A CLOSER LOOK AT SOCIAL DETERMINANTS OF HEALTH AND COVID-19

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Social determinants of health are the conditions in the environment where people are born, live, learn, work, play, worship and age that affect a wide range of health, functioning and quality-of-life outcomes and risks.

Social determinants can be grouped in to six domains¹⁰:

- Economic stability
- Neighborhood and physical environment
- Education
- Food
- Community and social context
- Health care system

Social determinants contribute to health disparities and inequities. For example, people who don't have access to grocery stores with healthy foods are less likely to have proper nutrition. That raises their risk of health conditions such as heart disease, diabetes and obesity — and even lowers life expectancy relative to people who have access to healthy foods. Many social determinants of health, including poverty, physical environment and access to transportation, can have a considerable effect on COVID-19 outcomes, including morbidity and mortality.
SOCIAL DETERMINANTS AND COVID-19

Not everyone has been impacted equally by the pandemic. Social determinants influence who gets sick, how sick those individuals may become and their ability to respond to the virus if they become infected. For example, a low-income, hourly worker may need to take extended time off during an illness, exacerbating existing financial issues. The pandemic is intensifying the impact of these inequities, particularly for communities that are already under-resourced and experiencing barriers.

RACE AND ETHNICITY

Race, ethnicity, socioeconomic status and rurality, coupled with poor health status due to comorbidities, is expected to isolate the most vulnerable during the COVID-19 crisis. In the United States, African American, Hispanic and Indigenous populations are disproportionately affected by this outbreak; early data indicates they have higher rates of hospitalizations2 and are more likely to die from this disease than white populations. A higher infection rate among people of color likely reflects their increased risk of exposure to coronavirus due to their work, living and transportation situations. They are more likely to work in low-income jobs that cannot be done from home, live in larger households in densely populated areas, and use public or shared modes of transportation. Despite being at increased risk of exposure to the virus, people of color did not have markedly higher testing rates compared to white patients and were more likely to be positive when tested and require a higher level of care at the time they tested positive for COVID-19. These findings suggest that people of color may face increased barriers to testing that contribute to delays in getting tested until they are in more serious condition.9

COMORBIDITIES

The risk of adverse consequences of COVID-19 will be significantly higher for older adults who are generally more likely to have comorbidities. Among patients with confirmed COVID-19 cases in 14 states during March 2020, the most common underlying chronic conditions were obesity, hypertension, chronic lung disease, diabetes mellitus and cardiovascular disease with 90% of COVID patients having at least one of these conditions. People with respiratory and other chronic conditions such as cardiovascular disease are at a higher risk of negative consequences of COVID-19. Since the novel coronavirus primarily affects the lungs, smokers are at a higher risk than nonsmokers.7 Guan and colleagues8 reported that 33% of the population infected by COVID-19 in China that required intensive care and mechanical ventilation or had a clinical endpoint resulting in death comprised current or former smokers, although they only represented approximately 15% of the study population. This finding is particularly worrisome since African-Americans are more susceptible than whites to mortality resulting from smoking-related diseases, although they typically smoke fewer cigarettes and start smoking at an older age.
RURAL LOCATIONS

In the early parts of the COVID-19 pandemic in the United States, people living in urban counties made up most of the confirmed SARS-CoV-2 cases, whereas people living in rural counties represented a much smaller share. By the last week of March, 85% of the counties with zero confirmed cases were rural, seemingly indicating rural counties were somewhat advantaged with a low incidence of SARS-CoV-2 infections and COVID-19–specific deaths. However, as the spread of this infection increases, rural areas have been hit the hardest due to aging populations, unfavorable socioeconomic status, and a lack of resources in key areas such as transportation, employment, health care capacity, public health infrastructure and food security.

FOOD INSECURITY

This pandemic has also affected food security, especially among rural populations. According to the Food and Agriculture Organization of the United Nations, quarantines and disruptions in the food supply chain will adversely affect the poorest and most vulnerable people. Furthermore, border closures and trade disturbances caused by the pandemic may limit the availability of and access to adequate and nutritious foods for many. Reports have indicated that transitory disruptions to the food supply have already begun with localized shortages. In addition to the risk of the disease itself, children who depend on school meals for sustenance will be affected by shelter-in-place regulations enforced in many states. Since the onset of the pandemic, food banks nationwide have distributed an estimated 4.2 billion meals to people facing hunger in the United States. From March through June 2020, 40% of people visiting food banks were there for the first time. Additionally, more than 80% of food banks are now servicing more people than they did one year ago.8

MAPPING SOCIAL DETERMINANTS OF HEALTH

The COVID Community Vulnerability Map is a publicly available interactive map that identifies pockets of individuals and communities across the U.S. at risk for experiencing severe outcomes ranging from hospitalization to mortality as a result of contracting a respiratory infection such as COVID. The map also provides the socioeconomic factors influencing that risk. These insights can help inform providers, public health organizations and community support agencies as they look to deploy interventions, outreach and other services to keep individuals from contracting the virus and, once infected, manage toward a positive outcome.

The following map highlights the counties in the United States at highest risk based on their community vulnerability.
In Michigan, the counties at highest risk include:

- Allegan County
- Ionia County
- Montcalm County
- Oceana County
- Lake County
- Clare County
- Roscommon County
- Montmorency County
- Luce County
OUR RESPONSE TO SOCIAL DETERMINANTS AND COVID-19

In response to the COVID-19 pandemic, Blue Cross has implemented several programs and initiatives to address social determinants of health in our membership.

Behavioral Health

Blue Cross Blue Shield of Michigan is committed to whole-person care in all care settings, including the development and expansion of behavioral health programs that include services to address social needs such as transportation, education and employment. Blue Cross is growing the number of primary care practices that have the Collaborative Care Model, which is an evidence-based program that includes psychiatric case consultation and a behavioral health care manager. In addition to high-quality integrated health care, the behavioral health care manager links members to resources for identified social needs, including low cost medication, financial assistance and transportation. Blue Cross continues to support members recently diagnosed with psychiatric disorders. This comprehensive program provides robust psychiatric and therapeutic interventions and includes services to address the unique needs of this population such as supported employment. Lastly, Blue Cross is supporting an intensive, community-based intervention for members at high risk for poor psychiatric outcomes. This program addresses the common social barriers that prevent members from obtaining and continuing treatment for mental health conditions.

Pharmacy

Blue Cross has implemented several initiatives to specifically target social determinants of health, such as access issues during the COVID-19 pandemic:

- Increased access to medications by allowing early refills and extending prior authorization renewal dates
- Met with community leaders throughout the state to educate on the importance of vaccines, appropriate use of antibiotics and handwashing
- Implemented a podcast on vaccines
- Worked to educate providers on their asthma and COPD patients not on controller inhaler therapy.

Social mission

Blue Cross has a long history of commitment to our social mission. During the COVID-19 pandemic, several programs, grants and initiatives have been deployed to increase knowledge and access to our members and residents across Michigan.

- We provided $500,000 to support the efforts of community-based organizations to provide meals, address food insecurity and support other efforts to protect seniors and other populations in need.
- We joined forces with the Michigan Health Endowment Fund and other community-based organizations to award nearly $3 million to accelerate the expansion of telehealth services
within federally qualified health centers, behavioral health providers, human service agencies, PACE programs, Area Agencies on Aging and other safety net providers. The awards totaled $2.9 million and ranged from $25,000 to $50,000. Find the full list of grants here.

- We created a partnership with Wayne State University, the Wayne State University Physician Group and ACCESS to expand free COVID-19 testing in the community.
- We implemented community outreach COVID-19 education efforts by distributing a tool kit to more than 500 churches, community and grassroots organizations throughout the state.
- Blue Cross representatives serve on Michigan’s Coronavirus Task Force on Racial Disparities to make recommendations that address transparent reporting data, reducing medical bias in testing and treatment, reducing barriers to physical and mental health care, connecting residents to primary care physicians, connecting residents to insurance and addressing telemedicine and environmental justice.
- Through our involvement with the Michigan Opioid Partnership, we’ve provided more than $100,000 to support telehealth services in 15 Michigan county jails, including rural, urban and metropolitan population centers, to improve access to mental health and opioid use disorder services for detainees and inmates.
- We remain the largest private donor to Michigan’s free clinics, providing free or low-cost medical, dental and mental health care for safety net providers for the uninsured and underinsured.
- We partnered with Blue Cross Complete of Michigan to address food insecurity in Southeast Michigan with a $100,000 donation to Gleaners Community Food Bank. These funds supported two refrigerated, fresh food transport vans in Wayne, Oakland, Macomb and Monroe counties.
- We adapted our Building Healthy Communities program to expand access to social and emotional support resources and help schools meet the unique nutritional needs of their students.

Blue Cross Coordinated Care

The Blue Cross care management team recognizes the importance of holistically managing members’ health and in doing so, understands that social determinants are at the root of many positive or negative health outcomes. Care management programs are designed to incorporate social determinants of health throughout the process of supporting the members’ needs.

Member identification: Members are targeted using enhanced analytics, including social determinant of health variables, to identify and prioritize the most impactable members for our program. A predictive model also uses social determinants of health variables to identify key predictors of emerging risk, allowing for the identification of members before they rise in risk or become complex.

Multidisciplinary care teams: Care management is provided by a multidisciplinary care team. A nurse care manager is supported by a team of specialists to enable a holistic and comprehensive program. Each care team includes social workers, registered dietitians, pharmacists, behavioral health specialists, medical directors and non-clinical support to connect members to the right care and support to meet their specific needs. The care team collaborates to address the health and social needs of each member
and mobilizes support across various social domains, which can include transportation and financial assistance, food and nutritional support, behavioral health support, housing, health literacy and life planning.

**Regional alignment:** Aligning care teams to regions allows for a deeper understanding of the region’s demographical, cultural and environmental landscape. Teams then become familiar with the communities where members live, work and play and coordinate with community organizations and local providers.

**Digital engagement:** The care team can connect with members according to their preferred communication channel. Care teams provide culturally competent communications with members by telephone, secure mobile app and email.

**Proactive identification:** Prior to member outreach, care teams access a clinical profile that includes demographic, health and social determinant information about each member. This social determinant information includes, but is not limited to, education level, household size and income, ethnicity, language, marital status, net worth and a socially influenced score.

When unmet social needs are identified, the care team utilizes Healthify, an intuitive search platform, to identify resources within each member’s community and beyond. Relationships with internal and external partners are also leveraged to address the member’s social needs.

**Recent success stories:**

1. A member was in severe need of groceries and nutritional support during the pandemic and had severe reservations about venturing outside the home. The care management team partnered with the community responsibility team to deliver a food box to the member’s home on the same day the need was identified. The member was then scheduled to receive additional support through Meals on Wheels.

2. A member with diabetes had concerns about managing her condition effectively while providing food for her 87-year-old mother during the pandemic. The care management team quickly mobilized resources to support the member in managing diabetes at a time when most people found it difficult to attend provider visits. The team enrolled the member in a diabetes management program on the Coordinated Care app and arranged for the member’s mother to receive free food delivery. In addition, a volunteer at the food delivery agency provided check-in calls to make sure the member’s mother was faring well.

3. A member was in extreme financial distress after being laid off from work and had high anxiety about next steps. As phone was not the member’s preferred method of communication, the team educated the member about text-based disaster distress resources. The member feared that their home utilities would be shut off, so the care team connected the member to DTE Energy to establish a payment plan. The care management team also educated the member on accessing information about unemployment resources on the Michigan.gov website.

4. A member experiencing a high-risk pregnancy was utilizing the emergency room frequently. The care management team quickly learned that the member did not have transportation for necessary medical appointments. The team shared information about the importance of OB-GYN appointments and was able to help locate a maternal fetal medicine physician for the member. The team also enrolled the member in a program with Lyft to secure transportation for
future medical appointments. As a result, no appointments were missed and the baby was delivered without complications.

Blue Cross Blue Shield of Michigan Foundation

In 2020, the Blue Cross Blue Shield of Michigan Foundation invested more than $1.5 million to Michigan communities in support of Blue Cross’ social mission to bolster health services and address health inequities and the social determinants of health.

RFPs and special programs

- **Suicide Prevention Support for Health Care Clinics Working with Michigan’s Health-Disparate Populations initiative.** This was a collaborative effort between the Blue Cross Blue Shield of Michigan Foundation, the Michigan Health Endowment Fund, Children’s Foundation and the Flinn Foundation, for a total of $649,824, to assist health care clinicians and behavioral health specialists implement sustainable, evidence-based practices that address the growing epidemic of suicide in Michigan in health disparate communities.

- **Supportive Housing to Address Health Equity.** The Foundation provided $138,571.64 for innovative programs that support permanent supportive housing initiatives to advance racial and economic health equity for special populations to improve social and economic determinants and lead to better health.

- **COVID-19 Pandemic Fund.** The Blue Cross Blue Shield of Michigan Foundation provided St. Patrick Senior Center in Detroit with $10,000 to transition their health and wellness programs, including exercise and nutrition classes to virtual environments for the 100+ seniors they serve daily.

- **Addressing mental health needs for children in the Upper Peninsula during COVID-19.** This is a joint effort between the Blue Cross Blue Shield of Michigan Foundation and the Superior Health Foundation to provide a total of $100,000 for two years of support for programs to improve mental health in youth in schools. The programs will use evidence-based approaches for youths facing depression, anxiety and suicidal thoughts during the COVID-19 pandemic.

Community Matching Grants

- **Life Directions:** $34,000 to help families prevent and reduce trauma from adverse childhood experiences to improve health outcomes among African-American children

- **TRAILS (Transforming Research into Action to Improve the Lives of Students):** A total commitment of $150,000 to implement and evaluate a three-tier model of behavioral health programming that will provide evidence-based mental health prevention-to-intervention services to all K-12 Detroit Public School Community District students

- **Portage Health Foundation:** $50,000 to support the expansion of an evidence-based community intervention, Capturing Kids Hearts, in response to adverse childhood experiences in K-12 schools in Baraga, Houghton, Keweenaw, and Ontonagon counties, the Copper Country Intermediate School District, and three human services agencies
• **West End Health Foundation**: $25,000 to support the expansion of an evidence-based community intervention, Capturing Kids Hearts, in response to adverse childhood experiences in K-12 schools in the Negaunee Public School District

• **Michigan Health Endowment Fund**: $30,000 to increase access to education and resources to address the unmet needs of informal caregivers in all 15 counties of Michigan’s Upper Peninsula

• **Dr. Sylvia Linares, M.D.**: $34,000 to improve maternal and child health outcomes among high-risk women in Kalamazoo County, by providing doula support during delivery and post-partum as part of an integrated care team

• **Dr. Cara Poland, M.D.**: $34,000 to address Neonatal Abstinence Syndrome through the dissemination of the GREAT MOMs (Grand Rapids Encompassing Addiction Treatment with Maternal Obstetric Management) toolkit to obstetric providers to increase provider training, knowledge and confidence in treating pregnant women with opioid use disorder

• **Baldwin Family Health Center**: $50,000 to support expanded access to telehealth care and offer virtual care to individuals in the network of clinics that serves residents that geographically span five counties and 2,542 square miles as part of the Rapid Response: Safety Net Telehealth Initiative

• **Our Kitchen Table**: $34,000 to address food insecurity, food justice, nutrition and oral health among women of color and their families using gardening and services supporting health

**CONCLUSION**

Social determinants of health have greatly impacted the prevalence and severity of COVID-19. As we all continue to navigate this new normal, Blue Cross is committed to supporting all our members through the challenges of this pandemic. Our response to COVID-19 has been multi-faceted, focusing not only on the devastating physical toll of the disease, but the behavioral, environmental and social needs of our members. Looking ahead, we plan to apply our learnings and approach to the vaccination roll-out to ensure members with social determinants of care needs have equitable access to COVID-19 vaccines.
REFERENCES


