

Public Health and Healthcare in Post-COVID America:

Innovative Solutions for a Healthier,
More Prosperous Society

Market Corner Commentary
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In the early 1900s, health epidemics ranging from cholera to typhoid plagued America's increasingly crowded and polluted cities. Public health services emerged during this time to manage the onslaught of these virulent infections.

Early countermeasures focused on "outside sources" of disease, including quarantining afflicted (usually immigrant) communities and rejecting diseased newcomers at Ellis Island. Ultimately, however, more effective interventions addressed root causes in public health.

In a wave of modernization, governments funded public infrastructure projects for clean drinking water and better sewer systems. Cities began regular garbage removal and insect spraying. Health inspectors ensured hygiene standards at workplaces and crowded apartment buildings. The FDA, founded in 1906, reinforced the importance of child nutrition and nurturing through public education campaigns.

These progressive measures focused on important living and environmental conditions – now called social determinants of health (SDoH). They helped reduce the virulence of disease while also improving life quality, expanding education, lowering infant mortality and raising life expectancy.

In this century, America once again finds itself confronting a dire need for better public health services. Total health spending represents over 18% of GDP even as chronic disease rates increase and health status metrics lag those of other advanced economies. Relative to its peers, the U.S. spends less on social care. Social barriers to health among disadvantaged populations and communities underlie America's dismal health statistics.

COVID-19's disproportionate impact on vulnerable populations has made the nation's social disparities even more apparent. Social determinants such as economic status, access to transportation and basic care services, housing and food security, health literacy and age, race and chronic illness have accelerated COVID-19's spread and lethality.

A potential positive outcome from this crisis is the opportunity to systematically address SDoH at national scale. Numerous organizations are already applying innovative and cost-effective SDoH solutions. The challenge is to coordinate and scale their efforts and maximize their impact. This will require the removal of major barriers to better healthcare services, including changing the way we value and pay for care.

THE OUTSIZED IMPACT OF SOCIAL DETERMINANTS OF HEALTH

Research indicates that social factors and lifestyle behaviors determine approximately 60% of an individual's health status. Clinical care accounts for only 10-15% of health status.

Clinical care services, particularly acute treatments, account for the vast majority of America's healthcare expenditures.






The inverted relationship between health spending and sources of health status explains why America's expansive healthcare spending yields suboptimal health outcomes. Other advanced economies have more balanced spending between healthcare and social

care. As a consequence, their health status indicators surpass those of the United States.

Many Medicare and Medicaid beneficiaries, in particular, confront major social barriers to managing their health. The following charts illustrate how SDoH afflict these populations.

Medicare (65+) SDOH Considerations






Unemployment, lower levels of education, food insecurity, and especially transportation and social isolation play key SDOH roles in physical and cognitive decline for those aged 65 and up.

	Economic Stability	<ul style="list-style-type: none"> + 168,000 adults over age 65 looking for work in 2014 faced unemployment 27 weeks or longer + 90% of income is provided by Social Security for 43% of single recipients and 21% of married recipients + 1/3 of older households were either in debt or had no remaining money after paying monthly essential expenses
	Neighborhood & Physical Environment	<ul style="list-style-type: none"> + Estimated that in 2015, 15.5 million people aged 65+ had access to little or no public transportation, while 60% did not have close (within 10 minute walk) public transportation and 53% did not have access to a sidewalk + Over 8 million Americans aged 65 and older do not drive, particularly detrimental in rural areas + 15% of older Americans who do not drive visited the doctor less + Community crime and violence may correlate to higher levels of obesity, reduced physical activity, and overall decline in health
	Education	<ul style="list-style-type: none"> + In 2018, 13.6% of people aged 65+ attained less than a high school degree, compared to 9.2% of those aged 25 – 64, limiting employment and income level + In 2018, 15.1% of Americans aged 65+ did not have a computer, compared to 3.4% of those aged 18-64 + Additionally, 7.8% of Americans 65 and older had a computer without an internet connection, compared to 6.2% of those aged 25-64
	Access to Food	<ul style="list-style-type: none"> + 3/5 of Supplemental Nutrition Assistance Program eligible adults over 60 were not enrolled + Food insecurity probability increases if an adult is: younger, living with a grandchild, has a disability, is in a Southern state, or is African American or Hispanic
	Community & Social Factors	<ul style="list-style-type: none"> + In 2019 34% of elderly adults felt companionship lack while 27% felt isolated + 28% of isolated adults reported poor or fair health while 13% of respondents who felt little isolation reported the same + Poverty elevates risk for mental health declines + Social isolation is linked to increased risks for falls, hospital readmission, dementia, and even death + Social isolation is also correlated to cognitive decline and behavioral health issues, including depressive symptoms, sleep disturbance, and fatigue + Factors contributing to social isolation include mobility problems, rural living, retirement, and discrimination (ageism)

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Source: INCOA, US Census, USDA, Statista, APA, Healthy Aging Poll, CDC, AARP, Healthy People 2020.gov

Medicaid SDOH Considerations

Medicaid beneficiaries often lack stable employment, face challenges paying for basic needs (housing, food, transportation) and live in communities that may be less healthy and safe.

	Economic Stability	<ul style="list-style-type: none"> + Half report difficulty finding work or restricted work schedules as reasons for not working more, while more than a quarter report health reasons for not working more. (Urban Institute) + 83% of households earning less than \$15,000 a year have little left over each month to spend on other necessities such as food, clothing, utilities, and health care.
	Housing	<ul style="list-style-type: none"> + High homeless numbers + Only one quarter eligible families in US receive federal rental assistance. + Substandard housing exposes to health and safety risks such as vermin, mold, water leaks, structural defects, inadequate heating, cooling, electricity, hot water (Health Affairs) that are linked to poor health. + Two million people in the US live in inadequate homes. (healthypeople.gov)
	Education	<ul style="list-style-type: none"> + ~30% of Medicaid enrollees have a low health literacy (AHIP) + Lower health literacy (US Department of Ed) creates problems with treatment adherence, medication and difficulties adopting healthier behaviors.
	Access to Food	<ul style="list-style-type: none"> + Medicaid members often face challenges with access to healthy food options and hunger due to income limitations and the neighborhoods they live in. + In 2016, 31.6% of low-income households were food insecure, compared to the national average of 12.3%
	Transportation	<ul style="list-style-type: none"> + Medicaid beneficiaries are 8x more likely than those with private coverage to delay care because of a lack of transportation (MACPAC) + 66% of dialysis patients rely on others for transportation to their appointments, only 8% relied on public transport or taxi services, and 25.3% drove or walked themselves (NCSL)

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Source: NCOA, US Census, USDA, Statista, APA, Healthy Aging Poll, CDC, AARP, Healthy People 2020.gov

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Vulnerable population are typically older, sicker, poorer and have fewer resources. Many lack adequate housing and food, find transportation difficult and suffer from mental health conditions or social isolation. The chronically ill, the elderly, and smokers, in particular, are at higher risk of premature death.

Not surprisingly, COVID-19 has preyed on these groups. Overall, the U.S. has 5% of the world's population but has absorbed 30% of COVID-19 deaths. The elderly, dispossessed and/or those with chronic disease constitute the majority of COVID-19's victims.

BARRIERS THAT IMPEDE OR LIMIT SDOH INTERVENTIONS

CMS and state health agencies have taken a lead in addressing SDOH more comprehensively. Medicare Advantage and managed Medicaid programs create financial incentives for plan sponsors to address members' health and wellness needs. While these initiatives are promising, the following characteristics of U.S. healthcare limit implementation of well-established practices for managing the health of large populations.

MISALIGNED INCENTIVES Fee-for-Service (FFS) payment models encourage the delivery of fragmented and transactional healthcare services, often in centralized, high-cost facilities. Healthcare services reactively treat illness, disease and injury. There is minimal payment for proactive services that prevent disease, manage chronic illness or address emerging mental illness.

LACK OF ACCESS TO PRIMARY, PREVENTIVE AND BEHAVIORAL CARE Populations with high social barriers to health often lack access to primary, preventive and behavioral care services. Consequently, many vulnerable populations fail

to address health issues before they become more problematic. Effective primary care enhances wellness and reduces the need for costlier interventions.

LACK OF HOLISTIC / COMMUNITY-BASED APPROACH Complex health problems require coordinated, holistic care delivery. This rarely occurs. Providers best address SDOH challenges by engaging patients and addressing their health and social care needs within a trusting provider-patient relationship.

A NEED FOR ROBUST TECHNOLOGY, DATA SHARING AND ANALYTICS Most EHR systems and tools impede data sharing and patient engagement. They focus instead on controlling patient data and optimizing revenue collection. Robust data and analytics can help identify and engage vulnerable individuals.

AVAILABILITY OF RESOURCES Low-income communities often lack the resources, services and infrastructure to address SDOH effectively. Solutions can be difficult to scale and/or coordinate without adequate funding, technology and operational expertise.

INVESTMENTS AND INNOVATIONS

As payment models incentivize care management, investment and experimentation in SDoH initiatives is growing. Private organizations are taking multiple approaches in developing SDoH solutions.

The following chart illustrates the sizable number of early-stage and established organizations addressing the specific categories of social care.

SDOH Vendor and CBO Landscape

The vendor landscape offers a diverse array of SDOH solutions, and the number of vendors and their service offerings are becoming more robust with increased demand from health plans.

Economic Stability	Neighborhood and Physical Environment	Education	Access to Food	Community and Social Factors	Health Care System	Technology and Data Support
ACCION Michael Schleim Helps global PSFs develop & deliver financial products and services Action Community Action, Inc. Denise Harlow Promotes individual & community solutions to seemingly stubborn challenges GRAMMIE AMERICA Andrea Jung Provides mentorship and financial training to low-income, female entrepreneurs LIFT Kirsten Lodal Aids families in building personal well-being, social connections and financial strength United Way Sheena Wright Partners with other organizations to provide holistic and preventative care	Access2Care Sven Johnson Provides non-emergency medical transportation Rockwell Health Mindi Knebel Platform simplifying medical transportation and care coordination LogistiCare Daniel Greenleaf Provides non-emergency medical transportation Lyra Logan Green Provides non-emergency medical transportation Ride Health Isaac Crook Platform simplifying medical transportation and care coordination roundtrip Mark Switaj Platform simplifying medical transportation and care coordination Selfhelp Stuart Kaplan Aids seniors in independent living Uber Dana Khourweshali Provides non-emergency medical transportation veyo Josh Kamenda Provides non-emergency medical transportation	Good+ Jessica Seinfeld Provides tangible goods and innovative services for low-income households mentor Mike O'Brien Builds mentoring relationships to support & empower first-generation students LIFT Kirsten Lodal Aids families in building personal well-being, social connections and financial strength Martha's Table Kim Ford Community program improving food access for low-income families sc Thrive Tricia Richardson Provides training and resources to improve food security, health care, and financial wellness	Action Community Action, Inc. Denise Harlow Promotes individual & community solutions to seemingly stubborn challenges dgreens Lauren Shweder Biel Provides access to healthy and affordable food options FOOD INTERVENTION PROJECT Lauren Ornelas Promotes healthy food choices and campaigns for policy changes to improve low-income access to food CA foods Glenn Davenport Cost-effective delivery of nutritious meal solutions lyra grocery access Logan Green Discounted rides to and from grocery stores & farmers markets Martha's Table Kim Ford Community program improving food access for low-income families	Mon Ami Joy Zhang Platform pairing seniors with college students for companionship and assistance with everyday tasks papa Andrew Parker Platform pairing seniors with college students for companionship and assistance with everyday tasks RALLY Grant Verstandig Empowers customers to take control of health with a clear understanding of costs and options Marcella Wilson Platform allowing nurses to screen and respond to SDOH as billable services	CityBlock Iyah Roman Provides preventative medicine and access to resources through online platforms Kindred at Home Benjamin Breier Uses data analytics capabilities for better identify members' SDOH needs Cheryl Lufkin Allows disparate providers to connect, communicate and collaborate around patient-centered care OAK STREET HEALTH Mike Pykosz Utilizes full-risk contracting to provide care for Medicare patients with complex conditions signifyhealth Kyle Ambrester Provides tech-enabled care services to vulnerable populations within the routine of their daily lives VillageMD Tim Barry Provides integrated primary care to homebound or otherwise complex patients Walmart Doug McMillen Provides non-emergency care at a lower price point	QuintBertha Ernie Gray Network of CBOs providing social assistance services Leigh McCormack Platform providing patient-level insights CARROT HEALTH Kurt Waltenbaugh Provides consumer data-driven insights Eccovia Case management and community care coordination platform Healthify Manik Bhat Platform to screen patients and provide appropriate resources Janice Nicholson Compiles SDOH data into daily reports for providers and case managers NOWPOW Rachel Kohler Connects patients to resources for health and social needs CONNECT Keith Matsutaya Web-based care coordination solution Trenor Williams Quantifies social risk and provides insight into SDOH UNITE US Daniel Brillman Care coordination and community engagement platform

IMPLICATIONS FOR PAYERS AND PROVIDERS INVESTING IN SDOH PROGRAMS

Although numerous innovative organizations are addressing SDoH, they typically offer point solutions for specific social barriers. Real progress in addressing social care needs requires coordinating these types of point solutions. Large providers and payers are well-positioned to assemble and operate these services within cohesive care delivery platforms that exhibit the following features:

- Better data collection and analytics to understand member populations and target communities and individuals, improve patient identification and tracking.
- Adoption of predictive models that address care needs and gaps.
- Deeper engagement with members / patients to understand and address holistic needs, improve adherence, and drive healthy behaviors and lifestyles.
- Broader integration in the larger social support infrastructure while filling gaps where necessary.
- Investment in business capabilities and processes that enhance information sharing, improve workflow, reduce administrative burden and facilitate collaboration between partners in shared-risk arrangements.

To demonstrate their value, SDoH solutions will need to deliver positive investment returns over time. Cost savings and improved health outcomes will help gain executive and policymaker buy-in to devote more resources and utilize SDoH solutions more broadly.

Targeted investments in care management models generate savings over 3-5-year horizons. Payment models must accommodate these longer return horizons for care management programs to succeed. Again, large providers and payers are well-

positioned to make coordinated SDoH investments and assess their success.

Developing effective ROI metrics is difficult but not impossible. For example, IU Health has developed the Healthcare Economic Efficiency Ratio (HEERO), which gauges actual spending on patient care against expected spending on patient care based on claims data for patients attributed to Medicare Advantage health plans or a Medicare accountable care organization.¹

A HOLISTIC, SCALABLE APPROACH: OAK STREET HEALTH

Oak Street Health, a care provider for Medicare and Medicaid beneficiaries, opened its first care center in Chicago's Edgewater neighborhood in 2013 and has since expanded to 55 centers in 8 states. The founding team established Oak Street to address disparities in quality of care and access to care in under-served neighborhoods, and to "rebuild healthcare as it should be."

Oak Street's model is consistent from center to center. As CEO-founder Mike Pykosz notes, "Healthcare infrastructure might be local, but the clinical needs of a diabetic are the same everywhere. We pick neighborhoods that are underserved and build our centers from scratch with one clinical model for how we treat patients and a common digital IT platform."

Oak Street patients struggle with a litany of social barriers to health, ranging from chronic conditions and low economic status to housing and food insecurity. The population is unaccustomed to accessing preventive care and typically relies on costly ER visits. Pykosz says, "We put a lot of effort into community outreach and educating people on the importance of preventive care and regular primary care."

Oak Street's at-risk or capitated business model is predicated on taking the savings from reduced ER visits and hospitalizations and applying those resources to lower-cost care solutions that improve overall health status. This incentivizes Oak Street to treat patients holistically with frequent check-ups and interventions that address social barriers such as a lack of food, housing or transportation.

With the onset of COVID-19, Oak Street has transitioned almost all of its in-center care to virtual and tele-care visits. "We're doing more provider visits a day than we did two months ago," Pykosz says, "all virtual."



**OAK
STREET
HEALTH**

Oak Street calls their patients multiple times a day, checking on their condition, directing them to seek in-person care or testing if necessary, and educating them on the latest COVID guidelines. Oak Street also delivers meals so that patients stay fed and safe in their homes.

Pykosz credits their capitated payment model for Oak Street's operating flexibility and capacity to focus exclusively on members' health and social care needs.

"We're not worried about what's reimbursable and whether there's a code to do something. It's harder for fee-for-service groups to invest in what patients actually need."

CONCLUSION: MEETING THE SURGING NEED FOR QUALITY CARE

COVID-19 has accelerated the need for effective SDoH solutions.

Medicaid programs are already stretched thin, but their enrollment will grow with the prolonged economic downturn. At the same time, the number of uninsured requiring uncompensated care also will increase.

As the COVID-19 storm intensifies, SDoH solutions that decrease overall care costs and improve health outcomes are imperative. A keen understanding of local markets is critical in selecting the right solutions. Yet, the best solutions will also be scalable across many communities and populations.

As Oak Street Health demonstrates, innovative and effective solutions for managing the care of populations emerge when payment models incorporate prepayment and financial risk. This alignment between payment and outcomes enhances innovation, flexibility and coordination in meeting the diverse needs of vulnerable populations.

America won't change the way it delivers care until it changes the way it pays for care. When payment and desired outcomes align, the potential for cost savings and improvement in health metrics drive investment in innovation and holistic services across the industry.

SOURCES

1. <https://www.healthleadersmedia.com/clinical-care/indiana-health-system-develops-new-measure-care-value>

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