Mental Health in the Era of COVID-19

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Burden of Mental Illness: U.S. Disability-Adjusted Life Years (DALYs)

Top Ten Leading Disease/Disorder Categories Contributing to all U.S. DALYs (2019)

Cardiovascular diseases: 15.6%
Neoplasms: 15.0%
Mental and substance use disorders: 13.2%
Musculoskeletal disorders: 12.5%
Chronic respiratory diseases: 6.3%
Diabetes and kidney diseases: 6.1%
Neurological disorders: 5.3%
Other non-communicable diseases: 4.6%
Unintentional injuries: 3.9%
Digestive diseases: 3.3%

Data Courtesy of IHME, GHDx
COVID-19 Pandemic

- Total Cases: 32,933,337
  - New Cases: +20,953
- Total Deaths: 586,793
  - New Deaths: +367

Case Rate per 100,000

Map showing case rate per 100,000 population across the United States.

CDC | Data as of: May 23, 2021 12:29 PM ET. Posted: May 23, 2021 1:56 PM ET
Lessons Learned: Previous Disasters/Traumatic Events

• Most who are exposed to trauma experience initial symptoms
• For most, symptoms improve with time
• Significant minority may have long-term or chronic experiences with mental illness
• Social inequities and health disparities increase trauma exposure as well as subsequent mental health vulnerability and care

Note: x-axis indicates number of PTSD symptoms reported on the PSS-I. Y-axis represents time from 10 days to roughly 420 days. Trajectories represent estimated marginal means.
Risks for Poor Outcomes

• Nature and severity of exposure
  • Exposed directly to death or injuries
  • Trauma type

• Individual differences
  • History of trauma or mental illness
  • Ongoing stressors, including occupational and financial strain
  • Substance use/abuse
  • Female
  • Non-white

• Environment
  • Few social supports

There is no single variable that determines individual outcomes
Supporting Long-Term Recovery

• Meet immediate needs
• Practice healthy coping strategies
• Treat new or worsening illness
• Find ways to help others
  • Promotes sense of efficacy
  • Promotes connectedness

Small Changes, Big Problems

- 51.5 million adults living with mental illness in 2019
  - Some will experience worsening of symptoms
- 23 million people who received mental health services in past year
  - Potential for disruption of care
- As of May 27, 2021, 590,000 deaths from COVID-19 in US
  - Unexpected deaths and altered grieving
- 6-12% new illness following life threatening events
  - In sample of entire US population of 328 million, number overwhelm capacity of healthcare system
  - Who do we pay attention to?
Substantial Psychiatric Morbidity Six Months After COVID-19 Infection

6-month neurological and psychiatric outcomes in 236,379 survivors of COVID-19: a retrospective cohort study using electronic health records

Maxime Taquet, John R Geddes, Masud Husain, Sierra Luciano, Paul J Harrison

NIH National Institute of Mental Health

Taquet et al., Lancet Psychiatry, 2021
COVID-19 Impacts on Mental Health

Centers for Disease Control and Prevention

Mortality and Morbidity Weekly Report
Weekly / Vol. 69 / No. 32
August 14, 2020

Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic — United States, June 24–30, 2020

Mark E. Czeisler1,2; Rashon I. Lane MA3; Emiko Petrosky, MD3; Joshua F. Wiley, PhD1; Aleta Christensen, MPH3; Rashid Njai, PhD3; Matthew D. Weaver, PhD1,4,5; Rebecca Robbins, PhD4,5; Elise R. Facer-Childs, PhD3; Laura K. Barger, PhD4,5; Charles A. Czeisler, MD, PhD1,4,5; Mark E. Howard, MBBS. PhD3,2,6; Shantha M.W. Raiaratnam. PhD1,4,5

During late June, 40% of U.S. adults reported struggling with mental health or substance use.

- Anxiety/Depression Symptoms: 31%
- Trauma/Stressor-Related Disorder Symptoms: 26%
- Started or Increased Substance Use: 13%
- Seriously Considered Suicide: 11%

*Based on a survey of U.S. adults aged ≥18 years during June 24–30, 2020
†In the 30 days prior to survey.
COVID-19 Impacts on Mental Health

Graph showing the percentage of people reporting symptoms of anxiety or depressive disorders over time from August 19-31, 2020 to January 20-21, 2021. The x-axis represents the data collection period, and the y-axis represents the percentage. The graph includes lines for symptoms of an anxiety or depressive disorder, symptoms of an anxiety disorder, and symptoms of a depressive disorder.
COVID-19 and Opioid Overdose Deaths

Cook County, IL

Stay-at-home order in effect Mar 21–May 30, 2020

Before stay-at-home order Dec 15, 2019–Mar 20, 2020

After stay-at-home order May 31–Oct 6, 2020

11 Mason et al., CDC MMWR Morbidity and Mortality Weekly Report, 2021
**National Suicide Death Data**

**Crude death rates by sex for Suicide:**
United States, 12 months ending with quarter, 2018-Quarter 3, 2020

*Statistically significant decrease, from 2019 Q2 to 2020 Q2*

*Female* | *Male* | *All*
---|---|---
2018 Q4 | 24 | 24 | 14
2019 Q1 | 22 | 22 | 14
2019 Q2 | 22 | 22 | 14
2019 Q3 | 22 | 22 | 14
2019 Q4 | 22 | 22 | 14
2020 Q1 | 21 | 21 | 13
2020 Q2 | 20 | 20 | 13

*Statistically significant decrease, from 2019 Q2 to 2020 Q2*

Racial Differences in Suicide Mortality Trends in Maryland During the Pandemic

Cumulative difference in suicide mortality rates

March 5, 2020, first COVID-19 cases reported in Maryland
May 7, reopening begins in Maryland

Black

White

Differences in cumulative deaths by suicide in 2020 vs the mean in 2017 to 2019

Time since January 1, 2020, d

NIH National Institute of Mental Health
Higher Mortality among Those with Psychiatric Disorder

No. at risk
- No psychiatric diagnosis: 1212, 548, 255, 79, 15, 3
- With psychiatric diagnosis: 473, 197, 74, 36, 14, 0

Log-rank $P < .001$
Prior to pandemic, telehealth had been expanding and states with commercial payer laws saw tremendous variability.

Federal and state legislation and regulation quickly changed to improve access.
Differences in Telehealth Modalities in California Federally Qualified Health Centers: Potential Barriers

Uscher-Pines et al., *JAMA*, 2021
NIH COVID-19 Research

- Framework for accelerating the development of therapeutic interventions, vaccines, and diagnostics

Social, Behavioral & Economic Impacts Research

**OVER 60 WG MEMBERS**
- Social, Behavioral, and Economic Impacts of COVID-19 initiative engaged NIH members with representation from 21 ICOs

**FUNDED 52 SUPPLEMENTS**
- 28 Longitudinal Studies
- 15 Digital Health Studies
- 9 Community Health Studies

**DIVERSE POPULATION**
- Many health disparity populations (e.g., racial and ethnic minorities, less privileged SES, rural residents)
- Vulnerable populations included community older adults, frontline workers, children

**IMPACTFUL RESEARCH**
Research focus areas included but not limited to:
- Alcohol, substance abuse, mental health outcomes
- Public health mitigation impact and adherence
- Chronic health conditions
SBE COVID-19 Funding Opportunities

• Previously Available Opportunities (now expired)
  • Digital Healthcare Interventions to Address the Secondary Health Effects Related to Social, Behavioral, & Economic Impact of COVID-19 (PAR-20-243)
  • Community Interventions to Address the Consequences of the COVID-19 Pandemic among Health Disparity & Vulnerable Populations (PAR-20-237)
  • Two somewhat similar NOSI for supplements: Digital health (NOT-MH-20-053), Community Interventions (NOT-MD-20-022)

• Current Opportunities
  • Emergency Award: Social, Behavioral, and Economic Research on COVID-19 Consortium (PAR-21-213)
  • Social, Behavioral, & Economic Research on COVID-19 Consortium Coordinating Center U24 (RFA-AG-21-035)
NIMH COVID-19 Funding Opportunities

• Notice of Special Interest: Administrative Supplements for COVID-19 Impacted NIMH Research ([NOT-MH-21-120](https://covid19.nih.gov/funding/open-funding-opportunities))


• NIMH is participating in additional FOAs:
  • NIMHD NOSI: Research to Address Vaccine Hesitancy, Uptake, and Implementation among Populations that Experience Health Disparities ([NOT-MD-21-008](https://covid19.nih.gov/funding/open-funding-opportunities))
  • NIMHD NOSI: Simulation Modeling and Systems Science to Address Health Disparities ([NOT-MD-20-025](https://covid19.nih.gov/funding/open-funding-opportunities))
COVID-19 Risk and Resilience

• All people affected by pandemic, even those who have not been infected
  • Those with mental illness have higher risk of COVID-19 infection
  • General public still at increased risk of mental illness, particularly vulnerable populations (e.g., racial/ethnic minorities, front line workers, those with preexisting mental illness, unemployed, and food and/or housing insecure)

• Promoting resilience
  • Hope for the future
  • Sense of control
  • Meeting immediate needs
  • Practicing healthy coping habits
NIMH Vision and Mission

VISION

NIMH envisions a world in which mental illnesses are prevented and cured.

MISSION

To transform the understanding and treatment of mental illnesses through basic and clinical research, paving the way for prevention, recovery, and cure.