## 2021-2022 Year in Review

### VANDERBILT INSTITUTE FOR MEDICINE AND PUBLIC HEALTH



Institute for Medicine and Public Health



The Institute for Medicine and Public Health at Vanderbilt exists to connect research and teaching with policy and practical solutions. We are charged with re-imagining and amplifying collaborations among faculty, trainees, students, and the broader community affiliated with Vanderbilt University and Vanderbilt University Medical Center. The Institute reaches across the state, nation, and the global community to translate knowledge into better health.

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OFFICE OF HEALTH EQUITY



### INSTITUTE FOR MEDICINE AND PUBLIC HEALTH

Director, Russell Rothman, MD, MPP

#### Colleagues,

It has been another tumultuous year. International conflicts, climate change, the COVID-19 pandemic, the opioid crisis, violence, health inequities, increases in chronic diseases, rapid expansions in data and artificial intelligence, economic forces, and other issues all have had an impact on individual and public health. The Vanderbilt Institute for Medicine and Public Health remains committed to addressing these and other challenges that impact individual, family, and population health and well-being. We continue to support education, training, community engagement, and research efforts that seek to "translate knowledge into better health." The stories below exemplify many of the activities that faculty, staff, trainees, and students affiliated with IMPH are engaged in to try to improve population and public health. Please take a moment to reach out to the staff, students, trainees, and faculty affiliated with these projects and thank them for the amazing work that they do to try to address challenges and improve our future. The IMPH is eager to support any staff, students, trainees, or faculty at Vanderbilt with interest in getting more involved with our education, training, community or research efforts. Please visit our website, or reach out to us if you would like to get involved.

Best wishes, *Russell* 

#### Russell Rothman, MD, MPP

Professor, Internal Medicine, Pediatrics, & Health Policy Ingram Chair in Integrative and Population Health Senior Vice President, Population and Public Health Director, Institute for Medicine and Public Health



The IMPH provides academic, research and infrastructure support for a wide array of efforts at VUMC aimed at improving individual and population health nationally and internationally. The institute seeks to connect research and teaching with policy and practical solutions. The Institute currently provides support five major research centers, the Vanderbilt Institute for Global Health, the Center for Epidemiology the Center for Biomedical Ethics and Society the Center for Health Services Research and Vanderbilt Memory and Alzheimer's Center, two departments (the Departments of Health Policy and Biostatistics). We also work closely with the Office of Health Equity to address research and education issues related to health equity.

The mission of the Institute for Medicine and Public Health is to improve personal and public health through discovery, training, and service programs aimed at protecting against threats to health, promoting healthier living, improving the quality of health services, and preparing leaders to advance health and health care. The Institute for Medicine and Public Health's work is conducted by its member and affiliated centers, institutes, and programs. The institute serves to motivate, educate, and support investigators and educators

The institute serves to motivate, educate, and support investigators and educators who translate new evidence into health care practice, thereby improving personal and community health.



> 250 Faculty from Schools of Medicine, Nursing, and Arts And Science

28 Research Centers 2 Departments



> \$150 Million Annual Research Funding and 400 Grants



Education and Training

**3 PhD Programs:** Epidemiology, Health Policy, Biostatistics

**3 Master of Public Health Tracks:** Epidemiology, Health Policy, Global Health

#### **Training:**

- 2 T32s in Health Services Research and Molecular and Genetic Epidemiology of Cancer
- 3 K12s in the Learning Health System, Implementation Science and HIV and Cardiovascular Disease
- 1 KL2 Program, Vanderbilt Faculty Scholars



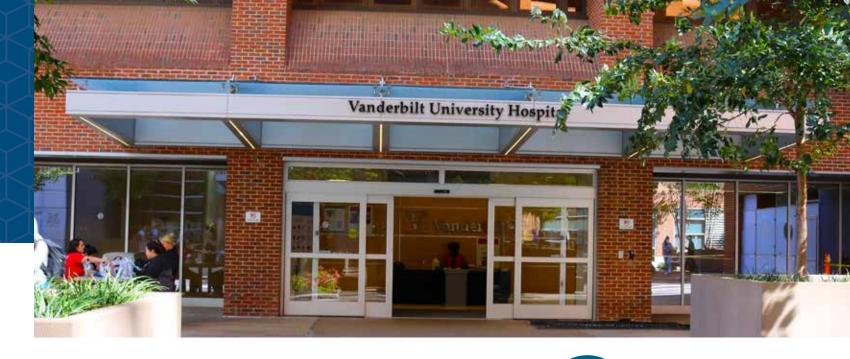
### CENTER FOR HEALTH SERVICES RESEARCH

Director, Sunil Kripalani, MD, MSc, SFHM, FACP

The <u>Center for Health Services Research</u> develops, implements, and evaluates interdisciplinary solutions to improve health care delivery and health outcomes for patients, families and the community. We perform research and advance knowledge to create health care systems that provide care that is safe, timely, effective, patient-centered, efficient, and equitable.

#### SUPPORTED PROGRAMS

- Center for Clinical Quality and Implementation Research (Kripalani)
- Center for Surgical Quality and Outcomes Research (Penson)
- Center for Health Behavior and Health Education (Elasy)
- Center for Effective Health Communication (Cavanaugh, Kripalani)
- <u>Center for Research and Innovation in System Safety (Weinger)</u>
- Center for Quality Aging (Simmons)
- Center for Emergency Care Research and Innovation (Collins, Self)
- Center for Critical Illness, Brain Dysfunction and Survivorship (Ely, Pandharipande)
- <u>Center for Asthma Research (Hartert)</u>
- Women's Health Research (Velez Edwards)
- Veteran's Health Services Research (Murff)
- <u>Center for Child Health Policy (Patrick)</u>
- ViTAL: Vanderbilt Center for Tobacco, Addiction, and Lifestyle (Tindle)
- Center for Musculoskeletal Research (Archer)
- Center for Improving the Public's Health through Informatics (Matheny, McPheeters)
- Geriatric Research, Education and Clinical Center (Dittus)
- Center for Cardiovascular Outcomes Research and Trials Evaluation (Freiberg)
- Rural Health Equity Research Program (Murry)
- Center for Health Care Modeling (Graves)



#### **RECENT HIGHLIGHTS**



Hospital Medicine Reengineering Network (HOMERuN)—VUMC is a founding member of the HOMERuN collaborative, which engages hospitalists, researchers, and hospital medicine groups at leading medical centers nationwide, accelerating the discovery and swift implementation of quality care improvements. Sunil Kripalani, MD, MSc, and Eduard Vasilevskis, MD, MPH, lead VUMC's participation. Projects include multi-site studies on the preventability of hospital readmissions; incidence, causes, and risk factors for diagnostic error in hospital settings (UPSIDE); and a large clinical collaborative on COVID-19. HOMERuN maintains an active Patient & Family Advisory Council, established under a Eugene Washington Award from the Patient-Centered Outcomes Research Institute PCORI.



The Stakeholders, Technology And Research Clinical Research Network (STAR CRN) includes

the Vanderbilt Health System, the Vanderbilt Healthcare Affiliated Network, Meharry Medical College, the UNC Health Care System, the Duke Health Care System, Health Sciences of South Carolina, Wake Forest Health Care, and Mayo Clinic. These systems comprise scores

of academic and community hospitals, hundreds of practices and over 14 million patients nationally. The populations cared for by STAR members are diverse in age, race, ethnicity and urban/rural status. The objective of our CRN is to robustly support projects in comparative effectiveness research, pragmatic clinical trials, and other key research areas. This network can provide access to a broad array of clinical data, patients, providers, and systems to address an array of research questions.



Research (RN) includes Vanderbilt harry Medica em, the Sciences of h Care, and rise scores actices and ed for by rban/rural projects al trials, e access to ystems to





> \$57 Million in Annual



6 Training Programs

• 40 postdoctoral fellows



40k Occupied Square Feet



3 Cores

• Qualitative

- Implementation/Quality
- Improvement
- Health Communication





### VANDERBILT **EPIDEMIOLOGY CENTER**

Director, Wei Zheng, M.D., Ph.D.

The Vanderbilt Epidemiology Center is committed to conducting research to enhance our understanding of the distribution and determinants of disease and inequities in health in diverse populations, promoting collaboration aimed at the translation of research into strategies for disease prevention and health care delivery, and training independent investigators in epidemiology research and disease prevention.

Vanderbilt Epidemiology Center faculty investigators come from more than 10 VUMC departments and divisions, bringing a depth of knowledge that is reflected in the innovative methods and novel discoveries being made. Our faculty share a broad interest in research to investigate the influence of environmental and lifestyle factors, biomarkers, and genetic makeup on the risk and progression of diseases. Current research areas include the epidemiology of cancer, cardiovascular disease, diabetes, infectious diseases, and reproductive outcomes. Center investigators direct more than 50 National Institutes of Health-funded research projects, including three large population-based prospective cohort studies with over 225,000 study participants. Other ongoing studies include multiple large case-control studies of cancer and follow-up studies of breast cancer and childhood cancer survivors.

The center has considerable strengths in international epidemiologic research and training and has close ties with multiple domestic and international institutions, furthering our mission to improve the health of human beings.



### **Expanding Geographic Reach of Population Research**

Leading multiple large-scale national and international cohort studies

> 345,000 Research Subje ual Collabora 1,100+ Papers Published

cipants with a biolo 61% with household income < \$15,00



#### **Southern Environmental Health Study**

The National Cancer Institute (NCI) funded project led by the Vanderbilt Ingram Cancer Center (VICC) assesses the impact of environmental exposures on cancer risk for people living in Southern states. VICC principal investigators Wei Zheng, MD, PhD, MPH, Anne Potter Wilson Professor of Medicine and Associate Director for Population Sciences Research, and Martha Shrubsole, PhD, Research Professor, lead the project. Investigators from Meharry Medical College, Mount Sinai, and Utrecht University in the Netherlands are collaborators on this 6-year \$27 million initiative.





#### **50 Investigators**

> 80 externally funded research projects and training programs (> 20 consortia) covering the following topics, among others:

- Cancer
- Cardiovascular Heart Disease
- Stroke, Parkinson's
- Asthma
- Diabetes
- Bone Fracture
- Infectious Diseases
- Kidney Diseases
- Obesity
- Reproductive Health
- Global Health

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> \$53 Million in Annual **Research Funding** 



> 350 Peer-reviewed **Publications Annually** 



### **CENTER FOR BIOMEDICAL ETHICS AND SOCIETY**

#### Director, Keith G. Meador, MD, ThM, MPH

The mission of the Biomedical Ethics and Society Center is to provide leadership in education, research, and clinical service at VUMC concerning the ethical, legal, and social dimensions of medicine, health care, and health policy. The center is committed to multidisciplinary exploration of the individual and social values, cultural dynamics, and legal and professional standards that characterize and influence clinical practice and biomedical research.

#### **Team Honors with Ethics Focus**

- Leah Lomotey-Nakon, MEd, MTS, fifth-year social ethics PhD candidate in the Graduate Department of Religion at Vanderbilt University and biomedical ethics trainee at the VUMC Center for Biomedical Ethics and Society, named a Hastings Center Sadler Scholar.
- Katherine Dodd Faculty Scholars Program: Uchenna Anani, MD, Assistant Professor of Clinical Pediatrics, selected as a 2021-2023 Scholar and Daniel Benedetti, MD, Assistant Professor of Pediatrics, selected as a 2020-2022 Scholar. The program helps faculty members develop and enhance their skills as clinicians and educators and provides an opportunity to conduct scholarly research, conduct and evaluate an educational project, or implement and evaluate a clinical or quality improvement project in an area of interest linked to their clinical area or to medical education. We seek to support junior faculty members as future leaders in our department and in the School of Medicine and to create a community of clinicians advancing education, practice, or policy in their area of focus.
- Ellen W. Clayton, MD, JD, Professor of Pediatrics, Law, Health Policy, has served as co-chair of the Report Review Committee for the National Academies of Sciences, Engineering, and Medicine since 2016. In this role, she has overseen more than 100 reports, and she has overseen all the rapid responses of the Academies to COVID-19.

#### **Clinical Ethics Consults**

The Clinical Ethics Consultation Service (CECS) responds to requests for support in addressing ethical questions, conflicts, or concerns in patient care. The CECS is a resource for inpatient and outpatient settings across VUMC and the Vanderbilt Health Affiliated Network. Clinical ethics consultation may be requested by any member of the VUMC faculty or staff, as well as by patients, their surrogates, or family members.



#### **Programmatic Initiatives**

#### **Rooted Community Health**

- The Growing Good Health CSA (community-supported agriculture) program has grown, enrolling over 300 people in 2022.
- Continued engagement in issues around food insecurity, working with the Shade Tree Clinic and the Vanderbilt Dietetic Internship Program.
- John Compton, MDiv, Rooted Community Health Program Coordinator, participated on a panel with former Vice President Al Gore at the annual Climate Underground conference, speaking about the Growing Good Health Program.
- Alexander Langerman, MD, SM, FACS, hosted the first global conference on Ethical, Legal and Social Implications of Surgical Recording. The conference highlighted the history, technology, and potential clinical and social impact of surgical recording and included a discussion led by Dr. Langerman, Gerald Fried from McGill University, and Teodor Grantcharov from the University of Toronto on the opportunities and challenges of surgical recording (recorded live on May 14, 2021).
- An endowment fund was created to support a new annual lecture in memory of Associate Professor of Nursing Kate Payne, JD, RN, NC-BC, a bioethicist, attorney, and beloved nurse leader at VUMC and the Vanderbilt University School of Nursing.



Center for Biomedical





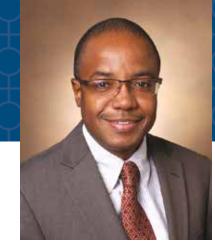
#### 51 Core and **Affiliated Faculty**

#### **Students and Fellows**

- 5 Biomedical Ethics **Certificate Graduates**
- 14 GME Ethics Certificate Participants
- 2022 Burns Scholar in Clinical Ethics - Claire Lo, MD. now a resident in **VUMC** Internal Medicine



- Foundations of Medical Knowledge (FMK)
- Foundations of Clinical Care (FCC)
- Research Immersion Experience
- Learning Communities Lecture Series
- Focused discussions with clinical and ethics faculty during each clinical rotation
- VU and VUMC education classes



### VANDERBILT INSTITUTE FOR GLOBAL HEALTH

#### Director, Muktar Aliyu, MD, DrPH, MPH

Established in 2005, the Vanderbilt Institute for Global Health (VIGH) is a multidisciplinary global health institute that amplifies Vanderbilt's expertise in research, education, and service to improve health and well-being for people worldwide-especially those in low- and middle-income countries. Its "centerwithout-walls" philosophy nurtures transdisciplinary partnerships among and within departments and schools on campus and with partner institutions around the globe. VIGH strives to engender sustainable, scalable health and development programs in resource-limited settings through innovative multidisciplinary approaches rooted in vital academic research and training. Global partnerships are at the heart of this mission, and "capacity building" is a core value of the institute and is reflected in its robust commitment to training and research programs at home and abroad. VIGH faculty appointments span eight Vanderbilt schools and colleges, and adjunct faculty are based worldwide. Some faculty departments include Medicine, Infectious Diseases, Pediatrics, Health Policy, Neurology, Neurosurgery, Biomedical Informatics and Biostatistics, Epidemiology, Anesthesiology, Biomedical Engineering, and Nursing. Explore a few highlights of this year's impactful research and innovative capacity-building initiatives demonstrating an unwavering commitment to advancing global health.

#### **New Research and Training Programs**

- Childhood Status Epilepticus and Epilepsy Determinants of Outcome
- <u>Traditional healer-initiated HIV counseling and testing</u> in rural South Africa
- Etiology of Persistent Microalbuminuria in Nigeria
- Aminu Kano Teaching Hospital-Bayero University Kano-Vanderbilt: Developing Future Leaders in Child Neurology and Epilepsy Research
- Molemolemo: Building Research Administration Excellence
  in South Africa
- Pediatric Anesthesia Training in Africa

#### **Highlighted Research with Impact**

*The Lancet* recently published "<u>The Lancet Nigeria Commission: investing in</u> <u>health and the nation's future</u>," co-authored by Muktar Aliyu, MD, DrPH, MPH, Director of VIGH, and international colleagues, the Commissioners provide a comprehensive roadmap for improved health services in Nigeria through a whole-of-government and multi-sectoral approach.

Published in *BMC Medical Education*, a new 10-year evaluation of the Vanderbilt Institute for Research Development and Ethics program shows a positive impact on scholars' careers and significant knowledge gains in identifying funding, writing grant components, and reviewing grants.



#### **News and Announcements**

Recent National Institutes of Health awards support two new capacity-building programs in Zambia and Nigeria. The <u>Vanderbilt-Zambia Cancer Research</u> <u>Training Program</u> is developing a cadre of researchers and educators equipped with modern knowledge and expertise to lead cancer epidemiology research and training in Zambia. In collaboration with Nigerian colleagues, the <u>Vanderbilt-Nigeria Biostatistics Training Program</u> is training a cohort of highly skilled Nigerian biostatisticians to lead and supervise high-level biostatistics activities for HIV research studies in West Africa.

In 2021, VIGH joined Yale University and the University of Liberia College of Health Sciences to establish a public-private-academic hub for research utilization in the Liberian health sector, as well as an academic network to strengthen Liberia's education and health sectors. Applying Research for a Healthy Liberia project funding comes from the United States Agency for International Development (USAID) <u>Bringing Research to Impact for</u> <u>Development, Global Engagement, and Utilization (BRIDGE-U)</u> program.

Launched in 2022, PeerNaija, a mobile health application to address the mental health treatment gap among young people living with HIV in Nigeria, is a digital game with a choose-your-own-adventure format. Adolescent players navigate difficult experiences contributing to mental distress and depression and learn to re-envision different outcomes from the same circumstances. Fundamental principles of problem-solving therapy are integrated with a task-shifted counseling intervention to meet mental health needs and improve outcomes.

In collaboration with the Vanderbilt University School of Engineering, VIGH researchers are working to develop a device that provides accurate point-of-care detection of jaundice in newborns of all skin tones using a noninvasive approach.





132 Affiliated Faculty Members

\$106 Million in Funding for FY22 of which \$57.6M were Global Projects

#### Education and Training

#### 2021/2022

- 774 International Trainees
- 566 Vanderbilt Engaged Students
- 18 MPH Global Health Track Graduates
- 6 Graduate Certificate in Global Health Graduates
- 20 Global Health Course Students (Vanderbilt Medical School)



### **DEPARTMENT OF HEALTH POLICY** Chair, Melinda B. Buntin, Ph.D.

Vanderbilt University's Department of Health Policy brings together a broad group of health policy scholars devoted to developing health policy solutions that can have a profound impact. The department builds on a history of strong collaboration with the Tennessee Department of Health, the Centers for Disease Control and Prevention, and several frontline policy makers to develop health policy solutions for our nation's most pressing health care challenges. The combination of a major research university and a preeminent medical center gives department faculty incredible opportunities to build relationships with frontline care providers and policy makers, which can lead to breakthrough discoveries. The department fosters a deep belief that research and innovative thinking should guide health policy relationships and help policy makers understand implications.

Department of Health Policy faculty conduct and publish research in a wide range of areas, including, for example, health care economics, infectious disease, prescription drug pricing, health information technology, Medicare and Medicaid, and maternal and child health. Faculty research is focused on using innovative qualitative and quantitative research methods to contribute to the reduction of disparities in health care. This work is intended to guide health policy relationships and help policy makers understand the real-world meaning of research findings.





engaged in influencing and promoting federal investments in science and engineering.





PhD student, was awarded the Laurence G. Branch Doctoral Student Research Award by the Aging & Public Health section of the American Public Health Association (APHA). Nathaniel was presented with the award at a ceremony during the annual APHA meeting in Boston, MA, on November 7th, 2022.



Nathaniel Tran, a third year Health Policy



Grant Portfolio of \$27.5 Million



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#### Education and Training

- 58 students for fall 2022 in both first and second year
- MPH: Health Policy, Global Health, Epidemiology
- 11 PhD Health Policy



### **DEPARTMENT OF BIOSTATISTICS**

**Director, Yu Shyr, PhD** 

#### Honors/Announcements

- Yu Shyr, PhD, professor of Biostatistics, was elected and inducted as an AACR Fellow.
- Hakmook Kang, PhD, associate professor of Biostatistics, received the ٠ School of Medicine's Jacek Hawiger Award for Excellence in Teaching and inducted into the Academy of Excellence in Education.
- Mario Davidson, PhD, assistant professor of Biostatistics, received the School of Medicine's Geoffrey Chazen Award for Innovation in Medical Education and elected to the board of the Academy of Excellence in Education.
- Dandan Liu, PhD, associate professor of Biostatistics along with Alan Storrow and Sunil Kripalani, is a principal investigator of the STRATIFY implementation project funded by a four-year, \$3 million grant from the National Heart Lung and Blood Institute of the National Institutes of Health.
- Frank Harrell, PhD, professor of Biostatistics, has been appointed ٠ Senior Biostatistics Advisor at the U.S. Food and Drug Administration's Center for Drug Evaluation and Research.
- Rameela Raman, PhD, associate professor of Biostatistics, was one of the two inaugural winners of the Vanderbilt Center for Health Services Research health equity research grants, for her investigation of neuropsychological cognitive tests used on ICU survivors.
- Ben French, PhD, associate professor of Biostatistics, received a pilot grant through Oak Ridge Associated Universities to study radiation epidemiology and risk estimates.

#### **Events and Meetings**

- useR! 2022: Organized chiefly by the department, this international conference for R developers and users drew 1,227 registered participants from 96 countries.
- Statistical Methods in Imaging 2022: Organized and hosted by the department, the hybrid annual meeting of the American Statistical Association's Statistics in Imaging section welcomed 113 attendees.





#### **Education Programs**

- Biostatistics Graduate Program (MS and PhD degrees awarded): in February 2022, ranked by US News and World Report as one of the top 15 biostatistics programs in the country
- Vanderbilt Biostatistics Summer Internship for Underrepresented Undergraduates
- Center for Quantitative Sciences Summer Institute
- Vanderbilt-Ingram Cancer Center Data Science Shared Resource **On-Demand Bioinformatics Course**
- Vanderbilt-Nigeria Biostatistics Training Program

#### **Programmatic Initiatives**

- **Biostatistics Collaboration Center (BCC)**
- Center for Quantitative Sciences (CQS)
- Vanderbilt Technologies for Advanced Genomics Analysis and Research Design (VANGARD)

#### **Research Studies with Impact**

- Cancer-Immu data portal
- IVY: Featured Publication "Association between mRNA vaccination and COVID-19 hospitalization and disease severity"
- CCC-19 and Cancer Consortium Registry (CCC19)







49 Primary. 9 Secondary, 10 Adjunct/Adjoint

• 13 IT. 45 analytical, 9 administrative staff members

Grant Portfolio of \$4.6 Million



Education and Training

- 14 Master's and 28 PhD students
- 3 postdoctoral trainees and 3 interns





# VANDERBILT MEMORY & ALZHEIMER'S CENTER

Director, Angela L. Jefferson, PhD



The Vanderbilt Memory and Alzheimer's Center houses an interdisciplinary team of scientists and clinicians committed to discovering the root cause of Alzheimer's disease. Our approach combines innovative methods in genomics, biomarkers, brain imaging, and vascular assessments. With growing evidence that brain and vascular health are intertwined, we seek to map the pathways that lead to Alzheimer's disease pathology and cognitive decline among older adults We are inspired by the communities we serve and the knowledge that our work will contribute to reducing the immense burden that Alzheimer's disease creates on patients and families.

#### Vanderbilt Memory and Aging Project Gains National Attention

In 2020, the Vanderbilt Memory and Alzheimer's Center received two important grants from the National Institute on Aging to support a major expansion of the Vanderbilt Memory and Aging Project cohort. Over the past year, we have expanded outreach and engagement efforts as we work to add more than 600 new participants to the study, particularly people of color, who are disproportionately impacted by Alzheimer's disease yet are historically underrepresented in research.

As part of these efforts, the study gained national attention when actress, activist, and Vanderbilt Memory and Aging Project participant Kimberly Williams-Paisley joined Maria Shriver on NBC's The Today Show in June. Kimberly shared how her mother's decade-long struggle with Alzheimer's disease inspired her to join our research efforts. Her story inspired people across the country, as we received more than 2,500 new participant inquiries immediately following the segment.

The Vanderbilt Memory and Aging Project seeks to identify risk factors for Alzheimer's disease and related dementias, emphasizing cardiovascular and cerebrovascular drivers of cognitive changes and memory loss in aging adults. Participation in research is crucial to understanding the multiple



pathways that lead to Alzheimer's pathology and related dementias, which offers researchers a chance to identify intervention targets much earlier in the disease process.

#### **Programmatic Initiative: P30 ADRC**

In August 2020, the Vanderbilt Memory and Alzheimer's Center was awarded a 3-year, \$3.8 million grant from the National Institute on Aging to establish an exploratory Alzheimer's Disease Research Center (ADRC) at VUMC.

This P20 center, which is the first of its kind in Tennessee, supported the planning and infrastructure development necessary for a transition to a National Institute on Aging-funded P30 ADRC and brought together more than 70 faculty from over 20 departments, centers, and institutes across Vanderbilt University, VUMC, and Meharry Medical College.





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### **IMPH COLLABORATING DEPARTMENT**



### OFFICE OF HEALTH EQUITY

Senior Vice President and Senior Associate Dean for Health Equity and Inclusive Excellence, Consuelo Wilkins, MD, MSCI

The Office of Health Equity (OHE) at VUMC serves as an institutional home for catalyzing and enabling educational, research, clinical, and operational initiatives to prevent and address inequities in health among marginalized, minoritized, and socially disadvantaged populations.

#### **Education and Training**

OHE coordinates and initiates community health and health equity initiatives across VUMC. Though education and training, OHE aims to serve as a resource for learners and help prepare current and future health leaders to promote health equity.

#### **Community Health Equity**

Within OHE, the Community Health Equity team creates partnerships to improve community and population health and advance health equity. The team is also responsible for conducting Vanderbilt Health's Community Health Needs Assessment (CHNA) and Implementation Strategy (IS) every three years.

#### Research

OHE fosters research that addresses health inequities, facilitates academic and community partnerships, and provides training around community-engaged research.

#### Addressing Racial Equity at VUMC and VUSM

VUMC and VUSM's plan for confronting racial inequities provides a guide for discussion and implementation of changes at the medical center and school. The Racial Equity Plan was released internally in 2022 and outlines key actions organized into eight thematic areas, including infrastructure development, research, workforce, and health care.





Research, Education & Training, and Community Health Highlights

- 27 Health Equity Innovation Awards supported across VUMC since 2020
- 56 Vanderbilt University School of Medicine students enrolled in the Graduate Certificate in Health Equity program since 2021
- 22 MD and MPH students matched to work with a community organization for an immersive health equity experience through the Lefkowitz Fund since 2020
- 64 mini-grants awarded focused on community health and health equity across six Tennessee counties since 2018





IMPH supports a wide array of faculty, trainees, and students across Vanderbilt seeking to translate knowledge into improved health care delivery and well-being. We are focused on removing barriers and bringing groups together to think innovatively and to rapidly take up new ideas to improve how health care is delivered locally, nationally, and internationally.

The Vanderbilt Master of Public Health (MPH) Program is a twoyear interdisciplinary program offered through the Vanderbilt University School of Medicine. The MPH Program offers three tracks: Epidemiology, Global Health, and Health Policy. Graduate degrees are conferred through Vanderbilt University.

- Master of Public Health (MPH)
- Master in Biostatistics (MS) •
- Doctor of Philosophy in Biostatistics (PhD) ٠
- Doctor of Philosophy in Health Policy (PhD)
- Doctor of Philosophy in Epidemiology (PhD)
- Doctor of Philosophy in Biomedical Informatics (PhD) (Department of Biomedical Informatics)
- Graduate Certificate in Biomedical Ethics
- Graduate Certificate Program in Health Equity
- Graduate Certificate in Global Health

#### **Training Programs for Medical Residents, Fellows,** and Postdoctoral Trainees:

- Vanderbilt Patient pRractice Outcomes Research in Effectiveness and Systems Science (PROgRESS) T32 Program
- Nashville VA Quality Scholars Program •

#### **Junior Faculty and K12 Training Programs:**

- The Vanderbilt Scholars in T4 Translational Research (V-STTaR)
- Vanderbilt Learning Health System Scholar .
- Vanderbilt Training Program in the Molecular and Genetic Epidemiology of Cancer

### MASTER OF PUBLIC HEALTH PROGRAM **Educating Future Public**

#### A Quarter Century of Vanderbilt MPH

Vanderbilt's two-year MPH program began in 1996. The first class had eight students and one focus: Epidemiology, The first Global Health students began in 2012, with Health Policy students joining in 2015. The program now offers three distinct tracks and multiple dual-degree opportunities. It has hosted 13 renowned speakers for the David Satcher Lecture Series. and has awarded MPH degrees to 373 graduates.





### EPIDEMIOLOGY PhD PROGRAM

This year, the Epidemiology PhD Program received accreditation from the Council on Education for Public Health (CEPH). The program trains critical thinkers who are prepared to make fundamental advances using rigorous and cutting-edge approaches to research. Graduates work in academia, research, or industry or develop an independent research portfolio and contribute across a broad spectrum of content areas and research foci.

Peter Rebeiro, PhD, MS Director Of Graduate Studies Vanderbilt PhD Program In Epidemiology





**Health Leaders** In academic year 2022-23, 30% of students self-identified as male. while 70% identified as female. In total, 66% of current students self-identified as White, 30% Black, 11% Asian, and 5% Hispanic. (a total > 100% for multiracial matriculants). Among incoming students, 40% noted one or more Health Resources & Services Administration indicators on their

## **MPH STUDENTS**

DCEPH

#### Worldwide Reach

About 90% of graduates are in applied and academic public health positions locally, nationally, and internationally. More that 60% of the 2021 graduating class published their scholary work while in the program. Together, Vanderbilt MPH alumni have published nearly 3,000 peer-reviewed journal articles.



## **ALUMNI IMPACT**

We are proud to offer a CEPH-accredited public health doctoral degree, and we will ontinue to engage and prepare our stude through rigorous quantitative training in iology, the basic science of public health. Thank you and Congratulations to a involved in the accreditation process - Dr. Peter Rebein



### STUDENT AND ALUMNI RECOGNITION

#### **MPH ALUMNI**



Dan Tilden, MD, MPH, recipient of the Oscar **B. Crofford Scholar in Diabetes Award** was honored at Diabetes Day 2022.



Panel considers ways to improve vaccine readiness, restore trust

"There is no easy solution for this," said panelist Jennifer Erves, PhD, MPH, MEd, associate professor of Internal Medicine at Nashville's Meharry Medical College. As a start, however, health care must engage with the community. Just show up," Erves said. "We have to meet people where they are."



Derek Williams, MD, MPH, chief of the Division of Hospital Medicine in the Vanderbilt Department of Pediatrics, has received the 2022 Excellence in **Research award from** the Society for Hospital Medicine (SHM) for his contributions to numerous studies to improve the care delivery and outcomes for children with pneumonia and other acute respiratory illnesses.



**Experts Seek Uniform Patient Confidentiality Policies for Adolescents** 

"Adolescents are at high risk for sensitive medical issues. Redressing rampant confusion and inconsistency with regard to patient privacy for this group should be a national public health priority," said Trent Rosenbloom, MD, MPH, Vice Chair of Faculty Affairs and professor of Biomedical Informatics, Pediatrics, Medicine and Clinical Nursing at VUMC.



Brad Hawkins, Christianne Roumie and Annie Smart from Vanderbilt MPH at Tennessee Public Health Association annual 2022 meeting



Melissa Krasnove and Annie Smart at TPHA 2022 representing **IMPH Education Programs** 

Tita González Peña

School of Medicine Doctor of Medicine, Master of Public Health #VU2022



"I love being at Shade Tree," González Peña said. "I found belonging there because I think we all had this common goal of service as well as learning and teaching each other, since people work there with all different subspecialties like ophthalmology, gynecology, orthopedics and more. Ultimately, we have that same overarching goal of caring for those in need."







### **Global Health**

Kia Quinlan, MD, MBA, VU '22, received the Sten H. Vermund Award for Excellence in Global Health for her strong commitment to global health. As a leader, innovator, and global health champion during her time at Vanderbilt, Kia engaged in several VIGH programs and courses. She completed a clinical rotation with Primeros Pasos Clinic in Guatemala and will begin her residency in pediatrics at Baylor College of Medicine.



#### Epidemiology

Simone Herzberg, G3 Epi PhD student, received Best Oral Presentation award at the 37th annual National MD/PhD Conference in Copper Mount, CO for her talk "Obesity and Degenerative Rotator Cuff Tears." 25

#### **MAKING HEALTH CARE PERSONAL**

#### Study shows that gene-drug interactions are common

VUMC is among five IGNITE research centers funded by the National Institutes of Health. Josh Peterson, MD, MPH, professor of Biomedical Informatics and Medicine at VUMC and director of VUMC's Center for Precision Medicine, is a VUMC co-principal investigator, along with Sara Van Driest, MD, PhD, associate professor of Pediatrics and Medicine, for an IGNITE Network pragmatic clinical trial investigating the use of pharmacogenomics for prescribing antidepressants and opiates. Dr. Peterson commented on the publication as follows: "We hope that, with this report, physicians and health care payers will begin to take more notice of the broad opportunity available to personalize therapy. Our results show multigene pharmacogenetic panels can help across all adult age ranges and for a wide selection of drugs. drugs. With the count of CPIC level A drugs having risen to 60,

#### PheWAS reveals post-COVID-19 diagnoses

the opportunity has only gotten larger."

Josh Peterson, MD, MPH, and colleagues reported in the Journal of the American Medical Informatics Association that associations between genetic variations and medical conditions in the electronic health record can identify new "post-COVID" diagnoses. Using data on 186,105 adults tested for SARS-CoV-2 at VUMC, they found that COVID-19 survivors had were at increased risk of more than 40 new diagnoses, which may have important long-term implicationsfor public health.

#### **POPULATION HEALTH** AND BIG DATA

#### VUMC team creates COVID-19 research registry

Josh Peterson, MD, MPH, leader of the COVID-19 registry project, described the "urgent need to understand the biological underpinnings of COVID, involving researchers from almost every medical specialty," noting that "one big-data approach is to aggregate cases from the EHR and curate key outcomes and phenotypes within the data, to make it easier for researchers to conduct more complex analyses."

#### **Multicenter trial finds** convalescent plasma ineffective for patients with severe COVID-19

A recent report from a multicenter randomized-controlled trial (PassITON) led by Wesley Self, MD, MPH, Jill Pulley, **MBA**, and the VICTR team found that convalescent plasma does not help severely ill patients with COVID-19 to recover and survive. Blood for the trial was collected at VUMC and shipped across the country to enable this 1000-patient, 25-center trial.

#### About half of health care workers positive for COVID-19 by serology have no symptoms Wesley Self, MD and Bo Stubblefield, MD, lead the IVY Research Network epidemiology studies of COVID-19 in health care workers and patients. "We are continuing to study COVID-19 in front-line health care workers across the country to better understand what may be done to decrease their risk of infection, such as using specific types of personal protective equipment," Dr. Stubblefield

said.

#### **Study finds COVID infections** in health workers often go undetected

Many COVID-19 infections among health care workers go undetected, likely because many people infected with SARS-CoV-2, the virus that causes COVID-19, have mild or no symptoms, a study led by Wesley Self, MD, MPH, shows.

#### Study to explore how COVID affects cognition over time

"There is emerging evidence that COVID-19 affects the brain and leads to a wide range of neurological complications such as delirium. Because it affects the brain and causes delirium, we hypothesize that a disproportionate number of patients might develop long-term cognitive impairment, PTSD and depression," said Jin Han, MD, MSc, associate professor of Emergency Medicine and principal investigator of the study.

#### New study examines coronavirus transmission within households

The study funded by the Centers for Disease Control and Prevention examined the transmission of SARS-CoV-2, the virus that causes COVID-19, within households in Nashville. This is one of few longitudinal studies in the country that will examine coronavirus infections among close contacts.

#### **Multinational consortium** reports COVID-19 impact on patients with cancer

Newly released data on treatment outcomes among people with cancer diagnosed with COVID-19 reveal a racial disparity in access to remdesivir, an antiviral drug that has been shown to shorten hospital stays, and increased mortality associated with dexamethasone, a steroid that has had the opposite effect in the general patient population. Vanderbilt co-authors on the study included Samuel Rubinstein, MD; Brendan Lee; Brian Rini, MD; Sanjay Mishra, PhD; Chih-Yuan Hsu, PhD; and Yu Shyr, PhD.

#### New analysis finds association between masking requirements and slower growth in COVID-19 hospitalizations

In a new analysis, researchers from VUMC's Department of Health Policy have found a relationship between the growth of hospitalizations and masking requirements put in place in different areas of Tennessee.

#### Study to determine incidence of novel coronavirus infection in extensive press coverage here. **US children begins**

Tina Hartert, MD, MPH, director of the Center for Asthma and Environmental Sciences Research, vice president for translational research, the Lulu H. Owen Chair in Medicine, and a professor of medicine at VUMC, leads the nationwide Human Epidemiology and RespOnse to SARS-CoV-2 (HEROS) surveillance study to define the magnitude of SARS-CoV-2 infection in the US population.

#### **The COVID-19 pandemic** brought changes in cigarette smoking

Hilary Tindle, MD, MPH and colleagues conducted a cross-sectional study to understand changes in smoking risk perception during the COVID-19 pandemic. Smokers who believed they were at increased risk of getting COVID-19 during the pandemic were more likely to quit, while those with higher perceived stress increased their cigarette consumption. The results of this research were published in the Journal of General Internal Medicine.

#### Well-being of parents and children during the COVID-19 pandemic: a national survey Stephen Patrick, MD, MPH and colleagues study how COVID-19 is

affecting the health, well-being, and food security of U.S. families with children.

**Critical Illness, Brain** effects of COVID-19

Wes Ely, MD and the VUMC Critical Illness, Brain Dysfunction, and Survivorship (CIBS) Center collaborators study the cognitive function and physical outcomes of COVID-19 survivors to unravel the relationship between COVID-19 and long-term health. Learn more about all CIBS studies and their

An international COVID-19 clinical trial co-led by Wesley Ely, MD, MPH, found that baricitinib, a drug used to treat rheumatoid arthritis, significantly improved survival among critically ill patients with COVID-19 who required mechanical ventilation or extracorporeal membrane oxygenation (ECMO).

#### Vanderbilt research shows impact of COVID-19 on mental health

Throughout the COVID-19 pandemic, people have dealt with mental struggles including anxiety, depression, and isolation. "For most of us who are oriented around relationships with other people who draw energy from other people and interaction with others this isolation has been very challenging," Dr. Jim Jackson, a professor of medicine and psychiatry at VUMC, said.

### HEALTH EQUITY

#### Minority patients less likely to have the amyloid plagues necessary for Alzheimer's treatments In an article published in JAMA

Neurology, Consuelo Wilkins, MD, MSCI and colleagues showed that Black, Hispanic, and Asian patients are more likely to present with dementia than with mild cognitive impairment, a precursor to more advanced neurological decline, and are less likely to have PET-detected amyloid in their brains. The findings

### **Dysfunction, and Survivorship Center examines long-term**

highlight the need to understand the underlying causes of memory loss in racially and ethnically diverse communities, including social factors and disparities in care.

#### Confronting racial inequities in medical education

VUMC's Office of Health Equity's plan for confronting racial inequities provides a guide for discussion and implementation of changes at the medical center. The Office of Health Equity offered a panel discussion on how racism creates and perpetuates health inequities: Racism, Health and Health Care: Where Do We Go from Here?

#### **Resources for enhancing** community engagement and health equity in clinical research are available through the Office of Health Equity and VICTR

These include a variety of training modules developed specifically for academic researchers by Community Engaged Research Core faculty, staff, and community partners.

#### VUMC to participate in **American Medical Association** effort to advance equitable quality & safety in patient care

Consuelo Wilkins, MD, MSCI, and colleagues are participating in the American Medical Association effort to advance equitable guality and safety in patient care. VUMC, in collaboration with seven other institutions, will pilot various tools to embed equity throughout VUMC's health care delivery practices, advancing racial justice and health equity for patients, staff, and communities. The Vanderbilt Ingram Cancer Center featured Dr. Wilkins in a recent article, "Everyone Deserves to Be Healthy."

Dr. Wilkins was also a driving force in VUMC's Racial Equity Plan to transform the medical center into an anti-racist, multicultural institution that delivers equitable health care to our

communities. Along with Dr. Wilkins, **Elisa Friedman, MS, Sunil Kripalani, MD, MS**c, and others from Vanderbilt published an leading the <u>NEJM Catalyst</u> <u>article on a systems approach to</u> <u>addressing COVID-19 health inequities.</u>

#### Dr. Velma Murry gives talk on equity in evaluation for POTUS Executive Office

Velma McBride Murry, PhD, professor of Health Policy and Lois Audrey Betts Chair in Education and Human Development, was invited to present her research on equity in evaluation for the Office of Management and Budget at the White House to kick off a five-part series highlighting evidence-based practices related to advancing racial equity and supporting underserved communities. "Policies and programs implemented during the Jim Crow era continue to detrimentally impact people of color," Dr. Murry, said. "From the establishment of a research question to the dissemination of results, all components of a project must be considered from an equity lens."

### Genetic ancestry and hypertension risk

**Digna Velez Edwards, PhD, MS**, working with colleagues in Nashville, Memphis, Atlanta, and Boston, <u>conducted</u> <u>trans-ethnic association analyses of</u> <u>ancestry proportions in more than</u> <u>300,000 participants in the Million</u> <u>Veteran Program</u>, a study of the genetic contributions to disease led by the US Department of Veterans Affairs (VA).

#### Equitable pandemic preparedness and rapid response: lessons from COVID-19 for pandemic health equity

Early data assessing the primary language of those who received COVID-19 tests at VUMC and those who tested positive, illustrates the disproportionate impact of the pandemic on certain racial and ethnic communities. **Consuelo Wilkins, MD, MSCI; Elisa Friedman, MS; Sunil Kripalani, MD, MSc;** and **28**  colleagues across VUMC are working to disaggregate data about who has been tested, tested positive, been hospitalized, or died, by language, race, ethnicity, ZIP Code, and insurance status.

### Eliminating race as a variable in estimating kidney function

"A multidisciplinary, cross-level group at VUMC has worked to end the longstanding practice of inappropriately using race as a variable in the calculation of eGFR. "Through this project, we hope to challenge the medical community to re-examine the inappropriate use of race as a proxy of biologic or genetic difference and its resulting impact on patients, including the unjust diversion of attention and resources away from Black patients," Sophia Kostelanetz, **MD**, **MPH**, assistant clinical professor of Medicine at VUMC and Co-Leader of the Nashville Chapter of the Campaign Against Racism, said on behalf of the group.

### Skin pigment affects oxygen monitoring

**Wesley Self, MD, MPH,** co-authored a publication in *Critical Care Explorations* showing that Black patients had an incidence of hypoxemia three times greater than that of white patients when oxygen saturation was assessed by pulse oximetry as 92 to 96%. The findings highlight the need to redesign pulse oximeters to accurately measure arterial oxygen saturation (SaO<sub>2</sub>) for all patients.

#### LEARNING HEALTH COMMUNITIES

### Study outlines VUMC's learning health care system strategy

In a recent paper, VUMC researchers detail VUMC's learning health care system (LHS) strategy and lessons learned in practice. "Our LHS platform at VUMC embraces all of our missions. In creating and disseminating generalizable knowledge that improves what care is provided and how care is provided, a true team science approach is needed. By partnering our research, clinical, and learning experts, we are able to <u>evaluate</u> innovations and their real-world effects at scale and in a way that will inform clinical practice everywhere," said **Chris Lindsell, PhD**, where centralized resources for the LHS platform are housed.

#### INNOVATIVE RESEARCH METHODS

#### Self named co-principal investigator of Vanderbilt's Clinical and Translational Science Award

Wesley Self, MD, MPH, has been named co-principal investigator of Vanderbilt's Clinical and Translational Science Award (CTSA). He will also serve as Deputy Director of VICTR and continue to lead the clinical research infrastructure at VUMC.

### VUMC the pacesetter for a national aspirin study

According to an innovative large-scale clinical trial reported recently in The New England Journal of Medicine, taking a single daily baby aspirin (81 mg) or a single daily adult aspirin (325 mg) is equally safe and effective for prevention of adverse cardiovascular events in patients with established atherosclerotic cardiovascular disease. Sunil Kripalani, MD, MSc; Daniel Muñoz, MD, MPA, and Russell Rothman, MD, MPP, worked with their colleagues on the ADAPTABLE team to complete this study. "Beyond addressing this important issue for patients with cardiovascular disease, this was an opportunity to demonstrate the usefulness of PCORnet for truly largescale pragmatic trials," Dr. Rothman said.

## STAR Clinical Research Network receives major grant renewal

The VUMC-based <u>Stakeholders</u>, <u>Technology and Research Clinical</u> <u>Research Network Clinical Research</u> <u>Network (STAR CRN)</u>, has been

approved for an additional \$8.9 million in funding from the Patient-Centered Outcomes Research Institute (PCORI) to support its efforts to improve health care throughout the Southeast and across the United States. "We are excited to have 3 additional years of infrastructure funding from PCORI to expand the STAR CRN's efforts to support a wide array of patient-centered research," said Russell Rothman, MD, MPP. Dr. Rothman is principal investigator of the STAR CRN, which harnesses the power of electronic medical records to support comparative effectiveness research, pragmatic clinical trials, and other research that is national in scope.

#### Collins takes on new Vanderbilt Coordinating Center, IMPH leadership roles

Sean Collins, MD, MSci, has taken on the additional roles of Co-Director of the Vanderbilt Coordinating Center and Associate Director for Clinical Trials Research at IMPH. "We are excited about the success Dr. Collins has had leading the Center for Emergency Care Research and Innovation, and we look forward to his new leadership role," said **Russell Rothman, MD, MPP**. "Dr. Collins will help to advance innovative research methods and expand our portfolio of pragmatic trials across the Institute for Medicine and Public Health."

#### VUMC to test whether Alzheimer's drug can ease lupus symptoms

James Jackson, PsyD is co-principal investigator of a clinical trial to test whether a drug currently used to treat Alzheimer's disease (memantine) can improve cognitive symptoms associated with systemic lupus erythematosus. VUMC's Drug Repurposing Program, under VICTR, will partner with Evergreen Therapeutics Inc. to conduct the 14-week, double-blind "ClearMEMory" trial in about 60 adult patients with lupus.

#### Audio recor benefit olde clinic visits Kerri Cavanau co-principal inv National Institu

co-principal investigator of a new National Institutes of Health/National Institute on Aging-funded study that will examine the impact of sharing audio recordings of their visits with older patients who have diabetes. The REPLAY trial will examine patient factors such as medication adherence, diabetes quality of life indicators, healthcare utilization, and clinician practice behavior.

#### ADAPTABLE study recognized with prestigious research award

The ADAPTABLE study has been selected as a Top 10 Clinical Research Achievement Awardee for 2022 by the Clinical Research Forum, a nonprofit organization dedicated to promoting understanding and support for clinical research and its impact on health and health care. The award recognizes outstanding achievements in clinical research from across the United States, identifying major advances in the biomedical field resulting from the nation's investment in health and welfare. VUMC investigators on the ADAPTABLE study include **Sunil** Kripalani, MD, MSc; Daniel Muñoz, MD, MPA; Russell L. Rothman, MD, MPP.

#### Collaborative helping Middle Tennessee nursing homes control COVID-19

Sunil Kripalani, MD, MSc, and colleagues received a two-year, \$1.2 million award from the Tennessee Department of Health and Centers for Medicare and Medicaid Services to provide tailored education and coaching to 75 Middle Tennessee nursing homes focused on infection control, quality improvement and other pandemicrelated challenges.

### Audio recordings could benefit older adults following

#### Kerri Cavanaugh, MD, MHS, is

#### Ely publishes inspired reflections on patient care in the ICU

Wes Ely, MD, MPH, has written and published Every Deep-Drawn Breath: A Critical Care Doctor on Healing, Recovery, and Transforming Medicine in the ICU. The book tells the stories of real people, bringing to life a path of discovery that is reshaping patient care in the ICU and beyond.

# Experts seek uniform patient confidentiality policies for adolescents

In an article published in *Pediatrics,* **Trent Rosenbloom MD, MPH, Jessica Ancker, PhD, MPH**, and colleagues reported <u>considerable variability by</u> state in adolescent patient privacy and independent consent for health <u>care services</u> laws that often counter the provision of confidential care to adolescents advocated by medical societies. The authors' "call to action" centers on aligning state laws with policies and recommendations for providing the best care possible.

#### Food allergy linked to lower risk of SARS-CoV-2 infection Tina Hartert, MD, MPH; William Dupont, PhD and the HEROS study team reported in the *Journal of Allergy*

and Clinical Immunology that asthma does not increase the risk SARS-CoV-2 infection and that people with food allergies were less likely to become infected. The study, co-led by Dr. Hartert, included more than 4,000 people in nearly 1,400 households in 12 US cities with at least one child or young adult.

#### Pushing (anti-overdose) drugs Adam Wright, PhD, Allison McCoy,

**PhD** and colleagues conducted a quality improvement project to implement an EHR alert system for patients at high risk for opioid overdose that resulted in a 16-fold increase in naloxone prescriptions. The findings, <u>reported</u> in Anesthesia & Analgesia, highlight the usefulness of EHR alerts to change prescribing patterns.

#### Autism and sleep problems

In an article published in Sleep Medicine, Beth Malow, MD, and colleagues reported that using key words instead of ICD codes was more effective to identify patients with autism and associated sleep problems in de-identified electronic health records. With this approach, they found that 86% of the patients with autism reviewed had sleep problems and that two-thirds of patients who used melatonin reported benefits.

#### Scale measures confidence with telehealth technology Lyndsay Nelson, PhD, Shari Barkin, MD, MSHS, and colleagues developed a threeitem scale called the Digital Health Care Literacy Scale, to measure an individual's confidence in using digital health care services such as telehealth. The tool, reported in JMIR Formative Research, has been tested and validated in a group of caregivers of young children.

#### Trauma study aims to improve survival for bleeding patients Mayur Patel, MD, MPH, and

**Emergency Medicine and Trauma** Surgery researcher, is collaborating with Vanderbilt LifeFlight as a site in a Department of Defense-funded clinical trial aimed at improving survival with resuscitation techniques used to keep patients alive after a traumatic injury. The TOWAR (Type O Whole blood and assessment of Age during prehospital Resuscitation) Trial will enroll more than 1,000 adults who are bleeding and en route to a trauma center to test whether resuscitation with whole blood improves survival.

#### Additional COVID vaccine helps protect transplant patients Wesley Self, MD, MPH, is principal

investigator of a study showing that, even after vaccination, patients taking

immunosuppressive medications to prevent rejection of an organ transplant are at higher risk for severe COVID-19 compared with those with competent immune systems. These findings were published in the Journal of Infectious Diseases.

#### Study compares moral injury in health care workers and Veterans

New research from Keith Meador, MD, ThM, MPH, and colleagues found that health care workers showed similar rates of potential moral injury (PMI) as military service members who deployed to combat after 9/11. This work was published in the Journal of General Internal Medicine.

#### Study shows life-saving benefit of baricitinib for ventilated **COVID** patients

Wes Ely, MD, MPH published a groundbreaking study in The Lancet Respiratory Medicine, demonstrating that, among critically ill patients with COVID-19, those randomized to baricitinib had lower 28-day all-cause mortality, compared to standard of care. The multinational COV-BARRIER trial led to a change in WHO guidelines for treatment of COVID-19.

#### Many Medicare beneficiaries do not fill high-price specialty drug prescriptions

Many Medicare beneficiaries do not fill high-price specialty drug prescriptions, particularly when they do not receive a low-income subsidy. Stacie Dusetzina, PhD. Russell Rothman. MD. MPP. and colleagues found that beneficiaries receiving subsidies were twice as likely to obtain a prescribed drug compared with those not receiving subsidies, demonstrating the need to increase the accessibility of high-price medications by reducing out-of-pocket expenses

under Medicare Part D.

#### VUMC team tests tool to reduce heart failure admissions Sunil Kripalani, MD, MSc, and colleagues are evaluating

implementation of the STRATIFY (Improving Heart Failure Risk Stratification in the Emergency Department) clinical decision support tool in different emergency department settings to determine which factors affect how the decision support tool is used in practice and how the local environment and use of the tool impact hospital admissions for heart failure.

#### Multicenter cluster randomized, stepped wedge implementation trial launched

An implementation trial co-authored by Chris Lindsell, PhD, has been launched with the aim to "inform military stakeholders regarding oxygen requirements for critically injured warfighters, while reducing logistical burden in prolonged combat casualty care."

#### Study compares surgeries for low birthweight babies

Martin Blakely, MD led the Necrotizing Enterocolitis Surgery Trial (NEST), a multicenter study to improve survival and reduce the neurodevelopmental impairment among newborns diagnosed with necrotizing enterocolitis or isolated intestinal perforation.

#### **Bots boost liver** cancer outcomes

Xiao-Ou Shu, MD, PhD, and Vanderbilt Epidemiology Center colleagues have conducted the largest study to date to confirm the efficacy of roboticassisted surgery in treating early-stage hepatocellular carcinoma.

#### **VUMC** researchers lead nationwide National Institutes of Health-funded clinical trial to treat severe COVID complications

Sean Collins, MD, MSc, who has deep

expertise in emergency care and the renin-angiotensin-aldosterone system (RAAS), is leading a trial to test whether drugs targeting the RAAS can prevent the vascular, fibrotic and inflammatory consequences of severe COVID-19.

#### VUMC aids national effort to repurpose drugs for COVID-19

The goal of ACTIV-6, part of the Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV) public-private partnership, is to prioritize and speed development of the most promising treatments. Chris Lindsell, PhD, is the ACTIV-6 Data Coordinating Center (DCC) principal investigator. DCC

co-investigators are Sean Collins, MD, MSci; Wesley Self, MD, MPH; Russell Rothman, MD, MPP; Thomas Stewart, PhD, MS; and Frank Harrell, PhD.

#### Dusetzina outlines savings from four primary Medicare Part D reform proposals

Stacie Dusetzina, PhD, outlined differences among four leading proposed plans to redesign Medicare Part D in an analysis pubished in The New England Journal of Medicine.

#### Study finds deaths among Veterans higher in 2020, but lower than in the general population

A study led by Kevin Griffith, PhD, found that deaths among Veterans using the Veterans Health Administration increased by 16% in 2020, compared with a 23% increase in the general population, despite Veterans having more risk factors for negative COVID-19 outcomes.

#### **Study shows little variance** in overdose deaths by Medicaid expansion status

Kevin Griffith, PhD examined how the pandemic impacted access to substance use disorder treatment services, which are improved with Medicaid services. Medicaid expansion and non-expansion states experienced similar increases in

drug and opioid overdose deaths during the first year of the COVID-19 pandemic.

**VUMC directorship celebration** honors leaders in clinical care. research, education, and administration Center for Health Services Research faculty honored with new endowed directorships include Pratik Pandharipande, MD, MSCI; Sarah Jaser, PhD: Jessica Ancker, PhD, MPH: Adam Wright, PhD, Paul Moore, MD; and Alexander Gelbard, MD.

found to reduce alcohol intake Hilary Tindle, MD, MPH; Matthew Freiberg, MD, MSc, and colleagues recently published the findings of a clinical trial testing whether three proven smoking cessation medications could also reduce alcohol intake. After three months, alcohol consumption decreased regardless of type of treatment, suggesting that a single medication can improve health by reducing drinking and smoking frequency. These study results were published in JAMA Network Open.

#### Faculty member recognized for contributions to the nursing profession Gilbert Gonzales, PhD, MHA, received the 2022 Friend of Nursing Award

for significant contributions to the profession of nursing from an individual who is not a nurse or Vanderbilt University School of Nursing graduate. Dr. Gonzales has lectured and led student seminars for many years at the Vanderbilt University School of Nursing and is an international expert on health policy reform, disparities, and LGBTQ health.

VUMC contributes expertise to opioid epidemic panel Melinda Buntin, PhD, and Stephen Patrick, MD, MPH, MS, participated in a panel of experts discussing the importance of recovery ecosystems or networks of resources to respond

## Smoking cessation treatments

to the opioid epidemic as part of the Department of Health Policy's Research into Policy & Practice Lecture Series. Dr. Patrick presented a brief report on substance abuse disorder and its impact on pregnancy, highlighting that overdose is the leading cause of pregnancyrelated death in Tennessee.

#### **Global News**

#### **VUMC investigator expands HIV** research into South Africa

Carolyn Audet, PhD, assistant professor of Health Policy, has partnered with Ryan Wagner, PhD, Research Fellow at the University of the Witwatersrand in South Africa, to develop a novel HIV testing strategy for individuals living in rural communities.

#### **Study incorporates genetics** with smoking history to identify high-risk smokers for lung cancer screening

Wei Zheng, MD, PhD, Anne Potter Wilson Professor of Medicine and director of the Vanderbilt Epidemiology Center, and colleagues incorporated a polygenic risk score they developed usin GWAS-identified risk variants for lung cancer in the analysis of data from the UK Biobank, which provides data and biospecimens from approximately 500,000 people aged 40-69 years in England, Scotland, and Wales.

# IMPH SPONSORED EVENTS, TEAM BUILDING ACTIVITIES AND COMMUNITY SERVICE



Established in 2022, the Diversity, Equity, and Inclusion (DEI) working group of the IMPH staff council seeks to communicate and promote resources, initiatives, and events across Vanderbilt University Medical Center and Vanderbilt University campuses to educate and inform the IMPH community on DEI topics.



STAR CRN update from Dr. Russell Rothman



Our CTSA TL1 trainees and epidemiology PhD students, Danielle Rankin and Jordan Bley presented posters at the Association for Clinical and Translational Science (ACTS) 2022 Translational Science Meeting.



JOIN THE **VANDERBILT IMPH** HAPPY EARTH DAY **CLEAN-UP**!

VOLUNTEER WITH THE VANDERBILT INSTITUTE FOR MEDICINE AND PUBLIC HEALTH COMMUNITY SERVICE TEAM FOR METRO BEAUTIFICATION NEIGHBORHOOD CLEAN-UP RSVP BY A/2



#### THANK YOU!

Anisa, Didi, Ebele, Erin,Haig, Josie, Ritu, Ron & Ma Just in few hours we've helped to sort and pack 5195 pounds of food that would help feed 4329 people. hank you for sorting and packing at the Second Harve Food Bank as part of the Vanderbilt IMPH community



Thank you for coming out to volunteer with IMPH and serve the Second Harvest Food Bank and Project CURE in helping their mission of "delivering health and hope to the world.



In recognition of Women's History Month, the Institute for Medicine and Public Health hosted a panel discussion "Women Leaders in Public Health". Our panelists-Melinda Buntin, PhD, Chair of the Department of Health Policy, Digna Velez-Edwards, PhD, Director of Women's Health Research, and Kristy Sinkfield, M.Ed, Associate Vice President for Diversity and Inclusion, shared stories about their professional journey and career in academic public health.

INSTITUTE FOR MEDICINE AND PUBLIC HEALTH HOLIDAY TOY & FOOD FUNDRAISER NOVEMBER 20- DECEMBER 20 DROP BOX LOCATIONS:











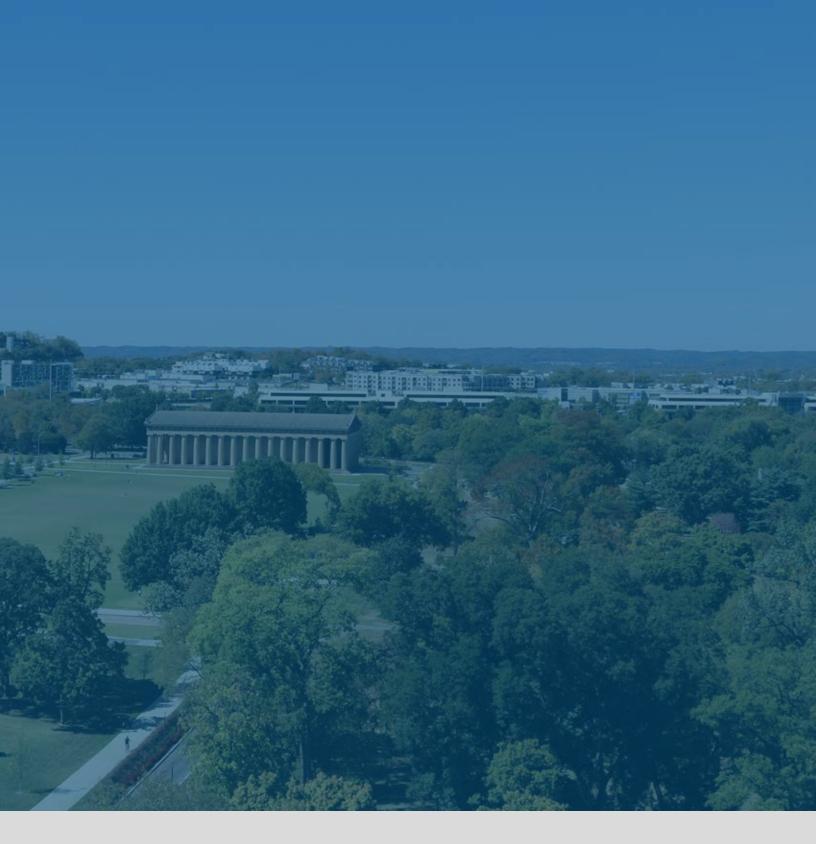


Vanderbilt Center for Health Services Research celebrated the start of another year of the long-standing weekly Work in Progress (WIP). WIP seminars bring together faculty and fellows from across the institution to support HSR and Translational Science (ACTS).



In recognition of the important role of administrative professionals, and celebration of IMPH amazing staff, the Institute for Medicine and Public Health hosted Administrative Professionals Day at the Centennial Park.





#### Vanderbilt Institute for Medicine and Public Health

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