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Mapping the impact of social determinants of health

By Virgil Dickson | March 31, 2018

At UAMS Medical Center in Little Rock, Ark., clinicians are prompted by their electronic health record system to ask patients personal questions about their home life and eating habits. Those inquiries over the past few years helped reduce the hospital's overall readmission rate to 10% from 13.8% before it began gathering data on social determinants of health—factors that are profoundly linked to overall health. The issue of trying to manage all of the factors contributing to a person's health is growing as providers work increasingly under value-based purchasing models and at the same time are expected to reduce the cost of care. But getting already-overworked physicians on board with that is a difficult task.

For UAMS, getting the word out consistently, instead of providing a one-off article to read or attending a meeting on the subject, was key to making headway with its physician and clinical staff. "It's in their faces every day when they are in front of the EHRs," said Dr. Steppe Mette, the hospital's chief clinical officer.

Studies have shown that factors such location, access to healthy food and transportation, and exposure to violence, among others, can make a big difference. Research shows that 60% of the factors leading to premature death are based on a combination of social and environmental issues and behavior. Addressing those problems could pay huge dividends. For example, insurer Humana found that preventing or identifying chronic diseases early can reduce overall healthcare spending by 34%.

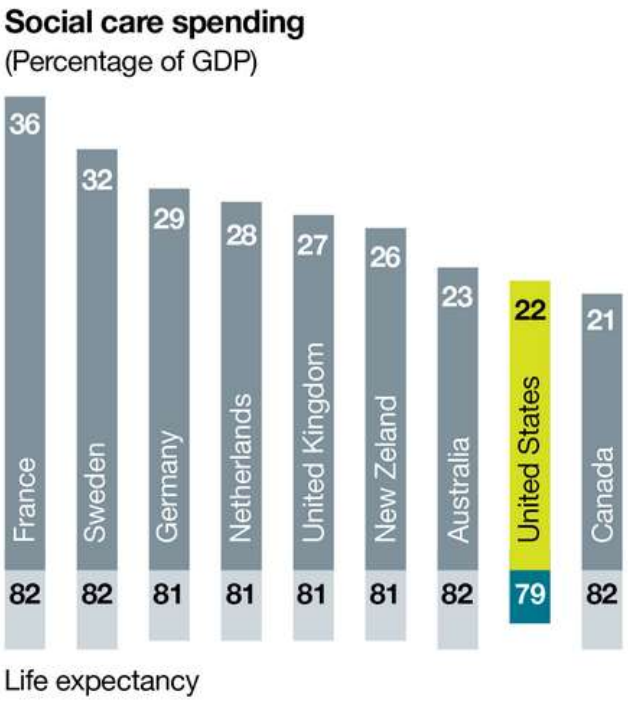
But there aren't many agreed-upon standards or tools to collect data on social determinants of health.

"Health systems are beginning to address needs like transportation, housing and food security, and payment support, but current processes are labor-intensive, nonstandardized, and service availability is poorly publicized," said Jill Seidman, senior director of provider solutions at Avia, a health innovations company. "Digital solutions have significant

potential to augment and scale labor-intensive and manual processes by identifying patient social needs, making connections to appropriate resources and tracking patient progress over time."

The use of predictive analytics has helped keep patients out of hospitals. Texas-based Christus Trinity Mother Frances Health System uses an artificial intelligence program to flag patients with high risk. The tool, sold by VitreosHealth, provides risk stratification platforms and analyzes data—including claims data—to try to optimize the cost and performance of healthcare.

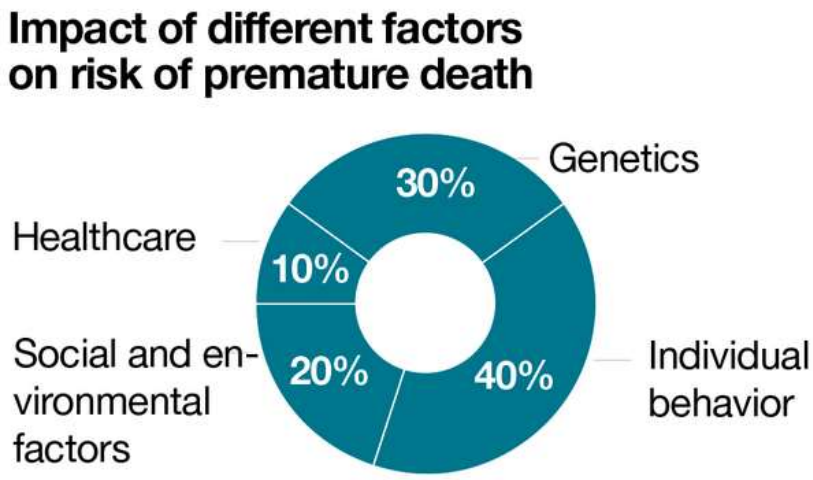
"Before we were making care decisions, but we didn't have the full picture of what was happening with a patient," said Andrea Anderson, administrative director of population health and primary care at Christus Trinity. "There's so much more information the payers had that helped us more effectively manage patients."



Note: "Social care" includes programs like education, retirement benefits, housing assistance, employment programs, disability benefits and food security.

Source: American Public Health Association

Before sharing claims data, Christus Trinity couldn't know what care and prescriptions patients were receiving from providers not affiliated with them. Armed with that information now, the system has been able to cut average monthly spending on patients by 15% since 2016. Emergency room visits for targeted patients have fallen by 20%.



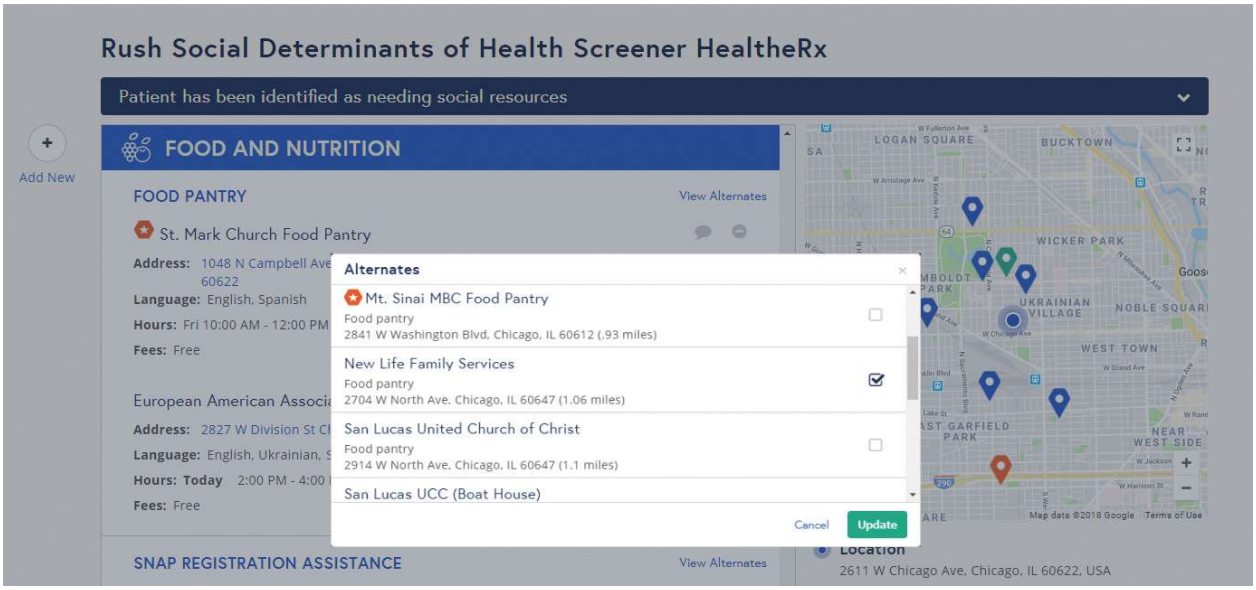
Source: Kaiser Family Foundation

One of the more successful examples of gathering health system data can be found at Health Catalyst. Its partners, which include Cedars-Sinai Medical Center, Stanford Health, UPMC and Partners HealthCare, invested in the company, adding an incentive to share data and reap its rewards.

"It helps to transition the mindset from 'You're the vendor, I'm the health system

and maybe we're going to have an adversarial relationship' to working together," Health Catalyst CEO Dan Burton said in an interview this year.

A few months ago, Rush University Medical Center in Chicago implemented a tool that finds social resources in a person's community and analyzes whether those referrals were acted upon. Called NowPow, the tool measures how successful they were in helping patients with their individual needs. "There is nothing worse than providing a resource and not knowing if they've been able to follow through," said Robyn Golden, associate vice president of population health and aging at Rush.



Epic Systems Corp. is trying to make it easier for providers to share information with community partners such as food banks. "Some of the reason the (spending) needle isn't moving is that we need to move patient information and share care plans beyond the walls of the hospital," said Emily Barey, Epic's vice president of nursing and community health. The vendor has included questions in its EHR about domestic violence, physical activity and social isolation to ensure those needs are met as well.

Baptist Health Hospital in Louisville, Ky., is using an algorithm dubbed LACE, originally meant to reduce readmissions, to track social determinants of health.

LACE scans medical records to measure patients' length of stay, acuity of admission, co-morbid conditions and the number of emergency room visits within the past year. As part of the discharge process, care managers ask questions about housing, food and the ability to afford medications and transportation to appointments. Staff members have resources available if patients need them.

Baptist began to use LACE in 2013. Three years later, readmission rates had improved 14.5% for chronic obstructive pulmonary disease patients, 11.6% for hip and knee surgery patients, and 7.2% for pneumonia patients.

Payers also are being asked to take on a larger role in addressing social determinants of health by moving to care- management models of reimbursement. Those models give primary-care providers incentives to take the time to truly build relationships with patients.

For providers to be successful in persuading patients to change their behavior, there needs to be trust, said Dr. Steven Hester, chief medical officer at Norton Healthcare, a Kentucky-based health system.

Financial incentives from the insurer can also boost interest in managing the social aspects of care. Care-management fees, a retainer fee of sorts, can increase the number of people looking after patients, for example, by funding the hiring of care managers and navigators who follow up and track patients, said Dr. Scott Smith, senior vice president at Christus.

The CMS recently released data supporting these claims. Since 2015, the agency has paid physicians an average of $50 per patient per month for consulting with specialists and coordinating chronic-care services. Earlier this year, the government reported that per beneficiary spending for consumers receiving chronic-care management services fell by more than $200 over six months in 2015 to 2016. In the second year of the experiment, the CMS paid roughly $52 million in care-management fees and generated a net savings of $36 million, largely because those beneficiaries were less reliant on both inpatient and outpatient care.

But any gains through care-management approaches will continue to be hindered if the underlying problems persist. "Physicians do the best they can, but there are some things out of the realm of their influence," UAMS' Mette said.

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