



Hennepin Health

Minneapolis Grain Exchange Building
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Addiction Medicine: Hospital Consultations

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Background

Hennepin Health is an accountable care organization (ACO) comprised of four partner entities that share the financial risks and rewards of providing coordinated, high-quality care to a defined population.

All of the partners in the Hennepin Health ACO are component organizations of the Hennepin County health care system. The ACO partners work together to serve residents of Hennepin County, Minnesota, who are members of the Hennepin Health Managed Care Organization (MCO) via their enrollment in Medicaid.

The ACO partner organizations are:

- **Hennepin Healthcare**, a County-affiliated integrated health care system that includes a large teaching hospital (Hennepin County Medical Center), a network of primary and specialty care clinics, pharmacies, home care, hospice and other medical services.
- **NorthPoint Health and Wellness Center**, a County-owned medical, dental and mental health clinic in North Minneapolis.
- **Hennepin Health**, an MCO that administers health care benefits for low-income Hennepin County residents enrolled in the Medical Assistance, MinnesotaCare and the Special Needs Basic Care public insurance programs.
- **Hennepin County Health and Human Services Department**, a Hennepin County department that delivers a variety of services to individuals or families that assist with basic needs or encourage client change around specific objectives.

The Hennepin Health ACO partners utilize a comprehensive, coordinated model that directly addresses the social factors that impact the medical, dental, behavioral health and social needs of enrollees. The work of the partnership aligns with and supports the Institute for Healthcare Improvement Triple Aim:

- Improve the patient's experience of care
- Improve the health of populations
- Reduce the per-capita cost of care

Each year, the ACO reinvests a portion of its excess revenue in sponsoring experimental quality improvement initiatives. The ACO solicits proposals from the partner organizations and funds between six and ten initiatives each year. Each project team receives support to measure the impact of their work and shares the results with the ACO partners to support continuous learning and improvement across the county-wide health and human services continuum.

Identification of an Opportunity

In 2015, opioid overdoses resulted in the deaths of 110 people in Hennepin County. By the end of 2016, the annual death toll from opioid overdose had risen to 153, an increase of 39 percent over the previous year. According to the Minnesota Hospital Discharge Database maintained by the Minnesota Hospital Association, non-fatal hospital-treated opioid overdoses have steadily increased statewide, from approximately 200 in 2007, to 2,074 in 2016. Just over half of these cases were treated a hospital emergency department. Additionally, deaths from cocaine and amphetamine overdoses rose dramatically during this timeframe and eighty-four residents died from acute alcohol intoxication.

These figures do not reflect the number Hennepin County residents whose deaths were indirectly caused by substance abuse: drug-related violence, accidents caused by people too impaired to walk or drive, Cirrhosis, Hepatitis C and despair leading to suicide.

Rationale

JoAn Laes, MD, is an addiction medicine specialist at Hennepin County Medical Center (HCMC), a partner organization in the Hennepin Health ACO. Dr. Laes noticed that she was being called to treat increasing cases of overdose and substance use disorder in the hospital, and was frustrated at her inability to provide those patients with a “warm transfer” to treatment for their underlying addiction, or to provide effective prescription medications on an ongoing basis.

“There wasn’t much we could do,” said Dr. Laes. “There were only two drug and alcohol counselors for our entire 500-bed hospital.” While these counselors knew a lot about behavioral treatments for addiction, they weren’t able to offer patients other therapies, such as prescription medicines that reduce addictive cravings. “So, basically, we had to give patients lists of phone numbers for treatment programs and tell them, ‘Follow up on your own.’ As a result, we’d see many of these patients in the hospital multiple times.”

Interventions

Dr. Laes had identified an opportunity to strengthen the HCMC system of care for a growing population of county residents who struggle with addiction, many of whom are members of Hennepin Health. She applied for, and received, a \$219,000 Hennepin Health ACO Reinvestment Initiatives grant to re-engineer addiction treatment at HCMC, beginning in October 2015.

With grant funding, Dr. Laes and her colleagues hired a new licensed drug and alcohol counselor (LADC) to counsel people who come to HCMC with substance use problems. A new advanced practice provider was hired to treat people admitted to the hospital overdose recovery or to receive treatment for other conditions associated with substance use disorder, such as endocarditis from intravenous drug use. The internal processes were reconfigured to improve coordination between the addiction specialist physicians, advanced-practice providers and the LADC team. This group meets regularly to discuss specific patients, coordinate their care at HCMC and to make appropriate discharge plans.

The grant also enabled the HCMC addiction medicine team to create a bridge to long-term treatment for patients with chemical-dependency problems, including medication-assisted treatments like methadone or buprenorphine. The Outpatient Addiction Clinic at HCMC conducts follow-up with patients and

continues any medications started in the hospital. “We know the entire community network of treatment options and, instead of simply handing out brochures, we are able to make appointments for patients and help them access funding for treatment programs,” said Dr. Laes.

Methodology

HCMC analysts used claims and electronic health record data to conduct a comparison of how patients referred to the LADC used the hospital and health care system before and after the intervention.

Findings/Evidence of Improvement

During a three-month period in 2016, the LADC worked with 333 patients and the physician/advanced-practice provider consulted with 72 patients. Three out of four of those patients said they were currently using alcohol, 28 percent said they were using stimulants, and 22 percent reported using opioids.

The results of their initial efforts were equally clear. “We observed a 4.4 percent decrease in 90-day readmissions for patients with substance use diagnoses and a 2.5 percent decrease in readmissions for patients with alcohol addiction,” Dr. Laes reported.

In a longer-term study conducted from September 2016 to August 2017, the new LADC consulted on an estimated 1,398 patients and the physician/advanced-practice provider consulted with 633. The percentage of patients using various substances were consistent with the short-term study: 70 percent reported alcohol use, 26 percent used stimulants and 20 percent used opioids. A third of these patients were abusing more than one substance, excluding tobacco. A more complete picture of the complexity of these patients emerged as well: two-thirds had received previous treatment for substance use disorder and half had received treatment for a mental health diagnosis.

The overdose and chemical dependency treatment program established and tested by Dr. Laes and her colleagues with funding from the Hennepin Health ACO reinvestment program have become the standard for addiction medicine care at HCMC. A reduced rate of readmission suggests patients have better long-term success when a coordinated, intensive model of addiction care is employed during a hospital stay for overdose or for other conditions related to substance use disorder.



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