacists are included in interdisciplinary care coordination teams for high-risk patients and are located in the clinics. With access to all clinical data for each patient, including claims information, pharmacists can reach out to heavy users of the pharmacy benefit, perform medication reconciliation to simplify medication regimens and reduce the likelihood of harmful interactions or medication duplication, educate patients, and work to increase adherence.

Hennepin Health has had an impact on shifting care from the ED and the hospital to outpatient settings.

Recognizing the importance of medication management has helped convince leaders at Hennepin Health to adopt strategies such as delivering medications to patients at homeless shelters.

BEHAVIORAL HEALTH SERVICES Behavioral health is another integrated service that is emphasized in the Hennepin Health care model. Services such as individual counseling, support groups, and outpatient psychiatric care are available to all Hennepin Health members. Hennepin County Medical Center and NorthPoint Health and Wellness Center have developed embedded or integrated behavioral health programs that have on-site psychologists, clinical social workers, advanced practice nurses with medication management skills, or some combination of the three.

Hennepin Health is also piloting the placement in the ED of a social worker who specializes in behavioral health interventions to provide "in-reach"—helping members who present with psychiatric symptoms to overcome barriers to accessing longitudinal primary care and outpatient behavioral health services. Plans are under way to add two behavioral health "peer specialists," people who have overcome behavioral health problems themselves and have been trained to support others, to engage difficult-to-reach Hennepin Health members facing similar issues.

HOUSING, SOCIAL, AND VOCATIONAL SERVICES Two roles specifically designed to address economic needs within the community are those of the housing or social services navigator and the vocational services counselor. Hennepin Health uses the navigators to help members connect to providers of county services that are available to them. Navigators also reach out to public offices and community organizations to preferentially secure supportive and affordable housing for

Hennepin Health members across the county. Vocational services counselors support patients with a history of behavioral health needs who are interested in finding a job.

The Hennepin Health model includes these positions in recognition of the large role that socioeconomic factors (such as lack of access to stable housing, lack of healthy food, and unemployment) play in health status.

HEALTH INFORMATION TECHNOLOGY Hennepin Health partners have also invested in health information technology. An early priority was ensuring consistent documentation in a unified electronic health record (EHR) shared by clinical and social service providers and Metropolitan Health Plan staff. However, integrating information about medical, behavioral, and social service interventions has been challenging.

In some cases, social service providers must use a separate electronic system to document interventions while, with the patient's permission, accessing medical and behavioral care plans in the EHR. Uncertainty about data privacy regulations has been a barrier to giving these providers access to information, even though social services data are often relevant to health care.

Drawing upon the skills of health care data analysts, data architects, data developers, and EHR analysts, Hennepin Health has created electronic "dashboards" that display patient information in a way that is tailored to the type of provider through the EHR. Hennepin Health has also built an integrated data warehouse for analytics and reporting that includes health plan claims and enrollment data, EHR data, and social service records.

Reinvesting In The Workforce To Meet Community Needs

Hennepin Health has strategically used reinvestment funds from previous years to provide additional training; hire additional team members; and further the overall strategy of coordinating medical, behavioral, and social services for its Medicaid population, thus creating the potential for additional cost efficiencies (Exhibit 2). The State of Minnesota has a program to certify community health workers. However, those employed by providers in Hennepin Health undergo an additional six weeks of orientation and training to further familiarize them with the clinical environment and the patient population.

Hennepin Health has also provided ongoing training and development to relevant staff members, covering topics such as motivational interviewing, trauma-informed care, and care planning. Education about available resources is incorporated into care coordination training to link patients across systems.

In 2014 Hennepin County Medical Center is

EXHIBIT 2

Investment In And Examples Of Workforce-Focused Initiatives At Hennepin Health, 2012–14

Approximate investment	Examples of initiatives
$1.6 million (2012)	Create urgent care option in the emergency department (ED) for nonemergency patients Provide same-day access to dental clinic near the ED to divert from the ED patients who present with dental pain Provide medication reconciliation by pharmacists and connect high-use patients to patient-centered medical homes Embed behavioral health clinicians in primary care Fund nursing staff for respite beds at a homeless shelter so people at the shelter with medical needs do not have to leave the shelter during the daytime and can receive treatments there Deliver medications to homeless shelters to facilitate refilling prescriptions and increase adherence
$1.1 million (2013)	Lay groundwork for 30-bed sobering-up center to divert chronically inebriated patients from the ED Work with local safety-net organizations to fund interim housing for people who cannot be discharged from the Hennepin County Medical Center because of insecure housing Contract with community providers to provide behavioral health case management for top users of the ED Provide additional capacity at Hennepin County Medical Center's Coordinated Care Center for high-risk Hennepin Health members Pilot a psychiatric consultation service in primary care Contract with a community organization to provide vocational services
$1.3 million (2014)	Provide a walk-in clinic at the coordinated care center for care transitions Develop and expand outreach and group visit activities at NorthPoint Health and Wellness Center Add five community-based community health workers Add 1.5 full-time-equivalent registered-nurse level staff to develop and implement periodic "huddles" of all members of medicine clinic care teams at Hennepin County Medical Center to discuss patients to improve management of the primary care population

SOURCE Authors' analysis. **NOTES** The list of the initiatives is not exhaustive. Not all of those listed were completely covered by reinvested funds. The source of the funds in the three years is explained in "The Payment Model" section in the text.

using reinvestment funds to hire 1.5 full-time-equivalent staff members to facilitate team "huddles"—that is, periodic face-to-face meetings of the whole care team to discuss patients—in its medicine clinic, a change that is intended to increase care coordination. Hennepin Health also used reinvestment funds to finance five additional community health workers who will be located in various community settings outside of the clinic, as well as additional community outreach and dental staff to increase the number of Hennepin Health patients connected to care coordination by over 550.

NorthPoint Health and Wellness Center has also increased the length of primary care visits (from twenty to forty minutes) and created a care coordination team that works with providers to facilitate immediate access to preventive care and to increase return visits. Group visits have also been created to help new Hennepin Health patients learn about NorthPoint's process for initiating primary care, behavioral health, dental, and social services. The group visits use providers' time efficiently, offering providers the opportunity to see up to sixteen patients simultaneously.

87%

Satisfied

Hennepin Health has achieved a high patient satisfaction rating: 87 percent of members report being satisfied with their care.

Patient Outcomes

In an effort to measure program effectiveness, Hennepin Health has collected observational data that summarize monthly rates of health care use by enrollees since the program began. These results are preliminary. Nonetheless, they suggest that Hennepin Health has had an impact on shifting care from the ED and the hospital to outpatient settings.

In a comparison of data for 2012 (the first year of Hennepin Health) and 2013, the organization's leaders found a decrease in ED visits of 9.1 percent, from 120 to 109 per 1,000 member months.[18] This is likely due in part to the creation of an urgent care center adjacent to the ED, which patients could access for nonemergency care.

There was a corresponding increase in outpatient visits of 3.3 percent during the same time period, from 299 to 309 per 1,000 member months. During the same period hospitalizations remained stable, at approximately 16 per 1,000 member months.[19]

Improvements in the quality of care for patients with chronic conditions are supported by observational data as well. The percentage of patients receiving optimal diabetes care[20] increased from 8.6 percent in the second half of 2012 to 10 percent in the second half of 2013. The percentage of patients receiving optimal vascular care[21] increased from 25.0 percent to 36.1 percent in the same period. And the percentage of patients receiving optimal asthma care[22] increased from 10.6 percent in the last five months of 2012 to 13.8 percent in the last five months of 2013.

Hennepin Health has also achieved a high patient satisfaction rating: 87 percent of members report that they are satisfied with their care.

Discussion

The case of Hennepin Health demonstrates that it is possible to improve health and continue to reduce the total cost of care for a high-risk population by addressing a wide range of community needs through improved coordination of medical, behavioral, and social services. The program has attracted attention, and housing developers, public works agencies, community nonprofit organizations, and public health agencies, among others, have sought to become involved with Hennepin Health as a way to secure resources for it and help achieve its outcome goals.

Other communities serving an expanding or existing Medicaid population may learn from this model, which does not rely on any unique federal waivers or require specific authority beyond relatively traditional Medicaid managed care contracting, and which is not formally limited to a defined demonstration period.

INVESTING IN THE WORKFORCE It is important to keep in mind that Hennepin Health required a sizable workforce investment to serve a relatively small population. Some primary care physicians at Hennepin Health who devote half their time to serving patients with complex needs have panels of 125 patients, with a team of other providers supporting them.

Hennepin Health is still working out optimal staffing ratios. However, its success in coordinating services across payers and county providers deserves note. Investing in the health care workforce has led to improvements in patient health and decreased ED visits in each of the first two years, while continuing to lower the total cost of care each year and generating significant reinvestment funds. There were initial concerns that increases in spending on social services would erase the savings in health care costs. Based on careful monitoring of those expenditures, that does not appear to have been the case.

FLEXIBLE FUNDING Because the Hennepin Health model integrates physical (including dental), behavioral, and social services into a holistic model of care, it addresses a wider range of needs than traditional care models do. The state Medicaid program limits what services for beneficiaries are reimbursable under traditional fee-for-service payment models. However,

capitation allows greater flexibility in the use of funds, including applying them to future system improvements to benefit the population and further reduce utilization costs.

Providing prospective payments allowed Hennepin Health to make early investments in staffing and care coordination that generated further funds to be reinvested each year, primarily to better address social determinants of health. Prospective funds that the partners received initially were deducted from their reinvestment amounts at the end of the year. Funds left over at the end of the first year were used in part to reimburse the partners for the time their staff spent attending planning meetings.

COORDINATION Hennepin Health has also pursued coordination with other county and community entities such as homeless shelters, the Minneapolis Public Housing Authority, the Hennepin County Department of Community Corrections, and the Hennepin County Sheriff's Office. This illustrates the potential for multiple sectors involved in the care of complex individuals to work toward the shared goals of reduced public expenditures and improved outcomes.

LEADERSHIP Also important to note is the leadership required to develop and maintain the partnership. By playing the role of both convener and participant, the Hennepin County Human Services and Public Health Department had a unique perspective, contributing insights into how parties in the county could better cooperate and align their interests to take advantage of resources.

For example, early conversations helped participants realize that financial losses to the hospital resulting from directing patients with tooth pain away from the ED and other efforts to reduce the unnecessary use of acute care could be recouped in Hennepin Health's shared-savings model.

REMAINING CHALLENGES Despite its numerous successes to date, Hennepin Health still faces major challenges.

▶**DESIRE TO OFFER SERVICES TO ALL PATIENTS:** Providers are often uncomfortable with having specialized support services available for Hennepin Health patients that they cannot offer to other patients (providers in other ACOs have similar concerns).

For this reason, Hennepin Health's leaders have presented the ACO internally as a demonstration project with a goal of proving the merit of the concept, so that ultimately the same level of care can be extended to more patients. This reassures providers that the underlying goal is not to divide patients into groups but to deliver better care to more patients.

▶**NEED FOR CONSISTENT DOCUMENTATION:** Another challenge has arisen in getting all providers to consistently document Hennepin Health member information in the EHR. With multiple spaces available to record information, items such as a patient's risk level may end up in the clinical notes instead of in the slots designated for them, which makes the automatic retrieval of data difficult.

▶**DESIRE FOR MORE COLLABORATION:** In addition, Hennepin Health has expressed interest in more collaboration with outside providers and payers. However, some of them have been reluctant to share their data or even best practices, continuing to view other players in the health market as competitors instead of potential partners.

▶**MEDICAID PROGRAM CHALLENGES:** A final challenge involves Medicaid. The increasing popularity of risk-based payment models administered by the federal government and private insurers alike—including ACOs, bundled payments, and Medicare Advantage plans—is evidence that provider groups are increasingly experimenting with alternative models of payment and care delivery. However, Medicaid is often absent from these value-based purchasing incentives, which leaves state and local actors to redesign care in the absence of a uniform federal model.

LIMITATIONS It is important to note some limitations of our data. Given the small number of enrollees in Hennepin Health's first year, the numbers of people who received particular interventions were relatively small. Combined with changing denominators because of new enrollees, this could make comparisons over time difficult. The findings we have reported here should therefore be viewed as preliminary.

Hennepin Health is involved in a formal program evaluation that uses a comparable population not exposed to the care model as a control group. This evaluation will ultimately yield additional findings.

Conclusion

The case of Hennepin Health is an example of what is possible under capitated models, allowing payment for care coordination and other services that fall outside the realm of traditional fee-for-service health care. Hennepin Health was created specifically for a population of new Medicaid beneficiaries with high medical and social service needs. However, many of the strategies that it has employed could work for established providers and Medicaid service populations.

Hennepin Health demonstrates the potential for counties, states, and safety-net providers to

take advantage of alternative payment models, bringing together all relevant health and social service providers to coordinate care for high-need populations. Thus, this model also underscores the point that improving population health requires staffing models that are responsive to local needs. The staffing model used by Hennepin Health may guide other states, counties, and health systems with high-cost patients in redesigning their care models to meet their communities' needs. ■

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