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Addressing Major Health Disparities Related to Coronavirus for People With Behavioral Health Conditions Requires Strength-Based Capacity Building and Intentional Community Partnership

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Far from being an equalizer, as some have claimed, the COVID-19 pandemic has exposed just how vulnerable many of our social, health, and political systems are in the face of major public health shocks. Rapid responses by health systems to meet increased demand for hospital beds while continuing to provide health services, largely via a shift to telehealth services, are critical adaptations. However, these actions are not sufficient to mitigate the impact of coronavirus for people from marginalized communities, particularly those with behavioral health conditions, who are experiencing disproportional health, economic, and social impacts from the evolving pandemic. Helping these communities weather this storm requires partnering with existing community-based organizations and local governments to rapidly and flexibly meet the needs of vulnerable populations.

KEY WORDS: disparities, behavioral health, race/ethnicity

Higher Underlying Infection Risk and Worse Infection-Related Outcomes

People with serious mental illness (SMI), and those struggling with or who are in recovery from addiction, face greater difficulties securing adequate food, housing, income, social support, and health insurance (Alexander, Stoller, Haffajee, & Saloner, 2020; Becker & Fiellin, 2020; Druss, 2020; Volkow, 2020) and a 20–30 year mortality gap (Colton & Manderscheid, 2006; Olfson, Gerhard, Huang, Crystal, & Stroup, 2015; Ösby, Brandt, Correia, Ekbom, & Sparén, 2001) due to poor access to quality primary care (Aggarwal, Pandurangi, & Smith, 2013; Bradford et al., 2008; Brugha, Wing, & Smith, 1989; Druss, Bradford, Rosenheck, Radford, & Krumholz, 2000; Lord, Malone, & Mitchell, 2010; Nasrallah et al., 2006), metabolic side effects of antipsychotics (Cohn & Sernyak, 2006; Newcomer, 2007; Newcomer & Haupt, 2006), and other social and behavioral factors (Druss, 2007; Parks, Svendsen, Singer, & Foti, 2006; Viron, Zioto, Schweitzer, & Levine, 2014), which increase the risk of medical conditions such as cardiovascular disease and diabetes (Saha, Chant, & McGrath, 2007; Suetani & Whiteford, 2015). Smoking and vaping are more common among lower-income communities and people with mental health conditions

(Al-Hamdani, Hopkins, & Park, 2020; Glover, Patwardhan, & Selket, 2020). People who are homeless already face higher risk of mortality (O'Connell, 2005), chronic medical conditions (Koh et al., 2020), mental health and substance use problems (Lebrun-Harris et al., 2013), and poor health care access (Moore & Rosenheck, 2016). All these factors and comorbidities increase the risk of exposure of severe complications from coronavirus (Lewis, 2020) for people living with behavioral health conditions.

These risks will be exacerbated for those who are further marginalized, for example, due to race, ethnicity, immigration history, sexual or gender minority status, or a number of other factors. Blacks and Latinos in the United States are more likely to live in areas with high poverty rates, less access to quality hospitals and health care, more air pollution, and other environmental risks (Fiscella, Franks, & Gold, 2000; Gradín, 2012; Woo et al., 2019). A higher prevalence of chronic conditions like diabetes and obesity among these populations may put them at greater risk of severe complications from COVID-19 (Crossrow & Falkner, 2004; Hales, Caroll, Fryar, & Ogden, 2017; Spanakis & Golden, 2013; Zhou, Chi, Lv, & Wang, 2020). The coronavirus pandemic is an additional major burden to communities already struggling to stem the ongoing opioid crisis (Alexander et al., 2020; Becker & Fiellin, 2020; Volkow, 2020) as well as other health disparities. Social determinants of health such as greater poverty, food insecurity, and fewer per-capita social associations (Flores et al., 2020) COVID-19 further exacerbate racial and income inequalities in opioid mortalities.

The data show the validity of such concerns: in Boston, despite representing only 25 percent of the population, Black Americans account for 30 percent of known deaths, and 42 percent of known cases (Dooling, 2020). These disparate patterns of COVID exposure and mortality are echoed across the United States and reflect broader national gaps in the intersections of race, racism, and health. In Louisiana, Black residents accounted for 33 percent of the population, but 70 percent of coronavirus deaths by April 6, and these patterns were echoed in major metropolitan cities that became early hot spots of the pandemic in the United States, including Detroit, Chicago, Milwaukee, and New York City (Villarosa, 2020). Latinos are also disproportionately more likely to be infected with coronavirus: in Utah, Oregon, and Washington, Latinos make up 13-14 percent of the population but 36, 26, and 29 percentage of COVID-19 cases, respectively (Despres, 2020). New York City's death rate data paint a stark picture of these disparities, where Black or African American residents died from COVID-19 at rate of 92.3 per 100,000 and Latinos died at rate of 74.3 per 100,000, compared with the much lower rates for whites (45.2) and Asians (34.5) (Centers for Disease Control and Prevention, 2020). In light of these data, the publication of Massachusetts' Crisis Standards of Care was met with open letters from various medical and advocacy communities stating that major flaws included developing guidelines with little to no community representation or oversight; ventilator allocation based on comorbidity scores, which disadvantage populations more likely to experience chronic diseases; and omission of recommendations to combat known issues of structural racism, economic injustice, ableism, or ageism in the health-care system.

Nationwide, legislators and advocates have called for improved data collection and increased testing and targeted resource allocation to aid these communities in response to the emerging realization that "the elevated rates of serious illnesses have weaponized the coronavirus to catastrophic effect in Black America" (Villarosa, 2020) as well as for other racial/ethnic groups like Latinos. This action is necessary, but again, it comes much too late. Early in the pandemic, when swift action was essential to protect these most vulnerable communities, there were almost no state or federal government communications suggesting people should cancel large events, like the Mardi Gras celebrations that are now believed to have contributed to New Orleans rapidly becoming one of the biggest coronavirus hot spots in the United States (Villarosa, 2020).

In Chelsea, just north of Boston, it was Green Roots, a local grassroots environmental organization, that sounded the alarm to the city's local government about the potential for coronavirus to devastate this tightly knit, lower-income community. A high proportion of residents are immigrants with limited English proficiency. Many residents live in crowded quarters and have high rates of chronic conditions. Many of their jobs are suddenly recognized as the "essential work" that they always have been. As Judith García of the Chelsea City Council explains:

Most of these folks already suffer of asthma, diabetes, and all of these other public health concerns. [Green Roots realized] this could be the perfect storm for this to affect us. And they started having small conversations, then saying, "Chelsea needs to prepare and have an emergency response team because when this hits here, you are you going to see it." (García, 2020)

In cities like Chelsea, residents face multilevel challenges that make facing an infectious disease pandemic exponentially more challenging: Councilor García points out that many residents have never been to a doctor and do not have an established primary care provider to call about health concerns, and many of them live in fear of deportation. To add to the challenges of identifying early the potential impacts that coronavirus would have in particularly vulnerable Black and Latino communities around the United States, García points out that there were almost no communications in Spanish or other languages at the state or federal levels:

I think that if this pandemic would have been communicated more effectively in a culturally sensitive way, we could have stopped this from spreading as fast as it has. ... Communication was not clear of where it was, [and] what the hazards were. None of that was clear. (García, 2020)

She noted that Chelsea was lucky to have several newly elected council members who were Latino, reflecting the community, and that once they realized how dangerous the situation was, Chelsea immediately acted to provide clear and consistent communication to residents in Spanish and other languages.

Challenges to Physical Distancing and Sanitation

The necessary physical distancing measures rapidly put into place left many people unable to work from home to continue earning an income. Moreover, many people faced challenges to sanitary conditions in their homes or in shared group homes. For example, in Detroit (where Black communities faced higher death rates from the coronavirus), many residents were experiencing ongoing water shutdowns at the beginning of the pandemic related to inability to pay for these services; these same communities also suffer from higher pollution rates, and many people have lower incomes, which require them to grocery shop frequently despite "shelter in place" orders (Fox2Detroit, 2020). Michigan's coronavirus data as of April 28th showed that Black residents accounted for 32 percent of confirmed cases and 41 percent of deaths, despite accounting for only 14 percent of the state's population according to the latest Census numbers, and these wide disparities are largely driven by Detroit-area infections and deaths (State of Michigan, 2020; U.S. Census Bureau, 2019).

Many people simply do not have the option of working from home, and many cannot afford to stop working or have found themselves to be "essential workers." Soso Jean-Claude is the founder and director of Resources Education Advocacy & Love (REAL), which helps people from especially vulnerable populations survive and thrive via peer support work, community organizing, advocacy, referrals, and consulting with health-care and academic partners. She described the catch-22 that many low-income Boston residents of color, especially those with mental health or substance use conditions, face as a result of this pandemic:

The big gap that I see a lot is that if people don't go to work and risk their life, they can't pay bills and feed their family. So that's huge, that people have to choose between being safe and alive and protecting their loved ones versus having a home to sleep in while they are safe and alive. (Jean-Claude, 2020)

The federal social safety net in the United States will not provide sufficient financial relief for the millions unemployed as a result of the pandemic (Schwartz, 2020) and protests have erupted in many state capitols demanding that governors reopen the state and allow individuals to return to work, even as health-care and public health officials struggle to contain the pandemic. Given this reality, Jean-Claude pointed out that people from vulnerable communities without the choice to work from home included nurses, other health-care workers, and janitors, "All these people that make the world go 'round,' and that if additional resources were not granted to these communities, then:

The diseases are gonna spread more from them. You're still going to come in contact with them. With us. (Jean-Claude, 2020)

Health-care workers have been calling increasing attention to the dangerously low supplies of personal protective equipment (PPE) for those providing direct patient care. But as Valeria Chambers, a certified peer support specialist and founder of Black Voices: Pathways 4 Recovery in Boston explained, people in other critical roles like peer-support specialists continued seeing clients in crowded spaces like group homes.

They're on the front line and I don't think many people realize that. (Chambers, 2020)

This population of essential workers is largely invisible to the general public, and Chambers explained people had to advocate for the right to provide remote peer support after facing increasingly unsafe working conditions.

There was no hand sanitizer in one place. There were no toiletries and [people were using] napkins for toilet paper. ... I think finally, some peer specialists have been able to get PPE. Initially, they didn't have anything. (Chambers, 2020)

Cultural differences also further complicate communication regarding risks and appropriate physical distancing behaviors, as noted by Councilor García. Many of her Latino constituents with strong faith backgrounds may have a tendency to want to believe that:

[Our constituents may sometimes believe that]: "It's okay, I don't need to wear this mask. I don't need to wear gloves. Because Jesus Christ will protect me." (García, 2020)

Moreover, she explained that closely-knit family members had a tendency to go attend to other family members who had become sick, wanting to support them, and that there was a lack of communication about the need to continue physical distancing, even and especially when family members became sick. But even when those risks are well communicated and well understood, residents of Chelsea who were doing what they could to self-isolate while sharing a single dwelling with many family members or roommates were found to be resorting to extreme measures like sleeping in cars or on porches to protect loved ones, for lack of anywhere else to go (Barry, 2020).

These stories reflect the supreme importance of maintaining close connections by any means necessary to the experiences of vulnerable community members on the ground. As Neil Martin of Center of Life, a community-based organization whose primary focus is youth programming, in Pittsburgh notes:

The people who need the most don't really know what they don't know. It's like, blissful ignorance, despite everything. And really, it's just knocking on doors, doing that leg work, that is the most important thing and the most effective way to communicate. (Martin, 2020)

He states that if workers for community-based organizations are given proper PPE and instructions on maintaining distancing, these on-the-ground efforts to reach out to community members by finding them where they are, instead of relying on phones or web pages, are still essential to understanding the evolving needs of community members.

Existing Mental Health System Responses

Researchers have called on mental health systems to better serve those with serious mental illness during these difficult times by means of a health system—based focus. For example, they have recommended individual-level strategies to support patients with SMI by providing information and resources, empowering mental health clinicians to better recognize symptoms of COVID-19 and helping to reduce mental health provider burnout, strengthening health systems, and expanding mental health policies (Druss, 2020). These efforts are important, but will likely not be enough to mitigate the expected rising risk of anxiety, depression, psychosis (Cowan, 2020), and suicidality in our most vulnerable communities.

The rapid shift to telehealth for behavioral and mental health services, which was already somewhat underway prior to the pandemic (Creedon et al., 2020), has been necessary to protect health and safety for patients and providers. In many ways, these efforts are long overdue and also may represent an opportunity to reach communities for whom traditional office-based care was simply never accessible. For example, Black Americans use smartphones at higher rates than other racial/ethnic groups in the United States and are also more likely to use their phones to seek health information (Anderson, 2015). However, these shifts are still likely to leave many behind, including those who do not have easy access to smartphones or laptops, internet access (13 percent of Hispanic and 12 percent of Black people in the United States rely on smartphones and do not have internet access at home, vs. only 4 percent of whites) (Anderson, 2015), or a private space to engage in telehealth appointments. Disabled Americans are less likely to have a laptop or desktop computer, use a smartphone, or have broadband internet at home than those without a disability (Anderson & Perrin, 2017). It is still unknown whether the rapid institutional shift to telehealth visits may be more likely to leave out people who are socially vulnerable but who do not yet meet the highest levels of mental health risk criteria behind.

Soso Jean-Claude explained some drawbacks to the rapid shift to telehealth for mental health and substance use treatment needs among vulnerable communities in Boston:

Even if people can get hooked up with all of the services that are out there, not everyone has smartphones. ... I was able to [get an appointment set up], but I had to call an outside agency to scare them into doing that. Not everyone has those resources. And people are getting canceled left and right. If you don't have the patience, which is impossible in a crisis, or even on a good day when you have mental health problems. (Jean-Claude, 2020)

Valeria Chambers also described similar instances within her network that were particularly difficult for people with trauma histories, for example, where people's established mental health providers have been pulled away to help with their organization's response to the coronavirus pandemic:

And people have been asked to speak to a substitute, you know ... and that is really, that has really messed a lot of people up, you know, feeling uncomfortable in a crisis, and having to try and connect to someone new. (Chambers, 2020)

She also described some challenges she faced when converting her in-person peer support, Black Voices, into a virtual group at the start of the pandemic, for example, a trauma survivor concerned about safety on virtual platforms given the now well-documented instances of racist or pornographic Zoom-bombing.

Neil Martin at Center of Life pointed out that people who did not have established mental health care prior to the pandemic were unlikely to receive it now:

This population for mental health, you rarely deal with it anyway, even in the best of times. You just kind of think your circumstances are what they are, and they don't really improve because that's who you are. (Martin, 2020)

Here again, on-the-ground connections among community members and especially to community-based organizations will be critical in identifying emerging mental health needs in ways that health systems simply will never be able to match.

People are more existential or maybe more depressed than they have been before ... [but] a lot of times, they communicate it with their eyes, their temperament, less so vocally. (Martin, 2020)

Interventions Outside of the Health-Care System Are Critical to Mitigating Behavioral Health Disparities

Among the lessons learned from Italy's early experience with the coronavirus pandemic was that, because hospitals became quickly overwhelmed by the volume of patients needing emergency care, health systems organized around "patient-centered care" had to shift to "community-centered care" as much as possible for mild and moderate cases (Nacoti et al., 2020). The large emphasis on efforts to rapidly adapt health-care systems, including the focus on rapidly leveraging telehealth services, has been an absolutely critical response to the coronavirus pandemic. However, focusing on the health system alone may come at the expense of other community outreach and public health interventions, which require substantial financial, logistical, and policy supports to ensure they can adequately take care of our most vulnerable communities.

For the vast majority of people, who still have not been infected with COVID-19, immediate help is needed: not to treat physical symptoms of coronavirus, but to deliver life-giving services like food, housing, emotional support, personal protective gear, and sanitation supplies. In this regard, community-based organizations and state and local governments have shown remarkable resolve and

ingenuity in the face of a great deal of uncertainty and often with little to no resources.

Neil Martin noted that the Center of Life knew they had to act at the very beginning of the pandemic. Although Center of Life normally provides a variety of programming primarily geared at youth in Pittsburgh's Hazlewood neighborhood, their work shifted to consist of a skeleton crew including Martin himself who deliver food door-to-door to their members in need. He described the two most vulnerable tiers of families he encounters:

There's a tier ... where they do depend on these meals. Like, they can have food in the fridge, but if we didn't deliver meals, that fridge would be empty ... and the last one [is] "We need food now and we don't really care about social distancing. I got fired from my job and what you give me is all we have." (Martin, 2020)

Moving forward, Martin felt that health systems should have existing partnerships with trusted, community-based organizations in order to rapidly redistribute resources in times of crisis to deliver essential services like food, and also to provide informal health and mental health checks for community members:

I'd say, have an organization just highlighted, and communicate to them, "If something were to happen, we are going to use you. We are going to give you an influx of cash to hire people and go door to door." (Martin, 2020)

Building on the established relationships that community-based organizations have with vulnerable community members, he says, is critical, because he believes a health-care worker calling residents to ask about their health is unlikely to work well in these communities:

No, you have to come, and bring gifts, and that gift is like, food to someone's door and hopefully it's [from] someone they recognize. ... We know this person, they are our friends and more. (Martin, 2020)

The importance of established relationships with community partners as well as with representatives from research and health-care institutions that can help local efforts were echoed by Valeria Chambers and Soso Jean-Claude. Chambers' virtual peer support group has had ongoing attendance during the pandemic in large part because many of these relationships were carefully established in person, over time, before the current crisis. Even as the work to continue to build a healing collective in a time of evolving crisis is ongoing, Chambers points out that members have been open with her about why they continue attending now:

They have said, "We're coming here because we trust you. We know you. We know you're going to keep this a safe space. That's why we're here." (Martin, 2020)

Soso Jean-Claude captures how the strengths of community members with lived mental health, substance use, or trauma experiences can work together with

people in positions of power within research and health institutions in order to help solve complex problems for vulnerable communities in crisis:

If we don't have allies like you, we're lost in the sauce. Because we learned how to survive. You were taught how to thrive. Now we're learning how to thrive with our survival, which is hard because we're unlearning and learning and evolving at the same time. (Jean-Claude, 2020)

Unlearning and learning, while simultaneously evolving, also describe the experience of Chelsea's effort to adapt to the coronavirus pandemic. Local governments are often constrained to be as flexible as is necessary during a situation like this where there is a rapid shift in needs by community members, yet non-profits are able to step in. Councilor García pointed out that:

The nonprofit organizations are no longer doing what they used to do because now they've become first responders and they come to the city and the city cannot provide that funding because we have fiscal responsibilities. (García, 2020)

Meeting these needs requires rapid learning, including from mistakes, and continual progress. In these situations, clear and direct communication within local governments, with local nonprofits and health system leaders, and directly to community members based on in-depth knowledge of community needs are critically important. Chelsea rapidly established individual committees (e.g., for communications, food distribution, neighbor-checking), to assess needs and ensure those needs were being met on a daily basis, which aided the local government in their effort to use social and news media to ask the state of Massachusetts to provide critically needed assistance in clearly specified areas such as food distribution, including with the help of the National Guard (García, 2020). Here again, the trust that community members had in their local governments proved to be essential. Councilor García pointed out that most of Chelsea's residents are from Central American countries where soldiers are symbols of oppression.

But nonetheless, they show up [to get food]. And I think that speaks volumes of the leadership here that we've been out there and saying, "¿Sabes qué? No tengas miedo." Don't be afraid. And we go out there and we turn on those cameras and we show them, these folks are here to help you, and they're not going to do anything because if they even try, we're here for you ... we're not going to allow that to happen. (García, 2020)

Conclusions and Recommendations

Researchers noted well before the coronavirus pandemic the need to establish a workforce with "more emphasis on population strengths (vs. vulnerabilities), organizational assets (resources, money, skills, and relationships), and sustainable development" as well as robust collaboration between neighborhood and community organizations, local governments, and professional organizations helping

to support healthy communities including health-care providers, law enforcement, social service providers, and faith-based organizations (Madrigano, Chandra, Costigan, & Acosta, 2017).

Currently, we lack research and policy actions assessing key strengths of marginalized communities that we can leverage to improve health outcomes for people with behavioral health conditions, especially among racial and ethnic minority populations. Most existing research focuses on individual-level behaviors that lead to higher risk of COVID-19 complications. Yet there are community-centered and strength-based approaches such as the ones we document above that require continuous, ongoing support as part of a robust public mental health response. Creating emergency and pandemic-response action plans that are crosscutting and multisector (additionally incorporating housing, employment, social services, and educational sectors) will ensure our most vulnerable are not without basic necessities, such as food, clothing, water, electricity, and reliable internet access in crisis situations.

Further, we recommend collecting large-scale population data on behavioral health outcomes, aggregated by race, gender, income level, primary language spoken at home, ethnicity, sexual orientation, and gender identity, to improve our understanding of which populations are at greatest risk for complications from COVID-19 and prepare targeted interventions and health-care improvement initiatives. We also need more research into the ways that psychological distress and the continued recovery of those with existing behavioral health conditions is impacted by the long-term impacts of physical distancing and social isolation.

To a remarkable extent, and in many cases against all odds, community-based organizations and local governments have stepped up to support countless individuals with behavioral conditions and from marginalized communities. Continuing to support their efforts while working to meaningfully integrate and coordinate these efforts is essential in mitigating the stark pandemic-related disparities faced by our most vulnerable communities.

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Notes

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References

- Aggarwal, Arpita, Ananda Pandurangi, and Wally Smith. 2013. "Disparities in Breast and Cervical Cancer Screening in Women with Mental Illness: A Systematic Literature Review." *American Journal of Preventive Medicine* 44 (4): 392–98.
- Alexander, G. Caleb, Kenneth B. Stoller, Rebecca L. Haffajee, and Brendan Saloner. 2020. "An Epidemic in the Midst of a Pandemic: Opioid Use Disorder and COVID-19." *Annals of Internal Medicine* 173 (1): 57–58.
- Al-Hamdani, Mohammed, D. Brett Hopkins, and Tristan Park. 2020. "Vaping Among Youth and Young Adults: A "Red Alert" State." *Journal of Public Health Policy* 41: 63–69.
- Anderson, Monica. 2015. "Racial and Ethnic Differences in How People Use Mobile Technology." *Pew Research Center Fact Tank: News in the Numbers* (April 30).
- Anderson, Monica, and Andrew Perrin. 2017. "Disabled Americans Are Less Likely To Use Technology." Pew Research Center FactTank: News in the Numbers (April 7).
- Barry, Ellen. 2020. "In a Crowded City, Leaders Struggle to Separate the Sick From the Well." *The New York Times* (April 25).
- Becker, William C., and David A. Fiellin. 2020. "When Epidemics Collide: Coronavirus Disease 2019 (COVID-19) and the Opioid Crisis." *Annals of Internal Medicine* 173 (1): 59–60.

- Bradford, Daniel W., Mimi M. Kim, Loretta E. Braxton, Christine E. Marx, Marian Butterfield, and Eric B. Elbogen. 2008. "Access to Medical Care Among Persons With Psychotic and Major Affective Disorders." Psychiatric Services 59 (8): 847–52.
- Brugha, Traolach S., John K. Wing, and Brian L. Smith. 1989. "Physical Health of The Long-Term Mentally Ill in the Community: Is There Unmet Need?" *The British Journal of Psychiatry* 155 (6): 777–81.
- Centers for Disease Control and Prevention. 2020. "COVID-19 in Racial and Ethnic Minority Groups." June 25. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html. Accessed April 30, 2020.
- Chambers, Valeria. 2020. Interviewed by Ana Progovac. Phone Interview: Stamford, CT, USA and Boston, MA, USA, April 21.
- Cohn, Tony A., and Michael J. Sernyak. 2006. "Metabolic Monitoring for Patients Treated With Antipsychotic Medications." *The Canadian Journal of Psychiatry* 51 (8): 492–501.
- Colton, Craig W., and Ronald W. Manderscheid. 2006. "Congruencies In Increased Mortality Rates, Years of Potential Life Lost, and Causes of Death Among Public Mental Health Clients In Eight States." Preventing Chronic Disease 3 (2): A42.
- Cowan, Henry R. 2020. "Is Schizophrenia Research Relevant During the COVID-19 Pandemic?" Schizophrenia Research 220: 271–272.
- Creedon, Timothy B., Kristin E. Schrader, Peggy L. O'Brien, Janice R. Lin, Christopher D. Carroll, and Norah Mulvaney-Day. 2020. "Rural-Nonrural Differences in Telemedicine Use for Mental and Substance Use Disorders Among Medicaid Beneficiaries." *Psychiatric Services* 71: 756–64.
- Crossrow, Nicole, and Bonita Falkner. 2004. "Race/Ethnic Issues in Obesity and Obesity-Related Comorbidities." The Journal of Clinical Endocrinology & Metabolism 89 (6): 2590–94.
- Despres, Cliff. 2020. "Coronavirus Case Rates and Death Rates for Latinos in the United States." Salud America! (April 20).
- Dooling, Shannon. 2020. "Racial Disparities Continue Among Boston's Reported COVID-19 Cases." WBUR News (April 25).
- Druss, Benjamin G. 2007. "Improving Medical Care for Persons with Serious Mental Illness: Challenges and Solutions." *The Journal of Clinical Psychiatry* 68 (Suppl4): 40–44.
- Druss, Benjamin G., David W. Bradford, Robert A. Rosenheck, Martha J. Radford, and Harlan M. Krumholz. 2000. "Mental Disorders and Use of Cardiovascular Procedures After Myocardial Infarction." *JAMA* 283 (4): 506–11.
- Fiscella, Kevin, Peter Franks, and Marthe R. Gold. 2000. "Addressing Socioeconomic, Racial, and Ethnic Disparities in Health Care." *JAMA* 283 (19): 2579–84.
- Flores Michael William, Lê Cook Benjamin, Mullin Brian, Halperin-Goldstein Gabriel, Nathan Aparna, Tenso Kertu, Schuman-Olivier Zev. 2020. Associations between neighborhood-level factors and opioid-related mortality: A multi-level analysis using death certificate data. *Addiction*, Advance online publication. https://doi.org/10.1111/add.15009
- Fox2Detroit. 2020. "COVID-19 Has Already Killed More Detroiters Than Homicides Have in the Past Two Years Combined." Fox 2 Detroit (April 16).
- García, Judith. 2020. Interviewed by Dharma E. Cortés, Phone Interview: Boston Metro Area, MA, USA, April 23.
- Glover Marewa, Patwardhan Pooja, Selket Kyro. 2020. Tobacco smoking in three "left behind" subgroups: indigenous, the rainbow community and people with mental health conditions. *Drugs and Alcohol Toda*, Advance online publication. https://doi.org/10.1108/dat-02-2020-0004
- Gradín, Carlos. 2012. "Poverty Among Minorities in the United States: Explaining the Racial Poverty Gap for Blacks and Latinos." *Applied Economics* 44 (29): 3793–804.
- Hales, Craig M., Margaret D. Caroll, Cheryl D. Fryar, and Cynthia L. Ogden 2017. "Prevalence of Obesity Among Adults and Youth: United States, 2015-2016." NCHS Data Brief No. 288. Hyatssville, MD: National Center for Health Statistics.

- Jean-Claude, Soso. 2020. Interviewed by Ana Progovac. Phone Interview: Stamford, CT, USA and Boston, MA, USA. April 21.
- Koh, Katherine A., Melanie Racine, Jessie M. Gaeta, John Goldie, Daniel P. Martin, Barry Bock, Mary Takach, James J. O'Connell, and Zirui Song. 2020. "Health Care Spending And Use Among People Experiencing Unstable Housing In The Era Of Accountable Care Organizations." *Health Affairs* 39 (2): 214–23.
- Lebrun-Harris, Lydie A., Travis P. Baggett, M. Darlene, Alek Sripipatana Jenkins, Ravi Sharma, A. Seiji Hayashi, Charles A. Daly, and Quyen Ngo-Metzger. 2013. "Health Status and Health Care Experiences Among Homeless Patients in Federally Supported Health Centers: Findings from the 2009 Patient Survey." *Health Services Research* 48 (3): 992–1017.
- Lewis, Tanya. 2020. "Smoking or Vaping May Increase the Risk of a Severe Coronavirus Infection." Scientific American (March 17).
- Lord, Oliver, Darren Malone, and Alex J. Mitchell. 2010. "Receipt of Preventive Medical Care and Medical Screening for Patients with Mental Illness: A Comparative Analysis." *General Hospital Psychiatry* 32 (5): 519–43.
- Madrigano, Jaime, Anita Chandra, Tracy Costigan, and D. Joie Acosta. 2017. "Beyond Disaster Preparedness: Building a Resilience-Oriented Workforce for the Future." *International Journal of Environmental Research and Public Health* 14 (12): 1563.
- Martin, Neil. 2020. Interviewed by Ana Progovac. Phone Interview: Stamford, CT, USA and Pittsburgh, PA, USA. April 18.
- Moore, David Thomas, and Robert A. Rosenheck. 2016. "Factors Affecting Emergency Department Use by a Chronically Homeless Population." *Psychiatric Services* 67 (12): 1340–47.
- Nacoti, Mirco, Andrea Ciocca, Angelo Giupponi, Pietro Brambillasca, Federico Lussana, Michele Pisano, Giuseppe Goisis et al. 2020. "At the Epicenter of the Covid-19 Pandemic and Humanitarian Crises in Italy: Changing Perspectives on Preparation and Mitigation." Catalyst Non-Issue Content 1 (2) https://doi.org/10.1056/CAT.20.0080
- Nasrallah, Henry A., Jonathan M. Meyer, Donald C. Goff, Joseph P. McEvoy, Sonia M. Davis, T. Scott Stroup, and Jeffrey A. Lieberman. 2006. "Low Rates of Treatment for Hypertension, Dyslipidemia and Diabetes in Schizophrenia: Data From the CATIE Schizophrenia Trial Sample at Baseline." Schizophrenia Research 86 (1): 15–22.
- Newcomer, John W. 2007. "Antipsychotic Medications: Metabolic and Cardiovascular Risk." *The Journal of Clinical Psychiatry* 68: 8–13.
- Newcomer, John W., and Dan W. Haupt. 2006. "The Metabolic Effects of Antipsychotic Medications." The Canadian Journal of Psychiatry 51 (8): 480–91.
- O'Connell, James J. 2005. *Premature Mortality in Homeless Populations: A Review of the Literature*. Nashville, TN: National Health Care for the Homeless Council, Inc.
- Olfson, Mark, Tobias Gerhard, Cecilia Huang, Stephen Crystal, and T. Scott Stroup. 2015. "Premature Mortality Among Adults with Schizophrenia in the United States." *JAMA Psychiatry* 72 (12): 1–10.
- Ösby, Urban, Lena Brandt, Nestor Correia, Anders Ekbom, and Pär Sparén. 2001. "Excess Mortality in Bipolar and Unipolar Disorder in Sweden." *Archives of General Psychiatry* 58 (9): 844–50.
- Parks, Joe, Dale Svendsen, Patricia Singer, and Mary Ellen Foti. 2006. "Morbidity and Mortality in People with Serious Mental Illness." Alexandria, VA: National Association of State Mental Health Program Directors (NASMHPD) Medical Directors Council 25 (4): 1–87.
- Saha, Sukanta, David Chant, and John McGrath. 2007. "A Systematic Review of Mortality in Schizophrenia: Is the Differential Mortality Gap Worsening Over Time?" *Archives of General Psychiatry* 64 (10): 1123–31.
- Schwartz, Nelson D. 2020). "Nowhere to Hide' as Unemployment Permeates the Economy." The New York Times, April 16.
- Spanakis, Elias K., and Sherita Hill Golden. 2013. "Race/Ethnic Differences in Diabetes and Diabetic Complications." *Current Diabetes Reports* 13: 814–23.
- State of Michigan. 2020. "Coronavirus: Michigan Data." April 28. https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173—,00.html. Accessed April 28, 2020.

- Suetani, Shuichi, Harvey A. Whiteford, and John J. McGrath. 2015. "An Urgent Call to Address the Deadly Consequences of Serious Mental Disorders." *JAMA Psychiatry* 72 (12): 1166–67.
- United States Census Bureau. 2019. "QuickFacts Michigan." July 1. https://www.census.gov/quickfacts/MI. Accessed April 28, 2020.
- Villarosa, Linda. 2020. "A Terrible Price': The Deadly Racial Disparities of Covid-19 in America." *The New York Times* (April 29).
- Viron, Mark, Kathryn Zioto, Jason Schweitzer, and Gail Levine. 2014. "Behavioral Health Homes: An Opportunity to Address Healthcare Inequities in People With Serious Mental Illness." *Asian Journal of Psychiatry* 10: 10–16.
- Volkow, Nora D. 2020. "Collision of the COVID-19 and Addiction Epidemics." Annals of Internal Medicine 173 (1): 61–62.
- Woo, Bongki, Nicole Kravitz-Wirtz, Victoria Sass, Kyle Crowder, Samantha Teixeira, and David T. Takeuchi. 2019. "Residential Segregation and Racial/Ethnic Disparities in Ambient Air Pollution." *Race and Social Problems* 11: 60–67.
- Yue, Xueya Cai, Hang Du, Laurent G. Glance, Jeffrey M. Lyness, Peter Cram, and Dana B. Mukamel. 2011. "Mentally Ill Medicare Patients Less Likely Than Others to Receive Certain Types of Surgery." *Health Affairs* 30 (7): 1307–15.
- Zhou Yue, Chi Jingwei, Lv Wenshan, Wang Yangang. 2020. Obesity and diabetes as high-risk factors for severe coronavirus disease 2019 (Covid-19). *Diabetes/Metabolism Research and Reviews*, Advance online publication. https://doi.org/10.1002/dmrr.3377