

Understanding and eliminating minority health disparities in a 21st-century pandemic: A White Paper Collection

Differential Impacts of COVID-19 in New York State: Understanding and eliminating minority health disparities in a 21st-century pandemic

2021

COVID-19 Related Physical and Mental Health Stressors in Families Using A Social Determinants Lens.

Elizabeth Vasquez *University at Albany, State University of New York*, evasquez2@albany.edu

Erin Bell *University at Albany, State University of New York*


Melissa Tracy *University at Albany, State University of New York*

Please contact the following author for an updated version of this work prior to citing it:

Elizabeth Vasquez

University at Albany, State University of New York

evasquez2@albany.edu

 Part of the [Health Services Administration Commons](#), [Health Services Research Commons](#), and the [Marriage and Family Therapy and Counseling Commons](#)

Recommended Citation

Vasquez, Elizabeth; Bell, Erin; and Tracy, Melissa. 2021. "COVID-19 Related Physical and Mental Health Stressors in Families Using A Social Determinants Lens." *Understanding and eliminating minority health disparities in a 21st-century pandemic: A White Paper Collection*. University at Albany, SUNY: Scholars Archive.

https://scholarsarchive.library.albany.edu/covid_mhd_nys_white_papers/7

In April 2020, the University at Albany was asked by Gov. Andrew Cuomo to research why communities of color in New York have been disproportionately impacted by COVID-19. The goal of this research, carried out in partnership with the New York State Department of Health and Northwell Health, is to add to the existing well of knowledge about health disparities in New York State by identifying the environmental, socioeconomic and occupational factors that explain why COVID-19 has disproportionately harmed Black and Hispanic New Yorkers and to propose practical intervention strategies to eliminate these disparities and save lives.

For additional information about this project please see: www.albany.edu/mhd or contact Theresa Pardo, Special Assistant to the President and Project Director for this initiative at tpardo@ctg.albany.edu.

**COVID-19 related physical and mental health stressors in families using a social
determinants lens**

Elizabeth Vásquez¹, Melissa Tracy¹, Erin M. Bell^{1,2}

¹ Department of Epidemiology and Biostatistics, University at Albany School of Public Health

² Department of Environmental Health Sciences, University at Albany School of Public Health

Mental health effects of large-scale traumatic events, including the COVID-19 pandemic

Early studies of general population adult samples report widespread and worsening mental and physical health problems during the COVID-19 pandemic, including depression, anxiety, and sleeplessness (Qui et al., 2020; Wang et al., 2020; Huang & Zhao, 2020; Ettman et al., 2020; Salari et al., 2020; Patrick et al., 2020), particularly among adults who stopped working as a result of quarantine (Zhang et al., 2020). This concurs with studies of past large-scale traumatic events, where the prevalence of mental health problems have been as high as 54% in community samples (Tang et al., 2014). Further, the increased risk of mortality and severe, long lasting, morbidity due to COVID-19 among older adults and the social restrictions implemented to lower risk, have contributed to increased isolation, strain and stress in this vulnerable population (Avalon, 2020; Brooks et al. 2020; Clark et al., 2020 and Guan et al, 2020).

Children and adolescents are also heavily affected by the social isolation, uncertainty, and parental stress stemming from the current pandemic, exhibiting elevated mental health symptoms at alarming rates (de Miranda et al., 2020). For example, anxiety levels among children aged 9-15 years old in California were five standard deviations higher when assessed from April-July 2020, compared to pre-pandemic levels (Alves et al., 2020). Past studies of the mental health effects of hurricanes and mass terrorist attacks among children have highlighted the importance of individual exposures to the event and the potential for household and life circumstances (e.g., past childhood adversities, positive parental coping and support) to exacerbate or buffer against adverse outcomes after exposure to these large-scale traumatic stressors (Khoury et al., 1997; Mullett-Hume et al., 2008; Roberts et al., 2010; Reijneveld et al., 2003; Pfefferbaum et al., 2015; Hafstad et al., 2010; Cobham et al., 2016). The mental health effects of large-scale traumatic

events like the COVID-19 pandemic are thus inextricably linked between household members, increasing vulnerability among caregivers with children at home as well as multi-generational households.

Racial and ethnic minorities, those of lower socioeconomic status (SES), and older adults have experienced higher rates of infection, severity of illness, and mortality from COVID-19 than other groups (Azar et al. 2020; Hsu et al. 2020). These populations are also disproportionately affected by financial and social disruptions caused by the pandemic, including job loss, reduction in community services, and disconnection from supportive networks critically important for the health and well-being of families (Niles et al. 2020; Park et al. 2020). Further, these same populations often live in multi-generational households and rely on a family-dependent caregiver model (Fuller et al. 2015).

The role and definition of family is evolving (Ajrouch et al. 2001; Antonucci et al 2010). In the U.S. family support plays an important role for racial/ethnic minority older adults as family members provide assistance throughout the life course. The extent and the direction of help can vary based on how engaged extended family members are, family size, and their physical proximity to each other. For many older adults, the extended family plays a significant role in sharing risk and supplementing (or even taking the place of) personal health risk management assessment. This support has the potential to buffer against negative experiences and outcomes. On the other hand, many vulnerable older adults have only a few or no family members in a position to provide any supportive role (Shaw et al. 2007).

Increasing longevity, growth of blended families as well as an increase in the older adult population, all point to a new set of family patterns and dynamics that are different than in the past (Antonucci et al. 2017). Prior to COVID-19, it was expected, in general, that the future

supporting role of family would likely decline from the role it plays today. However, COVID-19 and associated stay-at-home orders have increased the need for family help for its older and younger members at a time when families may be deeply stressed and experiencing numerous strains (Brooks et al., 2020). Further, given the COVID-19 pandemic, family dynamics have shifted and the largely documented benefits of intergenerational relationships may be challenged. The increased need for child care and school support, the financial strain and increased need for elder care and the reduced social interactions due to the pandemic may have generated a considerable increase in mental health issues among all members within the family unit.

Disparities in mental health effects of the COVID-19 pandemic

As noted above, many characteristics, including race/ethnicity, socioeconomic status, and immigration status are salient predictors of increased vulnerability to adverse mental health effects of the COVID-19 pandemic among families. Racial/ethnic minority and lower income households have borne a disproportionate burden of COVID-19 infection and mortality in New York State (Holtgrave et al., 2020), leading to an enormous weight of loss and stressors in these populations. Racial/ethnic minority and lower income adults are also overly represented among those who lost jobs and income (Montenovo et al., 2020), but also among “essential workers” (Do & Frank, 2020) whose lack of workplace flexibility has created extraordinary challenges in managing school and child-care closures during the pandemic. In past large-scale traumatic events, exposure to acute stressors like loss or injury of loved ones, as well as financial losses and property damages, were strongly associated with increased risks of posttraumatic stress disorder (PTSD) and depression (Tracy et al., 2011; Galea et al., 2008), which foretells a devastating burden of mental health effects among racial/ethnic minority and lower income

households in New York State as a result of the COVID-19 pandemic. The prevalence of PTSD, generalized anxiety, and depression are often higher among racial/ethnic minorities exposed to mass disasters, compared to non-Hispanic whites, though racial/ethnic differences are at least partly explained by differential severity of exposure and pre-existing vulnerabilities across groups (Galea et al., 2004; Alexander et al., 2017; Ali et al., 2017; Chatterjee et al., 2018).

However, past studies also illustrate mixed evidence on racial/ethnic disparities in mental health, with racial/ethnic minorities often exhibiting a lower prevalence of mental health symptoms than non-Hispanic whites in community-based populations (Gibbs et al., 2013). Several studies suggest that mental health problems may manifest as somatic symptoms (e.g., sleep disturbances, headaches, digestive issues) more often among Black and Hispanic individuals than among non-Hispanic whites, perhaps because of lingering cultural stigma around mental health (Bagayoyo et al., 2013). Furthermore, the relation between mental and physical health among minority populations in the U.S. is complex, with many studies finding paradoxical inverse relations such that positive psychological health and resources are actually associated with negative effects on physical health (e.g., obesity, hypertension) among minorities (Williams, 2013). Therefore, it is critical to consider both traditional mental health symptoms (e.g., depression, anxiety) and somatic and physical complaints for a full picture of racial/ethnic disparities in adverse health outcomes during the COVID-19 pandemic in New York State.

Mental health disparities according to socioeconomic status (SES), immigration status, and the availability of resources like social support have also emerged after past large-scale traumatic events (Ali et al., 2017; Chatterjee et al., 2018; Acierno et al., 2007; Collins et al., 2013). The most vulnerable population sub-groups may be difficult to reach through traditional healthcare and public health services, highlighting the need for targeted data collection and

community-engaged intervention development. Understanding disparities across these groups and how best to mitigate them will be critical to the long-term recovery of New York State residents from the COVID-19 pandemic.

Potential interventions to address mental health disparities

The development of potential interventions to address mental health disparities as a result of the COVID-19 pandemic can draw on lessons from past large-scale traumatic events (Cohen et al., 2019; Walter et al., 2011), with a focus on both tangible support and increased access to mental health services. Addressing economic insecurity, unemployment, food insecurity, and lack of access to healthcare are urgent priorities and may include economic stimulus measures at the state and national level, continued expanded unemployment benefits, expanded access to health insurance, and expanded financial support specifically for familial caregivers. This will be especially important in the event of another implementation of NYS on PAUSE, given rising COVID-19 cases. New York State's Project Hope provides a free emotional support helpline to all New Yorkers (<https://nyprojecthope.org/>) and many mental health providers have expanded access to telehealth services for new and existing clients (Perrin et al., 2020). There are many beneficial evidence-based mental health treatments available to cope with acute stressors (Walter et al., 2011), and peer-support, community health worker, and train-the-trainer models (Cross et al., 2010; Wennerstrom et al., 2011) may be successful in disseminating these approaches more widely in underserved communities. All interventions should be planned, implemented, and evaluated with the involvement and full collaboration of key stakeholders and other members of the targeted communities.

Data and knowledge gaps around disparities in the mental health effects of the COVID-19 pandemic in New York State

Successful planning and dissemination of interventions requires a deeper understanding of mental health disparities in New York State as a result of the COVID-19 pandemic.

Typically, we rely on surveillance data to identify populations at risk and evaluate whether interventions are effective. We currently have no surveillance system in New York State to evaluate the prevalence of mental health indicators and to best assess the effectiveness of interventions, at the population level or in specific population sub-groups. For example, measures of mental health in children, adolescent, and adult populations are not currently available in New York State's Community Health Indicator Reports

(<https://www.health.ny.gov/statistics/chac/indicators/>) and would be an important addition.

County-level data from the Behavioral Risk Factor Surveillance System (BRFSS), which includes measures of depression and poor mental health, and will include data on suicidality in future waves, may provide helpful insights into disparities in mental health throughout the state over time. Mental health service utilization, including utilization of Project Hope, also needs to be examined across population sub-groups to identify groups that are not receiving needed services in the state. Community-engaged qualitative research may be helpful in identifying current barriers to access and utilization of services in these groups.

Additional questions for future research include:

- Under the stay-home orders, what help is realistic to expect from close and extended family, and what can health-compromised middle aged and older individuals without family support do to secure help?

- Will more multigenerational households be an aftermath of COVID-19? If so,
 - What immediate and long term consequences can we expect on housing, mental health, socialization and cognitive and developmental needs for children?
- Given the death rate for nursing homes and assisted living facilities, will low income, racial/ethnic diverse families have the financial and emotional resources to be planning for more aging in place as a result of COVID-19?
- COVID-19 may be with us for quite a long time; will more comprehensive policies regarding mental health and caregiving (childcare, elder care), be developed to help families act more effectively during pandemic crisis periods?
- Will technology ease some of the added mental health strain and lack of social support for close and extended family?
- What family and caregivers' mental health lessons learned can be applied to future policy development/research?

Summary of project

In summary, racial and ethnic minorities have experienced higher rates of infection, severity of illness, and mortality from COVID-19 than other groups (Hsu et al., 2020 and Azar et al., 2020) and are also disproportionately affected by financial and social disruptions caused by the pandemic, including job loss, reduction in community services, and disconnection from supportive networks. The capacity for multi-generational households to exacerbate or buffer family members from the negative mental health consequences resulting from the social isolation and trauma due to COVID-19 is unknown. The long-term goal of this project is to identify strategies that will reduce racial/ethnic and SES-based disparities in the consequences of the

COVID-19 pandemic in New York State, with a specific focus on policies and interventions that will support multiple generations of household members. By understanding the mechanisms and pathways that lead from trauma to mental health outcomes, we will be better able to explain where disparities occur and develop interventions to eliminate disparate outcomes. There are several reported potential pathways linking race and ethnicity with overall health, mental health and health care utilization during the pandemic (Shi, et al. 2010). The goal of this project is to test an online questionnaire that can help us identify the current and long-term consequences of the COVID-19 pandemic on the physical and mental health of caregivers (parents), children, and household members. We also want to examine how changes in social interactions (household composition, social network) and life circumstances (unemployment, working from home, school closings, loss of health insurance) relate to health disparities during the pandemic. We understand that several pathways are likely to operate simultaneously, leading to adverse health and health care outcomes, but our study will contribute to the current literature by including the role of family composition and dynamics on mental health outcomes across age groups.

References

Acierno R, Ruggiero KJ, Galea S, et al. Psychological sequelae resulting from the 2004 Florida hurricanes: Implications for postdisaster intervention. *Am J Public Health* 2007; 97(Suppl 1): S103-S108.

Ajrouch, K. J., Antonucci, T. C., & Janevic, M. R. (2001). Social networks among blacks and whites: The interaction between race and age. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 56(2), S112–S118. doi:10.1093/geronb/56.2.s112

Alexander AC, Ali J, McDevitt-Murphy ME, et al. Racial differences in posttraumatic stress disorder vulnerability following Hurricane Katrina among a sample of adult cigarette smokers from New Orleans. *J Racial Ethn Health Disparities* 2017; 4(1): 94-103.

Ali JS, Farrell AS, Alexander AC, et al. Race differences in depression vulnerability following Hurricane Katrina. *Psychol Trauma* 2017; 9(3): 317-324.

Alves JM, Yunker AG, DeFendis A, Xiang AH, Page KA. Associations between affect, physical activity, and anxiety among US children during COVID-19. medRxiv preprint 2020 Oct 23 (doi: 10.1101/2020.10.20.20216424).

Antonucci, T.C., & Wong, K. M. (2010). Public health and the aging family. *Public Health Reviews*, 32(2), 512-531.

Antonucci, T. C., Ajrouch, K. J., & Manalel, J. A. (2017). Social relations and technology: Continuity, context, and change. *Innovation in Aging*, 1(3), igx029.

Ayalon, L. (2020). There is nothing new under the sun: Ageism and intergenerational tension in the age of the COVID-19 outbreak. *International Psychogeriatrics*. Advance online publication. doi:10.1017/S1041610220000575

Azar KMJ, Shen Z, Romanelli RJ, et al. Disparities In Outcomes Among COVID-19 Patients In A Large Health Care System In California. *Health affairs (Project Hope)*. 2020;39(7):1253-1262.

Bagayoyo IP, Interian A, Escobar JI. Transcultural aspects of somatic symptoms in the context of depressive disorders. *Adv Psychosom Med* 2013; 33: 64-74.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *Lancet (London, England)*, 395(10227), 912–920. doi:10.1016/S0140-6736(20)30460-8

Chatterjee A, Banerjee S, Stein C, et al. Risk factors for depression among civilians after the 9/11 World Trade Center terrorist attacks: a systematic review and meta-analysis. *PLoS Curr* 2018; 10:ecurrents.dis.6a00b40c8ace0a60017361d7577c50a.

Clark, A., Jit, M., Warren-Gash, C., Guthrie, B., Wang, H. H. X., Mercer, S. W., Sanderson, C., McKee, M., Troeger, C., Ong, K. L., Checchi, F., Perel, P., Joseph, S., Gibbs, H. P., Banerjee, A., & Eggo, R. M.; Centre for the Mathematical Modelling of Infectious Diseases COVID-19 working group. (2020). Global, regional, and national estimates of the population at increased risk of severe COVID-19 due to underlying health conditions in 2020: A modelling study. *The Lancet. Global Health*, 8(8), e1003–e1017. doi:10.1016/S2214-109X(20)30264-3

Cobham VE, McDermott B, Haslam D, et al. The role of parents, parenting and the family environment in children’s post-disaster mental health. *Curr Psychiatry Rep* 2016; 18(6): 53.

Cohen GS, Tamraker S, Lowe S, et al. Improved social services and the burden of post-traumatic stress disorder among economically vulnerable people after a natural disaster: a modelling study. *Lancet Planetary Health* 2019; 3(2): e93-e101.

Collins TW, Jimenez AM, Grineski SE. Hispanic health disparities after a flood disaster: results of a population-based survey of individuals experiencing home site damage in El Paso (Texas, USA). *J Immigr Minor Health* 2013; 15(2): 415-426.

Cross W, Cerulli C, Richards H, He H, Herrmann J. Predicting dissemination of a disaster mental health “train-the-trainer” program. *Disaster Med Public Health Prep* 2010; 4(4): 339-343.

De Miranda DM, Athanasio BDS, Oliveira ACS, Simoes-E-Silva AC. How is COVID-19 pandemic impacting mental health of children and adolescents? *Int J Disaster Risk Reduct* 2020; 51: 101845.

Do DP, Frank R. Unequal burdens: assessing the determinants of elevated COVID-19 case and death rates in New York City's racial/ethnic minority neighbourhoods. *J Epidemiol Community Health* 2020; jech-2020-215280.

Ettman CK, Abdalla SM, Cohen GH, et al. Prevalence of depression symptoms in US adults before and during the COVID-19 pandemic. *JAMA Network Open* 2020; 3(9): e2019686.

Fuller-Iglesias, H.R., Webster, N.J., & Antonucci, T.C. (2015). The complex nature of family support across the life span: Implications for psychological well-being. *Developmental Psychology*, 51(3), 277-288.

Galea S, Tracy M, Norris FH, Coffey SF. Financial and social circumstances and the incidence and course of PTSD in Mississippi during the first two years after Hurricane Katrina. *J Trauma Stress* 2008; 21(4): 357-368.

Galea S, Vlahov D, Tracy M, Hoover DR, Resnick H, Kilpatrick D. Hispanic ethnicity and post-traumatic stress disorder after a disaster: Evidence from a general population survey after September 11, 2001. *Ann Epidemiol* 2004; 14(8): 520-531.

Gibbs TA, Okuda M, Oquendo MA, Lawson WB, Wang S, Thomas YF, Blanco C. Mental health of African Americans and Caribbean Blacks in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Am J Public Health* 2013; 103(2): 330-338.

Hafstad GS, Gil-Rivas V, Kilmer RP, et al. Parental adjustment, family functioning, and posttraumatic growth among Norwegian children and adolescents following a natural disaster. *Am J Orthopsychiatry* 2010; 80(2): 248-257.

Hsu HE, Ashe EM, Silverstein M, et al. Race/Ethnicity, Underlying Medical Conditions, Homelessness, and Hospitalization Status of Adult Patients with COVID-19 at an Urban Safety-Net Medical Center – Boston, Massachusetts, 2020. *Mmwr-Morbidity and Mortality Weekly Report*. 2020;69(27):864-869.

Holtgrave DR, Barranco MA, Tesoriero JM, Blog DS, Rosenberg ES. Assessing racial and ethnic disparities using a COVID-19 outcomes continuum for New York State. *Annals of Epidemiology* 2020; 48: 9-14.

Huang Y, Zhao N. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Research* 2020; 288: 112954.

Hsu HE, Ashe EM, Silverstein M, et al. Race/Ethnicity, Underlying Medical Conditions,

Homelessness, and Hospitalization Status of Adult Patients with COVID-19 at an Urban Safety-Net Medical Center - Boston, Massachusetts, 2020. *Mmwr-Morbidity and Mortality Weekly Report*. 2020;69(27):864-869.

Khoury EL, Warheit GJ, Hargrove MC, et al. The impact of Hurricane Andrew on deviant behavior among a multi-racial/ethnic sample of adolescents in Dade County, Florida: a longitudinal analysis. *J Trauma Stress* 1997; 10(1): 71-91.

Montenovo L, Jiang X, Rojas FL, et al. Determinants of disparities in COVID-19 job losses. *National Bureau of Economic Research* 2020; Working Paper 27132 (doi: 10.3386/w27132).

Mullett-Hume E, Anshel D, Guevara V, et al. Cumulative trauma and posttraumatic stress disorder among children exposed to the 9/11 World Trade Center attack. *Am J Orthopsychiatry* 2008; 78(1): 103-108.

Park CL, Russell BS, Fendrich M, Finkelstein-Fox L, Hutchison M, Becker J. Americans' COVID-19 Stress, Coping, and Adherence to CDC Guidelines. *Journal of General Internal Medicine*. 2020.

Patrick SW, Henkhaus LE, Zickafoose JS, et al. Well-being of parents and children during the COVID-19 pandemic: a national survey. *Pediatrics* 2020; 146(4): e2020016824.

Perrin PB, Pierce BS, Elliott TR. COVID-19 and telemedicine: a revolution in healthcare delivery is at hand. *Health Sci Rep* 2020; 3(2): e166.

Pfefferbaum B, Jacobs AK, Houston JB, et al. Children's disaster reactions: the influence of family and social factors. *Curr Psychiatry Rep* 2015; 17(7): 57.

Qiu J, Shen B, Zhao M, et al. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *Gen Psychiatr* 2020; 33(2).

Reijneveld SA, Crone MR, Verhulst FC, et al. The effect of a severe disaster on the mental health of adolescents: a controlled study. *Lancet* 2003; 362(9385): 691-696.

Roberts YH, Mitchell MJ, Witman M, et al. Mental health symptoms in youth affected by Hurricane Katrina. *Professional Psychology: Research and Practice* 2010; 41(1): 10-18.

Salari N, Hosseini-Far A, Jalali R, et al. Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis. *Globalization and Health* 2020; 16: 57.

Shaw, B.A., Krause, N., Liang, J., & Bennett, J. (2007). Tracking changes in social relations throughout late life. *Journal of Gerontology*, 62B(2), S90-S99.

Shi, L. (2010). *Vulnerable Populations in the United States*, 2nd Edition. Retrieved from vbk://9780470873335

Tang B, Liu X, Liu Y, Xue C, Zhang L. A meta-analysis of risk factors for depression in adults and children after natural disasters. *BMC Public Health* 2014; 14: 623.

Tracy M, Norris FH, Galea S. Differences in the determinants of posttraumatic stress disorder and depression after a mass traumatic event. *Depress Anxiety* 2011; 28(8): 666-675.

Wang C, Pan R, Wan X, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 Coronavirus Disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health* 2020; 17(5): 1729.

Watson PJ, Brymer JM, Bonanno GA. Postdisaster psychological intervention since 9/11. *American Psychologist* 2011; 66(6): 482-494.

Wennerstrom A, Vannoy SD, Allen CE, et al. Community-based participatory development of a community health worker mental health outreach role to extend collaborative care in post-Katrina New Orleans. *Ethn Dis* 2011; 21: S45-51.

Williams DR. Stress and mental health of populations of color: Advancing our understanding of race-related stressors. *Journal of Health and Social Behavior* 2018; 59(4): 466-485.

Zhang SX, Wang Y, Rauch A, et al. Unprecedented disruption of lives and work: Health, distress and life satisfaction of working adults in China one month into the COVID-19 outbreak.

Psychiatry Research 2020; 288: 112958.