

INSIDE EDGE

Social & Community Health

The 80-percent solution

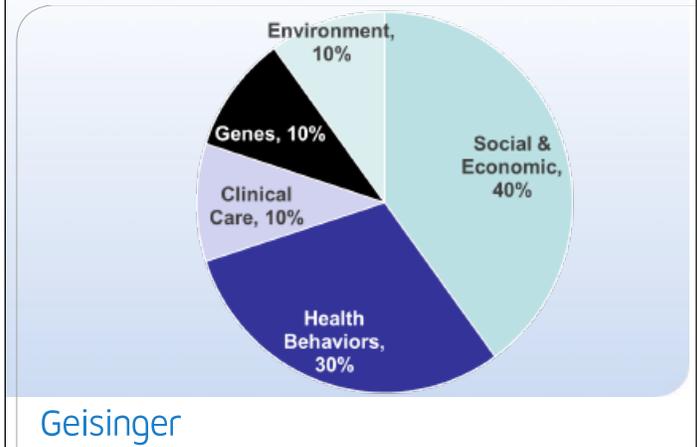
Introduction

We all know the numbers by now: only about 20 percent of a person's health is impacted by healthcare; the rest is socioeconomic, environmental, genomic and behavioral. While exact figures vary based on the selected framework, study after study overwhelmingly validates the role social determinants play in individual and population health.

For a nation that spends more per capita on healthcare than any other first-world country yet [ranks last in outcomes](#), the solution lies in the 80 percent outside our hospital and clinic walls, however consumer friendly they may be. Fortunately, as we learn from our conversations with three SI Member organizations below—Spectrum Health, Cincinnati Children's Hospital Medical Center and Memorial Hermann Health System—health systems do not have to reinvent the wheel.

The key is to focus on specific, concrete initiatives like infant mortality, readiness for school, literacy and food security and then partner with the many social service agencies, public health, schools, churches and neighborhood activists—many unsung heroes—who have been toiling in these fields for decades. In the search for the social determinants of health, connecting the dots is everything. It takes a village.

Determinants of Health



Tackling infant-mortality with Strong Beginnings (Spectrum Health & partners)

Grand Rapids, Mich.-based Spectrum Health, a 12-hospital integrated health system covering 13 counties in western Michigan and with a health plan covering 800,000 lives, has embraced the social determinants of health with various initiatives through its Healthier Communities Department (see SI Teleconference “Community Outreach at Spectrum,” Aug. 22, 2017, <https://scottsdaleinstitute.org/teleconferences/2017.asp>).

Spectrum Health serves as the fiduciary for Strong Beginnings, a partnership of nine agencies focused on improving maternal infant health and reducing racial disparities in infant mortality in a region sadly afflicted by the scourge.

Scottsdale Institute Conferences

Camelback Inn, Scottsdale, AZ
April 25–27, 2018
April 10–12, 2019

Scottsdale Institute Summits

CNIO, April 27–28, 2018 Scottsdale, AZ
CIO, June 6–7, 2018 Chicago
CISO, Sept. 26–27, 2018 Chicago
CMIO, Sept. 27–28, 2018 Chicago
Pop Health, Oct. 24–25, 2018 Chicago
Analytics, Oct. 25–26, 2018 Chicago



**Peggy Vander Meulen, Director,
Strong Beginnings, Spectrum Health**

Neighbors helping neighbors

Federal Healthy Start programs require outreach, care coordination, mental health screening and referral, father engagement, and work on social determinants based on local needs and existing resources. There must be direct services for clients as well as work at the community level to improve the overall system of care and promote health equity.

“Michigan has one of the nation’s highest rates of Black infant mortality,” notes Peggy Vander Meulen, program director of Strong Beginnings <https://www.strongbeginningskent.org>. Strong Beginnings received federal Healthy Start funding in 2004 when Grand Rapids had the highest Black infant mortality of any city in Michigan. The federal government launched the Healthy Start initiative in 1991 with 15 demonstration projects across the country aimed at reducing infant mortality <https://mchb.hrsa.gov/maternal-child-health-initiatives/healthy-start>

The pilots showed positive results and there are now 100 Healthy Start projects in the U.S., six of them in Michigan. While a Spectrum Health employee, Vander Meulen is quick to clarify that Strong Beginnings is a collaborative of nine community agencies, all equal partners in the program [see list on page 4]. “It was clear from the beginning that no health system or other entity could own or brand this program,” she says, and that has been a critical component to its success.

Strong Beginnings partners with Michigan’s largest home-visiting program for Medicaid-eligible pregnant women and infants, the Maternal Infant Health Program (MIHP), which allows up to nine home visits during pregnancy and another nine after the baby’s born. Strong Beginnings adds Community Health Workers (CHWs)—often former clients themselves—as peer mentors to meet with parents in their homes, offer social support, education and referrals. CHWs work with MIHP nurses and social workers to connect clients with needed resources, including behavioral health through individual counseling and weekly support groups with family therapists. “Strong Fathers” provides home visits and support for male partners, and offers discussion groups, legal assistance and father-child activities for men in the community. Strong Beginnings enrolls clients during pregnancy and for two years after delivery.

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Besides weekly breastfeeding support groups, a slew of programs with titles like Mom as Gateway, Understanding Dad, Baby Scholars, Barbershop Talks and You Go Girl parties tell how down-home granularity is necessary to improve health outcomes by tackling social determinants. For example, a training program for dads to promote safe sleep for babies puts men in a relay race to change a baby’s diaper (using a doll), bathe it and place it in a car seat and then a crib, the winner being the first to do every step correctly.

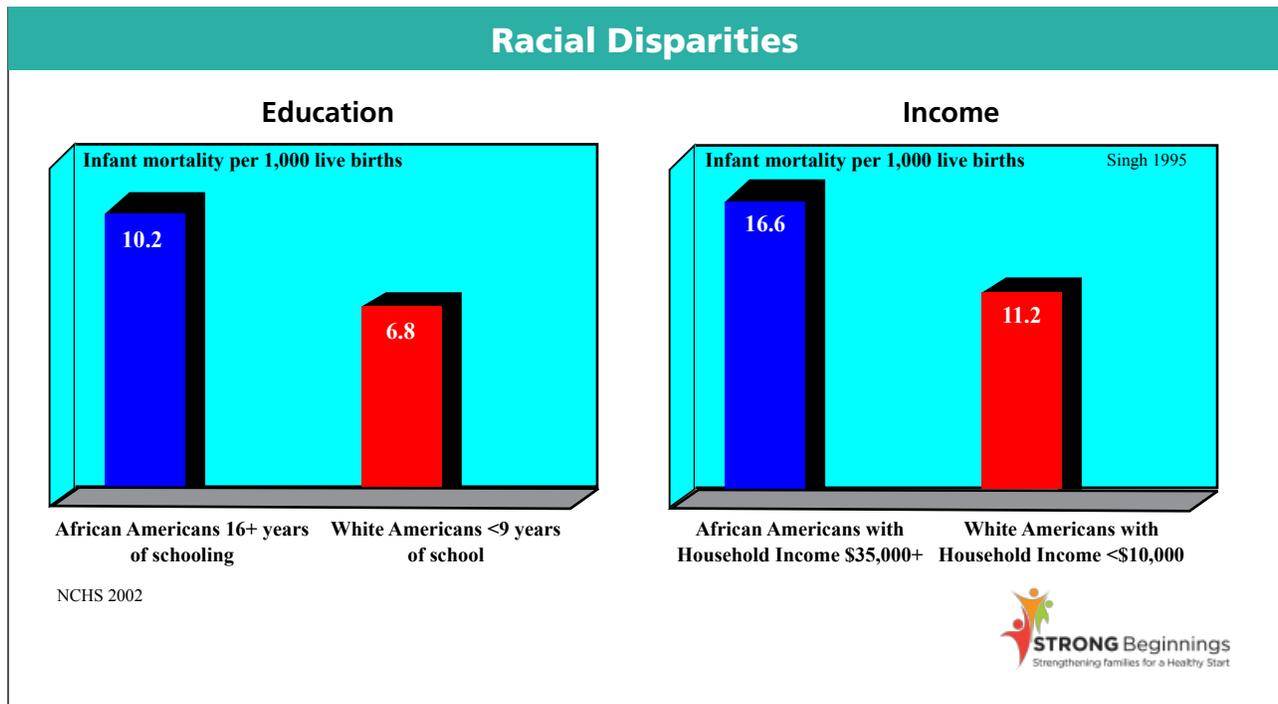
Ground zero of infant mortality

Strong Beginnings uses an enhanced MIHP model to address an astonishing datum: Black babies in Grand Rapids are two times more likely to die than White babies. This however is an improvement from 2005-2007, when the disparity ratio was 5.2 times higher. In 2015 (latest available), the Black infant mortality

rate was 12.0 per 1,000 live births, 50 percent lower than the 2003 rate of 22.4 per 1,000 when Strong Beginnings applied for funding. Another startling fact is that in 2015 Michigan had the highest Hispanic infant mortality in the U.S. (9.9 per 1,000), and the Kent County rate was 6.9 per 1,000 compared to 4.9 per 1,000 for White infants.

“Black babies in Grand Rapids are two times more likely to die than White babies.”

And the issue is inescapably race-based. About two-thirds of Strong Beginnings’ clients are African American and a third Latinas. “All are in poverty and face multiple challenges,” says Vander Meulen, with racial bias clearly playing a role. For example, national data shows African American women with 16 or more years of education have higher rates of infant mortality than white women who never completed high school.¹



¹ National Center for Health Statistics, 2002. Says Vander Meulen: “We know that poverty and low educational attainment contribute to adverse birth outcomes overall, but they do not account for the racial disparities in infant mortality, low birth weight or prematurity. National and Michigan data show that Black women with good incomes and high levels of education still have higher rates of infant mortality than white women in poverty and limited education, so, although more Blacks proportionately are in poverty and have less education than whites, those factors do not explain the high rates of infant mortality. The only explanation is that the physiological changes that result from the stress experienced over a lifetime of racism and discrimination is the cause of the disparities in infant mortality.”





Strong Beginnings is a prime example of how it takes a village to tackle even a single health issue from a social-determinants perspective. Besides the complexity of managing grant funding from multiple sources², the program’s nine partners include:

- > Arbor Circle, mental-health provider
- > Cherry Health, Federally Qualified Health Center (FQHC) MIHP provider
- > Grand Rapids African American Health Institute, community-based organization—Strong Fathers Fatherhood initiative
- > Healthy Kent Infant Health Team (IHT)—Community Action Network
- > Kent County Health Dept.—MIHP provider
- > Metro Health Community Clinic—Hospital system—MIHP provider
- > Michigan State University—evaluation
- > Mercy Health—health system—MIHP provider
- > Spectrum Health—health system—MIHP provider, Spectrum Health also acts as the program fiduciary

Early on, with extensive community input and before any funding was obtained, the Healthy Kent Infant Health Team (IHT) identified three key factors to lower the high rate of black infant mortality and developed a series of activities they called “Strong Beginnings” to address those issues:

1. Improve access to quality care (healthcare that addresses social determinants in addition to clinical care);
2. Prevent unplanned pregnancies;
3. Dismantle racism.

Not just individuals but community

It was clear that achieving these goals required a more serious financial investment and that somebody needed to be the fiduciary. Spectrum

Health was designated with that role as long as everybody else involved was an equal partner. Also, for hospitals and health systems to be effective, they needed to be involved in the social determinants of health, not just in the 20 percent of factors that involved traditional clinical care. The Infant Health Team that originally created Strong Beginnings in 2001 with 15 volunteer members has now grown to a 90-member, multi-sectoral coalition working to address social determinants such as transportation, racism and housing.

“The other piece,” says Vander Meulen, “is what we do at the county level can’t just be direct services to an individual, but also must make the community better, improve community health and advocate for policies that promote health equity. Community residents must be involved in every step.”

In 2017 Strong Beginnings enrolled 1,050 families in the county plus 152 men and is achieving “really good outcomes, including lower rates of infant mortality among the most severely affected by extreme poverty, homelessness, depression and substance use,” she says. Among program participants, the rolling 2017 infant mortality rate was 4.7 / 1000. The preterm birth rate is roughly 30% lower than for women not in the program and breastfeeding rates are 40% higher. A three-year study showed that compared to similar women not in the program, Strong Beginnings clients had higher rates of:

- > First trimester prenatal care (65% vs. 58%)
- > Adequate & Adequate Plus prenatal care (75% vs. 69%)
- > Post-Partum exams (70% vs. 57%)
- > Well Child Visits (92% of SB infants had seven or more well child visits vs. 79% non-clients).

Says Vander Meulen: “Infant mortality is a complex social problem with no single solution. It requires authentic community engagement and collaboration across multiple entities willing

²W. K. Kellogg Foundation; federal Healthy Start; Michigan Health Endowment Fund; Doug & Maria de Vos Foundation; Spectrum Health; Michigan Department of Education; PNC Bank Foundation.



to focus on the social determinants that have such an impact on health and birth outcomes, especially racial inequities.”

Raising literacy with Cincinnati Children’s & partners

Population health, especially children’s health, is greatly affected by education and poverty levels, which are often intertwined.



Uma Kotagal, Senior Executive Leader, Population & Community Health, Cincinnati Children’s Hospital Medical Center

“We’ve been working to transform healthcare for several years, but have been concerned about the widening gaps in the health of children, especially those in poverty,” says Uma R. Kotagal, MBBS, MSc, senior executive leader, population and community health, and a senior fellow at Cincinnati Children’s Hospital Medical Center.

“We’ve become aware of children’s mental health needs that can be quite debilitating,” she says. As a result, when Cincinnati Children’s developed a five-year plan two years ago, it incorporated social determinants like housing environments that could exacerbate child asthma. “This work is not in our sweet spot, so partnerships are important.”

Analysis determined a critical fact: the best time to change the trajectory of a child’s health was under the age of nine. “As a result, our focus is -9 to 9,” Kotagal says, referring to the period including the nine months of pregnancy through the first nine years of life. “That early space is critical,” she says, so Cincinnati Children’s identified three areas of emphasis for population and community health:

1. Infant mortality—ensure babies live until one;

2. Readiness for school—ensure they’re lead-free, screened and fit for school;
3. Literacy—“If you can’t read by third grade you have an 80 percent chance of prison or being debilitated. It’s a big marker,” says Kotagal.

“So we put literacy on the list,” she says, which led to discussions with the superintendent of Cincinnati public schools on methods to improve literacy and ways to measure its impact on health outcomes, especially for chronic illness. For example, Cincinnati Children’s developed a partnership with school nurses in the district to manage the care of diabetic children with high-frequency ED admissions.

Reflection works

“The work involves multiple sectors and collaboration among many partners,” says Kotagal. The literacy program, for example, involves not just Cincinnati public schools but supporting pre-school for all kids and neighborhood efforts to activate parents. “No matter which outcomes we push it’s going to take multiple sectors and collaboration. This is not a ‘do-to-you’ but an ‘activate-you.’ If we push reducing hospital days and yet children still live in unsafe housing, the kids’ health can’t improve,” she says.

Kotagal highlights the steps involved in social and community health:

- > Work across sectors;
- > Start early;
- > Activate parents;
- > Act with a sense of urgency, especially when it’s children’s health.

Once the Cincinnati school-superintendent partnership was established, Kotagal’s team studied schools across the country to identify teacher-training methods to support literacy in ways conventional teaching did not. The new techniques incorporated something seemingly obvious: *the process of reflection*, an element too often missing in large, chaotic classrooms





headed by inexperienced teachers—typically the norm in poor neighborhoods.

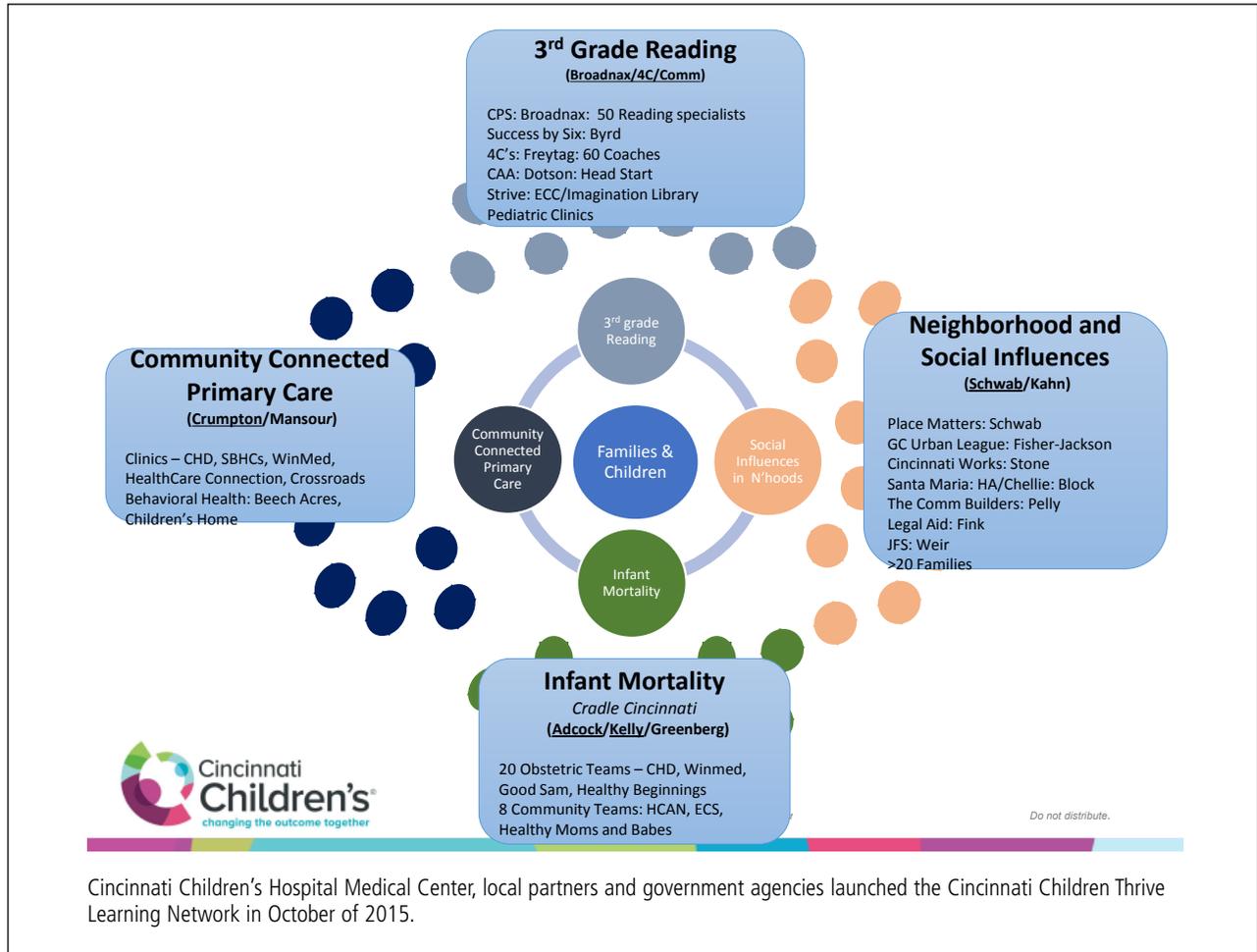
Adopting the technique of reflection *with the class* fosters a continual dialogue that enables students to say, in effect, “We’re not getting this. You’re not reaching us,” and making it possible to adjust teaching and learning to the individual and class on the fly—which has proved effective with poor and disadvantaged learners.

Population health for kids

“We found that teachers began to teach differently. Kids could give feedback,” she says. Cincinnati Children’s and the school district are scaling the program to more schools while bolstering it with mental health services.

“Our focus is 66,000 children in Cincinnati, a third of whom live in poverty. We’re partnering with schools, neighborhood agencies, United Way, obstetricians, Strive Partners, the city council, preschool programs and parents to build improvement capability—that is to give people the capacity to learn how to move from the current system to a new system,” says Kotogal.

The model used for the literacy program is the All Children Thrive (ACT) learning network <https://www.allchildrenthrive.org/learning-systems>, which fits into Cincinnati Children’s integrated social and community health program as shown in the diagram below:



Cincinnati Children’s is in the second year of the program, which is an implementation stage after taking the first year to build the network

structure. It’s still too early to document any results, although early signs are positive. “We’re still a work in progress,” she says.





Building readiness for school and life with Memorial Hermann and partners

It may not be surprising that Houston-based Memorial Hermann Health System, with 15 hospitals, 5,500 affiliated physicians and 26,000 employees serving the greater Houston area—encompassing a highly diverse and often disadvantaged population—is integrating social factors into its EHR. But first it had to begin establishing a social map of that population.



MEMORIAL HERMANN
Carol Paret, SVP & Chief Community Health Officer, Memorial Hermann Health System

“In late 2015, we began screening patients in our neighborhood health centers and large suburban clinic for food insecurity,” says Carol Paret, senior VP and chief community health officer at Memorial Hermann. The questions, developed by the U.S. Department of Agriculture, ask households if they ran out of food in the past 12 months or feared that they might.

“The numbers were staggering. As many as 30 percent of the population in certain low-income neighborhoods answered ‘yes’ to running out of food. Even in a suburban area, the rate was 10 percent,” she says.

By incorporating the social determinants of health into the clinical decision-making process, providers are being asked to dig deeper to figure out the underlying reasons why patients may not be complying with prescribed diets or drug therapies.

“Compliance becomes a secondary for me if I don’t know where I’m going to sleep tonight,” says Paret.

Embedding social determinants in the EHR

Embedding social determinants in the EHR is ‘phase one’ of the process; efforts are also underway to incorporate that data in all other hospitals and at the community-clinic level.

“Doctors may not realize that their patients have underlying struggles because the patient looks fine, dresses fine and therefore must be fine,” she says. “When those doctors see their patients’ answers to these screening questions, then they begin to see those patients differently and that can impact their clinical decision-making process. For example, the best and greatest drug may not always be the best for that patient if he or she is unable to afford it or obtain it. Understanding the challenges our patients face allows us as a healthcare system to make the connections for those who need support, helping facilitate their access to resources they need, such as food pantries or transportation to pick up their prescriptions.”

To help connect patients with social services, Memorial Hermann uses 23 navigators, or community health workers, stationed in its Emergency Centers.

StepHEALTHY
Memorial Hermann
NUTRITION

MEMORIAL HERMANN

BEGAN ASKING THE TWO USDA APPROVED FOOD INSECURITY QUESTION IN LATE 2015

WITHIN THE PAST 12 MONTHS, I WORRIED WHETHER MY FOOD WOULD RUN OUT BEFORE I GOT MONEY TO BUY MORE

WITHIN THE PAST 12 MONTHS, THE FOOD I BOUGHT JUST DIDN'T LAST AND I DID NOT HAVE MONEY TO GET MORE.

OFTEN TRUE SOMETIMES TRUE NEVER TRUE DECLINED





“These navigators can help connect patients to the services they need outside of the hospital setting, from medical homes to food

“The healthcare industry is spending hundreds of millions of dollars with no marked improvement in outcomes because we’re not tackling the right problems.”

to transportation,” Paret says. “They also provide health literacy for patients to help them better understand how to navigate and access health care in a way that best fits their needs.”

Walk in the neighborhood

In the area of food security specifically, navigators have worked closely with local food banks and with two other programs:

1. A Meals on Wheels pilot program at one hospital that delivers meals at home to discharged patients who lack the stamina to feed themselves;
2. Wholesome Wave <https://www.wholesomewave.org/> and Target, which teamed up with Memorial Hermann to offer vouchers redeemable at Target or farmer’s markets for fresh fruits and vegetables.

Paret says Memorial Hermann is still gathering and analyzing data on its food-security programs so it’s too early to publish results. Still, she’s confident that improving access to nutrition, and combining it with activity and integrated behavioral health, is key to improving the health status of Texans, a state that ranks 51st in terms of healthcare access.

“To successfully influence the health of a community, you have to begin at the neighborhood level, collaborating with local organizations and leadership to improve area parks, sidewalks and neighborhood safety,” Paret says. “The healthcare industry is spending hundreds of millions of dollars with no marked improvement in outcomes because we’re not tackling the right problems. Achieving results will take one neighborhood at a time, working with collaborative parties and partnering with neighborhood leadership, such as the parks department, city, county, YMCA and schools.”

Conclusion

In addressing the social determinants of health, health systems are doing something they’ve never done before: Breaking outside the walls of the hospital where they have no control.

“The healthcare industry has never had complete control of a patient’s overall health and wellbeing,” asserts Paret. “We have a fix-it mentality about healthcare that doesn’t work in a social and community context. Your zip code can tell you more about your health than any treatment or service you receive within the clinic or hospital setting.”

That’s why it’s critically important for healthcare institutions to partner with organizations in the community to jointly tackle these problems together. “The social determinants are all interconnected. We’re not going to be the expert in housing or food but we need to be a connector.”





Related Resources:

Check out The Commonwealth Fund report, “Addressing the Social Determinants of Health Through Medicaid Managed Care.”

<http://www.commonwealthfund.org/publications/issue-briefs/2017/nov/social-determinants-health-medicaid-managed-care>

Check out the Robert Wood Johnson Foundation’s annual *County Health Rankings and Roadmaps* which “supports coalitions tackling the social, economic and environmental factors that influence health.”

<https://www.rwjf.org/en/how-we-work/grants-explorer/featured-programs/county-health-ranking-roadmap.html>

Check out a new JAMA study looking into social determinants of health that found nearly half of community health center patients reported having a history of housing problems.

<https://www.healthcaredive.com/news/community-health-center-patients-more-likely-to-cite-housing-struggles-jam/517555/>

Check out a “shocking” study in *Pediatrics* that found pediatric patients from low-income neighborhoods died at rates 18 percent higher while hospitalized and had higher hospital costs after cardiac surgery than those from higher-income neighborhoods.

<http://www.ajmc.com/focus-of-the-week/cardiac-deaths-in-hospitals-starkly-higher-among-children-from-low-income-neighborhoods>

Check out “Housing and the Role of Hospitals,” part of the AHA’s *Social Determinants of Health* series.

<http://www.hpoe.org/Reports-HPOE/2017/housing-role-of-hospitals.pdf>

Check out “Social Determinants of Health: How Are Health Conversion Foundations Using Their Resources To Create Change?,” Health Affairs Blog, March 15, 2018

<https://www.healthaffairs.org/doi/10.1377/hblog20180313.6738/full/>



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