



Icahn School  
of Medicine at  
Mount  
Sinai

Arnhold Institute  
for Global Health



Whiteboard content:

- Retention
- Patient Outcomes
- Maintenance & clinical approach
- Access ways of access
- What will you do to improve the system?
- What will you do to make it safer?
- What will you do to improve the patient experience?
- What will you do to improve the patient's value?

Handwritten notes on whiteboard:

- Site insights
- ⊕ how convince practices to let us
- how to imagine the future before

2016 Annual Report

# IDEAS TO IMPACT



**THE MISSION OF THE ARNHOLD INSTITUTE  
FOR GLOBAL HEALTH IS TO DRIVE LASTING  
GLOBAL HEALTH IMPACT AT SCALE FOR  
THE POOR.**

**OUR WORK IS GUIDED BY THE BELIEF  
THAT THERE ARE UNIQUE ADVANTAGES  
IN WORKING SEAMLESSLY ACROSS A  
GLOBAL NETWORK THAT INCLUDES OUR  
HOME BASE IN NEW YORK CITY.**

The Arnhold Institute dedicates this annual report to people who struggle to escape a cycle of poverty and poor health. We offer our sincere gratitude to the Arnhold family and the Mulago Foundation for making our work possible. We acknowledge the leadership and vision of Ramon Murphy, MD, who first brought a group of Mount Sinai physicians together more than a decade ago to create a global health training program that led to the founding of The Arnhold Institute for Global Health. We extend our heartfelt thanks to all who have supported global health at Mount Sinai—through gifts of time, philanthropy, and talent.

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**“Global health has  
has been elevated  
to an essential  
and vital part of  
our institution’s  
strategic  
approach.”**

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Mount Sinai has long been at the forefront of addressing global health challenges. Our physicians, nurses, researchers and students work internationally to prevent disease, provide care and build health care capacities for the world’s most vulnerable and underserved populations. The Arnhold Institute is broadening the understanding of the full context of global health and is an essential partner in Mount Sinai’s ongoing efforts to change the paradigm of medical care through pioneering science.

Under the leadership of Prabhjot Singh, MD, PhD, The Arnhold Institute has honed in on the principle that care models, policies and innovations from settings abroad have the potential to transform health care domestically. In this context, I am particularly enthusiastic about what The Arnhold Institute will do to enable students to think globally about health.

For instance, we believe that integrated, multi-disciplinary teams are the future of medicine, and The Arnhold Institute teaches trainees new methods to communicate across professional siloes and design techniques to maximize team integration.

As a result of the significant progress made since The Arnhold Institute for Global Health was launched in 2015, I am proud to report that global health has been elevated to an essential and vital part of our institution’s strategic approach. This would not have been possible without the generous support of the Arnhold family. They made The Arnhold Institute for Global Health a reality, and have put us on a path to excellence.

It is my pleasure to share with you the vision and accomplishments of this outstanding and growing Institute, one that exemplifies Mount Sinai’s commitment to advance global health, drive improvements in care, and accelerate innovation.

A handwritten signature in black ink that reads "Dennis S. Charney MD". The signature is written in a cursive, flowing style.

Dennis S. Charney, MD  
Anne and Joel Ehrenkranz Dean  
Icahn School of Medicine at Mount Sinai  
President for Academic Affairs  
Mount Sinai Health System



**“ In 2016, the Arnhold Institute reached a number of milestones that we are excited to share.”**

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For too long, there have been barriers between America and the world around us. We face common challenges in improving the health of all people, and these challenges are greatest where people are poor. Our work is guided by a deeply held belief that there are unique advantages in working seamlessly across a global network that includes our home base in the United States. Our mission statement—lasting global health impact at scale for the poor—organizes our work into four areas: data science, health system design, action on chronic diseases, and education.

ATLAS is our flagship design and data initiative to better understand what forces influence the health of people who live on the margins. Based upon what we learn, our Health System Design team creates more equitable, efficient and effective care models that can scale globally, including here in New York City. Since the rise of chronic conditions globally is so overwhelming, the Chronic Disease Action Center helps to build the partnerships and tools necessary to make optimal use of new care models. Finally, we believe that lasting change is driven by our 21st century training and workforce team, which builds on a decade of experience of global health training to foster the skills and experiences necessary to achieve—and sustain—our mission.

In 2016, The Arnhold Institute reached a number of milestones that we are excited to share. Highlights include funding from USAID to deploy our ATLAS platform in Guatemala to better identify populations in rural settings vulnerable to Zika virus. We’ve received support from the Robert Wood Johnson Foundation to convene a task force that will bring together global and domestic experts to identify areas of work in health care and public health where global solutions can be utilized to achieve breakthroughs in U.S. health. The Arnhold Institute partnered with the Office of the U.N. Secretary-General’s Special Envoy for Health in Agenda 2030 and for Malaria and developed a framework for sustainable, effective community health worker programs in the United States.

We’re excited about the collaborative partners we’ve engaged across the Mount Sinai Health System, including Mount Sinai Health Partners, Medical Education, the Departments of Pathology, Virology, Genetics and Genomics, Cardiology, Geriatrics and Palliative Medicine, Population Health Science and Policy, and the Adolescent Health Center.

None of this would be possible without the long-term vision of Ramon Murphy, MD, the unfailing focus on impact by Kevin Starr and the Mulago Foundation, and the support of the Arnhold family.

We look forward to learning and growing with you,

A handwritten signature in black ink, appearing to read 'Prabhjot Singh'.

Prabhjot Singh, MD, PhD  
Director, The Arnhold Institute for Global Health  
Chair, Department of Health System Design  
and Global Health  
Mount Sinai Health System



# EDUCATION and Workforce Training

## **21st CENTURY TRAINING AND WORKFORCE**

An increasingly connected world provides new opportunities for training and development in global health. The Arnhold Institute's 21st century training and workforce team is dedicated to developing the next generation of global health leaders. Whether in the classroom or in the field at domestic and international partner sites, we believe that the experience and expertise students gain can immediately contribute to longlasting and widescale impact. All Arnhold Institute programs are built upon a decade-long foundation of strong mentorship and ethical partnerships.

## **THE MOUNT SINAI – GLG GLOBAL HEALTH SCHOLARS PROGRAM**

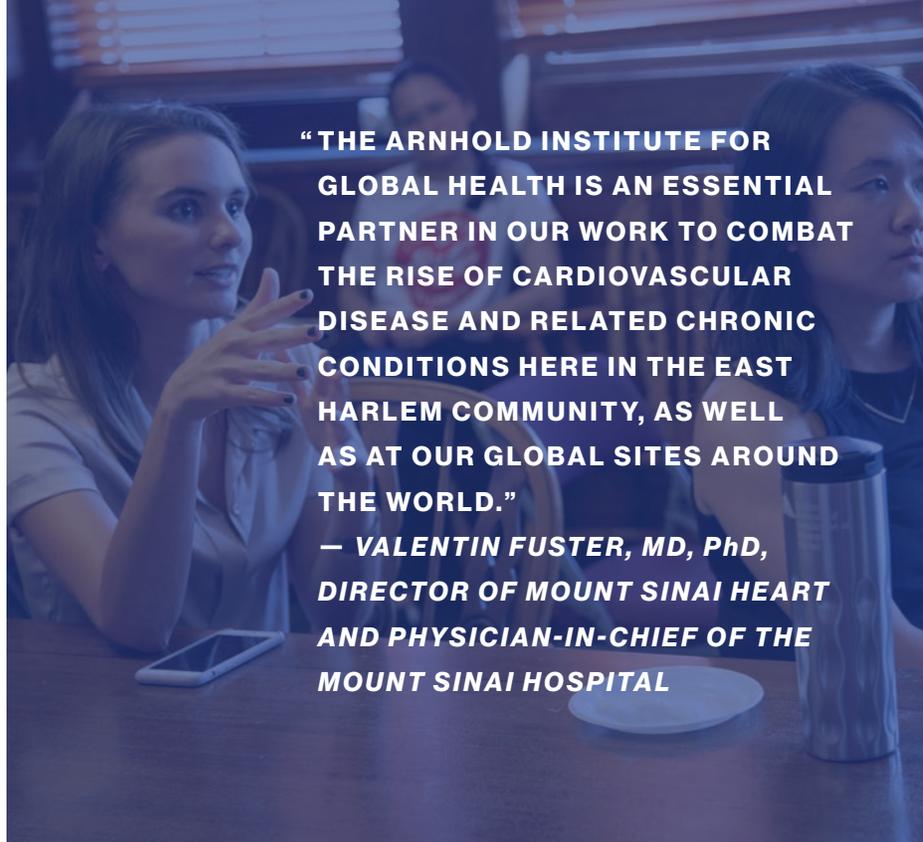
Too often, medical education has been an exercise in box-checking, with students asked to put aside their passions as they train to become doctors. In 2016, The Arnhold Institute partnered with Gerson Lehrman Group (GLG), the world's largest membership network for one-on-one professional learning. The program

is an advanced global health track for select medical students who gain access to GLG's network of more than 500,000 thought leaders and practitioners. Scholars have the opportunity to combine their medical education with their areas of passion.

## **ISAIAH LEVY AND SYED HAIDER: Different Backgrounds with a Shared Passion to Help Patients Recover from Traumatic Injuries**

Isaiah Levy knows he wants to build prosthetics for people who have lost limbs from landmines and improvised explosive devices. When Mr. Levy started medical school, he wasn't sure how to operationalize his goal.

He was inspired as an undergraduate at the U.S. Military Academy, where a mentor and fellow member of the cycling team had a prosthetic limb that replaced the one he lost in Iraq. Through the Mount Sinai – GLG Global Health Scholars Program, Mr. Levy has spoken with experts in prosthetics development and



**“THE ARNHOLD INSTITUTE FOR GLOBAL HEALTH IS AN ESSENTIAL PARTNER IN OUR WORK TO COMBAT THE RISE OF CARDIOVASCULAR DISEASE AND RELATED CHRONIC CONDITIONS HERE IN THE EAST HARLEM COMMUNITY, AS WELL AS AT OUR GLOBAL SITES AROUND THE WORLD.”**  
**— VALENTIN FUSTER, MD, PhD, DIRECTOR OF MOUNT SINAI HEART AND PHYSICIAN-IN-CHIEF OF THE MOUNT SINAI HOSPITAL**

distribution. He’s now engaging with experts in robotic-assisted surgery on the technical challenges and economics of scalability. “I’m learning how to create large-scale products at low costs, how to work with manufacturers and how to navigate the legal, political and economic climates in foreign countries,” says Mr. Levy. “I can’t imagine any other medical school curriculum that would offer this specialized training.”

Syed Haider, a native of Pakistan, has witnessed the devastation brought by suicide bombings and sectarian violence on civilians first-hand. Mr. Haider knew he wanted to learn how to treat patients suffering from traumatic brain injuries (TBI) in war-torn countries. The Mount Sinai-GLG Scholars Program is connecting Mr. Haider with concussion and TBI experts at U.S. Department of Veterans Affairs Hospitals who treat veterans of conflicts in Iraq and Afghanistan. “The program has opened countless doors for me, allowing me to combine my interest in clinical medicine with human rights advocacy.”

Mr. Levy and Mr. Haider teamed up to address the needs of refugees displaced by armed conflicts and living in the United States, Greece and Jordan. The pair is also collaborating with Mount Sinai emergency medicine residents who have worked in war-torn regions to develop better logistical support for medical personnel on the ground in hostile regions.

**INFOCUS CURRICULUM — A DIFFERENT KIND OF IMMERSION**

InFocus — mandatory, week-long courses — ensure all students at the Icahn School of Medicine are aware of disparities in health care access and outcomes, both locally and globally.

**GLOBAL HEALTH SUMMER PROGRAM**

The Arnhold Institute provides awards for 20 first-year medical students to participate in a global health summer research project at one of our partner sites.

**MIDDLE TOP :**  
 Second-year ISMMS student Mackenzie Naert takes a patient’s blood pressure during a group medical visit in rural Kenya.

**MIDDLE BOTTOM :**  
 2016 Mount Sinai —GLG Global Health Scholars: Syed Haider, Mimi Smith, Lillian Jin, Samuel Kebede, Taylor Miller, Isaiah Levy, Nikita Gupta (from left to right)

# BIG DATA AND GLOBAL HEALTH

## Making the invisible visible

The Arnhold Institute's ATLAS team uses computing methods and new sources of data—ranging from satellite imagery to weather and economic data—to better understand the forces that drive health inequities. Instead of simply analyzing what we know, ATLAS gives us clues about what we don't know that may transform how we design and deliver care.

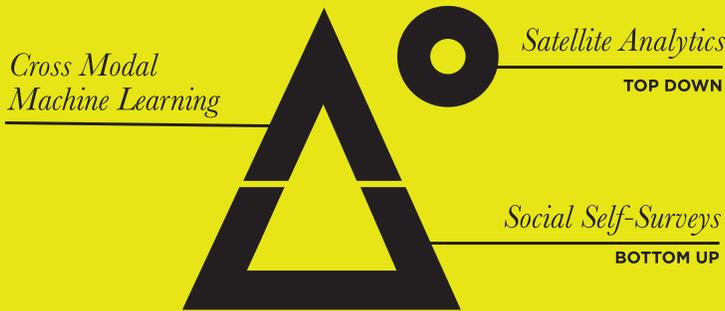
The world's most marginalized populations are digitally invisible, undercounted, and underserved. Information gaps exacerbate vulnerabilities to health crises. As a result, blind spots can become hot spots for disease. The ATLAS team is an interdisciplinary group of computer scientists, economists, software developers, and clinician researchers who work together to grow this big data and global health initiative.

### **THE SOLUTION: ATLAS**

ATLAS is a digital platform for population health managers and frontline health workers that uses predictive algorithms, mobile technology and satellite imagery to identify cold spots—areas of potential high risk for disease without any ground-level confirmation. This allows ATLAS-enabled frontline health worker teams to prioritize their energy and attention, while population health managers can invest their resources where they are needed most.

This year, The Arnhold Institute, along with our partner, Dimagi, received support from USAID to work with a community-based health organization in Guatemala, Tula Salud, to identify populations vulnerable to Zika virus. The team is designing the ATLAS prototype that will be tested in multiple global sites.

ATLAS comprises three core elements:



#### Satellite Analytics

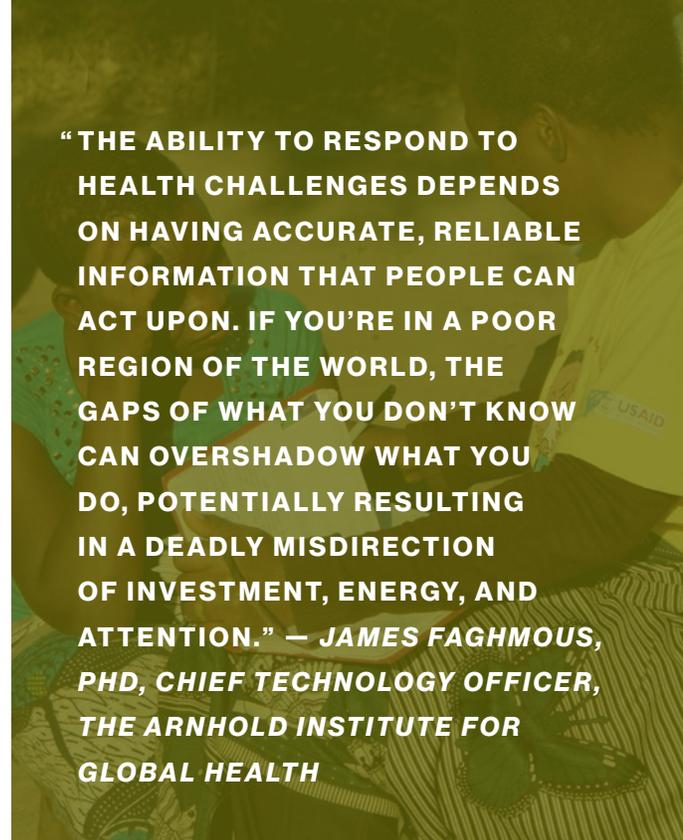
Facilitating continuous, local-level entry of household records and area infrastructural information into an increasingly accurate model of population health, shown in time and space.

#### Cross Modal Machine Learning

That (a) generates annotated spatial information from raw satellite images (b) identifies areas where health insights require new granular data collection and routes field-level users to fill information gaps and (c) pushes insights on health-relevant local context, trends, and risks to users at all levels.

#### Social Self-Surveys

For field, mid, and high-level users; the mobile platform is designed for scaling driven by continuously improving the social dynamics of use.



**“THE ABILITY TO RESPOND TO HEALTH CHALLENGES DEPENDS ON HAVING ACCURATE, RELIABLE INFORMATION THAT PEOPLE CAN ACT UPON. IF YOU’RE IN A POOR REGION OF THE WORLD, THE GAPS OF WHAT YOU DON’T KNOW CAN OVERSHADOW WHAT YOU DO, POTENTIALLY RESULTING IN A DEADLY MISDIRECTION OF INVESTMENT, ENERGY, AND ATTENTION.” — JAMES FAGHMOUS, PHD, CHIEF TECHNOLOGY OFFICER, THE ARNHOLD INSTITUTE FOR GLOBAL HEALTH**



#### PRECISION IS KEY

ATLAS analyzes inputs from frontline health workers and satellite images—making blind spots in demographic and health information visible. The platform is optimized for communities where information sources are out of date or absent, so ATLAS is primarily designed to be used by low-literacy frontline workers in low-resource settings.

ATLAS unites, standardizes, and maps population data to generate insights that address health inequities, pushing real-time insights to frontline health workers. Frontline health workers are then able to share their insights as part of a comprehensive stream of public health data. The framework for the data stream is generated from satellite images and enriched with field-based insights. ATLAS will drive a virtuous cycle of data-driven insights, action, and investment.

#### OUR PARTNERS:





# HEALTH SYSTEM DESIGN

## Better Primary Care is Needed for Everyone, Everywhere

The Arnhold Institute's Health System Design (HSD) team transforms primary care sites into high-performing, cost-efficient practices that improve patient outcomes and care quality—at home and abroad. HSD is a collaboration between The Arnhold Institute for Global Health and Mount Sinai Health Partners, the population health arm of Mount Sinai Health System (MSHS). MSHS is the largest health system in New York City, and the largest clinical training program in the U.S.

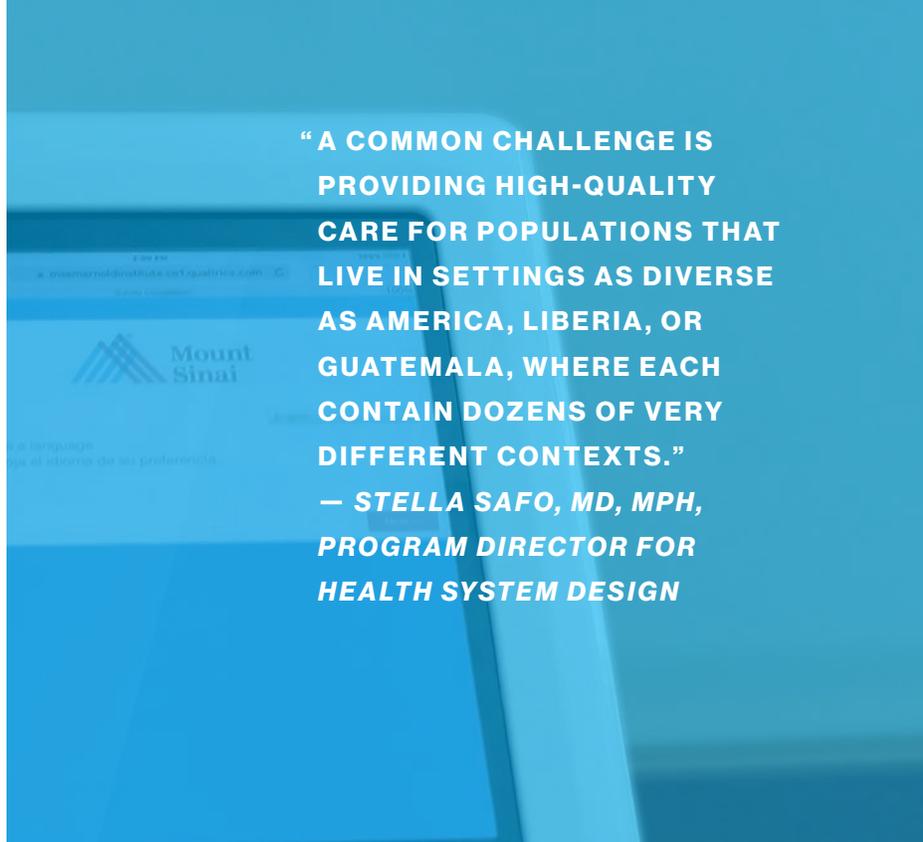
### **GLOBAL ENGAGEMENTS: HEALTH SYSTEM DESIGN IS GLOBAL HEALTH**

Under the leadership of Stella Safo, MD, MPH, the multidisciplinary HSD team includes experts in clinical practice, engineering, design, economics, and policy. The team oversees the design, implementation and delivery of components that help health systems better respond to the needs of the patients and communities they serve. Central to the Team's strategy:

- Testing the scalability of new care models and identifying opportunities for breakthroughs
- Modernizing operations, finances and clinical care models
- Forging strong partnerships with international partners delivering care in forward-thinking ways

### **THE WORK: PRODUCT DEVELOPMENT**

In 2016, the HSD team built and tested multiple products aimed at improving primary care practices and enhancing patient experience.



**“A COMMON CHALLENGE IS PROVIDING HIGH-QUALITY CARE FOR POPULATIONS THAT LIVE IN SETTINGS AS DIVERSE AS AMERICA, LIBERIA, OR GUATEMALA, WHERE EACH CONTAIN DOZENS OF VERY DIFFERENT CONTEXTS.”**  
**— STELLA SAFO, MD, MPH, PROGRAM DIRECTOR FOR HEALTH SYSTEM DESIGN**



Whether a patient is seeking care to manage their diabetes in Harlem, New York, or a mother in Ghana is deciding whether to deliver her child in a clinic versus at home, the way each patient feels about his or her care experience matters immensely. In the case of a patient with diabetes, it can mean the difference between living a relatively healthy life versus frequent hospitalizations. In the case of a mother in rural Ghana, it can mean the difference between a safe delivery versus poor outcomes or death for mother and child. In both settings, clinic staff do not have access to real-time patient feedback and as a result, do not prioritize the care experience in favor of clinical protocols or diagnostic accuracy.

In response, the designed Patient Feedback Tool provides practices with real-time insights into patient experiences, arming providers with the necessary insights to make clinical and operational decisions around care delivery. The HSD team works on simple and adaptable designs that can enable a clinic setting anywhere in the world to rapidly improve.

**TRAINING AND VISIBILITY**

The HSD team partnered with The Arnhold Institute Education team to enhance training programs and curriculum for Icahn School of Medicine students, graduate trainees, and medical specialty residents.

The HSD team presented on the main stage of the annual Mayo Clinic Center for Innovation Transform Conference, which brings together thought leaders from around the world to tackle tough issues in health care.

ABOVE: The HSD team develops products co-designed with users of the health system and health care practices with the goal of improving patient outcomes and care quality.



# AN URGENT CALL TO ACTION TO COMBAT

## the global rise of chronic diseases

- Chronic diseases are responsible for 70% of global deaths
- 80 percent of all chronic diseases happen in the world's poorest communities
- Chronic diseases are driven by forces that include ageing, rapid unplanned urbanization, and the globalization of unhealthy lifestyles

ABOVE: Sandeep Kishore, MD, PhD, Associate Director with Anna Stapleton, Program Manager for Policy

The biggest threats to public health in the United States and around the world have shifted in the past half-century. Today, chronic conditions such as cardiovascular and respiratory diseases, cancer, and diabetes are responsible for approximately 70 percent of global deaths. Exacting an even greater toll, 80 percent of all chronic disease happens in the world's poorest communities. This includes places where AIDS, malaria and tuberculosis were previously leading killers.

This past year, under the leadership of Sandeep Kishore, MD, PhD, The Arnhold Institute launched

the **Chronic Disease Action Center** to arm global health actors with the tools they need to affect policies related to chronic conditions.

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**“ To reverse the trend of rising chronic disease, we need to adopt the mindset of breakthroughs: breakthroughs in partnerships, in ways to act across different levels from policy to practice, and breakthroughs in measuring progress.”**

— Sandeep Kishore, MD, PhD, Associate Director, The Arnhold Institute for Global Health

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The Chronic Disease Action Center leverages the resources of the Young Professionals-Chronic Disease Network, a global nonprofit founded by Dr. Kishore that mobilizes more than 6,000 young leaders from more than 140 countries to take action against the drivers of chronic disease.

## STUDENT PROFILES

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**Khomeer  
Kidia**

Khomeer Kidia, a fourth-year student at the Icahn School of Medicine, is devoted to improving health systems in his home country of Zimbabwe. He is the co-founder and executive director of Kushinga, a Zimbabwean nonprofit working on strengthening mental health systems through research, advocacy, and capacity building. His work focuses on areas such as depression, disclosure, adherence, and stigma.

Mr. Kidia is currently a principal investigator (PI) on a project that examines stigma and skin disease in HIV-positive adolescents. Previously, he was PI on a study on HIV disclosure to HIV-positive adolescents, and he was the lead qualitative researcher on an NIH-funded project to develop an intervention for depression and adherence in people living with HIV/AIDS in Zimbabwe. He has also been a research consultant for HIV mental health projects funded by UNICEF, the Wellcome Trust, Clinton Health Access Initiative, and the CDC. His work appears in top-tier medical journals such as *New England Journal of Medicine*, *Lancet Psychiatry*, *Annals of Internal Medicine*, *AIDS*, and *PLOS Medicine*, and it has been featured on BBC News.

Mr. Kidia has taught research methods and academic writing to faculty and students at the University of Zimbabwe Medical School, Department of Psychiatry, as well as The Mount Sinai Hospital.

He has a BA in French literature from Princeton University and an MPhil in Medical Anthropology from Oxford University, where he was a Rhodes Scholar.



**Efe  
Chantal  
Ghanney**

A fourth-year medical student at the Icahn School of Medicine, Efe Chantal Ghanney was raised in Ghana and has lived in the United Kingdom and France. Ms. Ghanney, who is planning to specialize in urology, has a long-term goal to create urology training opportunities in her home country of Ghana, which had only eight urologists as of 2014.

Ms. Ghanney also created her own palliative care research project in Ghana, where she

designed training modules for caregivers of cancer patients. Through her work with the African Research Academies for Women, Ms. Ghanney worked with colleagues to establish eight-week funded research internships for women in African universities to bridge gender disparities in science. To date, 33 fellows have graduated from the internship. Ms. Ghanney is currently a Master Card Foundation Advisor for Clinton Global Initiative University Alumni.

Prior to attending medical school, she graduated from Yale University, where she majored in chemistry and French.



**Samuel  
"Gus"  
Ruchman**

Samuel "Gus" Ruchman is a first-year medical student at the Icahn School of Medicine. At The Arnhold Institute, he works with Sandeep Kishore, MD, PhD, to build the Chronic Disease Action Center.

Mr. Ruchman is exploring models for expanding access to affordable chronic disease medicines and also researching innovative cardiovascular risk reduction models in western Kenya under the mentorship of Rajesh Vedanthan, MD, MPH.

Mr. Ruchman previously worked in the Office of the U.N. Secretary-General's Special Envoy for Health in Agenda 2030 and for Malaria, where he supported the governance restructuring of the Roll Back Malaria Partnership. His analysis of achieving international 2030 child mortality

targets was presented by the Office's CEO at the 2016 SINAIInnovations conference. He also led office efforts partnering with The Arnhold Institute to launch ATLAS, a digital platform that uses predictive algorithms, mobile technology, and satellite imagery to analyze underreported communities vulnerable to disease outbreaks.

In 2016, Mr. Ruchman published articles with The Arnhold Institute Director Prabhjot Singh, MD, PhD, and its Associate Director, Dr. Kishore, on non-communicable disease stewardship and applying global health lessons to domestic health systems.

Gus holds an AB in African and African American Studies from Harvard University. A lover of languages, Gus speaks varying levels of Spanish, French, Wolof, Swahili, and Haitian Creole.



# 2016 HIGHLIGHTS

At The Arnhold Institute our greatest strength is our team, which continues to grow. In 2016, our faculty received several prestigious appointments. Sandeep Kishore, MD, PhD, Associate Director of The Arnhold Institute, was elected to a five-year term as a term member of the Council on Foreign Relations. James Faghmous, PhD, The Arnhold Institute's Chief Technology Officer, was selected as a 2016 National Institute of Minority Health and Health Disparities (NIMHD) Research Scholar.

**ABOVE:** David Heller, MD, MPH, with community health workers at a clinic in Navrongo, Ghana

NIMHD is one of the 27 Institutes and Centers of the National Institutes of Health and leads scientific research to improve minority health and reduce health disparities. Stella Safo, MD, MPH, became a member of the Council for Urban Professionals.

## **PARTNERSHIPS**

The Arnhold Institute formed strategic partnerships with the Aspen Institute, the U.N. Secretary-General's Special Envoy for Health in Agenda 2030 and for Malaria and GLG, the world's largest membership network for one-on-one professional learning. As a result, The Arnhold Institute is able to connect Icahn School of Medicine students with more than 500,000 thought leaders and practitioners in business, science, academia, and the public sector in more than 40 countries around the world.

Here are some specific projects and engagements that took shape over the last year:

## **ATLAS GAINS SUPPORT FROM USAID AND DIGITALGLOBE**

The world's most invisible, undercounted and underserved populations are also the most vulnerable to health crises and outbreaks of disease. In 2016, The Arnhold Institute, along with partners Dimagi and TulaSalud, received support from USAID and leading global satellite imaging company, DigitalGlobe, to locate and assess areas in Guatemala most at risk for a potential Zika virus epidemic. In the coming year, the ATLAS team will be on the ground in Coban, Guatemala developing and testing a prototype to analyze inputs from frontline health workers, as well as satellite images, to generate insights about Coban's underserved

## GLOBAL HEALTH AND U.S. POLICY: Priorities for the Next Administration

November 2016



**“ WE ARE EXCITED TO PARTNER WITH THE ARNHOLD INSTITUTE FOR GLOBAL HEALTH TO GENERATE GROUNDBREAKING TRANSLATIONAL AND HEALTH SERVICES RESEARCH AND INNOVATION TO IMPROVE THE HEALTH OF YOUNG PEOPLE, BOTH AS ADOLESCENTS AND IN THEIR FUTURE LIVES.”**

**— ANGELA DIAZ, MD, PhD, MPH, DIRECTOR, MOUNT SINAI ADOLESCENT HEALTH CENTER**



and underreported population. Building trust within communities, the ATLAS team will share these insights with key stakeholders, such as health systems and policymakers, so they can make better decisions on how to allocate resources and manage disease outbreaks where and when they occur.

### **DEFINING THE GLOBAL ADVANTAGE**

As the United States enters a new era of foreign policy, there has never been a more important moment to understand the link between global engagement and creating a more efficient U.S. health system. During the last decade, local and global health agendas have converged on the overarching goal of building public health and health care systems that result in healthier lives for all people. Moving toward this vision requires achieving breakthroughs in lowering health care costs, building health systems that are responsive

to populations, innovative uses of information and communication technologies, and a new generation of leadership for better health. In 2016, The Arnhold Institute received support from the Robert Wood Johnson Foundation to convene and host a Task Force on Global Advantage. In 2017, we will bring together global and domestic experts to identify areas of work in health care and public health where global solutions can be used to achieve breakthroughs in domestic health. The task force will focus specifically on the areas of health system design, chronic disease, information and communications technologies for population health, and training and workforce.

### **THOUGHT LEADERSHIP AT THE ASPEN IDEAS FESTIVAL**

In June of 2016, The Arnhold Institute's Director, Prabhjot Singh, MD, PhD, was a featured speaker at

**MIDDLE: Discussion participants, from left: Politico Reporter Dan Diamond; the Honorable Louis W. Sullivan, MD; Prabhjot Singh, MD, PhD; Phil Landrigan, MD, MSc.**

## ACCOMPLISHMENTS



the Aspen Ideas Incubator The Ideas Incubator is part of the annual Aspen Ideas Festival, one of the largest gatherings of thought leaders in business, politics, sciences, and philanthropy from around the world aimed at inspiring thought to action and problem solving. As part of the Aspen Ideas Festival Spotlight Health, Dr. Singh participated in a talk titled “Creating Value on the Fringe: Social Entrepreneurs.”

### **EXPANDING ENGAGEMENT IN GHANA**

Heart diseases like hypertension are now the leading cause of death and disability worldwide. David Heller, MD, MPH, in collaboration with Columbia University, received support from the NIH Fogarty International Center to design a program to train community health workers (CHWs) to fight heart disease in Ghana, where hypertension is even more common than in the United States. CHWs in Ghana travel door-to-door to provide essential medical care such as child immunizations and prenatal evaluations, through the Community-Based Health Planning and Services program. However, CHWs do not yet provide care for hypertension or heart diseases, or counseling on how to prevent them through diet, exercise, and other healthy habits.

This program uses simple measures like blood pressure, weight, age, and smoking status to identify and treat high-risk persons to prevent heart attacks and strokes. After implementation, the program will be scaled up to other regions of Ghana in 2017 and beyond.

### **THE U.S. ELECTION AND GLOBAL HEALTH**

In December of 2016, The Arnhold Institute hosted Louis W. Sullivan, MD, U.S. Secretary of Health and Human Services under President George H.W. Bush and Founding President of the Morehouse School of Medicine, for a conversation with The Arnhold Institute's Director Prabhjot Singh, MD, PhD, on the implications of the U.S. presidential election for global health and U.S. policy. Politico Reporter Dan Diamond moderated the discussion at Icahn School of Medicine's Goldwurm Auditorium, which was attended by more than 200 medical students, faculty and members of the public. Dr. Sullivan stressed the strategic importance of investing in health in the United States and abroad, as well as the need for more health champions in the U.S. Congress, while Dr. Singh acknowledged the importance of information sharing as crucial to solving the world's most complex health problems.

# DEFINING A FIELD



**Prabhjot Singh, MD, PhD**  
Director, The Arnhold Institute  
for Global Health  
Chair, Department of Health  
System and Global Health



**Sandeep Kishore, MD, PhD**  
**SOCIAL NETWORKS /  
CHRONIC DISEASE**  
Cardiology, medical education,  
medical students



**James Faghmous, PhD**  
**MACHINE /  
DEEP LEARNING**  
Genomics, ATLAS, USAID  
computing, bioinformatics



**Stella Safo, MD, MPH**  
**CARE MODELS**  
HIV/AIDS, Ghana, adolescent  
health, care models



**David Heller, MD**  
**OPERATIONAL CARE  
MODELS**  
Ghana, Uganda, chronic  
disease, hypertension



**Aaron Baum, PhD**  
**ECONOMICS / FINANCE**  
Genomics, precision medicine,  
population health, Haiti



**Natalie Privett, PhD**  
**ENGINEERING / SCALE**  
Hospitals, systems,  
performance, design

**CLOSING THE GAP**

In December 2016, The Arnhold Institute for Global Health and the U.N. Secretary General's Special Envoy for Health in Agenda 2030 and for Malaria convened a special task force and published a report titled "Closing the Gap: Applying Global Lessons Toward Sustainable Community Health Models in the U.S." The report outlines a new model of care that embraces the use of community health workers (CHWs), non-clinical workers who come from the same communities as their patients. CHWs are globally recognized as an essential strategy for improving health for vulnerable patients by linking the clinic and the community. While CHWs have long existed in the United States, programs have struggled to achieve the dual mission of demonstrating health impact and achieving financial sustainability. However, ongoing changes to the U.S. healthcare

system present an important opportunity for renewed efforts to develop CHW programs that are able to sustainably contribute to improving health outcomes. The report provides a framework to guide local community and healthcare leaders as they develop sustainable programs to suit the health needs of their communities.

After the *Closing the Gap* report was published, The Arnhold Institute's Director, Prabhjot Singh, MD, PhD, and its Program Manager for Policy, Anna Stapleton, teamed up with Claire Qureshi and Wendy McWeeny from the U.N. Secretary General's Special Envoy for Health in Agenda 2030 and for Malaria and published a companion blog piece in *Health Affairs* titled "How to Build Sustainable Community Health Programs in the United States" on December 20, 2016.

**SELECTED PUBLICATIONS:**

**A Platform to Accelerate Global Reductions in Chronic Diseases: Toward Action**

**Samuel G. Ruchman, Sandeep P. Kishore, Prabhjot Singh**

*Global Heart* (December 2016)

**Equitable development through deep learning: The case of sub-national population density estimation**

**Patrick Doupe, Emilie Bruzelius, Samuel G. Ruchman, James Faghmous**

*Association for Computing Machinery* (November 2016)

**Comparing Strategies for Lipid Lowering in Argentina: An Analysis from the CVD Policy Model–Argentina**

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