

Comparing the mental health between African Americans and Whites in 2019 (before COVID-19) and 2020 (during COVID-19) using NSDUH in the United States

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Background

- Although African Americans make up roughly 13 percent of the U.S. population, they account for **one in three people** who have been **hospitalized** with COVID-19 and **3.7 times more likely** to succumb to **COVID-related deaths than Whites**.
- The CDC reports that African Americans are dying at more than twice the rate of other races.
- For many reasons, African Americans are at an elevated risk of **COVID-19 exposure** and **related hospitalization** and **death**.
- COVID-19 pandemic has further unveiled the distressful reality of racial disparity in the United States.
- African Americans are bearing a disproportionate burden of **morbidity** and **mortality** due to COVID-19.
- In many cities like Chicago, although African Americans are only **30% of the population**, they make up more than **50% of COVID-19 cases** and about **70% of COVID-19 deaths**.



Background

- “COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide”
- African Americans are experiencing trauma and mental health issues for many different reasons during the COVID-19 pandemic.
- These include: Anxiety from not being able to follow stay-at home recommendations to protect themselves from COVID-19 due to their job situation. Separation from friends and family, especially those who are sick or in the hospital. Grief over the loss of friends and family members. Emotional stress of close living situations and finding care for children out of school. Financial stress of health care costs, job loss, and more. Ongoing difficulties accessing health care services.
- This increase in the prevalence of mental health problems
- Coincided with severe disruptions to mental health services, leaving huge gaps in care for those who need it most.
- For much of the pandemic, services for mental, neurological and substance use conditions were the most disrupted among all essential health services



Background

- The U.S. Department of Labor reports that only 18% African Americans have jobs that allow telework, compared with 26% and 32% for Whites and Asian Americans, respectively.
- African Americans are more likely than White people to live in cities and in close quarters, where COVID-19 spreads more easily.
- In addition, African Americans are **twice as likely** as Whites to have **no insurance**. They may worry about the cost of care and avoid seeking health care when sick. These socio-economic pressures and health risks can put African Americans at greater risk for trauma, grief, and other mental health issues.



Background

- What is the specific issue or controversy?
 - Mental health between Whites and Blacks
- How will this study help?
 - Strengthen mental health and psychosocial support services as part of strengthening preparedness, response and resilience to COVID-19 and future public health emergencies. Also adopt the updated Comprehensive Mental Health Action Plan for the future.



Research Question/Aims/Hypotheses

- Are African Americans Adults more likely than Whites to have Mental health issues in the last year 2019 (before COVID-19 pandemic) and during 2020 COVID-19 pandemic?



Methods

- Study Design: Secondary data analysis from the National Survey on Drug Use and Health (NSDUH)
- Study Sample/ Subjects: African American and White 2019 and 2020
- Recruitment (if applicable): NSDUH 2019 and 2020
- Main Measures:
 - Major Depressive Episodes (MDE)
 - Drug use
 - Taking meds prescribe for mood



Methods

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Variable	Obs	Unique	Mean	Min	Max	Label
questid2	32893	32893	2.65e+07	1.00e+07	4.31e+07	RESPONDENT IDENTIFICATION
filedate	32893	1	.	.	.	CREATION DATE OF THE DATA FILE
cigever	32893	2	1.555377	1	2	EVER SMOKED A CIGARETTE
cigofrsm	5275	4	3.817062	1	4	IF BEST FRIEND OFFERED, WOULD YOU SMOKE CIG
cigwilly	5271	4	3.885411	1	4	DO YOU THINK YOU'LL SMOKE CIG IN NEXT 12 MOS
cigtry	14513	45	16.19913	1	55	AGE WHEN FIRST SMOKED A CIGARETTE
cigyfu	430	3	2019.105	2018	2020	YEAR OF FIRST CIGARETTE USE - RECODE
cigmfu	413	12	7.409201	1	12	MONTH OF FIRST CIGARETTE USE - RECODE
cigsmfu	14625	9	2.948308	1	29	TIME SINCE LAST SMOKED CIGARETTES
cigrec	4079	30	20.78647	1	30	HOW MANY DAYS SMOKED CIG IN PAST 30 DAYS
cig30use	25	6	3.8	1	6	BEST EST. # DAYS SMOKED CIG PAST 30 DAYS
cg30est	4100	7	3.420488	1	7	AVG # CIGS SMOKED PER DAY/ON DAY SMOKED
cig30avr	4076	57	274.5162	101	8999	CIG BRAND USED MOST OFTEN PAST MO - RECODE
cig30tpe	4008	4	2.85479	1	4	WHAT TYPE OF CIG SMOKED MOST PAST 30 DAYS
cig30men	4050	2	1.558765	1	2	MENTHOL OR REG CIG SMOKED MOST PAST 30 DAYS
cig30mln	1626	3	1.884994	1	3	MARLBORO CIG SMOKED PAST 30 DAYS SHORT, REG, 100"S
cig30roz	4102	2	1.832033	1	2	HAVE YOU SMOKED ROLL-OWN CIG IN PAST 30 DAYS
cigdlymo	14619	3	2.122443	1	5	EVER SMOKED CIG EVERY DAY FOR 30 DAYS
cigage	7123	50	18.27039	1	64	AGE WHEN FIRST STARTED SMOKING CIGARETTES EVERYDAY
cigdlyfu	125	3	2019.16	2018	2020	YEAR OF FIRST CIGARETTE USE EVERY DAY - RECODE
cigdmfu	118	12	6.508475	1	12	MONTH OF FIRST CIGARETTE USE EVERY DAY - RECODE
cig100lf	14591	3	1.953259	1	5	HAVE YOU SMOKED 100 CIGS IN YOUR LIFE
smklssevr	32881	2	1.863264	1	2	EVER USED SMOKELESS TOBACCO
smklsstry	4438	57	18.43218	1	70	AGE WHEN FIRST USED SMOKELESS TOBACCO
smklsyfu	248	3	2019.101	2018	2020	YEAR OF FIRST SMOKELESS TOBACCO USE - RECODE
smklsmfu	236	12	6.690678	1	12	MONTH OF FIRST SMOKELESS TOBACCO USE - RECODE
smklsrec	4496	8	3.249333	1	29	TIME SINCE LAST USED SMOKELESS TOBACCO
smkls30n	863	28	18.01043	1	30	HOW MANY DAYS USED SMOKELESS TOBACCO PAST 30 DAYS
smkls30e	5	3	3.4	2	6	BEST EST. HOW MANY DAYS USED SMLSS TOB PST 30 DYS
cigarevr	32882	2	1.718265	1	2	EVER SMOKED PART OR ALL OF CIGAR
cigartry	9139	68	20.77766	1	75	AGE WHEN FIRST SMOKED CIGAR
cigaryfu	452	3	2019.1	2018	2020	YEAR OF FIRST CIGAR USE - RECODE
cigarmfu	431	12	7.234339	1	12	MONTH OF FIRST CIGAR USE - RECODE
cigarrec	9264	9	3.253454	1	29	TIME SINCE LAST SMOKED CIGAR
cgr30use	1155	28	8.532468	1	30	HOW MANY DAYS SMOKED CIGAR IN PAST 30 DAYS
ci30est	9	4	3.222222	1	5	BEST EST. # DAYS SMOKED CIGAR PAST 30 DAYS
cgr30br2	1130	46	1305.015	112	4999	CIGAR BRAND USED MOST OFTEN PAST MO - RECODE
pipever	32881	2	1.918159	1	2	EVER SMOKED PIPE TOBACCO
pipe30dy	2691	2	1.919361	1	2	HAVE YOU SMOKED PIPE TOBACCO IN PAST 30 DAYS
alcever	32879	2	1.254661	1	2	EVER HAD DRINK OF ALCOHOLIC BEVERAGE
alctry	24295	61	17.04466	1	66	AGE WHEN FIRST DRANK ALCOHOLIC BEVERAGE
alcyfu	1476	3	2019.079	2018	2020	YEAR OF FIRST ALCOHOL USE - RECODE
alcmfu	1405	12	7.281851	1	12	MONTH OF FIRST ALCOHOL USE - RECODE
alcrec	24506	6	1.559332	1	11	TIME SINCE LAST DRANK ALCOHOLIC BEVERAGE
alcyrtot	20654	164	86.63721	1	365	TOTAL # OF DAYS USED ALCOHOL IN PAST 12 MOS
altotfg	218	2	1.986239	1	2	TRIMMING INDICATOR FOR ALCYRTOT
alfqflg	277	1	1	1	1	TRIMMED ALCYRTOT IF R USED < 12 MOS



Results

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RECODE - FINAL EDITED AGE	Freq.	Percent	Cum.
7 - Respondent is 18 years old	1,912	4.47	4.47
8 - Respondent is 19 years old	1,769	4.14	8.61
9 - Respondent is 20 years old	1,688	3.95	12.56
10 - Respondent is 21 years old	1,682	3.94	16.50
11 - Respondent is 22 or 23 years old	3,444	8.06	24.56
12 - Respondent is 24 or 25 years old	3,731	8.73	33.29
13 - Respondent is between 26 and 29 ye	3,907	9.14	42.43
14 - Respondent is between 30 and 34 ye	4,694	10.98	53.41
15 - Respondent is between 35 and 49 ye	11,134	26.05	79.46
16 - Respondent is between 50 and 64 ye	4,880	11.42	90.88
17 - Respondent is 65 years old or olde	3,898	9.12	100.00
Total	42,739	100.00	

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Results

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GENDER - IMPUTATION REVISED	Freq.	Percent	Cum.
1 - Male	19,932	46.64	46.64
2 - Female	22,807	53.36	100.00
Total	42,739	100.00	



Results

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. tab1 newrace2
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RC-RACE/HISPANICITY RECODE (7 LEVELS)	Freq.	Percent	Cum.
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1 - NonHispanic White	25,226	59.02	59.02
2 - NonHispanic Black/African American	5,475	12.81	71.83
3 - NonHispanic Native American/Alaska Native	546	1.28	73.11
4 - NonHispanic Native Hawaiian/Other Pacific Islander	228	0.53	73.64
5 - NonHispanic Asian	2,147	5.02	78.67
6 - NonHispanic more than one race	1,455	3.40	82.07
7 - Hispanic	7,662	17.93	100.00
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Total	42,739	100.00	



Results

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COUNTY METRO/NONMETRO STATUS (2013 3-LEVEL)	Freq.	Percent	Cum.
1 - Large Metro	19,254	45.05	45.05
2 - Small Metro	15,147	35.44	80.49
3 - Nonmetro	8,338	19.51	100.00
Total	42,739	100.00	

Discussion/Resources for Coping with COVID-19

- American Psychiatry Association: Coronavirus and Mental Health: Taking Care of Ourselves During Infectious Disease Outbreaks <https://www.psychiatry.org/newsroom/apa-blogs/apablog/2020/02/coronavirus-and-mental-health-taking-care-of-ourselves-during-infectious-disease-outbreaks>
- National Medical Association: COVID-19 Resources <https://www.nmanet.org/page/COVID-19-Resources>
- NAACP Coronavirus Resources: Report discrimination, tell your story, submit a question, and other resources <https://naacp.org/coronavirus/coronavirus-resources/>
- ESSENCE Wellness House Virtual Summit: Videos about COVID-19 and how to stay well, including a video with Patrice A. Harris, MD, MA, psychiatrist and President of the American Medical Association:
 - <https://wellnesshouse.essencestudios.com/>
 - <https://wellnesshouse.essencestudios.com/session/a-look-inside-covid-19>
- Crisis Text Line: How to Handle Coronavirus <https://www.crisistextline.org/topics/get-help/coronavirus/#dealing-with-coronavirus-1>
- Suicide Prevention Lifeline: Emotional Wellbeing During the COVID-19 Outbreak <https://suicidepreventionlifeline.org/current-events/supporting-your-emotional-well-being-during-the-covid-19-outbreak/>
- World Health Organization: Mental health and psychosocial considerations during the COVID-19 outbreak: https://www.who.int/docs/defaultsource/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af_2
- Centers for Disease Control and Prevention: COVID-19 in Racial and Ethnic Minority Groups <https://www.cdc.gov/coronavirus/2019-nCoV/need-extra-precautions/racial-ethnic-minorities.html>



Conclusion

- Strengthen mental health and psychosocial support services as part of strengthening preparedness, response and resilience to COVID-19 and future public health emergencies.
- Also adopt the updated Comprehensive Mental Health Action Plan for the future.



Q&A



References

- *COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide.* (2022, March 2). World Health Organization (WHO). Retrieved October 27, 2022, from <https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide>
- Bray, M. J. C., Daneshvari, N. O., Radhakrishnan, I., Cubbage, J., Eagle, M., Southall, P., & Nestadt, P. S. (2020). Racial differences in statewide suicide mortality trends in Maryland during the coronavirus disease 2019 (COVID-19) pandemic. *JAMA Psychiatry*. <http://dx.doi.org/10.1001/jamapsychiatry.2020.3938>
- Czeisler, M. É., Lane, R. I., Petrosky E., Wiley, J. F., Christensen, A., Njai, R., Weaver, M. D., Robbins, R., Facer-Childs, E. R., Barger, L. K., Czeisler, C. A., Howard, M. E., & Rajaratnam, S. M. (2020). Mental health, substance use, and suicidal ideation during the COVID-19 pandemic — United States, June 24–30, 2020. *Morbidity Mortality Weekly Report (MMWR)*, 69, 1049–1057. <http://dx.doi.org/10.15585/mmwr.mm6932a1> [external icon](#)
- Mason, M. Welch, S. B., Arunkumar, P., Post, L. A., & Feinglass, J. M. (2021). Opioid overdose deaths before, during, and after an 11-week COVID-19 stay-at-home order — Cook County, Illinois, January 1, 2018–October 6, 2020. *MMWR Morbidity Mortality Weekly Report*, 70, 362-363. <http://dx.doi.org/10.15585/mmwr.mm7010a3>
- McKnight-Eily, L. R., Okoro, C. A., Strine, T. W., Verlenden, J., Hollis, N. D., Njai, R., Mitchell, E. W., Board, A., Puddy, R., & Thomas, C. (2021). Racial and ethnic disparities in the prevalence of stress and worry, mental health conditions, and increased substance use among adults during the COVID-19 pandemic — United States, April and May 2020. *MMWR Morbidity Mortality Weekly Report*, 70, 162–166. <http://dx.doi.org/10.15585/mmwr.mm7005a3> [external icon](#).
- Mitchell, T. O., & Li, L. (2021). State-level data on suicide mortality during COVID-19 quarantine: Early evidence of a disproportionate impact on minorities. *Psychiatry Research*, 295. <https://doi.org/10.1016/j.psychres.2020.113629>.
- Nagata, J. M., Ganson, K. T., Whittle, H. J., Chu, J., Harris, O. O., Tsai, A. C., Weiser, S. D. (2021). Food insufficiency and mental health in the U.S. during the COVID-19 pandemic. *American Journal of Preventive Medicine*. <https://doi.org/10.1016/j.amepre.2020.12.004>.
- Nemani, K., Li, C., Olfson, M., Blessing, E. M., Razavian, N., Chen, J., Petkova, E., & Goff, D. C. (2021). Association of psychiatric disorders with mortality among patients with COVID-19. *JAMA Psychiatry*. <http://dx.doi.org/10.1001/jamapsychiatry.2020.4442>
- Wang, Q., Xu, R., & Volkow, N. D. (2021). Increased risk of COVID-19 infection and mortality in people with mental disorders: Analysis from electronic health records in the United States. *World Psychiatry*. <https://doi.org/10.1002/wps.20806>

