It is health that is real wealth and not pieces of gold and silver.

— Mahatma Gandhi
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LETTER FROM THE CO-DIRECTORS

This annual report is going to press at a time of unprecedented uncertainty and disruption due to a worldwide public health crisis – COVID-19. We hope that readers are safe and well. Certainly, COVID-19 is a reminder of how central health is to every aspect of our lives, and therefore how important it is as a topic for research, teaching and service.

This year marks the Center for Health and Wellbeing’s 20th anniversary. We still hope to celebrate in an appropriate way once that is possible. Look for notes on CHW milestones in this report. Over the years, we have grown from 16 to 40 affiliates, who go from strength to strength. During 2019, several affiliates were elected to scholarly societies such as the American Academy of Arts and Sciences (Dalton Conley), the National Academy of Sciences (Janet Currie), the Econometric Society (Kate Ho) and the Cognitive Science Society (Jonathan Cohen). See page 9 for a fuller listing of our affiliates’ awards and achievements.

CHW affiliates continued to conduct wide ranging and path-breaking research in health policy, from basic research into the development of vaccines for cytomegaloviruses (which are responsible for birth defects worldwide), the genomics of cancer, and maternal and child health, to the effects of pollution on health, the use of flavoring like menthol to sell cigarettes, and determinants of inappropriate use of pharmaceuticals such as antibiotics, opioids and antidepressants.

In addition to our permanent faculty, we have had an active program of faculty visitors and postdoctoral fellows representing many disciplines and home institutions. Faculty visitors this year included Hanming Fang (University of Pennsylvania), Veronica Grembi (University of Milan), Emmanuel Henry (University of Paris), Mark Shrime (Harvard School of Public Health), and Bentley MacLeod (Columbia University), among others. Visiting professor Jennifer Hirsch (Columbia School of Public Health) attracted considerable attention on campus with her research and teaching about sexual violence on college campuses. A recent standing-room only book event here celebrated the publication of *Sexual Citizens*, the book that Prof. Hirsch finished co-authoring while in residence at CHW.

The undergraduate certificate program in Global Health and Health Policy (GHP) continued to be one of the most popular on campus. Our students did remarkable work in 2019, contributing to scholarly publications and research conferences, and creating service initiatives, such as founding a community health program in a Philadelphia neighborhood. Please see some of the many highlights on page 17. Our senior thesis prize winners Samantha Chai, Carson Clay, and Mateo Gilsilvetti wrote about immunization in India, rural hospital closures in the U.S., and Chagas disease eradication respectively, showcasing the breadth of their interests and expertise.

While all of our GHP certificate students participate in summer internship and research opportunities, CHW also sponsors fully-funded Internships in Global Health which are open to any Princeton students with interests in health policy. In 2019 we facilitated internships for 92 students in 19 countries. We deepened ties with some of our long-standing partners, such as the Montefiore Medical Center in New York, OUCRU (the Oxford University Clinical Research Unit in Vietnam), and Telethon Kids Institute in Perth, Australia. Students were also able to benefit from new partnerships both at home and abroad with sponsors such as New York City Health and Hospitals’ Special Pathogens Unit. In work that seems particularly prescient, two of our student interns with that unit went “undercover” last summer, visiting hospital emergency rooms posing as people with an infectious disease. The point was to check whether hospitals had procedures in place that would limit the spread of infections in the emergency room.

In 2019 our small but active Master’s level Health and Health Policy (HHP) certificate program gained a new faculty director in Sanyu Mojola. In a graduate policy workshop led by Heather Howard, several HHP students participated in drafting a report for the state of Nevada addressing challenges to its Medicaid program. This was the eighth annual policy workshop in a series focused on state-level health care reforms.

We continually work to improve our communications and outreach. Please visit our webpage at chw.princeton.edu and follow us on Facebook (@CHWPrinceton), Twitter (@PrincetonCHW), and Instagram (Princeton_CHW).

Best regards,

Janet Currie
CHW Co-Director

Kate Ho
CHW Co-Director

Henry Putnam Professor of Economics & Public Affairs

Professor of Economics
Celebrating 20 Years
of Interdisciplinary Collaboration and Leadership

CHW Begins Operations
The Center is established in July 2000 with Christina Paxson at the helm as director.

CHW's First Degree Certificate Program
CHW launches the Health and Health Policy Graduate Certificate and establishes courses on Political Economy of Healthcare and Epidemiology.

The Royal Center is Established
Funded by the National Institute of Health/National Institute on Aging, the Princeton Royal Center translates behavioral and social research findings into interventions to improve the lives of older people.

CHW Leads the Health Grand Challenge
CHW assumes leadership of a multi-disciplinary research and teaching cooperative designed to address cross-cutting issues of Global Health and Infectious Disease as part of Princeton's Grand Challenges Initiative.

The Global Health and Health Policy Certificate is Introduced
The GHP program serves undergraduate students who aspire to health-related careers. GHP students are required to complete core and elective courses, a health focused internship and a senior thesis related to global health.

Janet Currie Becomes CHW Director
Janet Currie assumes directorship of CHW and joins the Princeton faculty as the Henry Putnam Professor of Economics and Public Affairs.

A New Degree Program is Launched
CHW announces a Master in Public Policy program for physicians. The program provided medical professionals with the tools required to be effective in public sector positions.

The State Health Reform Assistance Network Begins
State Health Reform Assistance Network, funded by RWJF and led by Heather Howard, is established to assist states with implementing key health insurance coverage provisions of the Patient Protection and Affordable Care Act.

The Program on U.S. Health Policy is Established
The Program on U.S. Health Policy, a research center led by Janet Currie, sponsors research and activities on domestic health care and health policy.

The CHW Advisory Council is Founded
The Council, comprised of Princeton alumni, raises the Center's profile by expanding its networks and helping to guide long-term vision and plans.

A New Co-Director Begins
Economics professor Kate Ho agrees to serve alongside Janet Currie as Co-Director of CHW.

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Economics professor Kate Ho agrees to serve alongside Janet Currie as Co-Director of CHW.
Established 20 years ago, Princeton’s Center for Health and Wellbeing (CHW) seeks to address some of the most important policy issues of modern times. The Center has two distinct goals: to provide a forum for interdisciplinary collaboration and to educate future leaders. CHW’s affiliates, representing a wide swath of research disciplines, collectively embody a tremendous capacity for health-focused research at the university. Distinct from some health policy research centers, CHW does not restrict its focus to a narrow physical definition of health, but welcomes a range of academic inquiry into broad conceptions of wellness.

A Collaborative Community

Scholarly collaboration is at the core of CHW’s mission. Founding Director Christina Paxson, joined by an Executive Committee and 16 affiliates, began building CHW’s community of health and wellbeing researchers in 2000. Today, CHW is home to 40 affiliates from 13 departments in addition to many visiting scholars and postdoctoral associates. CHW’s collaborative network extends well beyond Princeton’s campus thanks to reciprocal institutional relationships. The long list of CHW partnerships has included the Desmond Tutu TB Foundation in South Africa; Oxford University Clinical Research Unit in Vietnam; the Medical AIDS Outreach of Alabama; Jabulani Rural Health Foundation in South Africa; Children’s Hospital at Montefiore in New York City; Wellbody Clinic in Sierra Leone; The Global Fund to Fight AIDS, TB and Malaria in Switzerland; and the University of São Paulo, among many others.

CHW affiliates have produced an impressive volume of research and publications, contributing to the world’s understanding of health policy. CHW staff have managed grant awards from funders such as the National Institutes of Health, the Ford Foundation, the Environmental Protection Agency, the Robert Wood Johnson Foundation, the MacArthur Foundation and the NOMIS Foundation. CHW has also housed several health-focused programs and initiatives, including the National Institute on Aging Roybal Center, the State Health Reform Assistance Network, the Princeton Health Grand Challenge, the Health Scholars program and the Adel Mahmoud Lecture Series in Global Health.

For 20 years, the Center has been attracting world-class experts, from Princeton and beyond, to present and exchange ideas with the CHW community through lectures, panel discussions, colloquia, seminars and conferences. CHW events have offered stimulating discussions on topics ranging from opioid addiction to pandemic threats to health insurance reform.
A Home for Students

To support Princeton’s undergraduates, CHW launched the certificate in Global Health and Health Policy (GHP) in 2008. The GHP certificate program provides students with a foundation in global health through a cohort model, in which students from all majors take core qualitative and quantitative courses as a group. This interaction fosters peer-to-peer learning across disciplines. Experiential learning is a central component; all certificate students complete summer internships where they apply global health concepts outside of the classroom. These internships are often funded and managed by CHW. The certificate culminates in a senior thesis that focuses on an important topic in global health. Extensive mentorship opportunities from faculty, postdoctoral fellows, and practitioners also characterize the program. After humble beginnings, GHP has greatly increased in popularity and now consistently ranks as the third- or fourth-largest undergraduate certificate program at Princeton, admitting over 70 new students annually in recent years. To support graduate students, CHW established the Health and Health Policy (HHP) graduate certificate program in 2003. Masters and doctoral students can now follow an established pathway involving coursework in the political economy of health, epidemiology and other electives.

For Princeton students interested in meaningful off-campus health-focused experiences, the Center for Health and Wellbeing developed the Internships in Global Health. Through this program, CHW organizes summer research internships with health-centered organizations around the world. Focus areas are wide-ranging and include laboratory-based cancer research, pandemic emergency preparedness, rural vaccination campaigns, among others. These internships are open to all Princeton undergraduates and graduate students, whether or not they are part of a certificate program. To make these opportunities accessible to everyone, CHW covers all expenses for accepted students. This program has grown significantly, from humble beginnings to nearly 40 summer partnerships in 2019. CHW also partners with other campus organizations, including Princeton Internships in Civic Service, the International Internship Program, and Princeton in Asia to sponsor additional global health internships. Finally, many students receive funding from CHW to support research projects and internship opportunities that they organize themselves.

A Focus on the Future

Since its inception, CHW has actively sought to fill knowledge and structural gaps within the field of health and wellbeing at Princeton University and beyond. CHW’s current success reflects 20 years of commitment, thought leadership and maturation by faculty, staff and students. The Center has responded to local, domestic and international challenges via collaborative research and perspectives while providing a structure for the continued study of the ever-shifting landscape of health and health policy - all with the ultimate goal of making an impact on communities.

Many CHW-affiliated researchers have pivoted to study and address the threat posed by Covid-19. To name just a few examples, Jessica Metcalf and Bryan Grenfell have shared their expertise in modeling the spread of infectious disease in many fora. Alin Coman received a National Science Foundation grant to study how anxiety about Covid-19 influences how people share both accurate and inaccurate information. Heather Howard and the State Health and Values Strategy team have started supporting state and local government policymakers in addressing the virus’s impacts. Finally, Shirley Tilghman has collaborated with others to increase public awareness of measures to slow the spread of the virus.

Looking forward, CHW will continue to provide support for groundbreaking research; develop and respond to change; build workforce capacity; and support innovative technologies that improve our ability to improve global health and wellbeing outcomes.
The Center for Health and Wellbeing (CHW) fosters research and teaching on diverse aspects of health and wellbeing in both developed and developing countries. The Center’s goals are to understand the determinants of health and wellbeing, to investigate the role of public policy in shaping the quality of people’s lives, and to educate undergraduate and graduate students who aspire to careers in health and health policy.

In 2020, the CHW celebrates 20 years since its founding by Professor Christina Paxson, former Dean of the Woodrow Wilson School and current President of Brown University. Now a vibrant community of current and future health policy leaders, the center is presently led by Co-Directors Janet Currie and Kate Ho along with Associate Director Gilbert Collins.

Housed within the Woodrow Wilson School of Public and International Affairs, the Center offers two certificate programs: the undergraduate Global Health and Health Policy (GHP) certificate and the graduate Health and Health Policy (HHP) certificate.

Also under the CHW umbrella are the Program on U.S. Health Policy, which sponsors research and activities addressing aspects of domestic health care and health policy, and the State Health and Value Strategies Program, a Robert Wood Johnson Foundation-funded program assisting states with health reform implementation. CHW is also home to the National Institute on Aging Roybal Center, also called the Center for Translational Research on Aging. This Center has sponsored numerous pilot projects by researchers from Princeton University and other academic institutions around the globe.
CHW affiliates are Princeton University faculty members and lecturers from various disciplines in the natural sciences, social sciences and humanities. They represent 13 departments including public policy, anthropology, economics, ecology and evolutionary biology, history, molecular biology, demography and neuroscience, among others. CHW affiliates teach health-focused courses, advise and partner with students in health-related research, and mentor students on internships and careers in global health.

NEW AFFILIATES IN 2019

Leslie Gerwin  Woodrow Wilson School

Leslie Gerwin is the Associate Director of the Program in Law and Public Affairs and Lecturer in American Studies and Global Health Policy. Her research examines the intersection of law and policymaking.

Associate Director Gerwin’s professional career is unified by a dedication to social justice and civic engagement. A significant portion of her career was spent in the nonprofit sector as a consultant to state and local government entities. As a long time consultant to the Louisiana Department of Public Health, Associate Director Gerwin developed and directed the implementation of the Adolescent School Health Initiative to facilitate the establishment of comprehensive school-based health centers, which became a national model. Before coming to Princeton, she held teaching appointments at several law schools and public health schools where she taught Administrative Law, Legislative Process, Health Law and Policy and Public Health Policy Issues, among others. In addition to her professional activities, Associate Director Gerwin’s extensive volunteer service on behalf of community and civic organizations has earned her several awards, including being named as one of the Ten Outstanding Young Women of America.
Associate Director Gerwin holds a B.S. from Prescott College, a J.D. from Antioch University, an M.P.H. from Tulane University, and an M.P.A from Harvard University where she was named a Lucius N. Littauer Fellow in recognition of her academic achievement and public service.

**Arun Hendi  Sociology & Woodrow Wilson School**

Arun Hendi is an Assistant Professor of Sociology and Public Affairs with joint affiliations in the Woodrow Wilson School and the Office of Population Research. His research uses demographic methods to study socioeconomic and racial inequalities in life expectancy and health; changing trends in marriage, divorce and assortative mating; and population dynamics in cities and rural areas. His current projects include an examination of how and why black life expectancy in the United States improved over the last quarter century and an analysis of how population flows between urban, suburban and rural areas influence health and wellbeing.

Dr. Hendi earned an A.M. in Economics and a Ph.D. in Demography and Sociology at the University of Pennsylvania. His recent projects have been supported by grants from the Robert Wood Johnson Foundation and the National Institute on Aging.

**CURRENT CHW AFFILIATES**

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<thead>
<tr>
<th>Jeanne Altmann  Ecology &amp; Evolutionary Biology</th>
<th>Elizabeth Armstrong  Sociology and WWS</th>
<th>Ruha Benjamin  Sociology and WWS</th>
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<tr>
<td>African American Studies</td>
<td>João Biehl  Anthropology</td>
<td>Anne Case  Economics and WWS</td>
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<td>Psychology</td>
<td>Alin Coman  Psychology and WWS</td>
<td>Dalton Conley  Sociology</td>
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<tr>
<td>Arun Hendi  Sociology and WWS</td>
<td>Marc Fleurbaey  Center for Human Values and WWS</td>
<td>Dr. Hendi earned an A.M. in Economics and a Ph.D. in Demography and Sociology at the University of Pennsylvania. His recent projects have been supported by grants from the Robert Wood Johnson Foundation and the National Institute on Aging.</td>
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<tr>
<td>Andrea Graham  Ecology &amp; Evolutionary Biology and WWS</td>
<td>Bryan Grenfell  Ecology &amp; Evolutionary Biology and WWS</td>
<td>Arun Hendi  Sociology and WWS</td>
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<td>Katja Guenther  History</td>
<td>Johannes Haushofer  Psychology and WWS</td>
<td>Arun Hendi  Sociology and WWS</td>
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<td>Yibin Kang  Molecular Biology</td>
<td>Ilyana Kuziemko  Economics</td>
<td>Ramanan Laxminarayan  Princeton Environmental Institute</td>
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<td>Kate Ho  Economics</td>
<td>Laura Kahn  WWS</td>
<td>Daniel Kahneman  Psychology</td>
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<td>Yael Niv  Psychology and Princeton Neuroscience Institute</td>
<td>Daniel Notterman  Molecular Biology and WWS</td>
<td>Daniel Notterman  Molecular Biology and WWS</td>
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<td>Alexander Ploss  Molecular Biology</td>
<td>Leon Rosenberg  Molecular Biology</td>
<td>Carolyn Rouse  Anthropology</td>
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<td>Joan Ruderman  Princeton Environmental Institute</td>
<td>Matthew Salganik  Sociology</td>
<td>Eldar Shafir  Psychology and WWS</td>
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<td>Harold Shapiro  Economics and WWS</td>
<td>Thomas Shenk  Molecular Biology</td>
<td>David Silver  Economics and WWS</td>
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<tr>
<td>Paul Starr  Sociology and WWS</td>
<td>Marta Tienda  Demography and WWS</td>
<td>Shirley Tilghman  Molecular Biology and WWS</td>
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<td>Keith Wailoo  History and WWS</td>
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Anne Case and Angus Deaton were named among the “World’s Top 50 Thinkers” by Prospect Magazine. They were recognized for their landmark 2015 study detecting the rise in mortality rates from “deaths of despair” (drugs, alcohol and suicide) among middle-aged white Americans. Angus Deaton also received an honorary Doctor of Letters from his alma mater, the University of Cambridge.

Jonathan Cohen was appointed as a Fellow of the Cognitive Science Society, recognizing “sustained excellence and sustained impact on the Cognitive Science Community.”

Dalton Conley was elected as a Fellow of the American Academy for the Advancement of Science (AAAS).

Janet Currie was elected to the National Academy of Sciences in recognition of distinguished and ongoing achievements in original research.

Kate Ho was elected as a Fellow of the Econometric Society, an international society for the advancement of economic theory in its relation to statistics and mathematics.

Heather Howard was named a 2019 Healthcare Influencer by ROI-NJ, a media company focused on creating dynamic engagements among influencers in New Jersey’s diverse business community.

Daniel Kahneman received a Golden Plate Award from the Academy of Achievement. The award honors exceptional accomplishment in the sciences, business, arts, literature, sports, entertainment and public service.

Yibin Kang was selected as an American Cancer Society Research Professor in 2019. Awardees are selected based on their contributions to the field of cancer research as well as their track record of mentorship.

Ramanan Laxminarayan received the BP Koirala Medal and delivered the BP Koirala Memorial Oration in honor of Nepal’s first democratically elected Prime Minister.

Marta Tienda was selected for the Fudan Scholar in China program, which brings outstanding scholars to Shanghai for on-campus exchanges and lectures. She was also elected to the board of trustees at the Urban Institute and the board of the Holdsworth Center in Austin, Texas.
CHW’s visiting scholars program arranges for researchers to devote either an academic year or a semester in residence at Princeton. They spend this time focused on research, discussion and scholarly collaborations concerning the determinants of physical, mental and emotional wellbeing along with the effect of public policy on health and wellbeing. Visiting researchers are specialists in a variety of health-related fields including medicine, psychology, biology, epidemiology, economics, sociology and other disciplines.

2019 VISITING SCHOLARS

Hanming Fang  Visiting Research Scholar

Dr. Fang is the Class of 1965 Term Professor of Economics at the University of Pennsylvania. He is an applied microeconomist, with broad theoretical and empirical interests focusing on public economics. His research covers topics ranging from discrimination, social economics, welfare reform, psychology and economics to public good provision mechanisms, auctions, health insurance market and population aging. In 2008, Dr. Fang was awarded the 17th Kenneth Arrow Prize by the International Health Economics Association for his research on the sources of advantageous selection in the Medigap insurance market.

Dr. Fang currently works on issues related to insurance markets, particularly the interaction between health insurance reform and the labor market, and alternative health insurance reform proposals. He also studies the Chinese economy, notably regarding issues related to population aging and social security.

Dr. Fang is the former co-editor of leading economics journals, including the Journal of Public Economics and the International Economic Review, and has served on the editorial board for numerous journals. He was elected as a Fellow of the Econometric Society in 2018.
Dr. Fang is a research associate at the National Bureau of Economic Research, where he served as the acting director of the Chinese Economy Working Group from 2014 to 2016. At the University of Pennsylvania, Dr. Fang is a research associate of the Population Studies Center and Population Aging Research Center, a Senior Fellow at the Leonard Davis Institute of Health Economics, and an Executive Committee Member of the Contemporary Studies of China Center. Dr. Fang served as the Scientific Director of the Australia-China Population Aging Research Hub at the University of New South Wales in Australia, is a Senior Fellow of the Asian Bureau of Economic and Finance Research in Singapore and is a Research Fellow at IZA in Germany.

Dr. Fang received his Ph.D. in Economics from the University of Pennsylvania in 2000. Before joining the University of Pennsylvania faculty, he held positions at Yale University and Duke University.

Veronica Grembi  Visiting Fellow

Dr. Grembi is an Associate Professor of Economics at the University of Milan Department of Economics. Previously, she held appointments as an Assistant Professor at the Copenhagen Business School and Associate Professor at the University of Reggio Calabria. Her primary fields of interest are health economics, political economy and public economics. By applying quasi-experimental identification strategies, she addresses research questions regarding legal rules in the healthcare sector (e.g., medical malpractice), cost allocation in the litigation process, public policies on the decisions of subnational governments (e.g., fiscal rules) and political bias in the judicial decision-making process (e.g., Constitutional Courts). Currently, she is exploring the role of patients in affecting medical treatment selection and the migration of physicians within Europe. She was awarded a Fulbright Scholarship (cohort 2019/20) to visit CHW.

Emmanuel Henry  Visiting Fellow

Dr. Henry is a Professor of Sociology at University Paris-Dauphine/University Paris Science and Letters (Université PSL). His work explores relationships between scientific knowledge (and ignorance), expertise and public policy in the field of public health primarily regarding occupational and environmental health. Prior to visiting CHW, Dr. Henry led the research program INDEX, granted by the French National Research Agency, which explored the independency of expertise in the field of public health. There he co-edited “Dictionnaire Critique de L’Expertise: Santé, Environnement, Travail,” a dictionary of expertise. He is the author of two other books: “Amiante: un Scandale Improbable. Sociologie d’un Problème Public,” exploring the issue of asbestos in France and “Ignorance Scientifique et Inaction Publique. Les Politiques de Santé au Travail,” examining the role of ignorance and undone science in the production of public inaction in the area of occupational health.

Dr. Henry is currently pursuing research projects in two areas. The first explores the regulation of chemicals and how scientific knowledge and expertise shape public policies dealing with toxins and hazards. This work addresses the ever-evolving frontier of how the proliferation of toxic products in the general environment impacts environmental health. Dr. Henry is finalizing the publication of his own book on the subject and was part of a research team that recently published “Residues: Rethinking Chemical Environments” in Engaging Science, Technology, and Society. His second project is a social study of the tools developed within epidemiology to measure the effects of work and environment on the public’s health, particularly population attributable fractions and other types of impact measures. He is interested in how these tools were built, how they are used, and which effects they produce. This research seeks to contribute to understanding what types of issues the field of epidemiology is currently well-positioned to address in addition to identifying gaps where the field is less prepared.

Jennifer S. Hirsch  Visiting Research Scholar

Dr. Hirsch, a medical anthropologist, is Professor of Sociomedical Sciences at Columbia University’s Mailman School of Public Health. Her research spans five intertwined domains: the anthropology of love; how modifiable social institutions shape health outcomes; gender, sexuality and migration as drivers of sexual and reproductive health and
HIV risk practices; sexual assault and undergraduate well-being; and the intersections between anthropology and public health.

Dr. Hirsch is co-Principal Investigator of the Sexual Health Initiative to Foster Transformation (SHIFT), a research project on sexual assault and sexual health among Columbia undergraduates. SHIFT has been the subject of extensive media coverage, including recent profiles in the New Yorker and the Chronicle of Higher Education. As a Visiting Research Scholar at CHW, Dr. Hirsch completed a book titled “Sexual Citizens: A Landmark Study of Sex, Power, and Assault on Campus,” co-authored with Columbia University's Dr. Shamus Khan. The book draws on SHIFT’s ethnographic research to analyze sexual assault and consensual sex among undergraduates in relation to the broader context of campus life.

A 2012 Guggenheim Fellow and a 2015 Op-Ed Project Public Voices Fellow, Dr. Hirsch co-directs the Columbia Population Research Center. She is the author of “A Courtship After Marriage: Sexuality and Love in Mexican Transnational Families,” a co-author of the award-winning “The Secret: Love, Marriage and HIV” and author of two edited volumes on the anthropology of love. She has authored more than 50 peer-reviewed articles in addition to extensive popular writing on health and social inequality. She also serves as a board member for Jews for Racial and Economic Justice.

Dr. Hirsch earned her A.B. in History with a certificate in Women's Studies from Princeton University and her Ph.D. from Johns Hopkins University in Population Dynamics and Anthropology.

**W. Bentley MacLeod** Visiting Fellow

W. Bentley MacLeod is the Sami Mnyamneh Professor of Economics, Professor of International and Public Affairs and an affiliated Law Faculty at Columbia University. He is a specialist in organizational economics and its application to problems in education, health and employment. Current projects include incentives and school choice and the economics of performance pay and the economics of physician diagnostic choice.

Dr. MacLeod’s recent publications in health include, “Diagnosis and Unnecessary Procedure Use: Evidence from C-sections” in the Journal of Labor Economics; “Understanding Doctor Decision Making: The Case of Depression Treatment” in Econometrica; and “Provider Practice Style and Patient Health Outcomes: The Case of Heart Attacks” in the Journal of Health Economics, all joint with Janet Currie.

He is the secretary-treasurer (president 2021-2022) of the American Law and Economics Association, past president of the Society of Institutional and Organizational Economics, a fellow of the Econometric Society since 2005 and fellow of the Society of Labor Economists since 2012.

Dr. MacLeod’s teaching career began with a two-year stint teaching mathematics and physics at Okundi Secondary School in Nigeria, an experience which led to his interest in economics. Between completing his Ph.D. and his current appointment at Columbia University, Dr. MacLeod taught at Queen's University, Université de Montréal, Boston College, University of Southern California, California Institute of Technology and Princeton University. He has held one-year visiting positions at CORE in Belgium, Institute for Economic Analysis in Barcelona, the Russell Sage Foundation in New York City, the Institute for Advanced Studies in Princeton, NJ and the California Institute of Technology. In addition, Dr. MacLeod served as Program Director for Personnel and Behavioral Economics for the IZA in Bonn from 2003 to 2007.

Dr. MacLeod holds a B.A. (with distinction) and an M.S. in Mathematics from Queen's University, Kingston, Canada, and a Ph.D. in Economics from the University of British Columbia, Vancouver, Canada.

**Mark G. Shrime** Visiting Research Scholar

Mark G. Shrime, M.D., M.P.H, Ph.D., F.A.C.S., is the founder and Director of the Center for Global Surgery Evaluation at the Massachusetts Eye and Ear Infirmary and an Assistant Professor of Otolaryngology and of Global Health and Social Medicine at the Harvard Medical School.

He is the author of seminal papers on the global burden of surgical disease, the financial burden facing surgical patients and the number of people who cannot access
safe surgery worldwide. He served as a co-author on the Lancet Commission on Global Surgery.

Dr. Shrime graduated summa cum laude from Princeton University in 1996 with an A.B. in molecular biology. He received his M.D. from the University of Texas in 2001, after taking a year to teach organic chemistry in Singapore. Medical school was followed by a residency in otolaryngology at the joint Columbia/Cornell program in Manhattan, followed by a fellowship in head and neck surgical oncology at the University of Toronto in 2007. He completed a second fellowship in microvascular reconstructive surgery, also at the University of Toronto, in 2008. He was the first to identify a novel independent prognostic indicator in head and neck cancer.

To date, he has worked and taught in Liberia, Sierra Leone, Guinea, Benin, Togo, Congo, Haiti, Saudi Arabia, Cameroon and Madagascar. In May 2011, he graduated with an M.P.H. in global health from the Harvard School of Public Health (HSPH), where he was a finalist for both the Albert Schweitzer Award and the HSPH Student Recognition award. In May 2015, he received his Ph.D. in health policy from Harvard University, with a concentration in decision science.

Dr. Shrime’s research is supported by the Damon Runyon Cancer Foundation and by an anonymous donation to the Center for Global Surgery Evaluation. He received research support from the GE Foundation’s Safe Surgery 2020 project and the Steven C. and Carmella Kletjian Foundation. He is currently the Principal Investigator on a randomized controlled trial of financial incentives for surgical patients in Guinea and the Principal Investigator on a prospective extended cost-effectiveness analysis of maxillofacial surgery in West Africa.

Dr. Shrime’s academic pursuits focus on surgical delivery in low- and middle-income countries, where he has a specific interest in the intersection of health and impoverishment. His work aims to determine optimal policies and platforms for surgical delivery that maximizes health benefits while simultaneously minimizing the risk of financial catastrophe faced by patients. In 2018, he was awarded the Arnold P. Gold Humanism in Medicine Award by the American Academy of Otolaryngology-Head and Neck Surgery.

2019 POSTDOCTORAL RESEARCH ASSOCIATES

Anna Chorniy  Postdoctoral Research Associate

Dr. Chorniy’s research is empirical in nature and focuses on the economic consequences of health and health care. Her work can be broadly divided into two major categories: child health and competition in health care markets. Her research contributes to several important areas in the field such as productivity of investment in human capital; physician agency and treatment choices; industrial organization of health care markets; and health insurance and the labor market. Her most recent work exploits a rich data set from one of the largest U.S. health insurance programs, Medicaid, to understand the effects of ADHD treatment on children’s health as well as behavioral and academic outcomes with an end goal of improving the wellbeing of this disadvantaged population. Her work has been published in academic journals, policy magazines and covered by such popular media outlets as the Wall Street Journal, Quartz and Fox News. Dr. Chorniy’s research is funded by the U.S. Department of Health and Human Services and CHW.

Dr. Chorniy earned her Ph.D. in Economics from Clemson University and holds B.S. and M.S. degrees in Economics from Lomonosov Moscow State University with master-level coursework completed at Georgia State University.

Adriana Corredor-Waldron  Postdoctoral Research Associate

Dr. Corredor-Waldron’s research in the areas of health economics and applied microeconomics focuses on disability and access to health care. Her recent research investigates problems confronting health care policy including access of the elderly to long-term care and opioid addiction.

Dr. Corredor-Waldron obtained her Ph.D. in Economics from the University of Illinois at Urbana-Champaign and her M.A. and B.A. in Economics from the University of the Andes in Colombia.
Bahadir Dursun  Postdoctoral Research Associate

Dr. Dursun is a Postdoctoral Research Associate at the Woodrow Wilson School and CHW. His research focuses on health economics, the economics of education and labor economics. Dr. Dursun's research interests include human capital formation and its effects on health and labor markets, determinants of infant health, and the effects of governmental policies on various aspects of individuals' health and wellbeing. He has taught Principles of Microeconomics and Macroeconomics; Money Banking and Macroeconomic Activity; and Microeconomics for Public Policy at Louisiana State University and Princeton University. Dr. Dursun earned his Ph.D. in Economics from Louisiana State University and holds a B.S. degree in Business Administration and Finance from Marmara University.

August Gorman  Postdoctoral Research Associate

Dr. Gorman’s work focuses on impairments to agency and its implications for theorizing in normative domains. A Postdoctoral Research Associate in Values in Public Policy at CHW and the University Center for Human Values, they are currently exploring the theoretical grounding for, and societal impact of, different measures of wellbeing for people with mental health conditions. Dr. Gorman holds a Ph.D. in Philosophy from the University of Southern California and was previously a Postdoctoral Fellow at Georgetown’s Kennedy Institute of Ethics.

Arbel Griner  Postdoctoral Research Associate

Dr. Griner uses her multidisciplinary training in social medicine; social studies of science and technology; and anthropology to produce a nuanced critical perspective of how ideas of pathology, normality and health are conceptualized in contemporary neuroscience and how these ideas are integrated into medicine, public health and ethical debates. She received her Ph.D. in Collective Health from the Institute for Social Medicine of the State University of Rio de Janeiro in June 2019. In her dissertation, Dr. Griner scrutinized the claims of neuroscientific theories about biological affectivity and examined the ways in which they are appropriated by biomedical practices and bioethical regulation, where she is now looking into the use of biotechnology, more specifically pharmaceuticals, as treatment resources for so-called affective and gender-based pathologies in Brazil’s public health clinics.

Amy Krauss  Postdoctoral Research Associate

Dr. Krauss earned her Ph.D. in Anthropology from Johns Hopkins University in 2016. Her doctoral dissertation explored how low-income women and feminist advocates collectively negotiate the multiple regulatory frameworks and moral demands of Mexico City’s public abortion program (Interrupción Legal del Embarazo/ILE) against a backdrop of criminalization. This research was funded by the Wenner-Gren Foundation for Anthropological Research, the National Science Foundation Law and Social Sciences Program and the Woodrow Wilson Fellowship in Women’s Studies. Dr. Krauss is currently preparing a book manuscript based on this doctoral research. The book examines how the exceptional legality of abortion in Mexico City reconfigures practices of law, the population and reproductive health interventions.

At CHW, she is expanding her research to focus on the informal circulation of misoprostol, a pharmaceutical drug widely used for pregnancy termination in Mexico and the United States. Dr. Krauss teaches courses and mentors students on ethnographic research methods; reproductive health politics in the U.S. and Latin America; and the role of gender, race and class at intersections of law and medicine.

Heidi Morefield  Postdoctoral Research Associate

Dr. Morefield’s teaching and research interests include the histories of technology, capitalism, public health and international development. Her first book, “Developing to Scale: Technology and the Making of Global Health,” examines the
techno-centric structure of global health practice through the history of the concept of “appropriate technology.” Her work illustrates how questions of technological scale have fundamentally shaped global health practice today, focusing on how certain technologies have been defined as more or less “appropriate” for the global south based on assumptions about gender, race, culture and environment. Dr. Morefield’s work has been supported by the National Science Foundation, the National Library of Medicine/National Institutes of Health, the Ford Presidential Foundation, the Society for Historians of American Foreign Relations and the Rockefeller Archive Center. Her work has been published in Diplomatic History, The Washington Post and Circulating Now. She received her Ph.D. in History of Medicine from Johns Hopkins University in 2019.

Jerry John Nutor  Postdoctoral Research Associate

Dr. Nutor is a registered nurse from Ghana with a Ph.D. in Nursing Science from Drexel University, an M.A. in Nursing and Health Care Leadership from the University of California at Davis and a B.A. in Nursing from the University of Cape Coast in Ghana. Dr. Nutor has over six years of experience in interdisciplinary global health research, public health research, nursing and health care leadership. His research interests are in global health, specifically in maternal and child health and prevention of mother-to-child transmission of HIV. He is also interested in understanding the impact of environmental, social and economic factors on the health of women and children, with particular concern about HIV/AIDS in low resource countries and minority populations in the United States.

He is the founder of the Africa Interdisciplinary Health Conference, which seeks to create a platform for the various healthcare providers in both clinical and academic/research settings to meet and discuss their research findings to promote evidence-based practices related to the health sector in Africa.

Sebastián Ramírez  Postdoctoral Research Associate

Dr. Ramírez received a B.A. from Queens College CUNY in Anthropology and Psychology and his Ph.D. in Anthropology from Princeton University. His research among internally displaced persons in his native Colombia explores the role of healthcare services in efforts to remake ideas of home and citizenship in the aftermath of violence. His dissertation elucidates how official networks of aid and restitution for victims of war are remade in the everyday efforts of the uprooted to claim their rights and remake their lives. He is starting a second project investigating how survivors of social cleansing campaigns forge mental health support networks through artistic projects commemorating the loss of family and friends.

Lindsay Stevens  Postdoctoral Research Associate

Dr. Stevens works primarily in the fields of health, gender, reproduction, science and technology and the environment. Dr. Stevens researches the cultural ideas and assumptions about gender, class and race that get infused in medicine—especially reproductive healthcare. She is currently writing a book manuscript tracing the contemporary Western idea of the “planned pregnancy” through public health policy, medical practice and lived experience.

Dr. Stevens is affiliated with both CHW and the Office of Population Research. She earned her Ph.D. in Sociology from Rutgers University and her B.A. in Political Science from Kenyon College. Her research was supported by the Society of Family Planning and she has received awards from the Medical Sociology and Body & Embodiment Sections of the American Sociological Association.

Esmée Zwiers  Postdoctoral Research Associate

Dr. Zwiers is an applied microeconomist working mainly in the fields of labor economics, family economics and health economics. She is particularly interested in the influence of childhood circumstances in a child’s human capital formation, which was also the topic of her dissertation. Dr. Zwiers earned her Ph.D. in Economics from Erasmus University Rotterdam and the Tinbergen Institute. She also holds B.S. and M.S. degrees in Economics from Erasmus University Rotterdam.
GLOBAL HEALTH AND HEALTH POLICY CERTIFICATE

Faculty directors: João Biehl Susan Dod Brown Professor of Anthropology and Andrea Graham Professor of Ecology & Evolutionary Biology

Introduced in 2008, the Global Health and Health Policy (GHP) certificate program has grown into one of the most popular undergraduate certificate programs on campus. The program puts global health under an interdisciplinary lens, emphasizing determinants, consequences and patterns of disease across societies; the role of medical technologies and interventions in health improvements; and the economic, political and social factors shaping domestic and global public health.

Passionate students are attracted to the GHP’s close-knit campus community where, blending coursework and hands-on experience, issues in global health policy are brought to life by renowned faculty. The program currently enrolls students from 14 diverse departments including Molecular Biology, Anthropology, Ecology and Evolutionary Biology, the Woodrow Wilson School, Neuroscience, History, Chemistry, and Spanish and Portuguese, among others.

In order to complete the GHP certificate, students must complete two core courses and four GHP approved health-related electives; conduct an approved field-based or lab-based research project during the summer between junior and senior year; and write a senior thesis in their department of concentration addressing or relating to global health and health policy in an interdisciplinary manner.

2019 GHP Students by Major

<table>
<thead>
<tr>
<th>Natural Sciences</th>
<th>52%</th>
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<tbody>
<tr>
<td>Molecular Biology 26%</td>
<td></td>
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<tr>
<td>Ecology &amp; Evolutionary Biology 14%</td>
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<tr>
<td>Neuroscience 8%</td>
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<tr>
<td>Chemistry 4%</td>
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<table>
<thead>
<tr>
<th>Social Sciences</th>
<th>41%</th>
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<tbody>
<tr>
<td>Anthropology 16%</td>
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<tr>
<td>WWS 13%</td>
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<tr>
<td>History 4%</td>
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<tr>
<td>Sociology 4%</td>
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<tr>
<td>Psychology 3%</td>
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<tr>
<td>Politics 1%</td>
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<table>
<thead>
<tr>
<th>Humanities Engineering</th>
<th>5%</th>
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<tbody>
<tr>
<td>Spanish &amp; Portuguese 4%</td>
<td></td>
</tr>
<tr>
<td>Architecture 1%</td>
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<tr>
<td>Computer Science 1%</td>
<td></td>
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<tr>
<td>Electrical Engineering 1%</td>
<td></td>
</tr>
<tr>
<td>Chemical &amp; Biological Engineering 1%</td>
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GHP STUDENT HIGHLIGHTS

Mary DeVellis ’21  Anthropology
Ms. DeVellis is the winner of the George B. Wood Legacy Sophomore Prize. The prize is awarded in recognition of exceptional academic achievement during sophomore year.

Jacqueline Dragon ’19  Chemistry
Ms. Dragon was invited to present her poster on “NMR-Based Metabolic Identification and Characterization of Laminitis in Horses: Handling Non-Uniform Samples” at the 2019 Experimental Nuclear Magnetic Resonance Conference in Pacific Grove, California.

Carolyn Guan ’20  Chemistry
Ms. Guan’s work in the DePinho lab group at MD Anderson Cancer Center resulted in a publication titled “USP21 Deubiquitinase Promotes Pancreas Cancer Cell Stemness via Wnt Pathway Activation” in Genes & Development.

Grace Guan ’20  Computer Science
Ms. Guan, along with Professor Barbara Engelhardt, was invited to present her paper “Predicting Sick Patient Volume in a Pediatric Outpatient Setting” at the Machine Learning for Healthcare Conference. The paper is also being indexed in Proceedings for Machine Learning Research.

Nourhan S. Ibrahim ’20  Ecology and Evolutionary Biology
Ms. Ibrahim presented her thesis research on “Secondary School Conservation Biology Education in Laikipia County Kenya” at the Student Conference on Conservation Science at the American Museum of Natural History. In addition, she was accepted into the 2019-20 Program on Religion, Diplomacy and International Relations Fellowship cohort through the Liechtenstein Institute on Self-Determination.

Gabriela Oseguera Serra ’20  Politics
Ms. Oseguera Serra is the recipient of two prestigious awards. The first, the Scholars in the Nation’s Service Award, supports and prepares top students to pursue careers in the U.S. federal government by funding 8- to 10-week summer internships with the federal government. The second, the prestigious The Daniel M. Sachs Class of 1960 Graduating Scholarship, provides graduating seniors with the opportunity to study, work or travel abroad after graduation. The scholarship is awarded to students to exemplify its namesake, Daniel Sachs, with intentions to go into public affairs.

Chitra Parikh ’21  Architecture
Ms. Parikh was the recipient of the $10,000 Davis Project for Peace prize. Administered under the umbrella of CoLab PHL and in collaboration with Sunday Suppers and Esperanza Health Center, the funding was used to create a community program in the Kensington neighborhood of Philadelphia called Recipe for Health, which empowers families to create lasting changes to improve their overall health through family meals.

Michelle Rowicki ’20  Molecular Biology
Ms. Rowicki contributed to “Tinagl1 Suppresses Triple-Negative Breast Cancer Progression and Metastasis by Simultaneously Inhibiting Integrin/FAK and EGFR Signaling,” published in Cancer Cell.
GHP THESIS PRIZE

As a capstone experience, all GHP students complete a thesis or final paper centered on a global health theme. The GHP Senior Thesis Prize is awarded in recognition of the most outstanding theses written by students earning the certificate.

2019 Senior Thesis Prize Winners

Samantha Chai  Woodrow Wilson School
“Hit Me With Your Best Shot: An Analysis of Maternal and Household Demographics on Child Immunization Status in India”

Carson Clay  Woodrow Wilson School
“We’re Closed, Call 911: Community Effects and Perceptions of Rural Hospital Closures”

Mateo Gilsilvetti  Ecology and Evolutionary Biology

GHP CERTIFICATE

COURSE HIGHLIGHTS

All GHP certificate students are required to take Critical Perspectives on Global Health and Health Policy and Epidemiology. Students also choose four electives from a pre-approved list. Below is a sampling of the 66 elective courses offered by 33 departments this year.

Immune Systems: From Molecules to Populations
Drug Discovery in the Genomics Era
The Land Crisis for Food, Climate and Wildlife
Viruses: Strategy and Tactics
The Neurobiology of Stress
Molecular and Cellular Immunology
Molecular Mechanisms of Longevity: The Genetics, Genomics, and Cell Biology of Aging
Ecology and Epidemiology of Parasites and Infectious Diseases
Economics of Health and Health Care
“Fat”: The F-Word and the Public Body
Medical Anthropology
Nuclear Things and Toxic Colonization
Modern Genetics and Public Policy
Mind, Body, and Bioethics in Japan and Beyond
Cyborg Psychology
Topics in Global Race and Ethnicity: Scientific Racism: Then and Now
Designing Ventures To Change the World
Biomedical Imaging
Introduction to Water Pollution Technology
Quantitative Physiology
Biomechanics and Biomaterials: From Cells to Organisms
Algorithms for Computational Biology
Squishy Engineering: Using Soft Materials to Solve Hard Problems
The Literature of Gastronomy
Death
Magic, Matter, Medicine: Science in the Medieval World
Medical Spanish
Literature and Medicine
Fertile Bodies: A Cultural History of Reproduction from Antiquity to the Enlightenment
GHP HEALTH SCHOLARS PROGRAM

CHW Health Scholars, selected through a rigorous application process junior year, receive two years of program mentoring, opportunities and financial support. Health Scholars are advised by program faculty and participate in planning health policy seminars and lectures where they meet and interact with distinguished speakers in intimate settings. They also receive financial support for travel and research in order to pursue health-related internships or independent research the summer before their senior year. Finally, they are expected to write health policy senior theses.

The Class of 2021 joins CHW’s returning scholars from the Class of 2020: Chisom Chigozie-Nwosu ’20 (Psychology), Grace Guan ’20 (Computer Science), Sirad Hassan ’20 (WWS), Rachel Kasdin ’20 (Sociology), Gabriela Oseguera Serra ’20 (Politics) and Elisabeth Slighton ’20 (Anthropology).

The six Class of 2021 Health Scholars are:

Obiageri Amaechi ’21, a Psychology concentrator pursuing a GHP certificate, plans to research cultural competency in healthcare settings, evaluating its effectiveness, limitations and implications.

Mary DeVellis ’21, an Anthropology concentrator pursuing certificates in GHP and Gender and Sexuality Studies, plans to explore women’s experiences of breast cancer in sub-Saharan Africa.

Doruntina Fida ’21, an Anthropology concentrator pursuing a GHP certificate, plans to study manifestations of health and health outcomes for those who have suffered trauma from periods of conflict and political/physical modes of violence, particularly victims of the Kosovar war.

Katherine Leggat-Barr ’21, a Woodrow Wilson School concentrator pursuing a GHP certificate, plans to examine the effectiveness and availability of mental health care for recently arrived refugees and asylum seekers in Portland, Maine.

Angelika Morris ’21, a Medical Anthropology concentrator pursuing a GHP certificate, plans to investigate how gun violence manifests within the body and the ways in which people are resilient. She hopes to create a photo essay book capturing the experiences of those who reside in Chicago’s most violent neighborhoods.

Jonathan Wang ’21, a Molecular Biology concentrator pursuing certificates in GHP, Applications of Computing and Engineering Biology, plans to research the health-related consequences of the risk environment faced by individuals with substance abuse disorder. He seeks to explore how incarceration, housing insecurity and other intersecting factors impact physical and mental health outcomes.
SUMMER INTERNSHIP PROGRAMS

Juliana Jiranek '20 in the field researching the flax-rust plant-pathogen system at the Rocky Mountain Biological Laboratory.
In 2019, CHW sponsored internships and research opportunities for 92 students in 19 countries.

Sampling of Host Sites

- **Lab of Translational Medicine, Zhejiang University**
  Hangzhou, China

- **Thomas Jefferson Health Design Lab**
  Philadelphia, Pennsylvania

- **Telethon Kids Institute**
  Perth, Australia

- **Jabulani Rural Health Foundation**
  Zithulele, South Africa

- **Montefiore Medical Center**
  Bronx, New York
Through GHP’s many partnerships around the globe, students gain hands-on experience with some of the world’s leading global health practitioners. Many students find these summer experiences transformative or life-changing. Some students work in a clinic or hospital on the front lines of health care delivery, where they connect directly with providers and patients. Others work in the field on programs and education, often in low resource settings. Many choose to work in laboratories to enhance their research skills.

SUMMER INTERNSHIP HIGHLIGHTS

In Their Own Words

Sirad Hassan ‘20

My senior thesis project examined access to health services by Somali refugee women in cities across the United States diaspora and investigated whether access varied from city to city. Since there is a shortage of research on this particular population, I prioritized collecting the narratives of Somali refugee women through interviews organized by various community organizations. Additionally, I conducted interviews with key informants to build my general understanding of the health infrastructure in these cities. I chose key informants well-versed in their understanding of the Somali community in terms of public health, refugee rights, spirituality/faith or an intersection of these domains.

I was able to complete my ambitious plan to conduct 50+ interviews in the span of three weeks in three different U.S. cities (Columbus, Ohio; Phoenix, Arizona; and San Diego, California). I recognized the importance of the subject’s general experience settling into America in terms of contextualizing their health experiences, but I remained focused on my research goal to explore the effects of policy in order to inform potential recommendations to remedy any gaps. Thus, rather than asking general questions about their experiences settling into America, I spent most of my interview time asking questions probing the effects of policy on the individual’s life. I recorded all my interviews and have begun the process of transcribing and coding them for analysis.

My original hypothesis was specific regarding mental health access for the Somali refugee population. I soon realized questions pertaining to mental health access were too pointed and did not allow me the wiggle room necessary to learn more about multifaceted aspects of a woman’s health. Thus, I expanded my questions and asked about their experiences with family planning, general primary care visits, visits to the mosque in regard to spiritual health and, of course, mental health. I was able to collect many useful and surprising stories from this line of questioning. For example, I learned there were many women who had
issues with the OBGYNs in the hospital, as they would often feel coerced into having a caesarian section.

The best part of my research was being able to practice my Somali. I speak Somali at home sometimes, but I have never had to engage in full conversations without the safety net of resorting to English. It was an outstanding experience to engage with the communities around me speaking mostly in Somali and almost exclusively eating Somali food from local restaurants. It is the closest thing I’ve experienced to Somalia. As wonderful as the experience of being immersed in Somali communities was, it also presented challenges. I heard very difficult stories in my interviews. Often, I would walk back to my hotel either in tears or extremely upset. The women remind me of my own family members and the challenges they faced were similar to the struggles of my own parents.

This experience has left me very confident in my future studies. I want to study medicine. I want to study medicine with a predominant focus on public health because there are so many ways our health is affected by the environment, access and resources. I am motivated to study harder to learn more about health policy and utilize my experiences as a Woodrow Wilson School major to work towards better policies that positively affect Somali women throughout the US diaspora, and eventually the entire world.

Grace Guan ’20

Due to the digitalization of developing countries and the increased presence of data in developed countries, tech is becoming the future of healthcare. The specific computer science subfield of artificial intelligence currently plays many roles in healthcare, including disease diagnosis (sepsis/other forms of patient deterioration, oncology, ophthalmology), population-level disease modeling (epidemiology), and improving patient care in hospitals (analyzing EHR data; finding the optimal time to wean patients off of ventilators). To underscore the importance of technology in global health, the World Health Organization recently created teams to focus on researching the ethics of artificial intelligence in medical technology, as well as the impact of digital health on global health. My internship at DeepMind Health in the spring of 2019 both reaffirmed my belief in the power of healthtech and allowed me to be at the forefront of the developing movement.

While at DeepMind I worked on Streams, a mobile app that helps patients get from test to treatment faster. Streams replaces the pens, papers and clunky computers currently used in hospitals with a simple mobile application. I primarily worked on backend, test and infrastructure engineering, though I assisted with other parts of the organization as needed. Specifically, I built a distributed end-to-end verification-testing framework that simulated realistic patient pathways through a hospital and made sure the app displayed the intended result — whether it was a severe alert in which the patient was having acute kidney injury/failure or sepsis or a simple name change. By working closely with the clinicians that the company embedded within the design teams, I learned how medical professionals interacted with our technology and understood it as a complement to their own medical education and practice. Further, I contributed to the healthcare empathy initiative both by facilitating user studies with the product and by organizing events, helping the engineering and design teams become more engaged with what life on the ward was like. Lastly, because the internship was in London, I experienced a public healthcare system first-hand at NHS.

This internship relates to my studies as a GHP student in many ways. Not only did the design team employ medical anthropologists with whom I could talk about my experiences in GHP 350 (Critical Perspectives on Global Health and Health Policy), but also the organization had professionals from a wide variety of backgrounds who were all passionate about global health research. I discussed my diverse GHP education, from EEB 327 (Immune Systems: From Particles to Populations) to SLA 368 (Literature and Medicine) to ECO 332 (Economics of Health and Healthcare) with different people, all of whom contributed interesting perspectives to the discussions started in these classes. Further, this internship forced me to reflect on my past research because my project impacted medical operations at a lower level. My past research projects affected hospital operations at a systems level, so I appreciated this opportunity to delve deeper into life on the ward as a doctor faced with the increasing presence of healthtech in their daily routine.

After the internship ended, I completed a summer research internship at Columbia Business School. After that internship finished, I used the GHP grant to support my travel to the Machine Learning for Healthcare Conference in Ann Arbor, Michigan in August 2019. At the conference, I presented my paper “Predicting Sick Patient Volume in a Pediatric Outpatient Setting using Time Series Analysis” with Professor Barbara
Engelhardt. While I was at the conference, I reconnected with my colleagues from DeepMind Health (now Google) and connected with researchers from MIT, University of Toronto and Harvard working on similar classes of problems, from disease diagnosis to improving patient care in hospitals using artificial intelligence. My project was actually pitched as an idea at the Hackathon on the first day of the conference! The conference was split 50/50 between those with a computer science background and those with a clinical background, and I met many medical researchers from across the country interested in continuing my work at their clinics.

Overall, my two internships and conference attendance have made me excited to continue working in this new field of healthtech. As such, I will be applying to Ph.D. programs relating to health policy this upcoming fall.

Alison Chang '20

Under the guidance of researchers at Zhejiang University’s Center for Health Policy Studies and with the newfound friendship of my fellow Princeton interns and local students, I had a tremendous summer filled with growth, adventure, renewed interest in the medical field and ample amounts of delicious Hangzhou cuisine. At the Center for Health Policy Studies, I worked on three separate projects alongside another intern from Princeton, each centered on various aspects of public health policy. The primary internship project revolved around devising an online questionnaire to assess how foreigners in China face barriers to accessing healthcare, such as cultural differences, language barriers, affordability and more. For this project, another intern and I translated the questionnaire to English, created recruitment posters and even visited the neighboring trade city of YiWu to interview foreigners in a focus group framework about their healthcare experiences in China. It was an eye-opening experience for me to interact with such a diverse community of people from all over the world, including Africa, the Middle East, Russia and Korea to speak about their shared frustrations and suggestions for improving healthcare access.

Another project, spearheaded by a professor who specializes in psychology, involved recruiting potential participants for an experiment on civic honesty in China. In fact, this professor attempted to model her study after the controversial German study “Civic Honesty Around the Globe” published in Science magazine, which found Chinese people had the lowest likelihood of returning lost wallets when compared to those of other nationalities (Cohn et al., 2019). This article was controversial in China, and our professor hypothesized Chinese communication platform preferences, primarily WeChat rather than email, could potentially explain these differences in civic honesty by way of wallet return rates. While this study was less public health-related, it exposed me to the very critical (and relatively difficult) recruitment aspect of public health or social psychology studies.

The final project I contributed to was editing and translating a Ph.D. candidate’s manuscript to prepare it for publication. Utilizing the Markov model for disease progression, this Ph.D. candidate had mapped out a cost-effectiveness and cost-benefit analysis on various strategies of esophageal cancer screening. Throughout this editing process, I learned so much about the mathematical and statistical side of public health and applied what I learned from GHP 351 (Epidemiology). As an anthropology major, I was accustomed to emphasizing the humanistic side of healthcare and criticizing overly mathematical approaches to healthcare that simply reduce human beings to numbers; however, learning about the Markov model intrigued me about the wonders that statistical approaches offer for health on a large scale.

Overall, my summer at Zhejiang University provided me with a well rounded, fulfilling experience of public health at its many stages: devising a study, recruiting participants, analyzing data and editing manuscripts. In addition to this newfound knowledge, I also left Hangzhou with newly formed friendships, a stronger appreciation and understanding of my Chinese culture, improvement in my Mandarin speaking skills and adventures of exploring local Chinese cities and cuisine together beyond life in the office. Moving forward, I would like to focus my anthropology thesis on further investigating Chinese-foreigner relations and tensions in China, perhaps using some of my data from this summer to supplement my findings. In the near future, I will definitely seek an opportunity to visit this special place again.

Sophia Peifer '21

This past summer, I interned for eight weeks at the Center for Tobacco Studies (CTS) where I learned about how survey conductance and qualitative research impact of FDA regulations. During my internship, I developed my own research project where I performed survey conductance regarding JUUL flavored product availability in stores near the Rutgers campus. In November 2018,
there was a self-imposed JUUL flavor ban where the company voluntarily removed flavored pods from stores. Moreover, they stopped selling mango, fruit, cucumber, and crème flavors to retailers. However, because the flavor ban was self-imposed, the FDA did not reprimand store owners for selling flavored products.

In the spring of 2019, CTS staff interviewed Rutgers students about their JUUL usage patterns. This JUUL user survey contained questions to discern the level of students’ JUUL dependence, preference for different flavors and ease of obtaining products. However, the survey did not ask students whether they bought flavored JUUL products online or if they still were able to obtain them in stores. Therefore, my survey gathered information about whether store owners still sold flavored products despite the product ban that occurred about nine months prior.

In order to gather this information, I created a survey tool, developed a sample of tobacco retailers and vape shops within .8 miles of the original survey site, collected data at over 30 stores, created statistics and analyzed the results. My survey included questions about JUUL product availability, e-cigarette product availability, prices and flavored advertisements. The results of the survey were enlightening because mango JUUL pods were available at 30.3 percent of stores in the sample. Overall, my research highlighted the ineffectiveness of the JUUL flavor ban and how JUUL marketing targets college students. My research may be published in a future paper, combined with the JUUL user survey results and Nielsen data analysis, which is exciting.

In addition to my own research project, I also helped with multiple NIH-funded projects. I helped organize mass-mailings for a national survey to physicians about e-cigarette recommendations. Furthermore, I organized preliminary data for a focus group regarding the perception of smokeless tobacco warning labels. I also performed content analysis of cigar wrappers collected in Oakland, CA, the site of a menthol ban. Lastly, I completed magazine content analysis and updated an online ad database entitled Trinkets & Trash.

Overall, I achieved my internship goals because I learned a lot and contributed to almost every research project being conducted at CTS. In the beginning of my internship, I was a little unsure of my role, but I took the time to learn more about different tobacco policies and took the initiative to create my own project. My biggest challenge was probably getting other employees to trust me with performing more important tasks. As my internship progressed, people became more comfortable giving me tasks. I did not experience any ethical dilemmas during my internship but undoubtedly learned how to better interact professionally in the workplace. The best part of my internship was receiving praise from the director for my research efforts and learning that I may receive credit in a publication.

In the future, I plan to apply to M.D./M.P.H. programs because I really enjoyed conducting public health research. In general, I learned a lot about FDA regulations, which will be useful to know when I (hopefully) become a physician. Also, this summer has motivated me even more to earn a certificate in global health policy. All in all, my internship was an amazing experience, and I am so grateful that I had the opportunity to learn from everyone at CTS due to the funding I received from CHW.
STUDENT ACTIVITY HIGHLIGHTS

CHW provides support for undergraduates and graduates to conduct research regarding health and wellbeing in both domestic and international settings. In addition to funding research projects and summer internships, CHW supports student-led opportunities, organizations and conferences to enhance individual understanding in their areas of interest. Here are just a few initiatives funded by CHW in 2019:

Jacqueline Dragon ’19 received funding to attend the 2019 Experimental Nuclear Magnetic Resonance Conference in Pacific Grove, California, where she presented a poster of her thesis results analyzing the nuclear magnetic resonance spectroscopy readouts of blood serum samples from horses to probe the mechanisms of disease.

With the help of CHW funding, Grace Guan ’20 attended the Machine Learning for Health Care conference in Ann Arbor, Michigan, where she presented her poster “Predicting Sick Patient Volume in a Pediatric Outpatient Setting using Time Series Analysis.”

Science Olympiad, a national team science competition for students in grades 6-12, received CHW funding for its February 9, 2019 Princeton event. The event hopes to inspire the next generation of scientists and engineers.

CHW provided support for the November 16, 2019 campus Rehack (Reverse Hackathon). The reverse hackathon was established to encourage dialogue in and support the development of creative solutions that allow for greater and healthier relationships between people and technology through thoughtful, meaningful and socially responsible design.

Also receiving funds from CHW was the November 22-24, 2019 Envision Conference. This student-founded conference brings future and current innovators, engineers, scientists, business leaders, intellectuals and policymakers together to explore the implications of new technological trends.

Finally, CHW funded the Princeton Public Health Review (PPHR) in 2019. Founded by GHP alumnus Irfan Nizarali, PPHR is a student-run publication designed to showcase the outstanding global health research performed by Princeton University undergraduates and to provide a forum for health-related discussions.
Health & Health Policy Certificate

Since 2003, CHW's Health and Health Policy (HHP) certificate program has prepared graduate students for health-related careers in both the public and not-for-profit sectors. The program was developed as part of Princeton's ongoing commitment to teaching and research in health and health policy. The program leverages the best of what CHW and Princeton have to offer: world-class global and domestic health coursework; partnerships with faculty and thought leaders who are redefining the field; graduate research support; and connection to and support of a vibrant, multidisciplinary community through collaboration, conferences and events. This year, we welcome incoming director Sanyu Mojola, Professor of Sociology and Public Affairs and Faculty Associate of the Office of Population Research.

The HHP curriculum is designed to offer graduate students insight into the contexts that create health disparities while simultaneously exposing them to an interdisciplinary approach by which these issues can be addressed. The core courses, Epidemiology and Political Economy of Health Systems, provide students with the knowledge base to decode complex health and policy issues. Students also choose from a curated array of approved health-related electives, which allow students to take a deep dive into specific health and health policy issues.

While most students who join the HHP program are MPA and MPP candidates from the Woodrow Wilson School, the certificate is open to all graduate-level students at Princeton University. Future and current medical professionals who have completed the certificate cite the value of examining the drivers of health disparities not taught in medical school. Other alumni, such as Ph.D. scientists, say the program lends richness to their studies. Whatever a student’s future career, the program is a natural fit for anyone with a desire to gain understanding critical for informed leadership and to improve capacity for policy impact.
Like many GHP students, Rachel Bergman ’16 came to Princeton expecting to attend medical school after graduation. Over time, Rachel came to realize her interest in health and medicine were driven by a desire to help people gain access to care through policy and infrastructure. Rachel describes herself as “one of the only molecular biology GHP students that didn’t go to medical school,” opting instead for a Master of Global Health from Sweden’s Karolinska Institute after graduation.

Rachel’s pivot from medicine to policy began with an internship at Population Services International in Cambodia. There, she began to notice there were “20 different Non-Governmental Organizations working on the same issue without coordination.” Rather than becoming jaded by the experience, Rachel became interested in the concepts of aid effectiveness and how international institutions and actors exist in an ecology of development and aid. As luck would have it, Rachel soon took Professor João Biehl’s Critical Perspectives in Global Health course, where she learned the mantra “context matters.” Later, after taking GHP elective: Ethics in Public Health, Rachel came to focus on the interplay between ethics and context.

By the time she entered her master’s program, Rachel had a strong sense of wanting to apply political science theory in a sociological context. She wanted to look at health programs, not just through the perspective of the population at hand, but also to the broader context in which the program exists in terms of the organizations and structures around it.

Rachel eventually returned to the U.S. and settled in Washington, D.C., where she founded The Web Integrity Project with friends after they noticed a deterioration of access to federal resources, information and services on the internet. Over the last two years, the project collected and publicized information such as the elimination of the Environmental Protection Agency’s climate change resources, changes in language regarding LGBT protections on the Department of Labor website, the removal of Guideline.gov, and the elimination of staff contact information for the Office of Refugee Resettlement, with the hopes of holding the government accountable and raising awareness for these changes.

Today, Rachel is returning once again to the mantra of “context matters.” Her current idée fixe is the inherent hierarchy in the donor country/recipient country dynamic of foreign aid. In 2020, Rachel began a fellowship at a non-profit called the Bank Information Center where she’s working towards making foreign aid more productive and ethical. With plans for a Ph.D. in the near future, she would like to fully understand these relationships in terms of patterns of commonalities and, with that understanding, shift to a more ethical and efficient dynamic.

Rachel credits the structure, mentorship and broad perspectives of the GHP program with the experiences that allowed her to plot a unique path after graduation. Fondly, she remembers program administrators and faculty as welcoming and accommodating, “I could show up to someone’s office and say I’m in the GHP program and they would be happy to engage with me and talk to me about different ideas.” Her advice for prospective or current students is to take advantage of opportunities and “let GHP shape you a little bit.”

In 2012, Kate Fritzsche ’14 was working at the Federal Reserve Bank of Boston. The same year, she made a deliberate move from Applied Mathematics and Economics to Health Policy, joining the WWS MPA 2014 cohort. Kate’s decision to add the HHP certificate was an easy one — she wanted to dive deeply into health from a policy perspective and send a clear signal of her priorities to future employers. Now a Principal Analyst at the Congressional Budget Office (CBO), she is able to draw a direct line between the opportunities afforded her through the HHP program and her career today.

At CBO, Kate works with a team of analysts with different strengths. They combine their expertise to contextualize their work, a skill she says she refined in Professor Keith Wailoo’s HHP elective History of Health Policy course. This course not only offered an invaluable history lesson on the successes and failures of health policy, it challenged Kate to broaden her perspective beyond the lens of her
economic and policy scope. Kate also took advantage of the programs and events offered for HHP students. Memorably, she was selected to meet face to face and ask questions of a state Medicaid director. The experience offered Kate a view into how her developing skillset and approach could be applied in the current context.

The shining star in Ms. Fritzsche’s HHP experience was working with CHW’s State Health and Value Strategies Program for her policy workshop capstone project. The project, assisting the state of Illinois during the first year of Patient Protection and Affordable Care Act (ACA) implementation, afforded Kate an opportunity to have direct interaction with, and affect on, state policymakers reacting to a drastically new landscape. This experience, in particular, helped Kate get her foot in the door at CBO, “I would not be where I am today if it weren’t for Heather Howard and this experience.” The first question in her initial CBO interview was more of a statement: “I looked at your resume. It doesn’t seem like you know that much about health policy.” Kate had an answer. Between her capstone experience in Illinois and her HHP coursework, she was able to demonstrate not only competency in health policy but a deliberate intention to focus on health through a policy lens. Kate started at CBO soon thereafter.

Today, Kate works behind the scenes with Congress as they develop plans, offering expertise and context, long before the plans are public. She’s worked on a number of deeply impactful policies, such as enumerating the effect of repealing and replacing the ACA, and is currently working to build capacity to estimate the effects of a single-payer healthcare system. Kate says her work “feels really useful and purposeful.”

Crystal Wang’s inspiration to study health in addition to Economics came to her in an electronic waste dump called Agbogbloshie outside of Accra, Ghana. As she worked with other students to conduct outreach regarding the occupational health hazards of working with electronic waste processing, a new interest in health and medicine emerged. Eventually, this spark brought her to the GHP program, a Fulbright Research Fellowship and a bright future as a physician.

When she began at Princeton, Crystal was determined to expand her horizons and take advantage of as many global programs as possible. It was this desire for international experience, along with a budding interest in health and medicine, which led her to apply for the GHP program. As she matriculated through the program, she was delighted by the synergistic relationship between her GHP and Economics work. “I found it extremely interesting to apply economics to healthcare topics. And I found Economics more interesting because of it as well.” Crystal took advantage of the diverse scope of GHP electives to take courses outside of her comfort zone such as Human Evolution, where she traveled to Kenya to study the fossil record of human origins.

In what would turn out to be a fortuitous move, Crystal traveled to Vietnam on a CHW sponsored internship to assist in a study of dengue septic shock at the Oxford University Clinical Research Unit the summer before her senior year. There, she made contact with a collaborating research unit from the University of Malaya, which would eventually serve as the site for her Fulbright research. Having secured an advisor, Crystal was guided through the Fulbright application process by Dr. Steven Gump from Princeton’s Fellowship Office and CHW Associate Director Gilbert Collins, “I learned that people are very happy to help you, especially if they are in the Princeton network. It’s something I learned to take advantage of.”

After her 10-month Fulbright research grant was complete, she was asked to stay on the project an additional year. Today, Crystal is loving her time in Malaysia. She is soaking up the multicultural, multilingual culture while she continues to work and apply to medical schools for Fall 2020. Chrystal has several pieces of advice for incoming or prospective students. First, she encourages students to join GHP and take advantage of the paid opportunities to do research and learn abroad. Second, she encourages students to “get support where you need it” by seeking out mentorship and collaborations, not just for networking, but in order to build confidence and to practice advocating for yourself in your career.
NATIONAL INSTITUTE ON AGING ROYBAL CENTER

Faculty director: Janet Currie  Henry Putnam Professor of Economics and Public Affairs

CHW is home to the National Institute on Aging Roybal Center, also called the Center for Translational Research on Aging. Its overall goal is to enhance the ability to understand numerous facets of the aging process by clearly separating actual experiences of daily life from the cognitive processes that give rise to reports of life satisfaction or overall happiness. Research is conducted by CHW faculty affiliates and collaborating faculty at other universities who are awarded small pilot projects. To date, 19 projects have been funded. The active projects are:

“Does Access to New Pharmaceuticals Improve Wellbeing Among Young Children with ADHD?” Principal Investigators: Anna Chorniy and Janet Currie  Princeton University and Lyudmyla Sonchak  SUNY Oswego

“Small Area Variations in Mental Health Treatment: Towards New Measures of Prescribing Patterns and Patient Wellbeing” Principal Investigators: Janet Currie  Princeton University and Bentley MacLeod  Columbia University

“Toward New Evaluative Wellbeing Questions” Principal Investigators: Marc Fleurbaey  Princeton University with Dan Benjamin, Jakina Debnam and Ori Heffetz  Cornell University

“Does Being Surveyed Affect Subsequent Reports of Subjective Wellbeing?” Principal Investigators: Johannes Haushofer  Princeton University and Jeremy Shapiro  Princeton University

“Interactions between Economic Status, Psychological Wellbeing, and Age: Analysis of an Unconditional Cash Transfer Trial in Kenya” Principal Investigators: Johannes Haushofer  Princeton University and Jeremy Shapiro  Busara Center for Behavioral Economics

“Mobile Phone Sensing to Predict Depression: An Analysis of Experiential Wellbeing in Kenya” Principal Investigators: Johannes Haushofer  Princeton University and Chaning Jang  Busara Center for Behavioral Economics

“Income Inequality, Happiness Inequality, and Dimensions of Wellbeing” Principal Investigator: Johannes Haushofer  Princeton University

“An In-Depth Examination of DRM-EMA Concordance” Principal Investigators: Joseph E. Schwartz  Stony Brook University and Arthur A. Stone  University of Southern California

“Perceptions and Realities of the Effects of Negative Life Events on the Subjective Wellbeing of the Rich and Poor” Principal Investigators: Eldar Shafir and Nathan Cheek  Princeton University

“Digging into the Age Gradients of Evaluative and Experiential Wellbeing” Principal Investigators: Arthur A. Stone and Joan E. Broderick  University of Southern California
2019 Roybal Center Project Spotlights

"Income Inequality, Happiness Inequality, and Dimensions of Wellbeing" Principal Investigator: Johannes Haushofer
Princeton University

Economic inequality has received increasing attention from both policymakers and researchers in recent years, largely because it is thought to be associated with negative welfare outcomes. However, concerns about inequality are often confounded with concerns about poverty. Here we use a large worldwide dataset to test the relative strength of the relationship between psychological wellbeing and income on the one hand and inequality on the other hand. Wellbeing is strongly associated with income, but not with inequality: a one standard deviation increase in income is associated with a 0.73 point increase in wellbeing on a 10-point scale. In contrast, a one standard deviation increase in inequality is associated with a 0.06 point decrease in wellbeing. The correlational findings are supported by instrumental variable estimates which use historical levels of inequality to isolate variation in contemporaneous inequality that cannot have been caused by contemporaneous wellbeing or third variables.

"Perceptions and Realities of the Effects of Negative Life Events on the Subjective Wellbeing of the Rich and Poor" Principal Investigators: Eldar Shafir and Nathan Cheek Princeton University

Class-based disparities pervade many institutions — both public and private — in the United States. These disparities include undertreatment of lower-income individuals in physical and mental healthcare contexts; harsher punishment of lower-income individuals in criminal justice and educational contexts; and broad patterns of distancing, discounting and neglect across a wide variety of institutional and interpersonal settings. This project explores a possible psychological root of class-based disparities across these varied settings — namely, what we call the “thick skin bias.”

The thick skin bias describes the erroneous belief that lower-income individuals have been “toughened” by poverty, such that they are less affected by negative life events than higher-income individuals. In this project, we aim to test the hypothesis that (1) people display this thick skin bias by believing that lower-income individuals are less harmed by negative events than higher-income individuals, even in situations in which this is objectively false, and that (2) this bias may help explain the widespread neglect of lower-income individuals’ suffering. Using experimental survey methods with both nationally representative and community samples of participants, we are investigating the causes and consequences of this thick skin bias, as well as how better understanding the psychological roots of class-based disparities can influence researchers’ and policymakers’ attempts to reduce them.
Faculty director: **Janet Currie** Henry Putnam Professor of Economics and Public Affairs

CHW’s Program on U.S. Health Policy sponsors research and activities addressing aspects of domestic health care and health policy. The program supports innovative faculty and student research, conferences, policy forums and special issues in health policy journals. Since its inception in 2011, and after receiving a generous gift from Daniel Spitzer ’79 and Eliot Spitzer ’81, the program has funded 15 faculty projects. The active projects are:

- **“Community-Wide Acquisition of Medical Knowledge Under Conditions of Risk and Uncertainty”** Principal Investigator: **Alin Coman** Princeton University

- **“Epidemiology of Antibiotic Use in US Hospitals”** Principal Investigators: **Simon Levin** and **Ramanan Laxminarayan** Princeton University

- **“Aging and Work: The Health Consequences”** Principal Investigator: **W. Bentley MacLeod** Columbia University
U.S. Health Policy Graduate Research Projects Active in 2019

“Racial and Immigrant Generation Disparities in Birth Outcomes” Principal Investigator: Theresa Andrasfay  Office of Population Research

“Cross-scale Dynamics in Ecology: Acute Viral Infections as a Case Study” Principal Investigator: Alexander Becker  Ecology & Evolutionary Biology

“Examining Mental Representations of Pain Susceptibility” Principal Investigator: Nathan Cheek  Psychology

“How Does Sociality Shape Our Immune System?” Principal Investigator: Alexander Downie  Ecology & Evolutionary Biology


“U.S. Health Policy and Science Advisors in the White House, 1969–2008” Principal Investigator: Julia Marino  History of Science

“How Will Climate Change Drive Plant Pathogen Evolution?” Principal Investigator: Ian Miller  Ecology & Evolutionary Biology

“The Effect of Foster Care Maintenance Payments on Children’s Health Outcomes” Principal Investigator: Chris Mills  Economics

“The Impact of Religious Affiliation on Residential Adolescent Behavioral Health Care” Principal Investigator: Elizabeth Saldaña  Anthropology

“Parasite Co-Infections in Raccoons and the Impact of Concurrent Parasite Infection on Rabies Vaccination Effectiveness” Principal Investigator: Liana Wait  Ecology & Evolutionary Biology

“Vaccine-Driven Cross-Scale Dynamics of Infectious Diseases” Principal Investigator: Luojun Yang  Ecology & Evolutionary Biology

“Preference or Pitfall? How Disability Status Shapes Access to Voucher-Based Housing Assistance” Principal Investigators: Simone Zhang  Sociology and Rebecca Johnson  Sociology
OTHER CHW-FUNDED RESEARCH

Active Projects in 2019

“Toward a History of the Mortality and Morbidity in the German Colonies of Southern Brazil (1850–1880)” and “Catarina’s Dictionary: Wellbeing in Vernacular Narrative Medicine” Principal Investigator: João Biehl Anthropology

“Antenatal Genetic Selection: A Problem for Sibling Models?” Principal Investigator: Dalton Conley Sociology

“Understanding Physician Practice Style: The Case of Mental Health Treatment” Principal Investigator: Janet Currie Economics and WWS

“Treatment and Prevention of HCMV Infection by Telomerase Inhibition” Principal Investigator: Daniel Notterman Molecular Biology

“Characterization of Host Responses to Usutu Virus Infection Across Different Vertebrate and Insect Species” and “Characterization of a Human-Specific Positive Regulator of Favivirus Infection” Principal Investigator: Alexander Ploss Molecular Biology

“Trumplandia: Race, Health, and the Politics of Refusal” Principal Investigator: Carolyn Rouse Anthropology

“Regulated Revenues and Firm Behavior: Evidence from a Medicare Overhaul” Principal Investigator: David Silver Economics and WWS

“Selling Menthol: Visualizing Big Tobacco's Targeted Market Strategies” Principal Investigator: Keith Wailoo History and WWS

Project Highlights

“Selling Menthol: Visualizing Big Tobacco’s Targeted Market Strategies” Principal Investigator: Keith Wailoo History and WWS

CHW’s grant funding supported vital research for a book on the history of tobacco companies’ targeted marketing strategies as they relate to the menthol cigarette. Before the 1950s, menthols accounted for less than 4% of the U.S. market; today, 30% of cigarettes consumed are menthols, with disproportionate consumption among African American smokers.

The book, tentatively titled “Menthol into the Black: Cigarette Psychology and Big Tobacco’s Deadly Pursuit of a Racial Market,” explores how social scientists and consultants within the industry studied and shaped consumer perceptions of menthol as a healthier product than regular non-menthol cigarettes, and how companies competed with one another to develop successful targeted marketing strategies using health themes. A significant portion of the project involved analysis of a publicly available repository of 14 million industry documents (memoranda, reports, letters, graphics, maps, surveys, and analyses) in the online Truth Tobacco Industry Documents Archive. CHW’s grant supported the work of a postdoctoral fellow and research assistants on textual analysis and data mining of a larger portion of the documents; development of various visualizations and images for publication; and several archival research trips to the Vance Packard Papers, 1934-1983, Penn State University and the J. Walter Thompson Advertising archives at Duke University. The grant also supported the work of fact-checkers and other editorial work leading up to the submission of the manuscript for publication by the University of Chicago Press.
Graduate Research Projects Active in 2019

“Improving Healthcare Quality in India” Principal Investigator: Patrick Agte Economics

“Beliefs about Hardship and Perceptions of Suffering” Principal Investigator: Nathan Cheek Psychology

“Giving Bacteria that ‘Full Feeling’ to Fight Infections” Principal Investigator: Wen Kang Chou Chemical and Biological Engineering

“Immunogenetic and Epigenetic Underpinnings of Disease Susceptibility and Severity in Reintroduced Yellowstone Wolves” and “The Effects of Nematode Co-Infection on Malaria Dynamics” Principal Investigator: Alexandra DeCandia Ecology and Evolutionary Biology

“Radical Recovery: An Anthropological Analysis of Addiction Rehabilitation and Harm-Reduction in Portugal” Principal Investigator: Nikhil Pandhi Anthropology

“The effects of Nematode Co-Infection on Malaria Dynamics” and “Regulatory and Killer T Cell Interactions During the Immune Response” Principal Investigator: Edward Schrom Ecology and Evolutionary Biology

“An Ethnographic Study of Rural Women’s Cooking Classes as a ‘Climate-Smart’ Intervention to Address Malnutrition in Mozambique” and “Chronic Futures: Metabolic Disease and Healthcare in Brazil” Principal Investigator: Serena Stein Anthropology

“Parasite Co-Infections in Raccoons (Procyon lotor)” Principal Investigator: Liana Wait Ecology and Evolutionary Biology
STATE HEALTH & VALUE STRATEGIES PROGRAM

Program director: **Heather Howard**  Woodrow Wilson School

With over $6 million in support from the Robert Wood Johnson Foundation, the State Health and Value Strategies (SVHS) program based at CHW is focused on assisting states with transforming their health care systems to be affordable, equitable and innovative. By connecting states with experts in the field, SHVS is able to provide timely and meaningful technical assistance to states when they need it the most. SHVS assists states in four key domains: affordability, coverage, integration and value. The technical assistance SHVS provides to states is informed by two overarching goals: that every person should have the same opportunities to access the health care system and therefore have a fair and just opportunity to lead the healthiest lives possible; and to support the needs and goals of all patients as they interact with the health care system.

**SHVS Highlights and Accomplishments**

The SHVS program is committed to supporting state efforts to enhance the quality and value of health care by improving population health and reforming the delivery of health care services. In 2019, SVHS continued this commitment by facilitating peer-to-peer conversations between officials in states across the country, connecting them with subject matter experts and serving a critical role in the dissemination of best practices and lessons learned in states that have been leaders in various aspects of health transformation implementation.

SVHS convened state officials to discuss the opportunities and limitations of policy proposals, including strategies within the Medicaid program to address maternal morbidity and mortality, state proposals to develop and implement Medicaid buy-in or public option models, and federal models to address rural health care and the social determinants of health.

The center launched a workgroup with 10 state Medicaid agencies engaged in addressing the social determinants of health through their managed care programs. SHVS provided technical assistance to the workgroup through a series of targeted webinars, one in-person convening, virtual office hours for state-specific questions and publications.

SVHS contracted with technology firm IdeaCrew to develop a customizable, web-based tool for 14 state-based marketplaces to help consumers determine their eligibility for advance premium tax credits.
The program also supports states by publishing and disseminating briefs, hosting webinars, and providing other technical assistance. In 2019, SHVS developed issue briefs and hosted webinars on various proposed and final federal regulatory changes governing insurance and Medicaid eligibility and potential implications for states, including public charge. They also published a series of issues briefs and webinars related to all payer claims databases, Medicaid buy-in/public options, health equity and social risk factor screening measures. In addition, SHVS hosted a five-part webinar series for states on strategies to achieve health equity through managed care and co-sponsored meetings with the National Association of Medicaid Directors.

**SHVS Thought Leadership on Health Care Reform in 2019**

SHVS consulted with congressional and federal executive staff on the future of health reform issues.

Director Howard was appointed by New Jersey Governor Phil Murphy to serve on the State Health Benefits Quality and Value Task Force and the Multistate Gun Violence Research Consortium.

Director Howard serves on the advisory committee of the Robert Wood Johnson Foundation’s Drivers of Health initiative, a one-year research and education project aimed at improving understanding of the social determinants of health.

Director Howard served as a panelist on “State Innovation (1332) Waivers, Reinsurance, and Related Strategies” at All-In: A Forum on Health Care Coverage and Affordability in Maine, which took place in August 2019.

Director Howard reviewed the range of state health care initiatives being proposed by governors in a Grantmakers in Health Webinar in March 2019.

Director Howard was quoted in national news outlets, including Bloomberg Law, Kaiser Health News, Health Affairs Blog, CNN Politics, NY Times, and NJ Spotlight.

Deputy Director Daniel Meuse moderated a panel discussion on state Medicaid buy-in and public option proposals at AcademyHealth’s National Health Policy Conference in February 2019.

SHVS staff served on several health policy conference panels.

In January 2019, MPA students from a policy workshop taught by professors Heather Howard and Daniel Meuse, presented their policy options to Washington state regarding efforts to increase the enrollment of young adults in the state’s health insurance marketplace. All three recommendations were enacted into state law in 2019.

Also in January 2019, undergraduate students taught by Heather Howard met with the New Jersey Health Commissioner’s Office to make policy recommendations on improving care for vulnerable populations.

In late 2019, eleven MPA students researched and produced a report for the State of Nevada examining policies and strategies to reach the nearly 150,000 Nevadans who may be eligible for Medicaid, but who remain uninsured.
CHW co-sponsors more than 30 domestic and international health events every year. Events are open to Princeton affiliates and, in many cases, the public.

**GHP COLLOQUIUM SERIES**

One of the most anticipated series offered at CHW is the Global Health Colloquium, where students, faculty, researchers and the general public can hear about innovative approaches to current global health issues. This year’s lectures included topics on veteran health, refugee health, population dynamics and the control of vaccine preventable disease.

**Colloquium Speakers**

**Bryan Grenfell**  Kathryn Briger and Sarah Fenton Professor, Ecology and Evolutionary Biology & WWS, Princeton University
“The Epidemic Clockwork: Dynamics and Control of Acute Immunizing Infections”

**Zoë Wool**  Assistant Professor, Department of Anthropology, Rice University
“Veteran Therapeutics: Military Medicine’s Perverse Promise and the Possibilities of Disability”

**Ramanan Laxminarayan**  Senior Research Scholar & Lecturer, Princeton Environmental Institute
“State of the World’s Antibiotics in 2019”

**Catherine Panter-Brick**  Professor of Anthropology, Health, & Global Affairs; Public Health, Yale University
“Mental Health and Resilience-Building Interventions with Syrian Refugees in Jordan”

**Geoffrey Anguyo**  Founder and Executive Director, Kigezi Health Care Foundation
“Overcoming the High Disease Burden in Low Income Countries: A Multidisciplinary Approach from Uganda”
CHW/RPDS SEMINAR SERIES

CHW and the Research Program in Development Studies partner each week during the academic year to host engaging lectures on global health and development research topics led by researchers from Princeton and beyond.

A sampling of lecture topics from 2019:

“The Legacy of Colonial Medicine in Central Africa”
Sara Lowes  Stanford King Center of Global Development

“Glass Walls: Experimental Evidence on Access Constraints Faced by Women”
Asim Khwaja  Sumitomo-FASID Professor of International Finance and Development, Harvard Kennedy School of Government

“Climatic Roots of Loss Aversion”
Oded Galor  Herbert H. Goldberger Professor of Economics, Brown University

“Long-Term Health Insurance: Theory Meets Evidence”
Hanming Fang  Visiting Research Scholar, Princeton University/Class of 1965 Term Professor of Economics, University of Pennsylvania

“Measuring Trends in Educational Assortative Mating using Birth Certificates Data”
Jenny Shen  Ph.D. Candidate, Princeton University

“Perceived Ability and School Choices”
Matteo Bobba  Assistant Professor, Toulouse School of Economics

“Aid Crowd-Out: The Effect of NGOs on Government-Provided Public Services”
Nancy Qian  James J. O’Conner Professor, MEDS Department, Northwestern University

“Surprise! Out-of-Network Billing for Emergency Care in the United States”
Zack Cooper  Assistant Professor of Economics, Yale School of Public Health
The CHW Mini-Conferences are highly-anticipated events that take place twice an academic year. Each half-day conference welcomes affiliated faculty and researchers to present their research with colleagues from other disciplines.

**Mini-Conference: February 15, 2019**

- **Johannes Haushofer**, Psychology & WWS
  “Psychological Interventions to Improve Health in Developing Countries”

- **Sanyu Mojola**, Sociology & WWS
  “Health Inequalities Across the Life Course Through the Lens of HIV/AIDS”

- **Kate Ho**, Economics
  “Health Insurance Menu Design: Managing the Spending-Coverage Tradeoff”

- **Thomas Shenk**, Molecular Biology
  “Next Generation Antiviral Drugs”

- **Jennifer Hirsch**, WWS
  “The Sexual Health Initiative to Foster Transformation (SHIFT): Understanding the Ecology of Campus Sexual Assault”

**Mini-Conference: November 15, 2019**

- **Marc Fleurbaey**, Center for Human Values & WWS
  “What Do Happiness Data Mean? Evidence From a Survey”

- **Arun Hendi**, Sociology & WWS
  “Measuring Life Expectancy Gradients Following Eras of Educational Expansion”

- **Andrea Graham**, Ecology and Evolutionary Biology
  “Environmental Impacts on Host Susceptibility in This Wormy World”

- **Dalton Conley**, Sociology
  “U.S. Attitudes Toward Genetic Prediction”

- **Veronica Grembi**, Economics
  “The Ramadan Effect: Evidence from Workplace Accidents”

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**CENTER FOR HEALTH & WELLBEING**

**MINI-CONFERENCE**

**FRIDAY, FEBRUARY 15, 2019**

8:30AM - 11:30AM

JULIS ROMO RABINOWITZ ROOM 217

Presenters:
- Johannes Haushofer, PSY/WWS
- Jennifer Hirsch, WWS
- Kate Ho, ECON
- Sanyu Mojola, SOC/WWS
- Thomas Shenk, MOL

A faculty exchange of global health research across disciplines
**CHW Event Highlights**

**A Tribute to Uwe: Academics Debate the Future of U.S. Health Care** April 11-12, 2019

CHW, along with the Griswold Center for Economic Policy Studies and Bendheim Center for Finance, organized two days of panels dedicated to exploring and furthering the work of CHW founding Executive Committee member Uwe Reinhardt. Professor Reinhardt, who was eminent and pioneering in the field of healthcare policy, spent nearly 50 years at Princeton and was the James Madison Professor of Political Economy and professor of economics and public affairs at WWS when he passed away in 2017.

The panels deliberated on topics such as the application of lessons from international experience to the U.S.; how prices drive health care spending; the plausibility of health care reform; and the importance of insuring the uninsured. All discussions came back to one question, central in the honoree’s work: Does the U.S. have a social obligation to provide care for all? Professor Reinhardt’s thoughts on the subject were clear, as explained by CHW co-director Janet Currie in her opening remarks, “Uwe said it was immoral for a country as rich as the United States not to cover all of its citizens.”

**Ecology and Evolution of Infectious Diseases (EEID)** June 10-13, 2019

CHW co-sponsored the 17th annual Ecology and Evolution of Infectious Diseases meeting. The meeting brings scholars across diverse fields of study together and fosters a multidisciplinary approach to emerging issues in infectious disease. The organizers purposefully keep the scope and size of the meeting intimate, giving attendees and experts alike an opportunity to exchange ideas on topics such as behavioral drivers of disease dynamics, genetics of disease dynamics across scales, environmental drivers of disease and consequences of within-host competition for disease control across scales. CHW’s sponsorship was a natural fit given a shared interest in an interdisciplinary approach to health.

**American Society of Health Economists** June 23 - 26, 2019

CHW was well represented at the American Society of Health Economist meetings, a gathering of over 1000 academics and policy makers held this year in Washington DC. CHW co-director Janet Currie served as the incoming President of ASHE in addition to moderating two panels. The first panel discussed health policy with former FDA commissioners Mark McClellan and Scott Gottlieb and the second, with CHW affiliate Heather Howard, Austin Frakt and Margot Sanger-Katz, discussed strategies for disseminating research findings effectively to policy makers and the media. CHW co-director Kate Ho delivered a plenary address entitled: Economic Models and the Debate on Health Care Market Design. Former CHW student affiliates David Slusky, Molly Schnell and Diane Alexander also presented research papers.
CHW co-sponsored the 2nd annual Africa Interdisciplinary Health Conference (AfIHC) at the Noguchi Memorial Institute for Medical Research Conference Facility, University of Ghana, Legon, Accra. This year’s gathering of 160 participants from 8 countries focused on the theme “People, Healthcare and Collaboration in Africa.”

CHW affiliate Dr. Jerry John Nutor, Secretary General of AfIHC, spoke on the importance of fostering interdisciplinary collaboration in research, policy and the education of future leaders. Dr. Nutor emphasized the success and emerging dominance of the interdisciplinary model in understanding and addressing complex global health issues and urged his colleagues to prioritize the promotion and teaching of this approach to build interdisciplinary capacity within the workforce.

**Mealtime Engagements**

**Lunch with Dr. Rajesh Panjabi**  March 27, 2019

CHW hosted CEO and co-founder of Last Mile Health and Associate Physician in the Division of Global Health Equity at Harvard Medical School, Brigham and Woman’s Hospital Dr. Rajesh Panjabi at the Prospect House Library Room for an intimate lunch with 20 students.

**Lunch with Shetal Shah and Melanie Long**  April 18, 2019

CHW hosted Dr. Shetal Shah ’96 and Dr. Melanie Leong ’06 for a lunch talk on “The Importance of Medicaid in Newborn/Child Health.” The event focused on the importance of Medicaid as insurance coverage for the newborn population, particularly those born premature. The speakers reviewed data outlining the impact of health insurance coverage on premature and full-term infants, and the potential consequences of threats to Medicaid on babies in the U.S.
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