



**Innovative Data Science Approaches to Assess Suicide Risk in Individuals,
Populations, and Communities: Current Practices, Opportunities, and Risks
A Virtual Workshop**

**WEBINAR 3
THURSDAY, JUNE 30, 2022
11:00 AM—4:00 PM ET**

**NATIONAL
ACADEMIES** *Sciences
Engineering
Medicine*

Innovative Data Science Approaches to Assess Suicide Risk in Individuals, Populations, and Communities: Current Practices, Opportunities, and Risks
A Virtual Workshop

Webinar 3:
June 30, 2022 | 11:00 AM—4:00PM ET

Table of Contents

Workshop Logistics	1
Agenda	3
Speaker Roster	8
Speaker Biographies	9
Planning Committee Member Roster	14
Planning Committee Member Biographies	15
Readings and Resources	20
NASEM Statement of Discrimination, Harassment, & Bullying	21

NATIONAL ACADEMIES

Sciences Engineering Medicine

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

INNOVATIVE DATA SCIENCE APPROACHES TO ASSESS SUICIDE RISK IN INDIVIDUALS, POPULATIONS, AND COMMUNITIES: CURRENT PRACTICES, OPPORTUNITIES, AND RISKS

A VIRTUAL WORKSHOP

Webinar 3

June 30, 2022

11:00 AM—4:00 PM ET

WEBINAR LOGISTICS

- Join the webcast via this link:
<https://www.nationalacademies.org/event/06-30-2022/using-innovative-data-science-approaches-to-identify-individuals-populations-and-communities-at-high-risk-for-suicide-a-workshop-webinar-3>
- An archive of the video webcast and presentation slides will be available at:
<https://www.nationalacademies.org/event/06-30-2022/using-innovative-data-science-approaches-to-identify-individuals-populations-and-communities-at-high-risk-for-suicide-a-workshop-webinar-3>
- Proceedings of the workshop will be published following National Academies procedures. Rapporteurs will compose the proceedings from the workshop transcript and external reviewers will examine the proceedings to make sure it accurately reflects workshop discussions and conforms to institutional policies.
- Interested in receiving updates from the Forum on Mental Health and Substance Use Disorders or the National Academies of Sciences, Engineering, and Medicine's Health and Medicine Division?

Sign up for the **Forum** listserv at:

<https://nationalacademies.us8.list-manage.com/subscribe?u=ab74d126b7d2db12591de5c2c&id=211686812e>

Like **NASEM Health and Medicine Division** on Facebook:

www.facebook.com/NASEMhealth

Follow **NASEM Health and Medicine Division** on Twitter: [@NASEM_Health](https://twitter.com/NASEM_Health)

NATIONAL ACADEMIES

Sciences Engineering Medicine

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Follow **NASEM Health and Medicine Division** on LinkedIn:

<http://www.linkedin.com/company/nasemhealth>

NATIONAL ACADEMIES

Sciences Engineering Medicine

INNOVATIVE DATA SCIENCE APPROACHES TO ASSESS SUICIDE RISK IN INDIVIDUALS, POPULATIONS, AND COMMUNITIES: CURRENT PRACTICES, OPPORTUNITIES, AND RISKS

A VIRTUAL WORKSHOP

FINAL AGENDA

WEBINAR 3: OPPORTUNITIES FOR ACTION JUNE 30, 2022 11:00AM—4:00PM ET	
WELCOME FROM THE FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS	
11:00 AM (10-minutes)	Benjamin Miller, PsyD President Well Being Trust <i>Planning Committee Co-Chair</i>
INTRODUCTION	
11:10 AM	Greg Simon, MD, MPH Senior Investigator Kaiser Permanente Washington Health Research Institute <i>Planning Committee Member</i>
SESSION 1 OPPORTUNITIES FOR ACTION: RESEARCHERS PERSPECTIVE ON SUICIDE RISK ASSESSMENT AND RESPONSE	
11:15 AM	<i>Moderator:</i> Greg Simon, MD, MPH <i>Planning Committee Member</i> 11:15 AM GenZ Perspectives on Mental Health: Questions to Drive Youth- Centric Technology Approaches (15-minutes)

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Updated 6/29/22

NATIONAL ACADEMIES

Sciences Engineering Medicine

	<p>Jana Haritatos, PhD Chief Science Officer Hopelab</p> <p>11:30 AM Overcoming data bias in leveraging AI/ML algorithms to advance suicide risk assessment and response (15-minutes)</p> <p>Rayid Ghani, MS Professor, School of Computer Science Heinz College of Information Systems and Public Policy Carnegie Mellon University</p> <p>11:45 AM Data requirements, including de-identified population-level data, to produce real-time or more timely information to identify individuals, groups, communities, and populations at risk for suicide (15-minutes)</p> <p>Glen Coppersmith, PhD Chief Data Officer SonderMind <i>Planning Committee Member</i></p>
	<p>12: 00 PM AUDIENCE Q&A</p> <p><i>Moderator:</i> Greg Simon, MD, MPH <i>Planning Committee Member</i></p> <p><i>Panelists:</i> Jana Haritatos, PhD Chief Science Officer Hopelab</p> <p>Rayid Ghani, MS Professor, School of Computer Science Heinz College of Information Systems and Public Policy Carnegie Mellon University</p> <p>Glen Coppersmith, PhD Chief Data Officer SonderMind <i>Planning Committee Member</i></p>
12:30 PM	BREAK (30-minutes)
SESSION 2	

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Updated 6/29/22

NATIONAL ACADEMIES

Sciences Engineering Medicine

OPPORTUNITIES FOR ACTION: INDUSTRY PERSPECTIVES ON SUICIDE PREVENTION EFFORTS AND COLLABORATIONS

1:00 PM	<p><i>Moderator:</i> Jonathan Goldfinger, MD, MPH, FAAP <i>Founder, CEO</i> <i>Goldfinger Health</i></p> <p>1:05 PM Using technology to help millions of at-risk individuals online (15-minutes)</p> <p>Robert Morris, PhD <i>Co-founder</i> <i>Koko</i></p> <p>1:20 PM Leveraging today's tech business models as tools to provide valuable insights for suicide interventions (15-minutes)</p> <p>Nick Allen, PhD <i>Co-Founder and CEO</i> <i>Ksana Health</i> <i>Director, Center for Digital Mental Health</i> <i>University of Oregon</i></p> <p>1:35 PM Expert- and partner-informed strategies to improve helpfulness to users in crisis (15-minutes)</p> <p>Megan Jones Bell, PsyD <i>Clinical Director</i> <i>Consumer and Mental Health Director</i> <i>Google</i></p> <p>1:50 PM AUDIENCE Q&A</p> <p><i>Moderator:</i> Jonathan Goldfinger, MD, MPH, FAAP <i>Founder, CEO</i> <i>Goldfinger Health</i></p> <p><i>Panelists:</i> Robert Morris, PhD <i>Co-founder</i> <i>Koko</i></p> <p>Nick Allen, PhD <i>Co-Founder and CEO</i> <i>Ksana Health</i> <i>Director, Center for Digital Mental Health</i></p>
---------	---

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Updated 6/29/22

NATIONAL ACADEMIES

Sciences Engineering Medicine

	<p>University of Oregon</p> <p>Megan Jones Bell, PsyD Clinical Director Consumer and Mental Health Director Google</p>
<p>SESSION 3 OPPORTUNITIES FOR ACTION: PUBLIC HEALTH POLICIES</p>	
2:15 PM	<p><i>Moderator:</i> 2:15 PM Bart Andrews, PhD <i>Vice President, Clinical Practice/Evaluation Behavioral Health Response</i></p> <p>2:20 PM Opportunities for public health policy to enhance effective detection and response to suicide risk (20-minutes)</p> <p>Colin Walsh, MD, MA, FAMIA Associate Professor Biomedical Informatics, Medicine, and Psychiatry Vanderbilt University</p> <p>2:40 PM Twenty-first Century Policy Solutions for Twenty-first Century Problems (20-minutes)</p> <p>Kacie Kelly, MS Chief Innovation Officer Meadows Mental Health Policy Institute</p> <p>3:00 PM State level policies to advance suicide risk assessment and response (20-minutes)</p> <p>Jonathan Sherin, MD, PhD Director Los Angeles County Department of Mental Health</p> <p>3:20 PM AUDIENCE Q&A</p> <p><i>Moderator:</i> Bart Andrews, PhD <i>Vice President, Clinical Practice/Evaluation</i></p>

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Updated 6/29/22

NATIONAL ACADEMIES

Sciences Engineering Medicine

	<p><i>Behavioral Health Response</i></p> <p><i>Panelists:</i></p> <p>Colin Walsh, MD, MA, FAMIA Associate Professor Biomedical Informatics, Medicine, and Psychiatry Vanderbilt University</p> <p>Kacie Kelly, MS Chief Innovation Officer Meadows Mental Health Policy Institute</p> <p>Jonathan Sherin, MD, PhD Director Los Angeles County Department of Mental Health</p>
CLOSING REMARKS	
3:45 PM (15-minutes)	<p>3:00 PM Sean Joe, PhD Benjamin E. Youngdahl Professor of Social Development Washington University in St. Louis <i>Planning Committee Co-Chair</i></p>
4:00 PM	ADJOURN

Workshop Planning Committee | This workshop was organized by the following experts: Benjamin Miller, Well Being Trust (Co-chair); Sean Joe, Washington University in St. Louis, (Co-chair); Patricia Areán, University of Washington; Colleen Carr, National Action Alliance for Suicide Prevention; Glen Coppersmith, SonderMind; John McCarthy, Department of Veterans Affairs, Gregory Simon, Kaiser Permanente Washington Health Research Institute; Ayah Zirikly, Johns Hopkins University

NATIONAL ACADEMIES

Sciences Engineering Medicine

Innovative Data Science Approaches to Assess Suicide Risk in Individuals, Populations & Communities: Current Practices, Opportunities, and Risks: A Workshop

Speaker Roster

Webinar 3: June 30, 2022

Nick Allen, PhD

Co-Founder and CEO
Ksana Health
Director, Center for Digital Mental Health
University of Oregon

Bart Andrews, PhD

Vice President, Clinical Practice/Evaluation
Behavioral Health Response

Glenn Coppersmith, PhD

Chief Data Officer
Sondermind

Rayid Ghani, MS

Professor, School of Computer Science
Heinz College of Information Systems and
Public Policy
Carnegie Mellon University

Jonathan Goldfinger, MD, MPH, FAAP

Founder, CEO
Goldfinger Health

Jana Haritatos, PhD

Chief Science Officer
Hopelab

Megan Jones Bell, PsyD

Clinical Director
Consumer and Mental Health Director
Google

Kacie Kelly, MS

Chief Innovation Officer
Meadows Mental Health Policy Institute

Robert Morris, PhD

Co-founder
Koko

Jonathan Sherin, MD, PhD

Director
Los Angeles County Department of Mental
Health

Colin Walsh, MD, MA, FAMIA

Associate Professor
Biomedical Informatics, Medicine, and
Psychiatry
Vanderbilt University

NATIONAL ACADEMIES

Sciences Engineering Medicine

Innovative Data Science Approaches to Assess Suicide Risk in Individuals, Populations & Communities: Current Practices, Opportunities, and Risks

Webinar 3: June 30, 2022

Speaker Bios

Nick Allen, PhD, is the Ann Swindells Professor of Clinical Psychology at the University of Oregon. He is also the co-founder and CEO of Ksana Health Inc, a company whose mission is to use research evidence and modern technology to revolutionize the delivery of mental health care through remote behavioral monitoring and adaptive, continuous behavior change support. His research work has particularly focused on understanding the interactions between multiple risk factors for adolescent onset mental health disorders, and to use these insights to develop innovative approaches to prevention and early intervention. He is the Director of the Center for Digital Mental Health, where his group holds multiple NIH funded grants for work focusing on the use of mobile and wearable technology to monitor risk for poor mental health outcomes including suicide, depression, and bipolar disorder. His group has developed software tools that combine active and passive sensing methods to provide intensive longitudinal assessment of behavior with minimal participant burden. The ultimate aim of these technologies, which are being developed through Ksana Health, is to develop a new generation of “just-in-time” behavioral interventions for early intervention and prevention of mental health problems.

Bart Andrews, PhD, is the Chief Clinical Officer at Behavioral Health Response. Dr. Andrews is the facilitator of Missouri’s Suicide Prevention in Healthcare ECHO, a member of the Missouri Suicide Prevention Network’s executive committee, member of the Suicide Lifeline’s Standards, Training and Practices committee, a member of the Suicide Prevention Resource Center’s (SPRC) Steering Committee and a Zero Suicide Academy Faculty member. Dr. Andrews is a suicide attempt survivor and a proponent of embracing of lived expertise in our suicide prevention efforts. Dr. Andrews is also known far and wide for his master of Facebook memery.

Glen Coppersmith, PhD is the Chief Data Officer at SonderMind, after they acquired Qntfy, the company he founded and ran for 7 years. Prior to Qntfy, Glen was at the Johns Hopkins University, in the Human Language Technology Center of Excellence and the Center for Language and Speech Processing. Glen has authored more than 50 peer-reviewed publications in the analysis of human behavior with machine learning, most focused on mental health and wellbeing. He and the team at Qntfy published early work on using digital life data, like social media and wearables, to understand suicide risk. As much as Glen has pushed scientific

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

NATIONAL ACADEMIES

Sciences Engineering Medicine

advances in this space, he is also known for publishing on the ethics and pragmatic use of technology like this. Glen was named the alumnus of the year in 2019 for Northeastern's Khoury College of Computer Sciences. He has a B.S. in Computer Science and Cognitive Psychology, a Masters and a Doctorate in Experimental Psychology all from Northeastern University.

Rayid Ghani, MS, is Distinguished Career Professor in the Machine Learning Department and the Heinz College of Information Systems and Public Policy at Carnegie Mellon University. His research is focused on developing and using AI/Machine Learning/Data Science to help tackle large public policy and societal challenges in a fair and equitable manner. Rayid works with governments and non-profits in policy areas such as health, criminal justice, education, public safety, economic development, and urban infrastructure. Rayid is also passionate about teaching practical data science and started the Data Science for Social Good Fellowship that trains computer scientists, statisticians, and social scientists from around the world to work on data science problems with social impact. Before joining Carnegie Mellon University, Rayid was the Founding Director of the Center for Data Science & Public Policy, Research Associate Professor in Computer Science, and a Senior Fellow at the Harris School of Public Policy at the University of Chicago. Previously, he was the Chief Scientist of the Obama 2012 Election Campaign where he focused on data, analytics, and technology to target and influence voters, donors, and volunteers.

Jonathan Goldfinger, MD, MPH, FAAP is a nationally recognized pediatrician, tech and social entrepreneur, and advocate for mental health equity for children and families. He is Founder and CEO of Goldfinger Health. Previously, he served as CEO at Didi Hirsch Mental Health Services where he significantly grew the organization's crisis care delivery offerings. He raised over \$46 million to scale 988 to save lives and connect people to care across California, with tens of millions more anticipated to integrate 988 with crisis services across LA County. He co-chaired the county's crisis call center collaborative to decriminalize mental illness, galvanizing progress through Didi Hirsch's groundbreaking 911 to 988 diversion pilot with the LAPD, which is disproportionately serving young, Black and Latino men. Dr. Goldfinger's developed additional public-private partnerships to address the US youth mental health crisis, including with Selena Gomez's Rare Beauty/Rare Impact Fund, Sozosei Foundation, Kenneth Cole's Mental Health Coalition, MTV Entertainment, and Mantra Health. With expertise in intergenerational trauma, integrated care, and health tech, Dr. Goldfinger's work has brought healthcare into a more equitable, digital age. He currently serves on the California Surgeon General and Department of Health Care Services' Trauma-Informed Primary Care Advisory Committee and has advised many in these spaces including the federal

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

NATIONAL ACADEMIES

Sciences Engineering Medicine

Centers for Medicare and Medicaid Services, the CDC, and the American Academy of Pediatrics. His work has been published in the National Academy of Medicine's *NAM Perspectives* and *Health Affairs*.

Jana Haritatos, PhD, is Chief Science Officer, and guides Hopelab's scientific and innovation priorities by identifying new strategic opportunities for innovation at the intersection of science and technology in support of Hopelab's mission. Dr. Haritatos also stewards the organization's approach to learning and impact and works closely with Hopelab's CEO, board, research collaborators, and community partners to advance well-being science in service to health equity and thriving for young people. Prior to joining Hopelab, Dr. Haritatos received her doctorate in Psychology from the University of Michigan and was a fellow in Psychology & Medicine at the University of California, San Francisco (UCSF) Department of Psychiatry, where her research focused on psychological and socio-cultural determinants of health in immigrant and other diverse populations. During her tenure at Hopelab, she has helped to create and evaluate a number of digital health products and has co-authored the publication of randomized control trials involving multiple co-created products from the lab. She has also overseen the creation and implementation of the behavioral science collaboration program which provides seed support for high-impact translational science in adolescent health, developmental neuroscience, and positive psychology.

Megan Jones Bell, PsyD, is clinical director of consumer and mental health at Google and gets to think about how to improve health for billions of people. She was formerly chief strategy and science officer at Headspace and helped guide Headspace through its transformation from a meditation app into a comprehensive digital mental health platform, Headspace Health. Megan founded one of the first digital mental health start-ups, Lantern, where she pioneered blended mental health interventions leveraging software and coaching. Megan started her career at Stanford University where she was an assistant professor in Psychiatry and Behavioral Sciences. At Stanford and in her work with the European Union Megan developed and disseminated over two dozen evidence-based digital mental health interventions and conducted research in the US, Europe, India, and Brazil. Megan clinically specializes in the treatment of adolescents and young adults and is an expert in the prevention and treatment of eating disorders and obesity. Megan serves on the Board of the Child Mind Institute, Castilleja School and the Scientific Advisory Board for HFC. Megan is a Fellow of the Aspen Institute Health Innovators Fellowship and a member of the Aspen Global Leadership Network. Megan earned her bachelor's degree in psychology, graduating cum laude from University of California, San Diego. She received her master's degree and

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

NATIONAL ACADEMIES

Sciences Engineering Medicine

doctorate in clinical psychology from PGSP-Stanford University, and completed fellowships at Yale University and Stanford University School of Medicine.

Kacie Kelly, MS, has 20 years of experience with leading innovation in mental health care and translating it into policy and practice. In her role, as Chief Innovation Officer at the Institute, she focuses on redesigning detection and treatment of mental health conditions in health systems and on creating a culture of innovation across the Institute to increase access to high quality behavioral healthcare across Texas and nationally. In addition, she works to harness the power of public and private partnerships to reform payment models that advance best practice in mental health treatment and care delivery and identifies strategies to integrate data-driven technological solutions into the care system broadly. Prior to joining the Institute, Kacie served as the Director for Health & Wellbeing at the George W. Bush Institute's Military Service Initiative where she advanced innovative outcome-based solutions for mental and brain health challenges through partnerships, collaboration, and alignment among key national and international stakeholders, including the Bush Institute's Veteran Wellness Alliance and the Stand To Health & Wellbeing Task Force. Prior to that, Kacie spent 15 years leading ground-breaking mental health and suicide prevention initiatives at the Department of Veterans Affairs. During that time, she established public-private partnership programs, led national dissemination of evidence-based care models to enhance provider proficiencies, and directed outreach efforts to reduce stigmas associated with seeking mental health care and promote military culture competencies. One of her most impressive accomplishments was getting every VA hospital and clinic in the nation to adopt standardized, evidence-based protocols for the treatment of post-traumatic stress. Kacie earned her Master of Health Sciences at Louisiana State University and has a Graduate Certificate in Women in Public Policy and Politics from the University of Massachusetts – Boston.

Rob Morris, PhD, is the co-founder of Koko, a tech-based nonprofit that has served over 2M people, mostly adolescents. Prior to Koko, he was a staff data scientist at Airbnb and an entrepreneur in residence at Hopelab. Rob earned his AB in psychology from Princeton University and his master's and PhD in media arts and sciences from the Massachusetts Institute of Technology. His interests lie at the intersection of artificial intelligence, social computing, and digital interventions for mental health. He is an award-winning designer and his work has been featured in Wired, NPR, Fast Company, and The Huffington Post, among others.

Jonathan Sherin, MD, PhD, is a longtime wellbeing advocate who has worked tirelessly throughout his career on behalf of vulnerable populations. In his current role as Director of the Los Angeles County Department of Mental Health (LACDMH),

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

NATIONAL ACADEMIES

Sciences Engineering Medicine

he oversees the largest public mental health system in the United States with an annual budget approaching \$3 billion. Prior to joining LACDMH, Dr. Sherin served for over a decade at the Department of Veterans Affairs (VA) where he held a variety of posts, most recently as chief of mental health for the Miami VA Healthcare System. He has also held a variety of academic posts, formerly as vice-chairman for the Department of Psychiatry and Behavioral Sciences at the University of Miami, and currently as volunteer clinical professor at both UCLA and USC. In addition to his leadership in the health and human services sector, Dr. Sherin has made significant contributions to the field of neuroscience, which include seminal sleep research studies, published in *Science* magazine, and a conceptual model of the psychotic process for which he received the prestigious Kempf Award from the American Psychiatric Association. Dr. Sherin completed his undergraduate work at Brown University, his graduate studies at the University of Chicago and Harvard Medical School, and his residency in psychiatry at UCLA.

Colin G. Walsh, MD, MA, FAMIA, is Associate Professor of Biomedical Informatics, Medicine, and Psychiatry at Vanderbilt University Medical Center. He is an internist. He received a degree in Mechanical Engineering from Princeton University and his medical degree at the University of Chicago. He completed residency and chief residency in internal medicine at Columbia University Medical Center. He received a degree in Biomedical Informatics in postdoctoral fellowship at Columbia University. He joined the faculty at Vanderbilt University in 2015. His research includes: 1) applied predictive modeling to enable behavioral health and prevention; 2) scalable phenotyping for precision medicine; and 3) population health informatics to combat the overdose crisis.

NATIONAL ACADEMIES

Sciences Engineering Medicine

Innovative Data Science Approaches to Assess Suicide Risk in Individuals, Populations & Communities: Current Practices, Opportunities, and Risks: A Workshop

Planning Committee Roster

Benjamin F. Miller, PsyD (Co-Chair)

President

Well Being Trust

Sean Joe, PhD, (Co-Chair)

Benjamin E. Youngdahl Professor of Social Development

Washington University in St. Louis

Patricia A. Areán, PhD

Professor

University of Washington

Colleen Carr, MPH

Director

National Action Alliance for Suicide Prevention

Glenn Coppersmith, PhD

Chief Data Officer

Sondermind

John F. McCarthy, PhD, MPH

Research Associate Professor

Director, Serious Mental Illness Treatment

Resource and Evaluation Center

Office of Mental Health and Suicide Prevention,

Department of Veterans Affairs

Director, Data and Surveillance

Investigator, VA Center for Clinical Management
Research

Gregory Simon MD MPH

Senior Investigator

Kaiser Permanente Washington Health Research
Institute

Ayah Zirikly

Assistant Research Scientist

Center for Language and Speech Processing

Johns Hopkins University

NATIONAL ACADEMIES

Sciences Engineering Medicine

Innovative Data Science Approaches to Assess Suicide Risk in Individuals, Populations & Communities: Current Practices, Opportunities, and Risks

Planning Committee Bios

Benjamin F. Miller, PsyD, is President of Well Being Trust and oversees the implementation of the foundation's strategies and full portfolio of investments and partnerships to help Well Being Trust have a real-world impact on America's mental health and addiction crisis. These responsibilities build on those in Dr. Miller's prior role as Chief Strategy Officer of Well Being Trust, through which he ensured alignment across the foundation's grants, research, partnerships, and policy recommendations. Dr. Miller is a nationally recognized mental health expert and a highly sought-after public speaker. Dr. Miller has presented around the world on the need to make mental health an integral part of health care, most recently testifying before the Senate Committee on Finance about the need for an integrated approach to treating mental health and addiction. He is also the author of the weekly newsletter – *Mental: Fighting the fragmentation of mental health one policy at a time*, where hundreds of subscribers gather to read about how everyday happenings are connected to mental health, and what actions they can take to address them. In addition, Dr. Miller has been featured in numerous local and national media outlets – the New York Times, CNN, NBC News, USA Today, NPR, PBS NewsHour, among countless others – and today maintains advisory and adjunct professor positions at the following organizations: Inseparable; the University of Colorado School of Medicine's Eugene S. Farley, Jr. Health Policy Center; Mental Health Colorado; the Stanford School of Medicine's Department of Psychiatry and Behavioral Sciences; and the British Journal of General Practice. He was previously president of the Collaborative Family Healthcare Association and an Institute for Healthcare Improvement faculty member. Dr. Miller's expertise in this space largely stems from the early days of his career. In receiving his doctorate in clinical psychology from Spalding University in Louisville, Kentucky, completing his predoctoral internship at the University of Colorado Health Sciences Center, and working as a postdoctoral fellow in primary care psychology at the University of Massachusetts Medical School in the Department of Family Medicine and Community Health, Dr. Miller gained firsthand insight into our country's foster care, education, health care and criminal justice systems. He helped emotionally disturbed children navigate school, individuals with breast cancer cope with their diagnosis, prisoners plan for a successful return to society, and trained primary care physicians on how to best handle their patients' mental and behavioral health concerns – experiences that showed Dr. Miller how the continued marginalization of mental health in America has ripple effects throughout every layer of society. This realization inspired Dr. Miller to become a principal investigator on several federal grants, foundation grants, and state contracts related to comprehensive

NATIONAL ACADEMIES

Sciences Engineering Medicine

primary care and mental health, behavioral health, and substance use integration. And during the eight years he spent as an associate professor in the Department of Family Medicine at the University of Colorado School of Medicine, it contributed to him becoming a founding director of the Eugene S. Farley, Jr. Health Policy Center. Under Dr. Miller's leadership, the Farley Health Policy Center evaluated policies related to behavioral health integration, payment reform, workforce response and preparedness, and community-based prevention to help key decision makers positively improve mental health in their communities.

Dr. Miller has received numerous awards for his work, which includes leading the Agency for Healthcare Research and Quality's Academy for Integrating Behavioral and Primary Care project, the Sustaining Healthcare Across Integrated Primary Care Efforts (SHAPE) project, and acting as a technical expert for multiple CMS panel discussions. He has also written and published extensively on enhancing the evidentiary support for integrated models, increasing the training and education of behavioral health providers in medical settings, and the need to address specific health policy and payment barriers for successful integration. Dr. Miller was the lead author on the Robert Wood Johnson Foundation Culture of Whole Health report – which provided specific direction to advance mental health nationally – and is on the editorial board for *Families, Systems and Health*.

Dr. Miller's work has taken him into communities all across the country, from the Rocky Mountains in Colorado to the foothills of the Appalachian Mountains in Chattanooga, Tennessee, where he currently plays music, paints, and spends time with his wife and daughters.

Sean Joe, PhD, MSW is the Benjamin E. Youngdahl Professor of Social Development and Associate Dean for Faculty and Research at Brown School at Washington University in St. Louis. Dr. Joe is a nationally recognized authority on suicidal behavior among African Americans. His research focuses on Black adolescents' mental health service use patterns, the role of religion in Black suicidal behavior, salivary biomarkers for suicidal behavior, and development of father-focused, family-based interventions to prevent urban African American adolescent males from engaging in multiple forms of self-destructive behaviors. Working within the Center for Social Development, Dr. Joe launched the Race and Opportunity Lab, which examines race, opportunity, and social mobility in the St. Louis region, working to reduce inequality in adolescents' transition into adulthood.

Patricia A. Areán, PhD is a Professor in the Department of Psychiatry at UCSF and is a licensed Clinical Psychologist. Dr. Areán is an international expert on effectiveness of behavioral interventions for mood disorders. She leads a research and training group that known for developing, studying, increasing access to and implementing user friendly, high quality behavioral interventions for mood as it

NATIONAL ACADEMIES

Sciences Engineering Medicine

presents in chronic illness, aging, low income and ethnic minority populations, in a variety of service settings: mental health, primary care, senior services, and mobile platforms. Her team combines latest information from cognitive neuroscience, socio-economics and implementation science in their designs. Since 1994, Dr. Areán has published 115 peer-reviewed articles on these topics and has been funded by SAMHSA, NIMH, NIA, NIDDK and the Hartford Foundation. She is currently funded by NIMH to study the effectiveness of "brain games" on mood and the effectiveness of mobile health apps on mood. Her work has won national recognition, resulting in an early career award from the American Psychological Association, a Mid-career Award from NIH for her work on disseminating evidence based practices and The Award for Achievements in Diversity in Mental Health from the American Association of Geriatric Psychiatry. Dr. Areán currently leads an interdisciplinary research and implementation team consisting of researchers from diverse backgrounds, including social work, nursing, psychiatry, family and general medicine, medical sociology and clinical psychology. She also provides training in evidence-based treatments to community mental health and health professionals, and is developing deployable and cost effective training models based on contemporary adult learning methods.

Colleen Carr, MPH, director for the National Action Alliance for Suicide Prevention (Action Alliance) at EDC, brings nearly two decades of public health experience to leading the nation's public-private partnership for suicide prevention charged with advancing the National Strategy for Suicide Prevention. Current key Action Alliance national initiatives include efforts to transform health systems to reduce suicide, strengthen community-based suicide prevention, and change the public conversation about suicide and suicide prevention. In her role as director, Carr cultivates partnerships to bring new, nontraditional partners to suicide prevention, including federal and private sector leaders from diverse industries such as business, defense, entertainment, faith, health care, insurance, news media, public safety, transportation, and veteran services. Carr brings high-level expertise in suicide prevention, policy analysis, system-level change, strategic communications, and media relations. Prior to joining EDC, Carr worked with the Massachusetts/Rhode Island Poison Control Center at Boston Children's Hospital and the Massachusetts Department of Public Health. Carr holds an MPH from Boston University and a BA in Public Policy Analysis from the University of North Carolina at Chapel Hill.

Glen Coppersmith, PhD is the Chief Data Officer at SonderMind, after they acquired Qntfy, the company he founded and ran for 7 years. Prior to Qntfy, Glen was at the Johns Hopkins University, in the Human Language Technology Center of Excellence and the Center for Language and Speech Processing. Glen has authored more than 50 peer-reviewed publications in the analysis of human behavior with machine learning, most focused on mental health and wellbeing. He and the team at

NATIONAL ACADEMIES

Sciences Engineering Medicine

Qntfy published early work on using digital life data, like social media and wearables, to understand suicide risk. As much as Glen has pushed scientific advances in this space, he is also known for publishing on the ethics and pragmatic use of technology like this. Glen was named the alumnus of the year in 2019 for Northeastern's Khoury College of Computer Sciences. He has a B.S. in Computer Science and Cognitive Psychology, a Masters and a Doctorate in Experimental Psychology all from Northeastern University.

John F. McCarthy, PhD, MPH, is Research Associate Professor in the Department of Psychiatry. After working for four years in physician education and ambulatory administration at Brigham and Women's Hospital in Boston, John earned an MPH from the School of Public Health and a PhD in Health Services Organization and Policy from the University of Michigan. For over 21 years, his work has focused on Veterans, mental health access, health systems, health behavior and population health. He has held national VA scientific leadership roles since 2007. Currently, e serves as Director of VA's Serious Mental Illness Treatment Resource and Evaluation Center, Director of the National Primary Care-Mental Health Integration Evaluation, and Director of Data and Surveillance for Suicide Prevention. He also provides site leadership for SMITREC's post-doctoral training program (link is external). His experiences include VA leadership roles for Congressional and White House initiatives. Dr. McCarthy has had ongoing funding for mental health services research, program evaluation, and operations work, including VA and NIH grants and dedicated Center funding. His scientific expertise includes health system access, suicide epidemiology, measurement based management, medication adherence, serious mental illness, mental health services program evaluation, and suicide predictive modeling.

Gregory Simon, MD MPH is an investigator at Kaiser Permanente Washington Health Research Institute, a psychiatrist in Kaiser Permanente's Behavioral Health Service, and a Research Professor in the Department of Psychiatry and Behavioral Sciences at the University of Washington. Dr. Simon's research focuses on improving access to and quality of mental health care, especially for mood disorders and people at risk for self-harm and suicide. Specific areas of research include improving adherence to medication, increasing the availability of effective psychotherapy, personalization of treatment for mood disorders, evaluating peer support by and for people with mood disorders, prediction of suicidal behavior, population-based suicide prevention programs, and racial/ethnic disparities in mental health care. Dr. Simon currently leads the Mental Health Research Network, an NIMH-funded cooperative agreement supporting population-based mental health research across 14 large health systems.

NATIONAL ACADEMIES

Sciences Engineering Medicine

Ayah Zirikly is an assistant research scientist in the Center for Language and Speech Processing. She was previously a postdoctoral fellow at the National Institutes of Health (NIH) and holds a PhD in computer science from Dr. Mona Diab's NLP lab at the George Washington University. She has been actively involved in suicide risk assessment research in social media, and published the UMD Reddit Suicidality Dataset, one of the few annotated suicide risk assessment datasets. During her postdoc fellowship, she developed health informatics NLP solutions for retrieving mobility and mental health status to improve the disability eligibility process at the Social Security Administration. Previously, she did research on transfer learning techniques for high-low resource settings, especially for NER. She has also contributed to the Arabic NLP domain, and co-authored MADAMIRA, the leading toolset for Arabic NLP.

NATIONAL ACADEMIES

Sciences Engineering Medicine

Innovative Data Science Approaches to Assess Suicide Risk in Individuals, Populations & Communities: Current Practices, Opportunities, and Risks

Webinar #3: June 30, 2022

Readings and Resources

Coppersmith, G., R. Leary, P. Crutchley, and A. Fine. 2018. [Natural language processing of social media as screening for suicide risk](#). *Biomedical Informatics Insights* 10:1178222618792860.

Office of the Surgeon General. 2021. Protecting Youth Mental Health: U.S. Surgeon General's Advisory. U.S. Department of Health and Human Services. <https://www.hhs.gov/sites/default/files/surgeon-general-youth-mental-health-advisory.pdf> (Accessed on January 12, 2022).

Sumner, S. A., B. Ferguson, B. Bason, J. Dink, E. Yard, M. Hertz, B. Hilkert, K. Holland, M. Mercado-Crespo, S. Tang, and C. M. Jones. 2021. [Association of online risk factors with subsequent youth suicide-related behaviors in the US](#). *JAMA Network Open* 4(9):e2125860.

PREVENTING DISCRIMINATION, HARASSMENT, AND BULLYING EXPECTATIONS FOR PARTICIPANTS IN NASEM ACTIVITIES

The National Academies of Sciences, Engineering, and Medicine (NASEM) are committed to the principles of diversity, integrity, civility, and respect in all of our activities. We look to you to be a partner in this commitment by helping us to maintain a professional and cordial environment. All forms of discrimination, harassment, and bullying are prohibited in any NASEM activity. This commitment applies to all participants in all settings and locations in which NASEM work and activities are conducted, including committee meetings, workshops, conferences, and other work and social functions where employees, volunteers, sponsors, vendors, or guests are present.

Discrimination is prejudicial treatment of individuals or groups of people based on their race, ethnicity, color, national origin, sex, sexual orientation, gender identity, age, religion, disability, veteran status, or any other characteristic protected by applicable laws.

Sexual harassment is unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature that creates an intimidating, hostile, or offensive environment.

Other types of harassment include any verbal or physical conduct directed at individuals or groups of people because of their race, ethnicity, color, national origin, sex, sexual orientation, gender identity, age, religion, disability, veteran status, or any other characteristic protected by applicable laws, that creates an intimidating, hostile, or offensive environment.

Bullying is unwelcome, aggressive behavior involving the use of influence, threat, intimidation, or coercion to dominate others in the professional environment.

REPORTING AND RESOLUTION

Any violation of this policy should be reported. If you experience or witness discrimination, harassment, or bullying, you are encouraged to make your unease or disapproval known to the individual, if you are comfortable doing so. You are also urged to report any incident by:

- Filing a complaint with the Office of Human Resources at 202-334-3400, or
- Reporting the incident to an employee involved in the activity in which the member or volunteer is participating, who will then file a complaint with the Office of Human Resources.

Complaints should be filed as soon as possible after an incident. To ensure the prompt and thorough investigation of the complaint, the complainant should provide as much information as is possible, such as names, dates, locations, and steps taken. The Office of Human Resources will investigate the alleged violation in consultation with the Office of the General Counsel.

If an investigation results in a finding that an individual has committed a violation, NASEM will take the actions necessary to protect those involved in its activities from any future discrimination, harassment, or bullying, including in appropriate circumstances the removal of an individual from current NASEM activities and a ban on participation in future activities.

CONFIDENTIALITY

Information contained in a complaint is kept confidential, and information is revealed only on a need-to-know basis. NASEM will not retaliate or tolerate retaliation against anyone who makes a good faith report of discrimination, harassment, or bullying.

Updated June 7, 2018