Medicaid Accountable Care Organizations:
A Case Study with Hennepin Health

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Creating Accountable Care Organizations (ACOs) is one approach state Medicaid agencies are taking to redesign their health care delivery systems. These models implement value-based payment structures with shared financial risks and rewards, improve care coordination, and assign more responsibility for patient outcomes directly to providers. To date, 12 states have active ACOs specific to their Medicaid programs and 10 additional states are in the process of implementing them within Medicaid.[1] Participating health care providers in these states will experience many changes in how reimbursements are calculated and how services are organized and delivered.

As an example of a Health Care for the Homeless (HCH) program participating in an ACO, this case study highlights Hennepin Health, a system of care in Hennepin County, Minnesota providing integrated medical and social services to low-income Medicaid patients. While each jurisdiction's health care system is unique in many ways, some factors will be common to all ACOs and are particularly relevant to providers treating patients without homes. This case study will focus on six common aspects:

- Identifying homelessness
- Assigning patients to providers or networks
- Financing programs needed by a medically complex population
- Including social determinants of health and coordinated care
- Communicating patient risk and need across systems
- Tracking outcome measures and cross-sector service utilization

As more states consider implementing ACOs within their Medicaid program, this case study offers the HCH community more information about key components important to serving patients without homes, as well as challenges, next steps, and lessons learned from one program that others might consider applying to their own planning efforts.

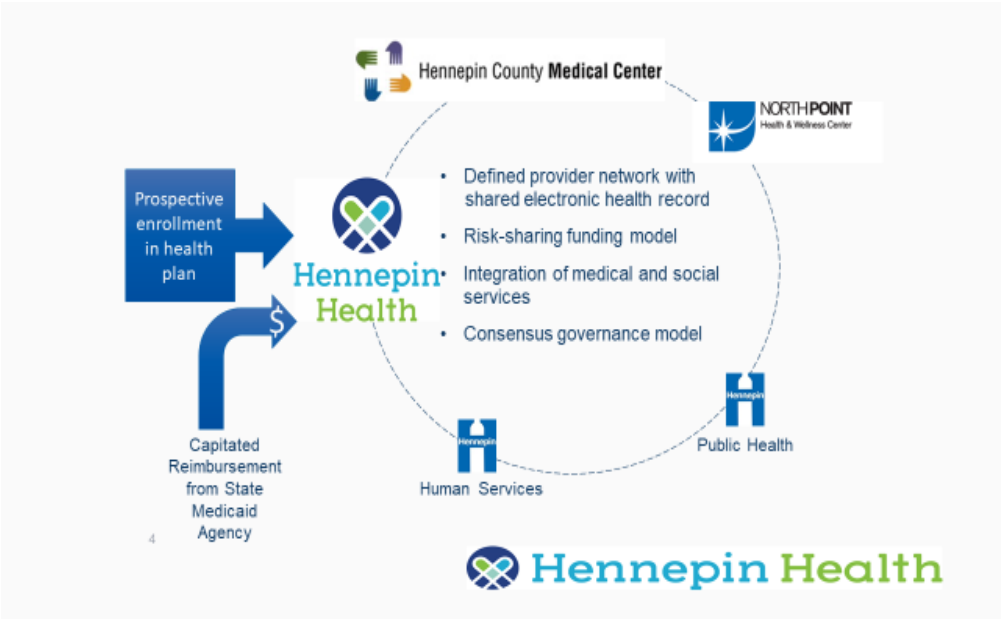
ACO model at Hennepin Health

Started in 2012 as a Medicaid demonstration project to see how a county-run ACO model could work for Minnesota's Medicaid expansion population, Hennepin Health now serves about 28,000 members, including Medicaid families and children, through a partnership between the County government-operated Medicaid managed care plan (Hennepin Health) and three other County-affiliated providers:

1. **Hennepin Healthcare System (HHS):** this health system includes Hennepin County Medical Center (HCMC, a public teaching hospital) and a network of community clinics;
2. **NorthPoint Health and Wellness Center:** a federally qualified health center offering integrated health and human services.
3. **Hennepin County Human Services and Public Health Department (HSPHD):** the county social services and health departments. The HCH program is located within the Public Health function and has clinical service locations at nine shelters and drop-in centers in Minneapolis.

Together, these ACO partner entities form a system of care that coordinates members' medical and behavioral health care as well as addresses social problems through a broad network of community providers and social service agencies (see figure 1).[2] Hence, "Hennepin Health" operates as a health plan, a system of care, and an ACO at the same time.

Figure 1. Hennepin Health Model of Care and Provider Partners



While Hennepin Health may be unique to other ACO systems in that it is largely comprised of county-affiliated agencies, it has goals common to many health reform efforts. These include coordinating care to achieve improved health outcomes; reducing medical costs for low-income, often medically complex patients; aligning services and resources to create greater efficiencies, and improving patient satisfaction.

Issues Specific to Homeless Health Care Providers

- **Identifying homelessness**

Housing status is identified in numerous ways, and this area remains a work in progress. One approach uses a 39-question psychosocial screening tool called a Life Style Overview (LSO) that is located within the shared electronic health record (EHR), which includes questions related to a range of social determinants of health.[3] There are four housing-related questions posed to patients about current living situation, whether they have stayed with relatives or friends, whether they have stayed in a shelter or other temporary facility, or whether they are concerned they will not have a place to stay in the next 6 months. The LSO is usually completed with those who are engaged in clinic-based care, is typically limited to patients who have been identified as high risk, and relies on self-disclosed information. LSO as a screening tool can be time-consuming to administer, and the information is not readily visible in the EHR for the entire care team. Hence, there are a number of limitations to using this tool as a systematic method for identifying homelessness.

As a second approach, Hennepin Health is attempting to identify housing status for all those enrolled in the program, including those who do not present for clinic services or may not be comfortable disclosing homeless status when screened. To accomplish this, analysts developed a "homeless proxy indicator" that uses the client's address on the state Medicaid enrollment form and is able to match it against six sources of information that may indicate homelessness (albeit retroactively):

1. Addresses of all known homeless shelters and single site supportive housing programs in the County and immediately surrounding areas
2. The General Delivery Address at the Post Office, a mail service for those without a permanent address[4]
3. Addresses of homeless service centers who collect mail for clients who are homeless

4. Any free text responses that include "homeless" in the mailing address section of the Medicaid enrollment records
5. Addresses of hotels, places of worship and hospitals
6. Addresses of county administrative offices

Researchers at HHS synthesized and compared these data to the information collected from the LSO screening and found it to accurately predict self-reported housing status.[5] Data analysis like this allows Hennepin Health to conduct better evaluation and identify trends in the patient population. In the future, it could also be used to trigger interventions or as risk adjustment factor in reimbursement.

HHS is currently piloting the homeless proxy indicator on inpatient dashboards, a care coordination data system in its EHR system that will identify a patient admitted to the hospital who is currently homeless (or has had homelessness recorded in the past). In these cases, the EHR will automatically generate a flag to the inpatient care transitions team to improve discharge coordination. If the pilot is successful, the proxy indicator will be made available on clinical information dashboards used across the partner organizations, creating a higher visibility data point that all care team members can see. *(Note: the care coordination dashboard is described in detail below under "Communicating patient risk and need across systems.")*

As a third approach, HCH staff working the nine outreach sites are more likely to ask clients where they are staying (shelter, sleeping outside, doubled-up, etc.) and add the ICD-10 code for homelessness (Z59.0) into the patient's problem list and in encounter diagnoses in the EHR. Providers within HHS have been encouraged to follow this same practice, hoping to more systematically assess housing status for patients. Hence, there currently are multiple ways to identify and document housing status. The goal is to identify a consistent methodology in the future, and there are active efforts to increase use of the Z59.0 code throughout the system.

- **Assigning patients to providers or networks**

Once an individual completes a state application for Medicaid, they choose from among four managed care plans available in Hennepin County (one of which is Hennepin Health). If they do not complete this step, the state will auto-assign them to a plan (with a 60-day window to change plans). Because most enrollment information is communicated via paper mail to physical mailing addresses, those without housing may not know where they are assigned or how to change plans. Individuals who do not select a plan but are single adults covered under Minnesota's Medicaid expansion and who live within a defined zip code range have been auto-assigned to Hennepin Health (encompassing the urban core of Minneapolis where the majority of this population are likely to reside). Because of this administrative process, Hennepin Health's enrollment has a higher proportion of individuals who are homeless.

- **Financing programs needed by a medically complex population**

> *"The Hennepin Health model allows Health Care for the Homeless to build relationships and treat people, not just symptoms or illnesses. The funding structure makes it easier for them to coordinate care and work as part of the larger clinic, hospital, and human services system."*
>
> *– **Ross Owen,** Health Strategy Director, Hennepin County*

Hennepin Health (the health plan) receives a risk-adjusted capitation payment from the State every month for each enrolled patient. The rates are adjusted for each patient based on the severity, number, and type of chronic health conditions using a system common to state Medicaid programs.[6] As a health center, the HCH program submits Medicaid claims to the health plan for eligible services (as it does to other health plans) and is paid on fee for service basis. (Unlike many other health centers nationally, they do not use a Prospective Payment System). Hennepin Health funds remaining at the end of the year (the difference between the state's capitation payment to Hennepin Health and all medical and administrative costs incurred during the year) are distributed to the ACO provider partners to improve system performance and shared among ACO partners. This redistribution of

savings is a common feature of most ACO systems in the country. To date, Hennepin Health has realized savings each year; however, financial reserves required by regulators are in place in the event that losses are ever incurred. At the state level in Minnesota, there have been efforts to incorporate social factors into future ACO payments and quality standards, but details have not yet been finalized.

Improving system performance: A percentage of ACO savings is set aside each year for "reinvestment initiatives," where partners can submit ideas for start-up funds to test new approaches. A governance committee then reviews and selects those most likely to improve the system from an annual slate of proposals. Some of these demonstration programs have included funding a care coordinator at the mental health clinic, providing vocational services at a community-based program, having a community paramedic at the largest adult homeless shelter over the weekend, expanding outreach at NorthPoint Health, and developing an inpatient medicine consultation service for patients with substance use disorders. Initial funding from Hennepin Health lasts for a defined period of up to two years, but ongoing funding is dependent on one of the partnering agencies (HHS, HSPHD or NorthPoint); hence, demonstrating cost-savings and/or health improvements is vital to justify ongoing support and sustainability.

Project Spotlight: Hennepin's "Access Clinic"

One of the most successful reinvestment initiatives has been the HHS-Hennepin Health "Access Clinic," which serves patients who need a broader range of clinical services in order to access appropriate care. In this program, an HHS multidisciplinary team includes a community health worker, an alcohol and drug counselor, a social worker, a nurse care coordinator, a clinical pharmacist, a psychologist, a nurse practitioner, and two part-time physicians (one of whom is also the HCH Medical Director and provides care in HCH-shelter-based clinics). The Access Clinic team targets those patients who do not have a medical home, use the emergency department (ED) and hospital for services that can be better delivered in other settings (e.g., chronic disease management, mild illnesses, etc.), are homeless, and/or have untreated mental health or addiction disorders. Started in 2014, the Access Clinic reduced health care costs by nearly $2 million in the first year and improved patient care by facilitating routine health services in a non-emergency setting. For the 266 members included in this pilot, ED use decreased by 42% (and related costs went down by 56%). At the same time, costs related to outpatient care went up only 13%, making this a very successful pilot. After the initial reinvestment start-up funds from Hennepin Health expired, HHS has continued to support the Access Clinic using its own funds.[7]

Sharing savings with ACO partners: After funding is set aside for piloting reinvestment initiatives, Hennepin Health distributes any further savings accrued to the ACO across the three partners (HHS, HSPHD and Northpoint) based on the number of primary care provider and care coordination visits documented in the EHR. Both face-to-face visits and administrative time are considered in this formula (e.g., phone calls, chart reviews, referral work, etc.). HHS, which includes the hospital and is the largest provider of primary care services, typically receives 85% of the distributed savings. NorthPoint Health Center and HSPHD typically split the remaining 15%. While HSPHD receives a small portion of funding, the HCH program accounts for a large segment its encounters.

- **Including social determinants of health and coordinated care**

One key to Hennepin Health's focus on social determinants of health rests with its support for an 11-person care coordination team employed through the ACO, linked to its clinics, and based in the community. Comprised of four social service navigators, two nurses, four short-term intensive case managers and one employment specialist, this team works with individuals who are referred through the EHR for additional support. Patients who need housing, are not engaged in care, or have other social services needs, are referred to this team from a wide range of sources (medical providers, community service providers, etc.). The team then looks at the medical record, meets with the

patient, conducts a needs assessment, and develops a care plan. In total, the team gets about 300 referrals a year to help navigate social services, identify housing, and meet other critical needs that cannot be addressed by medical providers during traditional office visits.

> *"The Hennepin Health system has been amazing in providing the little tangible things that people need that make such an impactful difference."*
>
> – ***Holly Sandefer,*** *Short-term Case Manager*

The intensive case managers on this team also work closely with emergency department staff to identify frequent users and connect them to outpatient care, help with appointment reminders, drive clients to appointments, complete paperwork and assist with benefits, attend court, navigate housing placements, and other needed tasks. Monthly bus passes and mobile phones are tangible ACO/health plan benefits that help assist clients who need help with transportation and communication. The nurses on the care coordination team oversee a disease management program that provides health education and other services to those with chronic health conditions.

All members of the care coordination team share access to the EHR and are able to document their work and see how clients have been interacting with the system, whether they have missed appointments, or need help accessing benefits. This access to data gives the team a bigger picture of what is happening with the client and what gaps need to be addressed. From there, they are able to add information to the patient's record to inform the clinical team's decision-making.

Focus on housing: A critical role for the care coordination team is to help secure housing for Hennepin Health members who are homeless. The social service navigators are employed by HSPHD, embedded in the health plan leadership structure, and partner with others on the team to focus on high-need individuals. The goal is to identify those whose housing instability is contributing to high medical costs and significant vulnerability. The navigators receive referrals through the EHR from the partner organizations and identify options that best fit each individual with regard to eligibility, needs, and preferences. They help connect to the Continuum of Care Coordinated Entry System when appropriate, and support the other steps required to successfully obtain housing, such as find housing vacancies and complete applications, and then communicate back to other members of the care team. In some instances, Hennepin County contracts with housing providers include a provision that Hennepin Health members will be prioritized whenever possible.

Patient Highlight

Mr. Tewodros Michael ("Teddy") is a 52-year old client of Hennepin Health, and a patient at the Access Clinic where he works with numerous care team members. Previously married, stably housed and working as a cab driver, Teddy had a stroke in 2015 and entered a nursing home. By the time he was discharged, Teddy was alone, unable to work, had no resources, and ended up at the Salvation Army homeless shelter in October 2016. During the year he lived at the shelter, the care coordination teams from HCH and Hennepin Health partnered with the Access Clinic, ensuring Teddy had transportation to his many primary care and specialty appointments so he could better manage his diabetes, chronic kidney disease, hypertension, mood disorder, and coronary artery disease. The teams also helped Teddy obtain housing, food stamps, and cash assistance, as well as set up his medications each week. When Teddy moved into his new apartment in January 2018, the care team was able to use flexible funds to stock his cabinets with groceries, and he continues to be supported by a visiting nurse from Hennepin Healthcare System who helps with medication and diabetes management. He is currently being evaluated so he can get more help from long-term supports like a personal care attendant and an adult day program. Asked where Teddy would be without the care team's work, his case manager believes he would still be at the shelter, not accessing care; instead, he is now at home and thriving.

"My life is a big difference from before. Now, if I want to read, I can read. If I want to go outside, I can go outside. If I want to pray, I can pray. That's what freedom is." – Teddy Michael

- **Communicating patient risk and need across systems**

The common link between all partners is the shared EHR that contains the inpatient dashboards. Here, providers and care coordination staff can see patient service utilization information (to include hospital admissions/discharges and upcoming appointments), learn the patient's care team members (primary care provider and care management staff), and identify the patient's chronic disease and preventive health indicators.

> *"Because HCH and the other partners in Hennepin Health, NorthPoint and Hennepin County Medical Center all share an EHR, it makes all our work more valuable when we are able to see and document patient care together."*
>
> – ***Stephanie Abel,*** *Project Director, Health Care for the Homeless*

A referral system within the EHR links the clinical team and the care coordination teams. The process does not require clinical staff to exit out of the medical record in order to make the referral (no paper referral forms, no faxing, no phone calls), which is time-stamped and immediately assigned to a care coordination team member for follow-up. Subsequent information is then entered back into the EHR so the clinical provider can easily see new information about social service needs and any progress made in meeting those needs. Additionally, providers across the partner organizations can communicate within the EHR through 'in-basket messaging,' a direct messaging function to share patient care information. For example, an HCH provider who notes escalating blood pressure on a patient can message his/her cardiologist and attach the patient chart. These types of referral and messaging functions allow providers to more seamlessly coordinate care.

The EHR used across Hennepin Health partners also stratifies patients into four automated predictive risk tiers based on demographic and clinical data using the CMS Hierarchical Condition Categories (HCC) tool, though this tool does not include social determinants of health.[8] To the extent that services are delivered within the Hennepin system (which includes its operated clinics, hospital, health plan, and corrections facilities), this allows health risks to be tracked over time regardless of coverage status. Using this information, which is visible on the dashboard, Hennepin can better match patients to the most appropriate types of clinical care based on the complexity of their health and social needs.

Sharing EHR information across key areas of care has many benefits. For clinicians, it means they have additional partners providing relevant patient information in one place; and it prevents duplication of services because they can already see what labs, tests or other procedures have been completed and what social services needs must be accommodated in the medical plan. Because referrals for social work, care coordination and case management can occur across the partner agencies within the same EHR, valuable clinical time is not spent trying to determine who is working with the patient, how to contact them and connect by phone to coordinate care. The result is more informed treatment plans. For administrators, a shared EHR avoids the costs associated with duplicated care and allows for a deeper data analysis on patient needs so more targeted interventions can be developed. For patients, a shared EHR allows them to receive better care coordination across both health and social needs, improves the quality of care they receive, and improves their experience and satisfaction with the health care system.

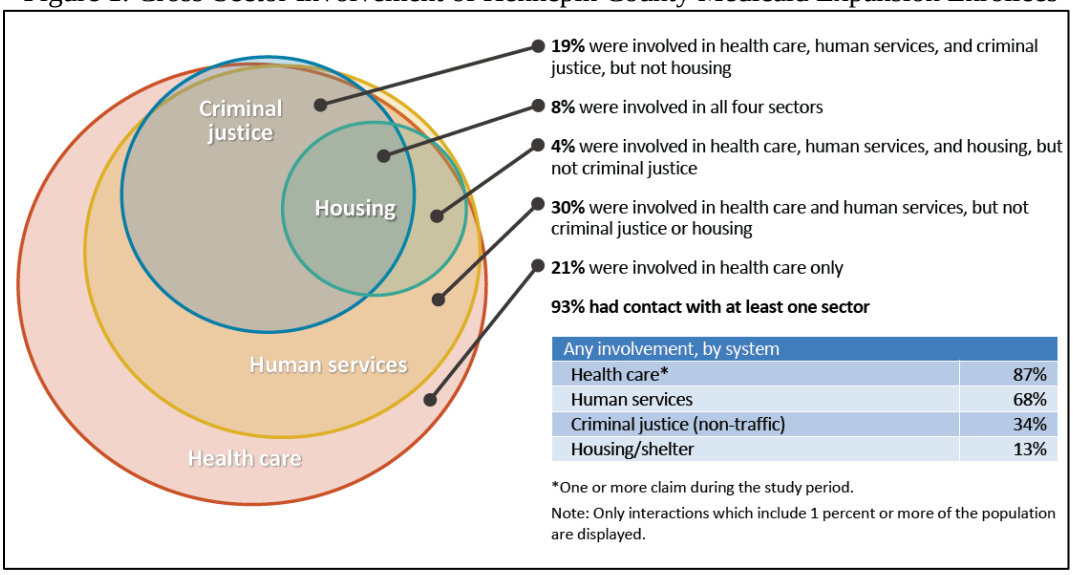
- **Tracking outcome measures and cross-sector service utilization**

As a Medicaid managed care entity, Hennepin Health reports Healthcare Effectiveness Data and Information Set (HEDIS) measures common to Medicaid programs nationally.[9] This dataset includes 30 measures related to prevention and screening, chronic disease management, access to care measures, and utilization measures (see Appendix A for the full list). Those of particular relevance to serving people who are homeless include follow-up after inpatient mental health hospitalization, medical management for those on antidepressants, access to preventive/ambulatory health care, and initiation of alcohol/drug treatment.

Because a shared data system is a key strength of the Hennepin Health ACO model, it is possible to better assess patient needs because information is available across multiple service areas. An analysis conducted on all new

Hennepin County Medicaid-enrolled adults without dependent children between March 2011 and December 2014 showed that many receive services from numerous other agencies. About two-thirds received help from other human services programs (e.g., food assistance), about one-third were also involved in the criminal justice system, and 13% got help from housing or shelter services (see Figure 1). Further analysis shows that 8% were involved in all four sectors (health, housing, human services and criminal justice systems)—calling attention to a subset of patients who most likely need intensive interventions that address a wide range of issues.[10] High users were more than three times more likely to use housing and shelter services compared to those who did not use the health system frequently.[11] Because data systems are shared among county departments, it is easier to assess service utilization beyond Hennepin Health (as a health plan) to understand needs and service use more broadly.

Figure 1. Cross-Sector Involvement of Hennepin County Medicaid Expansion Enrollees



Source: Center for Health Care Strategies, 2017. Note: This figure accounts for 98,292 Hennepin County Medicaid Expansion enrollees.

Challenges & Next Steps

While there are a number of benefits to the Hennepin Health system, three key challenges were identified in areas affecting patients experiencing homelessness. First, the care coordination team previously was able to determine housing placements for patients and develop relationships with landlords. The local continuum of care (CoC) that operates the coordinated entry system is responsible for this work, which takes the decision-making outside the Hennepin Health system. The CoC screening tool used to establish eligibility for housing need is not always aligned with clinical assessments, and does not include the broader range of housing needed by some of the most vulnerable patients (e.g., group homes, assisted living, nursing homes, etc.). To help mitigate this, the care coordination team interacts regularly with CoC staff so that when housing becomes available for someone on their caseload, they can help with placement.

Second, sustainability for reinvestment projects remains an issue, as illustrated by the Community Paramedic initiative at the Salvation Army Harbor Light Center, an emergency shelter with 500 beds located in downtown Minneapolis. Started in 2014 with $154,000 from Hennepin Health to reduce 911 calls from the shelter during evenings and weekends, the program decreased calls by 24% and helped those staying at the shelter with wound care, medication management, and service navigation.[12] After the initial reinvestment funds from Hennepin Health expired, responsibility for the program moved to HHS, which discontinued the program in 2016 amid difficulties demonstrating cost savings. This example illustrates a familiar challenge of continuity of support for programs that appear to be promising.

Third, while Hennepin Health does pay for supportive services, it does not pay for housing. The need for housing far exceeds the availability of U.S. Housing and Urban Development (HUD) or other public funds allocated. As an ACO, Hennepin Health is limited in its ability to solve the community's lack of affordable housing. However, as a *county government-based* ACO, Hennepin Health is able to inform how local government contracts with housing providers, prioritizes placement in available housing using health care needs as a priority factor, and develops new housing stock to address unmet needs. Hennepin Health will continue to pursue strategies that blend funding streams, with an increasing focus on total costs and health outcomes at the system level.

Amid these challenges, Hennepin Health is continuing to evolve its ACO model in several ways. It is making improvements to the EHR that allow for easier referrals for medical transportation and other services, faster prior authorizations for medical services, and better data sharing capabilities between team members. As a second area for continued improvement, Hennepin Health is refining its process for identifying priority populations and developing strategies specific to these high-risk groups (e.g., pregnancy-related risks, people who are homeless, patients with rising risk scores, etc.). A third area of focus is to determine outcomes measures beyond those required for HEDIS reporting, which may include qualitative self-assessment of health and quality of life, engagement in care, utilization patterns and identifying and addressing key social determinants of health.

Lessons Learned

For other states or entities looking to implement an ACO model within its Medicaid system, Hennepin Health and HCH leadership staff offer four lessons learned as advice based on their experience:

1. **Embed the HCH care model in the design:** Before the ACO, there was little attention to the needs of people who are homeless, and the HCH program's value as a care model may not have been fully appreciated. Since, HCH staff have been included in system design and development, which includes more broadly incorporating a fully integrated approach to patient-centered care rooted in harm reduction; a focus on social determinants of health; and care coordination. This has better infused the HCH model throughout the Hennepin Health system.

2. **Share data:** While Hennepin Health has an easier time sharing data and coordinating services because they are all part of county operations and linked via a common EHR system, sharing data can also be accomplished through a series of provider contracts and data-sharing agreements. Having a managed care plan that recognizes social determinants of health and partners so actively with a care coordination team could also be implemented in other health systems.

3. **Engage early in the process:** If they had to do it over again, HCH leadership would have been active earlier in the process to promote the HCH model of care and propose that the ACO fund additional HCH staff to track outcomes [completed appointments, fewer emergency department (ED) visits, medication compliance, etc.]. Initial uncertainty over meeting these outcome measures may have inadvertently contributed to a delay in decision-making and other providers getting care coordination contracts for services that mirror long-standing HCH practices.

4. **Demonstrate the value of the HCH care model:** Define the niche for the HCH in your community and be very specific about how it helps the larger health system. The HCH role may be to provide primary care, divert from emergency departments, serve as care coordination after hospital stays, and educate the health system about the importance of housing, outline patient engagement strategies, or some combination of these roles. Once the role is defined, focus strongly on getting resources to support the role, enter into data sharing agreements with system partners, train staff to document data and outcome measures, and determine exactly how much services cost so resources can be justified and reserved.

Conclusion

As a system that has used an Accountable Care Organization framework for its Medicaid program, Hennepin Health and its provider partners maximize data sharing and care coordination to better meet the needs of people experiencing homelessness. The emphasis on social determinants of health and a willingness to reinvest system savings into new programming allow for improved patient outcomes and lower total costs. Forthcoming peer-reviewed studies on the impact of the model on health care utilization and patient quality of life will further illustrate the potential of similar programs. Even more targeted interventions will be possible as the system assesses health outcomes and refines measures to identify high-needs populations. As other states and health care systems look to implement Medicaid ACO models of care, Hennepin Health has a number of replicable practices that others could adopt.

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References

[1] Center for Health Care Strategies, Medicaid Accountable Care Organizations: State Update (February 2018). Available at: https://www.chcs.org/media/ACO-Fact-Sheet-02-27-2018-1.pdf.

[2] Hennepin Health is a nationally recognized model of care that has been described in numerous publications. For a deeper description of the larger model, see Sandberg, S., et al (November 2014). "Hennepin Health: A Safety-Net Accountable Care Organization for the Expanded Medicaid Population." *Health Affairs* 33(11): 1975-1984. Available at: https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2014.0648. See also Hostetter, M., Klein, S., and McCarthy, D (October 2016). *Hennepin Health: A Care Delivery Paradigm for New Medicaid Beneficiaries,* The Commonwealth Fund. Available at: http://www.commonwealthfund.org/publications/case-studies/2016/oct/hennepin-health.

[3] The LSO is adapted from the Prenatal Risk Overview, a standardized psychosocial risk screening tool. More information available on this tool can be found at: https://www.prenatalrisk.org/Registration.aspx.

[4] U.S. Postal Service. *What is General Delivery?* More information is available at: http://faq.usps.com/?articleId=220956.

[5] Vickery, K. D., Shippee, N. D., Bodurtha, P., Guzman-Corrales, L. M., Reamer, E., Soderlund, D., Abel, S., Robertshaw, D. and Gelberg, L. (2017), "Identifying Homeless Medicaid Enrollees Using Enrollment Addresses." *Health Services Research.* doi:10.1111/1475-6773.12738. Available at: http://onlinelibrary.wiley.com/doi/10.1111/1475-6773.12738/abstract.

[6] The Chronic Illness and Disability Payment System (CDPS) is a diagnostic classification system that Medicaid programs can use to make health-based capitated payments. A brief overview is available at: https://www.resdac.org/sites/resdac.umn.edu/files/Risk%20Adjustment%20in%20Medicaid%20Using%20CDPS%20%28Slides%29.pdf and an in-depth analysis can be found at Kronick, R., Gilmer, T., Dreyfus, T., and Lee, L. (Spring 2000.) "Improving Health-Based Payment for Medicaid Beneficiaries: CDPS." *Health Care Financing Review* 21(3): 29-64. Available at: http://cdps.ucsd.edu/cdps_hcfr.pdf.

[7] More information on the Access Clinic is available at: http://content.govdelivery.com/accounts/MNHENNE/bulletins/e3ce9f#link_1418851429330.

[8] Implemented in 2004, the CMS Hierarchical Condition Categories is a risk-adjustment model used to adjust Medicare payments to health care plans for the health expenditure risk of their enrollees. It is intended to pay insurance plans appropriately for their expected relative costs. For more information about HCCs, see http://healthydatascience.com/cms_hcc.html.

[9] National Committee for Quality Assurance, *HEDIS® and Quality Compass®*. More information on HEDIS is available at: http://www.ncqa.org/hedis-quality-measurement/what-is-hedis.

[10] Bodurtha, P., Van Siclen, R., et al. (October 2017). *Cross-Sector Service Use and Costs among Medicaid Expansion Enrollees in Minnesota's Hennepin County*. Center for Health Care Strategies, data brief. Available at: https://www.chcs.org/media/Hennepin-Research-Brief_103017.pdf.

[11] Vickery, K., et al. (January 2018.) "Cross-Sector Services Use Among High Health Care Utilizers in Minnesota After Medicaid Expansion." *Health Affairs* 37(1): 62-69. Available at: https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2017.0991.

[12] Backstrom, C., and Ryan, J. (October 31, 2017). *Community Paramedicine: A Simple Approach To Increasing Access To Care, With Tangible Results.* Health Affairs blog. Available at: https://www.healthaffairs.org/do/10.1377/hblog20171027.424417/full/.