



WHITE PAPER

# Accounting for the Social Determinants of Health During COVID-19

Leveraging data-driven tools to identify vulnerable patients

**NEXTGATE**



## HALF A BILLION

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The COVID-19 pandemic is not just a medical crisis. Since the highly contagious disease hit American shores in early 2020, the virus has dramatically changed all sectors of society, negatively impacting everything from food supply chains and sporting events to the nation’s mental and behavioral health.

For some people, work-from-home plans and limited access to entertainments are manageable obstacles. For others, the shuttered schools, lost wages, and social isolation spell disaster – especially for individuals already living with socioeconomic challenges.

The social determinants of health have always been important for understanding why some populations are more susceptible to increased rates of chronic conditions, reduced healthcare access, and shorter lifespans. COVID-19 is throwing the issue into high relief.

The World Economic Forum estimates that a COVID-related recession could result in a 20 percent drop in average income, tipping half a billion people into poverty worldwide and exacerbating the socioeconomic disparities already well known to impact health outcomes.<sup>1,2</sup>

Now more than ever, healthcare providers need to gain full visibility into their populations and the non-clinical challenges they face in order to help individuals maintain their health and keep their communities as safe as possible during the ongoing pandemic.

With a combination of population health management strategies and innovative technology tools, healthcare providers and public health officials can begin to view the social determinants of health as a fundamental component of the fight against COVID-19.



## Exploring correlations between socioeconomic circumstances and COVID-19 vulnerability

Clinicians and researchers have worked quickly to identify patterns in the spread of COVID-19. Early results have emphasized the danger posed by advanced age and preexisting chronic conditions such as obesity, diabetes, and heart disease.<sup>3</sup>

They have also clearly established that proximity and sustained contact with infected individuals is the underlying route of transmission. But not everyone has the ability to maintain distance from family members, coworkers, and peers.

Physical personal space is a luxury for many disadvantaged people, including the homeless seeking shelter, families living in tightly packed households, and employees who simply cannot afford to skip in-person work.

In April of 2020, before the virus was widespread in many states, researchers found that 36 percent of people living in a Boston homeless shelter tested positive for COVID-19.<sup>4</sup> The majority of those individuals did not experience symptoms but still likely played a role in transmitting the virus to others in the facility.

The study put public health officials on alert for outbreak clusters in crowded conditions, including food processing plants, factories, and distribution centers, which tend to be vital sources of employment for lower income and rural communities.

Soon after, meat packing plants and warehouses in multiple states experienced surges of the virus. Between April and May, more than 16,000 meat packing workers in 239 facilities contracted COVID-19, the Centers for Disease Control and Prevention (CDC) reports.<sup>5</sup> Among cases that included race/ethnicity data, 87 percent of cases occurred among racial or ethnic minorities.

Many of these facilities have since implemented enhanced safety procedures, but the pattern of higher infection rates – and drastically higher death rates – among minorities and lower income individuals has not gone away.

Data from the Johns Hopkins University and American Community Survey indicates that the infection rate in predominantly black counties is three times higher than in mostly white counties.<sup>6</sup> The death rate is six-fold higher.

In New York City, an early epicenter of the pandemic, black and Hispanic patients comprised 28 and 34 percent of deaths, respectively, despite only representing 22 and 29 percent of the population.<sup>7</sup>

Data from the Centers for Medicare and Medicaid Services (CMS) confirms the trend: black Medicare beneficiaries are hospitalized at a rate of 465 per 100,000 compared to just 123 per 100,000 white beneficiaries.<sup>8</sup> Hispanic Medicare beneficiaries had 258 hospitalizations per 100,000, more than double the white population's hospitalization rate.

Economically disadvantaged dual Medicare/Medicaid eligible individuals of any racial or ethnic background experience COVID-19 at an extraordinarily higher rate than other Medicare beneficiaries. Dual eligibles experience 1406 infections per 100,000 beneficiaries compared to 325 infections per 100,000 for other Medicare patients.

Researchers suggest that the social determinants of health may be largely responsible for these disconnects in infection and mortality rates. Racial, ethnic, and economic factors are strongly correlated with increased health concerns, including longstanding disparities in access to care, higher rates of underlying chronic conditions, and differences in health literacy and patient education.



# 3x HIGHER

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## Leveraging data-driven tools to identify vulnerable patients

Healthcare providers will need to take a proactive role in identifying which of their patients may be at enhanced risk of contracting the virus and experiencing worse outcomes from the disease.

They will also need to ensure that person gets adequate treatment and participate in contact tracing efforts after a positive test. Lastly, providers will have to ensure their public health reporting data is accurate to inform local and regional efforts to contain the disease.

The process begins by developing confidence in the identity of each individual under the provider's care. Healthcare organizations often struggle with unifying multiple electronic health record (EHR) systems and other health IT infrastructure, resulting in medical records that are incomplete, inaccurately duplicated, or incorrectly merged.

Access to current and complete medical histories is key for highlighting at-risk patients. An enterprise master patient index (EMPI) can provide the underlying technical foundation for initiating this type of population health management.

EMPIs help organizations create and manage reliable unique patient identifiers to ensure that records are always associated with the correct individual as they move throughout the healthcare system.

When paired with claims data feeds, health information exchange (HIE) results, and interoperability connections with other healthcare partners, EMPIs can bring a patient's complete healthcare status into focus.

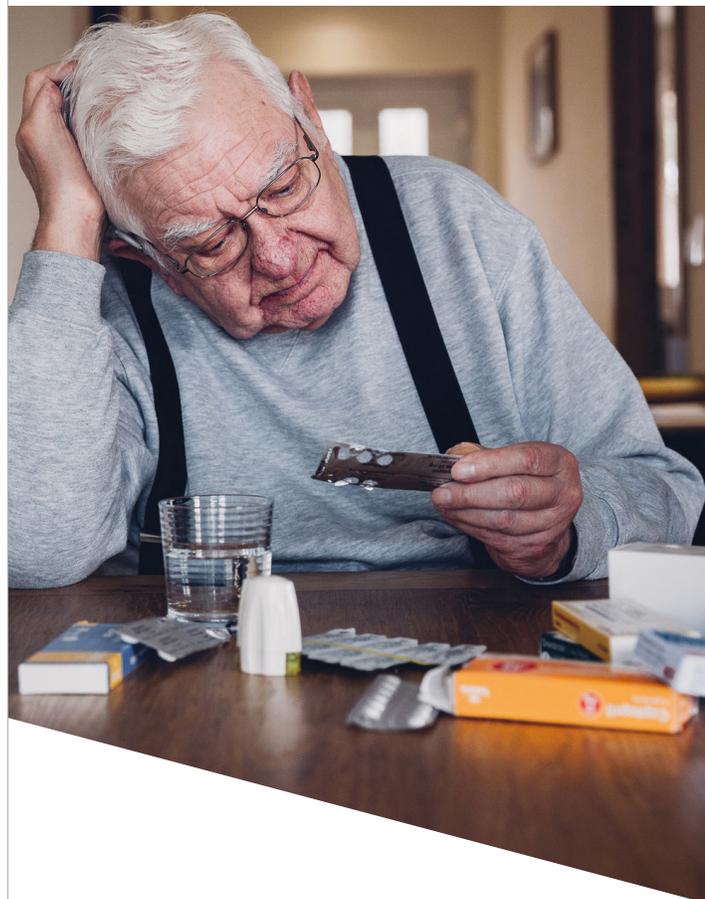
This approach ensures that providers stay informed about past and present clinical issues and service utilization rates. It can also support a deeper dive into the social determinants of health.

Combining EHR data with standardized data about socioeconomic needs can help providers develop more comprehensive and detailed portraits about their patients' holistic health status.

By including this information in EHRs and population health management tools, providers can develop condition-specific registries to guide outreach activities. Providers can deploy improved care management strategies, close gaps in care, and connect individuals with the resources they need to stay healthy.<sup>9,10</sup>

Healthcare organizations can acquire socioeconomic data about their communities in a variety of ways, including integrating public data sources into their population health management tools and collecting individualized data using standardized questionnaires.

Once providers start to understand their patients' non-clinical challenges, including the ability to avoid situations that may expose them to COVID-19, they can begin to prioritize patients for outreach and develop personalized care plans.



# 31 PERCENT

A survey from the Kaiser Family Foundation found the outbreak has caused 31% of adults to fall behind on bills.



## Conducting effective outreach and interventions for high-needs patients

COVID-19 has taken a staggering economic toll on many families, including those who may have been financially secure before the pandemic. A survey from the Kaiser Family Foundation, conducted in May, found that the outbreak has caused 31 percent of adults to fall behind on bills. Sixteen percent have newly turned to charities or government assistance for food and other essentials.<sup>11</sup>

Routine healthcare, prescription medications, and even some urgent healthcare needs are often the first to fall by the wayside when finances get tight. The survey added that nearly half of adults, or someone in their household, have delayed care due to COVID-19 risks or associated expenses.

Healthcare providers have gotten creative about staying connected to patients through telehealth, drive-in consults, and other contactless strategies. But they must also ensure that their vulnerable patients are aware of these options – and that they are taking advantage of them.

Contacting a large number of patients can be challenging since phone numbers, emails, and home addresses change frequently and are prone to data entry errors during intake. Organizations with EMPIs can leverage their tools to ensure contact information is up to date, accurate, and associated with the correct individual.

Care managers should prioritize outreach to patients with complex medical histories and known clinical risks for vulnerability to COVID-19. These conversations are a prime opportunity to collect social determinants of health information or refresh existing data profiles.

Providers may wish to consider having a social worker available to refer patients to local community

organizations, such as food banks and rental assistance groups. A mental health professional or behavioral health counselor should also be on call to provide support to those affected by the virus.

Organizations can utilize non-clinical staff, including front desk teams, to share general information on new office hours, telehealth options, or educational resources for patients. Staff members should be sure to ask whether the patient would like to schedule an appointment or communicate with a provider through a patient portal to stay on top of any emerging health concerns.





## Looking to the future of healthcare in a COVID-19 world

Combining technology-driven strategies with targeted outreach will be essential for healthcare organizations aiming to provide holistic support for their populations during – and after – the COVID-19 pandemic.

By developing certainty about patient identities and synthesizing that information with data about the social determinants of health, providers can efficiently and effectively connect with their patients to offer much-needed resources.

As the public health crisis continues to impact the nation, healthcare providers will need to work even more closely with social service organizations and community-based groups to ensure patients can sustain their socioeconomic stability – and the ability to manage their own health.

Taking a proactive approach to addressing the social determinants of health during the outbreak will help providers maintain relationships with high-needs patients while building new connections with those facing unanticipated challenges.

The result will be a stronger, more comprehensive, more informed healthcare system that can withstand the ongoing pressures of a new reality and deliver the personalized care that every individual deserves.

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