The Use of Telehealth for Disability Evaluations in Medicine and Allied Health

A WORKSHOP

March 9, 2022
10:00am – 4:40pm

March 10, 2022
9:00am – 3:00pm

The National Academies of | SCIENCES ENGINEERING MEDICINE

Meeting Contacts

Crystal Bell, cjbell@nas.edu

Sharyl Nass, snass@nas.edu

Siham Idris, sidris@nas.edu

Annalee Gonzales, agonzales@nas.edu

Karen Helsing, KHelsing@nas.edu

Please visit our workshop website at: https://www.nationalacademies.org/our-work/the-use-of-telehealth-for-disability-evaluations-in-medicine-and-allied-health-a-workshop#sectionContact

The National Academies of

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The Use of Telehealth for Disability Evaluations in Medicine and Allied Health: A Workshop

Wednesday March 9, 2022 **Eastern Time Zone**	
10:00 am	**Welcome and Workshop Overview** Allen Heinemann, Planning Committee Chair, Shirley Ryan Ability Lab and Northwestern University Feinberg School of Medicine **Sponsor Remarks from the Social Security Administration** Steve Rollins, Acting Associate Commissioner, Office of Disability Policy/Office of Retirement and Disability Policy, Social Security Administration
10:20 am	**Session 1 – Telehealth Overview** *Moderator:* *Paul Tang, Stanford University and Palo Alto Medical Foundation* **Overview of Telehealth Terminology and Modalities** ▪ Charles Doarn, University of Cincinnati **The Benefits of and Barriers to Engagement with Telehealth for People with Disabilities** ▪ Rupa Valdez, University of Virginia **Quality Measurement in Telehealth** ▪ Judd Hollander, Thomas Jefferson University Hospital **Panel Discussion**
11:35 am	**Break**
11:55 am	**Session 2 – Telehealth and the COVID-19 Public Health Emergency** *Moderator:* *Anna Maria Lopez, Sidney Kimmel Cancer Center and Thomas Jefferson University* **The Impact of Race, Ethnicity, and Language Barriers on Telehealth Access** ▪ Celeste Campos-Castillo, University of Wisconsin-Milwaukee **Telehealth Use During COVID-19 Pandemic: Medicare Beneficiaries' Use of Telehealth in 2020** ▪ Lok Wong Samson, Office of the Assistant Secretary for Planning and Evaluation **The Evolution of Emergency Regulatory Changes for Telehealth Access During the Public Health Emergency** ▪ Carmel Shachar, Harvard University

	Panel Discussion
1:10 pm	**Lunch**

2:10 pm	**Session 3 – The Use of Telehealth for Evaluations by Clinical Specialties**
	Moderator:
	Neil Busis, New York University (NYU) Grossman School of Medicine and NYU Langone Health
	
	Remote Neurological Evaluations
	   ▪ Ray Dorsey, University of Rochester
	
	Assessment of ASD in Children via Telemedicine: Feasibility, Lessons Learned, and Future Directions
	   ▪ Jeffrey Hine, Vanderbilt University and TRIAD Primary Care
	
	Telehealth in Rehabilitation Medicine
	   ▪ Ileana M. Howard, Veterans Health Administration and University of Washington
	
	The Doctor Will "See" You: Visual Assessment Via Telehealth
	   ▪ Melissa Ko, Indiana University

3:10 pm	**Break**

3:20 pm	**Session 3 – The Use of Telehealth for Evaluations by Clinical Specialties**
	Moderator:
	Neil Busis, NYU Grossman School of Medicine and NYU Langone Health
	
	The Use of Telepractice to Assess Adult Speech, Language, and Swallowing Disorders
	   ▪ Ellen Cohn, University of Pittsburgh
	
	Tele-audiology Evaluations at the VA
	   ▪ Chad Gladden, Veterans Administration Audiology and Speech Pathology National Program Office
	
	Digestive Disorders
	   ▪ Saleem Chowdhry, Cleveland Clinic
	
	Physical Therapy Evaluation Through the Telehealth Platform
	   ▪ Betsy Cyr, University of New England
	
	Teledermatology
	   ▪ Joseph C. English III, University of Pittsburgh
	
	Panel Discussion

4:50 pm	**Adjourn Day 1**

| **Thursday, March 10, 2022** | |
Eastern Time Zone	
9:00 am	**Welcome and Workshop Overview** Georgia Malandraki, Purdue University
9:05 am	**Session 4 – Telehealth Access** *Moderator:* *Jay Shore, University of Colorado* **Telemedicine Use During the Pandemic and the Digital Divide** ▪ Ateev Mehrotra, Harvard University **Rural Access to Telehealth: Challenges and Solutions** ▪ Theresa Cullen, Pima County Public Health **Disability Evaluations in Medicine and Allied Health: Challenges and Solutions for Providers** ▪ Elizabeth Krupinski, Emory University **Digital Inclusion and Telehealth Equity** ▪ Angela Siefer, National Digital Inclusion Alliance **Panel Discussion**
10:50 am	**Break**
11:10 am	**Session 5 -- The Experiences of Other Health Care Systems** *Moderator:* *George Demiris, University of Pennsylvania* **Veterans Administration Telehealth Evaluations** ▪ Leonie Heyworth, Veterans Administration Office of Connected Care ▪ Jonathan Zivony, Veterans Health Administration Office of Disability and Medical Assessment **Where do We Grow from Here?** ▪ Steve Shook, Cleveland Clinic **Panel Discussion**
12:20 pm	**Lunch**
1:20 pm	**Session 6 – Licensure, Privacy, and Security** *Moderator:* *Alan Lee, Mount Saint Mary's University and Scripps Mercy Hospital*

	Facilitating the Practice of Medicine Across State Lines
	    ▪ Lisa Robin, Federation of State Medical Boards
	
	HIPPA Compliance and Privacy Concerns
	    ▪ Marisa McGinley, Cleveland Clinic
	
	Securing Telehealth Remote Patient Monitoring Ecosystem
	    ▪ Ron Pulivarti and Nakia Grayson, National Cybersecurity Center of Excellence, National Institute of Standards and Technology
	
	Panel Discussion

2:35 pm	**Concluding Remarks** Allen Heinemann, Planning Committee Chair, Shirley Ryan Ability Lab and Northwestern University Feinberg School of Medicine
2:45 pm	**Adjourn**

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Project Scope

The National Academies of Sciences, Engineering, and Medicine shall establish a planning committee to plan and host a 2 day virtual public workshop to facilitate a discussion focused on the use of telehealth technology to provide diagnostic services across a range of disciplines for use in disability evaluations. The goal of this workshop is to provide the Social Security Administration (SSA) with a picture of current telehealth practice and the challenges associated with this mode of service delivery.

Workshop Sponsor
Social Security Administration (SSA)

The Use of Telehealth for Disability Evaluations in Medicine and Allied Health:
A Workshop

Planning Committee

J Allen W. Heinemann, Ph.D. *(Chair)*
Director, Center for Rehabilitation Outcomes Research
Shirley Ryan Ability Lab
Professor, Department of Physical Medicine and Rehabilitation
Northwestern University Feinberg School of Medicine

Neil A. Busis, M.D.
Clinical Professor and Associate Chair of Technology and Innovation, Department of Neurology
Clinical Director, Clinical Affairs, Telehealth Program
New York University Grossman School of Medicine
NYU Langone Health

George Demiris, Ph.D., FACMI
Penn Integrates Knowledge University Professor, Department of Biobehavioral and Health Sciences, School of Nursing
Perelman School of Medicine at the University of Pennsylvania

Sabrina Ford, Ph.D.
Associate Professor, Department of Obstetrics, Gynecology and Reproductive Biology and Institute for Health Policy
Michigan State University College of Human Medicine

Mei Wa Kwong, J.D.
Executive Director
Center for Connected Health Policy

Alan Chong W. Lee, Ph.D., PT, DPT, CSW, GCS
Professor, Physical Therapy Department
Mount Saint Mary's University, Los Angeles
Clinical Wound Specialist and Clinical Geriatric Specialist
Scripps Mercy Hospital, San Diego

Ana Maria Lopez, M.D., M.P.H.
Professor and Vice Chair of Medical Oncology
Sidney Kimmel Medical College at Thomas Jefferson University
Chief of Cancer Services, Sidney Kimmel Cancer Center
Jefferson Health - New Jersey

Georgia Malandraki, Ph.D., CCC-SLP, BCS-S
Associate Professor, Department of Speech, Language and Hearing Sciences
Courtesy Appointment, Weldon School of Biomedical Engineering
Purdue University

Jay H. Shore, M.D., M.P.H.
Director, Office of Telehealth and Technology Implementation for Behavioral Health Practice and Science
Professor, Department of Psychiatry and Family Medicine
Colorado School of Public Health at University of Colorado Anschutz Medical Campus
Population Specialist, Veterans Rural Health Resource Center, Salt Lake City
VA Salt Lake City Health Care System, Department of Veterans Affairs

Paul C. Tang, M.D., M.S.
Adjunct Professor, Clinical Excellence Research Center
Stanford University
Physician
Palo Alto Medical Foundation

Board on Health Care Services
Staff Roster

Sharyl Nass, Ph.D.
Senior Board Director

Crystal J. Bell, M.P.P., M.S.
Associate Program Officer

Tracy Lustig, DPM, M.P.H.
Senior Program Officer

Karen Helsing, M.H.S.
Senior Program Officer

Torrie Brown, B.A.
Senior Program Assistant

Annalee Gonzales, B.A.
Administrative Assistant

Siham Idris, B.S., Pg.D.
Program Assistant

Committee Biographical Information

Allen W. Heinemann, Ph.D. *(Chair),* is a professor in the Department of Physical Medicine and Rehabilitation at Northwestern University's Feinberg School of Medicine and Director of the Center for Rehabilitation Outcomes Research at the Shirley Ryan AbilityLab (formerly the Rehabilitation Institute of Chicago). He completed a doctoral degree in clinical psychology at the University of Kansas, is a Diplomate in Rehabilitation Psychology, and a fellow of the American Congress of Rehabilitation Medicine and the American Psychological Association. Dr. Heinemann is a past-president of the American Congress of Physical Medicine and Rehabilitation and the Rehabilitation Psychology division of the American Psychological Association. He serves as co-Editor-in-Chief for the Archives of Physical Medicine and Rehabilitation, and is on the editorial boards of Rehabilitation Psychology and the Journal of Head Trauma Rehabilitation. He serves on the Standing Committee on Medical Experts to Assist Social Security on Disability Issues since 2009. He chaired the Planning Meeting Board on Military and Veterans Health, Medical Follow-Up Agency, Institute of Medicine of the National Academies, August 25, 2005; the consensus study report, Functional Assessment for Adults with Disabilities in 2019; and the Peer Review of a Report Commissioned by the Social Security Administration on Required Mental Health Requirements for Selected Occupations in 2020.

Neil A. Busis, M.D., is Associate Chair, Technology and Innovation and Director of Telehealth, Department of Neurology at NYU Langone Health and Clinical Professor of Neurology at NYU Grossman School of Medicine. He developed and directs the tele-neurology program at NYU and developed and directed the general tele-neurology program at UPMC. Dr. Busis chairs the American Academy of Neurology (AAN) Telehealth Subcommittee. He is the Alternate CPT Advisor representing the AAN on the American Medical Association (AMA) CPT Advisory Committee. He is developing new telehealth and hybrid care models, validating the remote neurological examination, and optimizing tele-neurology education for learners at all career stages. He previously chaired or was a member of other AAN committees and subcommittees and served on the AAN Board of Directors. He received the 2021 AAN President's Award for his service. He is a past president of the American Association of Neuromuscular and Electro-diagnostic Medicine. Dr. Busis co-leads the COVID Working Group of the NAM Action Collaborative on Clinician Well-Being and Resilience. Dr. Busis was a member of the committee that wrote, "Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being," focusing on technology and policy.

George Demiris, Ph.D., FACMI, is a Penn Knowledge Integrates (PIK) University Professor in the School of Nursing with a joint appointment in the Department of Biostatistics, Epidemiology and Informatics in the Perelman School of Medicine, University of Pennsylvania. His research explores innovative ways to utilize technology and support patients and their families in various settings including home and hospice care. He has conducted clinical trials to examine telehealth-based interventions for family caregivers in hospice. Dr. Demiris also studies "smart home" solutions and digitally augmented residential settings to facilitate passive monitoring via telehealth, and support quality of life for older adults. He is a Member of the National Academy of Medicine, a Fellow of the Gerontological Society of America and the American College of Medical Informatics. He was a member of the National Academies' consensus workgroup on "Health and Medical Dimensions of Social Isolation and Loneliness in Older Adults." He also served on the workgroup for "Technologies to Enhance Person, Family and Community Activation." He has presented his research at a National Academies' "Forum on Aging, Disability, and Independence" and "The Role of Human Factors in Home Healthcare," and served as reviewer for "The Promise of Assistive Technology to Enhance Activity and Work Participation."

Sabrina Ford, Ph.D., is an associate professor in the College of Human at Michigan State University where she is a teacher, mentor, and researcher pertaining to health disparities with vulnerable populations. She is an evaluator with experience in public and private sectors. She is a licensed clinical psychologist in Michigan and Pennsylvania and has practiced privately and at Swarthmore College. Dr. Ford's current research expertise addresses health disparities in women, children, and older persons addressing cervical cancer, maternal morbidity, and access to care. Her work includes assessing the use of telemedicine to increase healthcare access particularly in rural and older populations. Dr. Ford is an investigator and evaluator of several telemedicine grants including Principal Investigator of a Health Resources and Services Administration grant to examine provider service utilization of telemedicine in Medicaid patients during the pandemic. She is a long-standing member of the American Psychological Association and Society for Behavior Medicine. Recently, Dr. Ford's manuscript was selected as the editor's choice for the journal Gynecologic Oncology. Dr. Ford earned a B.S. in Psychology from the University of Michigan, a Ph.D. from the University of Iowa, and completed a post-doctoral fellowship in Cognitive Neuroscience in the Department of Psychology at the University of Pennsylvania.

Mei Wa Kwong, J.D., has over a decade of experience in state and federal policy work. She is the Executive Director of the Center for Connected Health Policy (CCHP). She is a recognized national expert on telehealth policy and has written numerous policy briefs, crafted state legislation and advised state and federal policymakers on the subject. Ms. Kwong has published several articles on telehealth and telehealth policy in various peer reviewed journals and is the co-creator of CCHP's 50 State Medicaid Telehealth Reimbursement Survey, the first of its kind compendium that is widely regarded as one of the most important references on telehealth policy in the United States. Ms. Kwong is a graduate of the George Washington University Law School.

Alan C. Lee, Ph.D., DPT, PT, is a professor at Mount Saint Mary's University in Los Angeles. Dr. Lee maintains clinical practice at Scripps Mercy Hospital in San Diego with dual board certifications in geriatrics and wound care. He serves as the telehealth lead for the American Physical Therapy Association's (APTA) Frontiers in Rehabilitation, Science, and Technology Council as well as the director of technology special interest group for Health Policy and Administration Section. Dr. Lee has served as the secretary of the tele-rehabilitation special interest group in American Telemedicine Association. Currently, he is co-chairing the APTA's telehealth clinical practice guidelines workgroup. Dr. Lee was awarded the Duke University's Distinguished Alumni DPT Award, the APTA minority faculty development award and Adopt-a-Doc award from Academy of Education of APTA in the past. Dr. Lee graduated from Duke University with his MSPT, completed his transitional DPT from Creighton University, completed a M.A. in Gerontology from San Diego State University, and his Ph.D. in physical therapy from Nova Southeastern University. In 2021, Dr. Lee completed the Washington State Healthcare Professional Telemedicine Training and, in 2020, the U.S. Department of Health and Human Service's 10-week learning community titled Telemedicine Hack.

Ana Maria Lopez, M.D., M.P.H., serves as Professor and Vice Chair of Medical Oncology at Sidney Kimmel Medical College and Chief of Cancer Services at Sidney Kimmel Cancer Center. She is currently Senior Advisor, Ambulatory Telehealth for Jefferson Health Telemedicine Program and is a member of the American Society of Clinical Oncology's Telemedicine Standards Committee. She previously served as the founding Medical Director of the Arizona Telemedicine Program where she led a statewide multidisciplinary academic telemedicine practice that encompassed the state's only academic center, multiple health systems, community hospitals, critical access hospitals, rural practices, Department of Corrections facilities, and federally qualified community health centers that engaged health care teams, interprofessional telehealth care teams, and learners. Under her leadership the Arizona Telemedicine Program's practice completed more than a million teleconsultations. At the Huntsman Cancer Institute, University of Utah, Dr. Lopez was an investigator for the recently funded Northwest Telehealth Resource Center, led the community outreach and engagement efforts, and focused on tele-oncology partnerships with native communities. Dr. Lopez was recently funded to lead a P30 award in Telehealth P30. Dr.

Lopez has authored more than 100 peer-reviewed publications and several book chapters. Dr. Lopez was invited to present the "C. Wesley Eisele Lecture: State of Telemedicine" at the American College of Physicians Internal Medicine 2020 meeting.

Georgia A. Malandraki, Ph.D., CCC-SLP, BCS-S, is an associate professor of Speech, Language, and Hearing Sciences and Biomedical Engineering at Purdue University and a board-certified specialist in swallowing disorders (dysphagia). Her research focuses on investigating developmental and treatment swallowing neuroplasticity and developing rehabilitative and telehealth interventions for patients with dysphagia. Dr. Malandraki's work has been funded by the National Institutes of Health (NIDCD and NIBIB), the American Academy of Cerebral Palsy and Developmental Medicine, and the Purdue Research Foundation. She is currently an editor for the American Journal of Speech Language Pathology and the President-Elect of the Dysphagia Research Society. Among others, she has been awarded the ASHA Early Career Research Contributions Award (2011), the Purdue University College of Health and Human Sciences Early Career Research Achievement Award (2019), the NIH NIBIB R21 Trailblazer Award (2019), and was recently recognized as a 2021 ASHA Fellow. Dr. Malandraki earned her B.S. in Speech and Language Therapy from the Technological Institute of Patras, Greece, her M.S. in Speech Language Pathology from Ohio University, and her Ph.D. in Speech and Hearing Science and Neuroscience from the University of Illinois Urbana-Champaign. She then completed a post-doctoral fellowship at the University of Wisconsin, Madison.

Jay H. Shore, M.D., M.P.H., is Director of the Office of Telehealth and Technology Implementation for Behavioral Health Practice and Science, Department of Psychiatry, and a professor in the Department of Psychiatry and Family Medicine, School of Medicine and Centers for American Indian and Alaska Native Health (CAIANH), Colorado School of Public Health at University of Colorado Anschutz Medical Campus. He is also Population Specialist at the Veteran Administration's Office of Rural Health Resource Center, Salt Lake City. His career has focused on the use of technology in mental health across multiple organizations which include the ongoing development, implementation, and assessment of programs for Native, rural, and underserved populations aimed at improving both quality and access to care. Dr. Shore received his B.A. in Anthropology at Macalester College and was a Fulbright Fellow. A graduate of Tulane Medical School, he completed psychiatric residency at the University of Colorado followed by an external National Institute of Mental Health research fellowship at CAIANH. Dr. Shore is a Distinguished Fellow of the American Psychiatric Association (APA) and serves as the current and founding chair of the APA's Telepsychiatry Committee. He is a Fellow of the American Telemedicine Association and the American College of Psychiatrists.

Paul C. Tang, M.D., M.S., is an adjunct professor in the Clinical Excellence Research Center at Stanford University and an internist at the Palo Alto Medical Foundation (PAMF). He was formerly chief innovation and technology officer at PAMF and vice president, chief health transformation officer at IBM Watson Health. He has over 25 years of executive leadership experience in health information technology within medical groups, health systems, and corporate settings. He co-developed and was the first to implement Epic's MyChart patient portal used in telehealth in 2000, now connecting over 85% of PAMF's patients online. He is an elected member of the National Academy of Medicine (NAM), and has served on numerous NAM study committees, including a patient-safety committee he chaired that published two reports: "Patient Safety: A New Standard for Care," and "Key Capabilities of an Electronic Health Record System." He is a member of the Health and Medicine Division Committee of the National Academies of Science, Engineering, and Medicine. Dr. Tang was co-chair of the federal Health Information Technology Policy committee from 2009-2017. He has served as board chair for several health informatics professional associations, including the American Medical Informatics Association. He received his B.S. and M.S. in Electrical Engineering from Stanford University and his M.D. from the University of California, San Francisco.

Speaker Biographical Information

Session 1: (Charles Doarn, Rupa Valdez, Judd Hollander)

Charles Doarn, M.B.A., serves as the inaugural director of UC's Space Research Institute for Discovery and Exploration. In addition, he is a Research Professor and the MPH Program Director in the Department of Environmental and Public Health Sciences, Division of Public Health, University of Cincinnati (UC), College of Medicine. He also has academic appointments at the full professor level in Political Science at UC, Aerospace Medicine at Wright State University, and Emergency Medicine at George Washington University. He currently provides subject matter expertise in aerospace medicine to NASA's Chief Health and Medical Officer and serves as the co-chair of Federal Telehealth Working Group for the U.S. Government. Doarn has worked closely the NATO, the Department of Defense, and the Department of State as a Fulbright Specialist. He received his undergraduate degree in Biological Sciences (Microbiology) from The Ohio State University in 1980 and an MBA from the University of Dayton in 1988. Additional training includes the National Transportation Safety Board (NTSB) Aircraft Mishap Investigation Course, Ashburn, VA; and Advanced Program Management at NASA's Wallops Flight Facility, VA. As the Editor-in-Chief of the Telemedicine and e-Health Journal (since 2005), Doarn is a recognized leader in telemedicine and telehealth as a scholar and teacher, having published 7 books, over 400 manuscripts, editorials, federal reports and nearly 50 book chapters. Doarn is an editor of the 4th edition of *Space Physiology and Medicine: Evidence to Practice* (ISBN 978-1-4939-6650-9); an editor of *A Multinational Telemedicine System for Disaster Response: Opportunities and Challenges.* NATO Publication (ISBN 978-1-61499-727-6); an editor of *Engineering, Life Sciences, and Health/Medicine Synergy in Aerospace Human Systems Integration. The Rosetta Stone Project.* NASA SP-2017-633. (ISBN 978-1-62683-044-8); and *Telemedicine, Telehealth, and Telepresence: Principles, Strategies, Applications and New Directions.* Editors. R Latifi, CR Doarn, RC Merrell. Springer, New York. ISBN 978-3-030-56916-7. 2021. Professor Doarn is a fellow of the ATA and the Aerospace Medical Association, a member of the International Academy of Astronautics (IAA), an Honorary NASA Flight Surgeon, and recipient of the Astronaut's award, the Silver Snoopy for his work in Telemedicine for NASA worldwide. In May 2016, Professor Doarn was recognized by the ATA with the 2016 Individual Leadership Award for his efforts national and international in telemedicine. He and his co-authors were recognized with the IAA's 2018 Luigi Napolitano Book Award in the Life Sciences.

Rupa Valdez, Ph.D., is an Associate Professor at the University of Virginia with joint appointments in the School of Medicine and the School of Engineering and Applied Sciences. She is also affiliated with Disability Studies Initiative and Global Studies. Dr. Valdez merges the disciplines of human factors engineering, health informatics, and cultural anthropology to understand and support the ways in which people manage health at home and in the community. Dr. Valdez's work is deeply community-engaged and relies on co-design and participatory design principles. Her research and teaching focus on underserved populations, including racial/ethnic minorities, people living in under-resourced settings,

and individuals living with physical, sensory, or cognitive disabilities. Her work has been supported by NIH, AHRQ, NSF, USDA, and the Kellogg Foundation, among others. In addition to her scholarship, she serves as Associate Editor for *Ergonomics,* the *Journal of American Medical Informatics Association Open,* and *Human Factors in Healthcare*. She further serves on PCORI's Patient Engagement Advisory Panel and is on the Board of Directors for the American Association of People with Disabilities. She previously chaired the internal affairs division for the Human Factors and Ergonomics Society. She is the Founder and President of Blue Trunk Foundation, a nonprofit dedicated to making it easier for people with chronic health conditions, disabilities, and age-related conditions to travel. Dr. Valdez lives with multiple chronic health conditions and disabilities, which have and continue to influence her research and advocacy.

Judd Hollander, M.D., is Senior Vice President of Healthcare Delivery Innovation at TJU and Associate Dean for Strategic Health Initiatives at Sidney Kimmel Medical College at Thomas Jefferson University and Professor of Emergency Medicine. Responsibilities include the JeffConnect Telemedicine Program and Jefferson Urgent Care. He graduated from New York University Medical School in 1986, completed an Internal Medicine Residency at Barnes Hospital in 1989, and an Emergency Medicine Residency at Jacobi Hospital in 1992. His research interests include innovative care delivery models (including telemedicine), risk stratification of patients with potential cardiovascular disease; cocaine associated cardiovascular complications; and laceration and wound management. Dr. Hollander has published over 600 peer-reviewed articles, book chapters, and editorials on these and other topics. Dr. Hollander was President of the Society for Academic Emergency Medicine, chaired the SAEM Program Committee and Emergency Medicine Foundation Scientific Review Committee and was Deputy Editor for the Annals of Emergency Medicine, and co-chaired the National Quality Forum (NQF) committee to create a framework to support measure development for telehealth. Dr. Hollander was the awarded the ACEP Award for Outstanding Research in 2001, the Hal Jayne SAEM Academic Excellence Award in 2003 and the SAEM Leadership Award in 2011.

Session 2: (Celeste Campos-Castillo, Lok Wong Samson, Carmel Shachar)

Celeste Campos-Castillo, Ph.D., is an Associate Professor of Sociology at the University of Wisconsin-Milwaukee. She received her PhD in sociology from the University of Iowa and completed a postdoctoral research fellowship at the Institute for Security, Technology, and Society at Dartmouth College. She studies how the increasing use of information and communication technologies within health care shapes health inequities. Her research has been funded by the Technology and Adolescent Mental Wellness program, Facebook, the National Science Foundation, and the National Endowment for the Arts.

Lok Wong Samson, Ph.D., has been conducting health policy research in the Office of Health Policy in the HHS Office of the Assistant Secretary for Planning and Evaluation for the last ten years. She is currently leading research on the impacts of COVID-19 using Medicare administrative data, including telehealth

utilization. Her primary research portfolio is on Medicare physician payment policies and value-based purchasing programs, with a focus on quality and outcomes measurement and risk-adjustment. Her recent research has focused on the role of frailty and social determinants of health in potentially improving health outcomes and addressing health equity. As part of a mandated report to Congress under the IMPACT Act to understand the role of social risk factors on Medicare's VBP programs, she led key analyses on the role of functional risk factors, using claims-based frailty algorithms to improve the risk-adjustment of outcome and cost measures. Dr. Samson earned her doctorate and master's degrees from Johns Hopkins Bloomberg School of Public Health.

Carmel Shachar, J.D., M.P.H., is the Executive Director of the [Petrie-Flom Center for Health Law Policy, Biotechnology, and Bioethics](#) at Harvard Law School. She is responsible for oversight of the Center's sponsored research portfolio, event programming, fellowships, student engagement, development, and a range of other projects and collaborations. Carmel was responsible for designing, recruiting for, and launching both the Center's Health Care General Counsel Roundtable and the Center's [Advisory Board](#). She is involved heavily with the Center's [Project on Precision Medicine, Artificial Intelligence, and the Law](#), and its [Diagnosing in the Home](#) Initiative. Carmel is also a Lecturer at Law on Harvard Law School, where she co-teaches a course on "Health Care Rights in the Twenty-First Century." Carmel's scholarship focuses on law and health policy, in particular the regulation of access to care for vulnerable individuals, the use of telehealth and digital health products, and the application of public health ethics to real world questions. Her work has been published in venues such as the [*New England Journal of Medicine*](#), [*JAMA*](#), the [*Hastings Center Report*](#), and [*Nature Medicine*](#). She has been interviewed and quoted in venues such as [*BBC News*](#), [*Politico*](#), [*CNN*](#), and [*Slate.*](#) She has co-edited several books published with the Cambridge University Press, including [*Transparency in Health and Health Care in the United States*](#), [*Disability, Health, Law, and Bioethics*](#), *Consumer Genetics: Ethical and Legal Considerations of New Technologies* (forthcoming), and *Innovation and Protection: The Future of Medical Device Regulation* (forthcoming).

Session 3: (Ray Dorsey, Jeffrey Hine, Ileana M. Howard, Melissa Ko, Ellen Cohn, Chad Gladden, Saleem Chowdhry, Betsy Cyr, Joseph C. English III)

Ray Dorsey, M.D., M.B.A., is the David M. Levy Professor of Neurology at the University of Rochester Medical Center. His vision is that anyone anywhere can participate in research and receive care. His research has been published in leading journals and has been featured in multiple news outlets. In 2020, Ray and his colleagues wrote *Ending Parkinson's Disease*, a book that provides a prescription for ending the world's fastest growing brain disease. Ray previously directed the movement disorders division and neurology telemedicine at Johns Hopkins and worked as a consultant for McKinsey & Company. In 2015, the White House recognized him as a "Champion for Change" for Parkinson's disease.

Jeffrey Hine, Ph.D., is an Assistant Professor of Pediatrics at Vanderbilt University Medical Center (VUMC) and is the Director of Primary Care Outreach within the Vanderbilt Kennedy Center / Treatment

and Research Institute for Autism Spectrum Disorders (VKC/TRIAD) at VUMC. Dr. Hine specializes in assessment and treatment of children with autism spectrum disorder and other neurodevelopmental disabilities. He is recognized as a leader in developing and implementing novel models of service delivery and training, specifically through telemedicine and integration of medical homes. Regarding scholarly activity, Dr. Hine has directed and published interdisciplinary research projects relating to streamlined and tele-diagnostic assessment of autism spectrum disorder, integration of behavioral-health services into pediatric primary care practices, and pediatric provider education in developmental-behavioral pediatrics.

Ileana M. Howard, M.D., is the Medical Co-Director of the ALS Center of Excellence at the VA Puget Sound in Seattle, Washington, where she established and now oversees one of the busiest ALS programs in the Veterans Health Administration. As an early adopted of clinical video telehealth in 2015, her active patient population spans over 3,000 miles and 3 time zones. In addition to her local responsibilities, she collaborates with VA ALS centers around the country to share resources and advocate for the highest quality of care for Veterans with ALS and their families. Dr. Howard obtained her undergraduate degree in chemistry at Smith College and was awarded a Fulbright fellowship to perform public health research in Spain. She then continued her studies at Harvard Medical School, where she attained her M.D., followed by an internal medicine internship at the Lahey Clinic in Burlington, Massachusetts and Physical Medicine and Rehabilitation residency at the University of Washington. She was hired as a staff physician in the Rehabilitation Care Services department of the VA Puget Sound in 2008, and obtained dual board certifications in PM&R and Electrodiagnostic Medicine. Currently, Dr. Howard serves as Outpatient Medical Director for Rehabilitation Care at the Seattle VA campus, and Associate Professor of Rehabilitation Medicine at the University of Washington. In addition to educating PM&R residents, she is a fellowship director for the VA's first Chief Resident in Quality and Safety for rehabilitation medicine. She serves on national committees for the American Association of Neuromuscular and Electrodiagnostic Medicine. Through her leadership, the VA Puget Sound achieved ALS Association Center of Excellence designation in 2015, and became an independent member of the Northeast ALS (NEALS) Consortium in 2018. She was awarded the Clinical Excellence Award by the Paralyzed Veterans of America in 2018. She has numerous publications and national presentations on the rehabilitation management of ALS.

Melissa Ko, M.D., FAAN, CPE, is an Associate Professor in the Departments of Neurology and Ophthalmology at Indiana University School of Medicine. Dr. Ko is a neuro-ophthalmologist who specializes in the care of children and adults with visual symptoms secondary to a nervous system condition. Dr. Ko is a graduate of Yale College with a degree in biology. Following her undergraduate work, she spent a year in AmeriCorps, teaching and working with high-risk youth. She received her medical degree from the University of Rochester School of Medicine and was inducted into the Alpha Omega Alpha medical honor society. She completed her medicine internship and neurology residency at the Hospital of the University of Pennsylvania, followed by a neuro-ophthalmology fellowship at the Scheie Eye Institute/Hospital of the University of Pennsylvania/Children's Hospital of Philadelphia. She is a fellow, board member, and incoming Vice President of the North American Neuro-Ophthalmology

Society (NANOS). She is an editorial board member of the Journal of Neuro-ophthalmology. Dr. Ko is also a fellow of the American Academy of Neurology (AAN) and the Editor-in-Chief of AANnews. She is a faculty recipient of the Leonard Tow Humanism in Medicine Award through the Arnold P. Gold Foundation. Her clinical research interests center on the utilization, benefits and barriers of tele-neuro-ophthalmology.

Ellen Cohn, Ph.D., CCC-SLP, ASHA Fellow, resides in NJ and teaches remotely for the Department of Communication and Rhetoric, University of Pittsburgh, and the University of Maryland Global Campus. She was the founding coordinator of the American Speech-Language-Hearing Association's (ASHA) Special Interest Group on Telepractice. A member of the American Telemedicine Association (ATA), she served two terms on the ATA Board of Directors, on several inter-professional standards and guidelines teams, on the founding accreditation program team, and as coordinator of the Special Interest Group on Terehabilitation. Cohn previously served as Professor, Communication Science and Disorders, and Associate Dean for Instructional Development, School of Health and Rehabilitation Sciences and as Interim Director, Undergraduate Program in Rehabilitation. Cohn has co-authored books on the topics of diversity in higher education; communication as culture; telerehabilitation; communication science and disorders (a casebook); videofluoroscopy and cleft palate speech; Tele-AAC; and Assistive and Augmentative Communication. She co-authored two programs at the University of Pittsburgh's School of Law: Certificate Program in Disability Law, and the first MSL with a Concentration in Disability Law. Cohn has served as the founding Editor of the peer-reviewed International Journal of Telerehabilitation since 2008. She received the 2019 Editor's award, ASHA's Perspectives Journal, for her article on tele-ethics. Cohn is a frequently invited presenter on telehealth.

Chad Gladden, AuD, CCC-A, is the Audiology Telehealth Coordinator for the VA Audiology and Speech Pathology National Program Office. He is a national spokesperson for the advancement of tele-audiology and serves on numerous national committees dealing with connected care within the VA. Dr. Gladden has authored articles and presented nationally on ways to get started in tele-audiology and has served as a master preceptor to beginning tele-audiology practitioners. He has a strong commitment to advancing telehealth and connected care and preparing staff for involvement in this important service to Veterans.

Saleem Chowdhry, M.D., is a Gastroenterologist in Cleveland Clinic, Cleveland (Ohio). His focus of practice is Inflammatory Bowel Disease, in addition he is the telemedicine lead for Digestive Disease and Surgery Institute, which includes more than 200 Gastroenterologists and Surgeons.

Betsy Cyr, PT, DPT, PCS, is an assistant clinical professor at the University of New England and a board-certified clinical specialist in pediatric Physical Therapy. She has been in clinical practice for 16 years with a focus in pediatrics across a variety of clinical settings. In March 2020 she quickly shifted her clinical practice to telehealth, and joined the Academy of Pediatric Physical Therapy's Telehealth Committee in May 2020. She has presented nationally on topics related to engagement, assessment, and best practice in pediatric telehealth. In addition to teaching and clinical practice, Betsy is a mentor in the UNE/Maine LEND pediatric physical therapy residency program and in the dissertation phase of

her Doctor of Health Science degree at Drexel University. Her career passions involve supporting children through effective multidisciplinary teaming, promoting recreational fitness for individuals with disabilities, and participating in knowledge translation activities.

Joseph C. English III, M.D., is currently a Professor of Dermatology at the University of Pittsburgh, Department of Dermatology. He graduated from St Bonaventure University with a Bachelor's of Science in 1987 and obtained his medical degree from the Pennsylvania State University College of Medicine in 1991. His dermatology residency was performed at Brooke Army Medical Center from 1994-1997. He has spent his entire career in academic dermatology as a clinician educator. He has a broad range of interests in medical dermatology, producing over 200 various publications and a textbook entitled "Skin and Systemic Disease". He is the Medical Director of UPMC North Hills Dermatology Clinic and the UPMC Hair & Nail Clinic. He is also the Medical Director of Tele-dermatology and his current focus is on expanding the department's tele-dermatology platforms/capabilities for the patients of the UPMC Health System.

Session 4: (Ateev Mehrotra, Theresa Cullen, Elizabeth Krupinski, Angela Siefer)

Ateev Mehrotra, M.D., M.P.H., is a Professor in the Department of Health Care Policy at Harvard Medical School. Dr. Mehrotra's research focuses on delivery innovations and their impact on access, quality, and spending. These include innovations such as telemedicine, retail clinics, and e-visits. He is also interested in the role of consumerism and whether price transparency and public reporting of quality can impact patient decision making. Dr. Mehrotra received his B.S. from the Massachusetts Institute of Technology, his medical degree from the University of California, San Francisco and completed his residency in internal medicine and pediatrics at the Massachusetts General Hospital and Children's Hospital of Boston. His clinical work has been both as a primary care physician and as an adult and pediatric hospitalist.

Theresa Cullen, M.D., M.S., is a family physician and clinical informatician who has led numerous large-scale health IT software development and deployment initiatives throughout her time in public service. She began her career with Indian Health Service (IHS) in 1984 as a family practice physician, and from 2006-2011 she served as the Chief Information Officer (CIO) and Director of the Office of Information Technology for IHS. In 2012, she retired from the U.S. Public Health Service with the rank of Rear Admiral and Assistant U.S. Surgeon General. Dr. Cullen went on to work as the Chief Medical Information Officer for the Veterans Health Administration from 2012-2015. She later served as Associate Director of Global Health Informatics at the Regenstrief Institute, where her work focused on the use of technology to meet clinical needs and improve health outcomes in low- and middle-income countries. Dr. Cullen became the Public Health Director of Pima County, Arizona, in May 2020 to help guide the county through the COVID-19 pandemic.

Elizabeth Krupinski, Ph.D., FSPIE, FSIIM, FATA, FAIMBE, is Professor and Vice-Chair of Research at Emory University in the Departments of Radiology, Psychology and Bioinformatics. She received her BA from Cornell, MA from Montclair State and PhD from Temple, all in Experimental Psychology. Her interests are in medical image perception, observer performance, decision making, and human factors. She is Associate Director of Evaluation for the Arizona Telemedicine Program and Director of the Southwest Telehealth Resource Center. She is Past President of ATA, Past Chair of Society for Imaging Informatics in Medicine, Past Chair of SPIE Medical Imaging, and Vice President of the Society for Education and the Advancement of Connected Health and President of the Medical Image Perception Society. She is Editor of Telemedicine Reports.

Angela Siefer, is the executive director of the National Digital Inclusion Alliance. Angela has been working in the field we now call digital inclusion since 1997. From physically setting up computer labs in underserved areas and managing local digital inclusion programs to consulting for the US Department of Commerce and testifying before Congress, Angela develops national strategies and solutions from the ground up. In 2015, Angela helped found the [National Digital Inclusion Alliance](#), a unified voice for home broadband access, public broadband access, personal devices, and local technology training and support programs. Angela serves on the Board of Directors of the Schools, Health, & Libraries Broadband Coalition. *Government Technology Magazine* named Angela one of their [Top 25 Doers, Dreams, and Drivers of 2019](#), and in 2021, the UCC Media Justice Ministry awarded her the [Parker Award](#).

Session 5: (Leonie Heyworth, Jonathan Zivony, Jonathan Zivony, Steve Shook)

Leonie Hayworth, M.D., M.P.H., is the Deputy Director for Clinical Services in VA's Office of Connected Care, Telehealth Services. Dr. Heyworth joined VA's Office of Primary Care in 2015, and in 2018, transitioned to the Office of Connected Care while continuing to practice Primary Care and precept residents at VA San Diego. Having most recently served as VA's National Director of Synchronous Telehealth, she brings vast award-winning experience to the Clinical Deputy Director role. Her leadership and advocacy for national policies and initiatives that enable front-line care teams to deliver quality, accessible telehealth care have earned significant recognition, including a 2019 Government Innovation Rising Star Award and VA's prestigious Dr. Robert L. Jesse Award for Excellence in Innovation in 2020. Dr. Heyworth's efforts have built the foundational elements of VA's telehealth program, enabling rapid change during the COVID pandemic. She is board certified in internal medicine and is an associate professor at the University of California, San Diego. A graduate of Harvard University School of Medicine, Dr. Heyworth spearheaded a variety of activities at the VA over the last several years.

Jonathan (Jon) Zivony, has served as the Associate Chief Officer for the VHA Office of Disability and Medical Assessment (DMA) since April 2021. In this role, Mr. Zivony leads VHA wide support for compensation and pension and pre-discharge examinations in support of delivery of VA benefits

including healthcare services. Prior to this role, Mr. Zivony served as a National Improvement Specialist with the VHA Center for Improvement Coordination (CIC), working closely with VA Medical Center executive teams and senior clinicians to improve quality of care, satisfaction, patient flow, and patient safety metrics. Mr. Zivony has been nationally recognized for his efforts in leading several medical centers to make significant improvements in their healthcare services to Veterans. He previously served as an executive hospital administrator at the William Jennings Bryan Dorn VA Medical Center in Columbia, South Carolina from 2011-2015 and has held various leadership positions in VA medical centers and VA Central Office. Mr. Zivony is a graduate of several VA executive leadership programs and is a Fellow in the American College of Healthcare Executives (FACHE). He earned his BBA in Finance and MBA/MHA from Georgia State University (J. Mack Robinson College of Business) in Atlanta.

Steve Shook, M.D., M.B.A., is currently the Lead for Virtual Health at Cleveland Clinic, focused on using digital tools to transform clinical practice, optimize patient outcomes, improve patient and caregiver experience, reduce cost-of-care, and better manage populations. He played a key leadership role during the Clinic's COVID-19 virtual health transformation, working to facilitate uninterrupted patient access and minimizing health care worker exposure by rapidly expanding telehealth services. His team developed the Distance Health Playbook which drew attention from the White House and was shared with health systems across the United States and abroad.

Session 6: (Lisa Robin, Marisa McGinley, Ron Pulivarti, Nakia Grayson)

Lisa Robin, M.L.A., is Chief Advocacy Officer at the Federation of State Medical Boards (FSMB). She joined the FSMB in 1994 and currently leads the FSMB Washington, DC office. Ms. Robin earned her bachelors and master's degrees from Texas Christian University. During her tenure with the FSMB, Ms. Robin has been active in policy development and promulgation on issues including telehealth and license portability, pain management and addiction treatment, medical marijuana, stem cell and regenerative medicine, and issues related to ethics and professionalism. In addition to policy development, Ms. Robin, as an executive member of the C-Suite, is involved with the overall administration of the FSMB and is directly responsible for FSMB's state and federal government affairs and policy, continuing education, communications/public affairs and the FSMB Research and Education Foundation.

Marisa McGinley, DO, M.Sc., is an Assistant Professor of Neurology in the Cleveland Clinic Lerner College of Medicine, a staff member at the Cleveland Clinic Neurological Institute's Mellen Center for Multiple Sclerosis, and the Telehealth Lead for the Neurological Institute at the Cleveland Clinic. She received her BA from The College of Wooster in 2008 and DO from the Ohio University Heritage College of Osteopathic Medicine in 2012. She completed a neurology residency at Loyola Medical Center in Chicago in 2016. She then completed a Neuroimmunology fellowship at the Cleveland Clinic in 2017 and Masters in Clinical Research at Case Western Reserve University in 2018. She was the recipient of a Sylvia Lawry NMSS fellowship award and an NIH KL2 Cleveland CTSA career transition award. She has

published over 20 peer reviewed articles in the field of multiple sclerosis and telehealth most recently in high impact journals such as JAMA and The Lancet. Her current research focuses on incorporation of technology to facilitate distance health and the utilization of real-time data streams to better inform clinical trials and routine clinical care.

Ronald Pulivarti, is the Healthcare Lab Program Manager who leads an engineering team at the National Cybersecurity Center of Excellence (NCCoE), which is part of the National Institute of Standards and Technology (NIST). He and his team promote the acceleration of businesses' adoption of standards-based, advanced cybersecurity technologies for the healthcare sector. Mr. Pulivarti has a strong technical background and cybersecurity experience in multiple high value asset applications. Prior to NIST, Mr. Pulivarti worked within the Department of Health and Human Services and has served in many IT leadership roles for over 20 years.

Nakia Grayson, is an IT Security Specialist who leads Supply Chain Assurance & Autonomous Vehicles research project efforts at the National Cybersecurity Center of Excellence (NCCoE), which is part of the National Institute of Standards and Technology (NIST). She is also a part of the Privacy Engineering Program at NIST, where she supports the development of privacy risk management best practices, guidance, and communications efforts. Ms. Grayson serves as the Contracting Officer Representative for NIST cybersecurity contracts.

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.

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