The background of the cover features a grayscale photograph of the University of Houston campus. In the foreground, there are several large, modern academic buildings with flat roofs and multiple stories. In the background, the Houston skyline is visible with various skyscrapers under a clear sky. A prominent red vertical bar is overlaid on the right side of the image, containing the title text.

University of Houston

**Review of
Academic
Centers and
Institutes**

2023

Humana Integrated Health System Sciences Institute

GOALS AND OBJECTIVES

The Humana Integrated Health System Sciences Institute represents a strategic collaboration between Humana and the University of Houston (UH). Its mission is to enhance the quality of healthcare and enhance health outcomes through interprofessional health education (IPE), groundbreaking research, and active community involvement. By collaborating with various UH colleges, community partners, and professionals from diverse sectors, the institute aims to elevate community health by addressing social needs, risk factors, and health determinants. Additionally, the institute strives to promote the adoption of value-based care (VBC) delivery models. Specifically, the goals of the institute are to:

1. Train health care professional students, faculty, and clinicians to thrive in and shape health systems using evidence-based approaches developed through the institute's research agenda.
2. Improve the health of populations and communities by engaging communities and practices.
3. Engage in research that furthers treatment models and the overall advancement of clinical sciences in primary care, nursing, pharmacy, social work, and other areas, including the delivery of high-value care and value-based payment models.

MISSION STATEMENT

*To be a leader in **health systems science** by producing **high-impact research to inform policy**; facilitating **innovative IPE programs** that prepare the next generation of health care clinicians to lead team-based practice; and developing novel programs that support population health and community transformation, with an emphasis on Houston's Third Ward and East End. We do this by integrating social and medical data to drive evidence-based practices, test the efficacy of new models of care in real-world settings, and contribute to the university's goal to enhance student success and increase research and scholarly productivity.*

UH draws strength from its diversity to transform lives and communities through education, research, service, and innovation in a real-world setting. In line with this overarching mission, the Humana Institute fosters interprofessional, team-based care in the Colleges of Medicine, Nursing, Optometry, Pharmacy, and Social Work. Recognizing the wealth of health expertise within UH, the institute has developed collaborations that extend beyond the health professions.

A flagship initiative of the Institute is the Value-Based Care (VBC) Certificate Program, which we continue to deliver through Coursera ([Coursera](#)). In the development of this program, we collaborated with

the College of Education to shape both the educational pedagogy and refine the course content. Comprising six courses and a capstone project, this specialization aims to cultivate an understanding of VBC reimbursement and operating models (Table 1), offering health systems science education to a diverse audience, including health professions faculty, students, staff, industry leaders, and community members. For clinicians, this pioneering specialization equips them with the tools necessary to foster innovative ideas and skills, ultimately enhancing frontline patient care. The current enrollment for the courses stands at 8604 individuals, with an impressive overall course rating of 4.6/5.0. We have successfully secured continuing education (CE) credits for physicians and nurses through the American Academy of Family Physicians. To streamline credit administration and tracking for clinicians engaging in this course as part of their ongoing professional development, we have partnered with CE Zoom.

Value Based Care Certificate Program

What is it?
The Value Based Care Certificate Program is a collaboration between Humana, the University of Houston (UH), and Coursera to create a publically available online training platform to prepare clinicians and administrators for VBC reimbursement and operating models. The VBC certificate program is comprised of six courses and a capstone project.

Why is it needed?
The current trajectory of health care spending is on an unsustainable path. As health care professionals, we are responsible for shaping a sustainable health care system. Value Based Care demonstrates that we can deliver on the triple aim and thus it is imperative that we prepare clinicians for the future of health care.

Who is involved?

- University of Houston Faculty
- Humana Leaders
- Coursera

How are we doing it?

- Leveraging UH and Humana thought leadership to create content that provides both existing clinicians and students with tangible tools for success
- Hosting weekly collaborative workgroup sessions to develop meaningful courses with real-world clinical examples

When will it be available?

- Pilot launch to UH Faculty and Humana associates will be September 2020
- External launch on Coursera.com will be December 2020

Table 1. Value-Based Care Specialization Courses

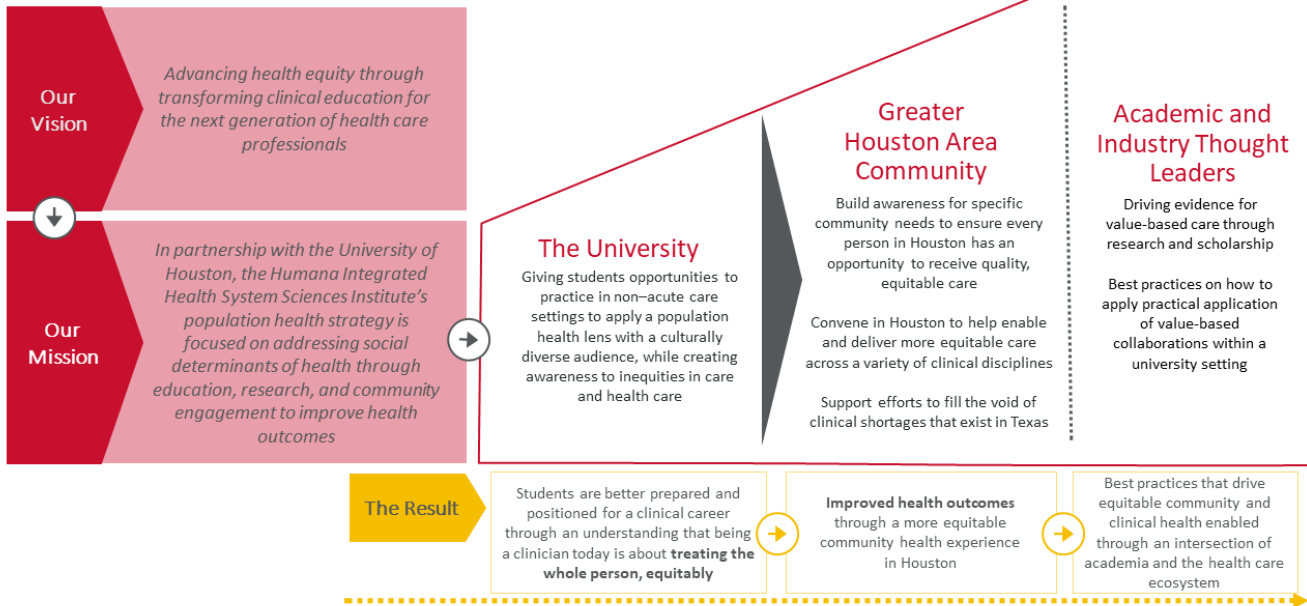
Course	Description
Introduction to VBC and the US Health Care System	Provides introduction to VBC concepts.
Population Health	Addresses population health and related key terms to refine understanding of population health and influencers of health care costs, including social determinants of health.
Managing Processes to Improve Outcomes	Introduces critical office-based processes that a VBC practice must manage in the drive toward improved patient outcomes.
Reimbursement Models	Builds high-level knowledge of the current medical-coding and payment mechanisms of most US health care services. Examines the importance of coding to reflect chronic conditions and other diagnoses accurately and how VBC and value-based payments utilize these measures and data.
Organizational Competencies	Highlights the changes required by an organization to succeed in VBC and value-based payment.
Quality Improvement in Organizations	Explores ways that provider organizations can successfully move from volume to value through implementing quality improvement plans and continuous quality improvement.
Capstone Project	Integrates the work learners have completed in this specialization, allowing them to reflect on their learning and implement a VBC initiative within their organization.

In order to develop a strong and diverse workforce of future health professionals, it is important to expose students of diverse backgrounds and interests to new learning opportunities from various sectors of the health ecosystem. Specifically designed to increase representation of minority students in health professions careers and to prepare them to address significant health disparities that exist, we conducted the third annual Summer Health Equity Research Program which was a 2-week, mentored, virtual research and training experience; that culminated in a ‘Shark Tank’ style competition. Co-directed by Drs. Lauren Gilbert, Omolola Adepoju, and LeChauncy Woodard, the program welcomed 12 graduate students from colleges across the UH campus, representing Tilman J. Fertitta Family College of Medicine, C.T. Bauer College of Business, Jack J. Valenti School of Communication, and UH College of Pharmacy. Teams engaged in synchronous learning and data-thon sessions, during which they analyzed data to examine trends in each of the topic areas to identify health equity gaps. Students then worked collaboratively to develop and pitch innovative solutions to address these gaps. Students were guided in their efforts by faculty mentors with expertise in data analytics, community-based participatory research, epidemiology, health services research, and public health.

- Interprofessional Group 1 – Leveraging ChatGPT to Promote Patient Engagement Among the Underserved
- Interprofessional Group 2 –Strategies to Slow Diabetes Progression and Improve Wellness in Older Adults
- Interprofessional Group 3 – Disrupting Current Opioid Use Disorder Treatment Patterns

Students engaged in virtual sessions led by national experts in topics that included Opioid Use Disorder, use of technology in healthcare, and caring for chronic diseases in underserved populations. Collectively, the program introduced research methods and taught students to collaboratively address complex social issues impacting health equity, as they would in their future careers. Teams were intentionally formed to ensure diversity in educational backgrounds, research interests, and health professions careers. Research teams were guided by faculty mentors from the University of Houston. The summer program culminated in a ‘Shark Tank’ style presentation for each group where they presented to a panel of expert judges consisting of: Dr. Tracy Angelocci (Care Message), Dr. Sam Jacobs (Microsoft), Dr. Alison Porter (Swansea University), Dr. Darryl Shorter (Baylor College of Medicine), and Dr. Hardeep Singh (Michael E DeBakey Veterans Affairs Medical Center).

Achieving health equity through the next generation of health care professionals



PROJECTED ACCOMPLISHMENTS WITHIN 5 YEARS

1. Advance understanding of how social risk influences health, contributes to disparities, and impacts health care value (see Workforce Development, Funding, Presentations, Publications).
2. Develop collaborations with community partners to develop research and educational initiatives guided by community needs (see Interactions with Outside Agencies).
3. Foster student success through workforce development programs focused on training the next generation of health professionals, researchers, and leaders skilled in improving health care value, enhancing population health, and mitigating health disparities (see Table 3 and Appendix).
4. Engage in scholarly activities to disseminate findings to inform clinical practice, health policy, and population health programs aimed at mitigating health inequities (see Funding, Publications).

PERSONNEL

- LeChauncy Woodard, MD, MPH—Founding Director
- Omolola E. Adepoju, PhD, MPH—Research Director
- Ben King, PhD, MPH—Epidemiologist
- Jiangtao Luo, PhD—Statistician
- Lauren Gilbert—Community Health Affiliate (January-October 2023)
- Summer Chavez, DO, MPH, MPM – Faculty, Emergency Medicine/Quality Improvement
- Lu Wang, PhD – Faculty, Health Informatics
- Mary E. Tipton, MPH, CIC —Program Manager
- Monica McKey— Executive Administrative Assistant to Drs. Woodard (Humana Institute) and Liaw (Health Systems and Population Health Science Department)
- Christian ‘Coco’ Oats – Administrative assistant, shared between Humana Institute and Health Systems and Population Health Sciences Department

INTERACTIONS WITH OUTSIDE AGENCIES

Other than Humana, the Humana Institute has forged meaningful partnerships with community-based organizations, academic partners, foundations, and national leaders in health care:

- | | | |
|---|--|--|
| ▪ Boynton Chapel United Methodist Church | ▪ Texas Southern University | ▪ American Heart Association |
| ▪ UT Health Science Center at Houston School of Public Health | ▪ Baylor College of Medicine | ▪ Center for Innovations in Quality, Effectiveness and Safety (IQuEST) |
| ▪ UT Rio Grande Valley | ▪ Dell Medical School | ▪ University of Texas Health Science Center at Houston |
| ▪ City of Houston Health Department | ▪ Houston Recovery Center | ▪ Center for Recovery and Wellness Resources |
| ▪ Center for Civic and Public Policy Improvement | ▪ Harris County Public Health | ▪ Lone Star Circle of Care |
| ▪ Harris Center for Mental Health and Intellectual/Developmental Disability (IDD) | ▪ CenterWell clinics | ▪ Blodgett Urban Gardens |
| ▪ Coalition for the Homeless Houston | ▪ New Hope Housing | ▪ Fit Houston |
| | ▪ Center for Houston’s Future | |
| | ▪ Stanford Center for Continuing Education | |
| | ▪ Cuney Homes Redevelopment Project | |

Community partnerships have become a central tenet in achieving the Institute’s mission to improve the health of underserved communities in Houston and across Texas. Through our multi-sector partnerships, we have focused on addressing disparities in highly prevalent chronic conditions including diabetes and cardiovascular disease. Specifically, our efforts have focused on food insecurity, access to healthy food, increasing physical activity, and mitigating disparities in cardiopulmonary resuscitation (CPR) training. Partnered initiatives include collaborations on research projects, educational initiatives, and community-engaged programs. Through our partnership with the American Heart Association (AHA), we contributed to a larger multi-sector initiative that involved the Houston Housing Authority and Fit Houston to bring a

resident-led food pantry to the Cuney Homes that includes both nonperishable items as well as fresh fruits and vegetables. This effort, along with school and faith-based initiatives at Blackshear Elementary Boynton Chapel, highlighted a need and a desire for programs aimed at improving cardiovascular health across the lifespan. To that end, we expanded our partnership with Fit Houston and the American Heart Association to include a collaboration with Compress and Shock to integrate cardiopulmonary resuscitation (CPR) training with established community events aimed at increasing health education, physical activity, and access to healthy food. From this, we have sponsored hands-only CPR training led by medical students at multiple events including Doctor for a Day at TJFFCOM and Compress and Shock at Boynton Chapel which resulted in Boynton Chapel receiving an Automated External Defibrillator (AED) for their congregation. Upcoming events are planned at local schools and with UH undergraduate students.

Additionally, the Institute has partnered with the University of Houston's Healthy Start Program, led by Dr. McClain Sampson, and continues to provide mentoring to a medical student team selected to participate in the Albert Schweitzer Fellowship Program (Angelique Basquien, Anika Felix and Hannah Adams). Their project, entitled "Project MatChrescence", focuses on sister circle peer mentoring to increase support for the reproductive wellness needs of people experiencing pregnancy and postpartum in Houston. Aligned with our focus on reducing cardiovascular health disparities, this team worked with the Institute and the American Heart Association to develop English and Spanish pocket guides that include hypertension guidelines for adults, including pregnant women given the substantial disparities in preeclampsia related morbidity and mortality.

The Humana Institute has also leveraged our partnership with the University of Houston Household Centered Care Program (led by Dr. Claudine Johnson) to again deliver the Poverty Simulation to students from the Tilman J. Fertitta Family College of Medicine, University of Houston Graduate College of Social Work, and Texas Southern University School of Pharmacy. This activity, in its third year (hosted during 2023 at the Tilman J. Fertitta Family College of Medicine), exposes and sensitizes participants to the realities of living in poverty to help them better understand the patients and communities that they will serve as well as the resources available to support individuals experiencing poverty and the role of their health professions colleagues in addressing issues that contribute to improving population health.

The Institute has also worked to address food insecurity among TJFFCOM students and staff, leading efforts with faculty and student champions to partner with Second Servings which brings a monthly grocery shopping experience to campus. The mission of Second Servings is well aligned with the Institute, college, and university. Second Servings partners with local grocery stores and non-profits to alleviate hunger and reduce food waste in Houston by obtaining edible surplus food and providing to organizations such as those caring for individuals in need including adults in recover, shelters, Veterans, and students on college

campuses. This effort has now become entirely medical student run and occurs monthly providing not only food but also social connection for students, faculty, and staff.

Projects described above have not only helped to address community needs, but also served as opportunities for student scholarship, and relationship-building that has contributed to community-engaged research conducted by institute faculty.

ROLES WITHIN UH AND THE COMMUNITY

University of Houston

The mission of the Humana Integrated Health System Sciences Institute centers on the health professions colleges. However, in addition to these colleges, the institute has purposely forged collaborations spanning education and research across the university to include faculty and students from UH Colleges of Business, Economics, Education, and Natural Science and Mathematics. Throughout all collaborations, the unifying theme has focused on improving the value of health care and population health outcomes by addressing social determinants of health.

In 2022, the Humana Institute continued its support of Dr. McClain Sampson (PI) of the Graduate College of Social Work (\$50,000 total funding) to examine the impact of maternal medical homes. In addition, the Institute also provided ongoing support for a medical-legal partnership between the UH College of Medicine and Lone Star Circle of Care (\$36,688 total funding), led by Dr. Winston Liaw. Dr. Sheara Jennings of the Graduate College of Social Work received \$25,000 in pilot funding that she has used to support work to address health disparities minority communities within Houston as part of the institute's work to address loneliness among community-dwelling seniors. Additionally, Dr. Ioannis Kakadiaris (Department of Computer Science) was awarded \$40,412 in funding in 2021 to support graduate students to develop a chatbot to support co-location of vaccination services with food distribution sites. This funding continued throughout 2022. The aforementioned projects were completed in early 2023. Due to corporate changes within Humana Inc., funding of projects was paused until the completion of the restructuring in late 2023.

The institute continues to provide data and analytic support to examine the use of artificial intelligence to predict diabetes outcomes (co-PIs: Winston Liaw, Ioannis Kakadiaris). Finally, as part of its ongoing workforce development efforts, the institute has supported students across numerous colleges within UH and local universities to create pathways to careers in health-related fields.

An affiliation agreement between Tilman J. Fertitta Family College of Medicine and CenterWell was signed in December 2023. There are ongoing discussions with CenterWell to develop value-based care rotations for both TJFFCOM medical students and residents in 2024.

Houston Community

Within the Houston community, our efforts are concentrated on improving population health outcomes by addressing social determinants of health, with the primary focus on the Third Ward, East End, and Northwest Houston. Projects have been diverse, focusing on older adults, Medicaid enrollees, individuals experiencing homelessness or substance abuse, and populations with low health literacy and socioeconomic status. In the course of our endeavors, we have formed partnerships with community working groups to discern health priorities from the community's viewpoint. Furthermore, we are actively involved in establishing the necessary infrastructure to support community-based participatory research, initiating collaborative projects that tackle local priorities such as food insecurity, social isolation, and the provision of direct services to promote healthy food access in the Third Ward.

A separate UH institute with activities similar to the Humana Institute is the Health Research Institute. Dr. Woodard, the Humana Institute Director, serves as the Health Research Institute Center for Addictions Research and Cancer Prevention Community Engagement Core Director. This dual role serves to foster synergy between the two institutes and acts as a catalyst for ongoing collaboration.

ANTICIPATED CHANGES

Size: As we continue to successfully obtain grant funding, we have increased our administrative (e.g., administrative assistant, project manager) and methodologic (e.g., quantitative and qualitative analysts) staff. We share faculty with the Department of Health Systems and Population Health Science and have recently onboarded a health informaticist. Additionally, we continue to grow our student pathways by providing internships to undergraduate and graduate students.

Budget (Internal vs. External Support): The institute is supported by a philanthropic gift from Humana. Currently, this funding supports a portion of institute salaries, with the remaining funding providing support to endowed chairs across the health professions colleges, as well as unrestricted funding to the College of Medicine. We anticipate continued infrastructure support from this philanthropic gift. Consistent with our current efforts, we will seek grant funding (e.g., federal, philanthropic, and foundation support) to increase institute capacity and create additional collaborations both internal and external to UH. We expect that infrastructure funding from Humana will remain stable while external funding will maintain its upward trajectory. We will continue to use additional project-based funding from our partnership with Humana to support initiatives and projects university-wide aligned with the institute's mission. For 2023, we received \$30,000 to examine social determinants of health screening in clinical settings.

Administrative Structure and Governance: The institute has an advisory council composed of the associate provost and the deans from the Colleges of Nursing, Social Work, Pharmacy, Optometry, and Medicine. This body meets quarterly, provides feedback to the institute's director and other leadership

regarding the extent to which it is meeting its mission, identifies areas of collaboration within UH, and provides strategic guidance. Additionally, the institute’s Collaborative Research Steering Committee, consisting of faculty across UH and Humana, provides guidance and central coordination of all research activities involving partnered projects (e.g., those that utilize Humana clinical/administrative data). During the latter half of 2022 and the beginning half of 2023, the collaborative research steering committee continued to meet as scheduled. However, advisory council meetings were on hold as Humana, Inc. underwent corporate restructuring and downsizing. Academic partnerships are now aligned with the Humana Inc. research arm. Quarterly meetings of the advisory council were resumed in the Fall of 2023; however due to the restructuring of Humana Inc. research workflow, the Collaborative Research Steering Committee was sunsetted in December 2023. We will continue to vet collaborative research using existing Humana, Inc. data through the Humana Institute.

Mission and (New/Updated) Goals: The mission of the institute continues to focus on improving the value of care and population health outcomes through IPE, research, and community engagement. Aligned with these goals, the institute’s focus has sharpened to align our strategic plan with ongoing health equity initiatives at the health care system, education, and community levels, as well as the strategic priorities of our partners also centering on health equity.

New/Updated Metrics: We do not anticipate significant changes to our overall metrics in the immediate future; however, as we expand our capacity, we expect an increase in the scope of our dissemination efforts through both scholarly presentations and publications and alternative metrics (e.g., social media uptake, internal/external collaborations). We currently work with TJFFCOM marketing to share ongoing institute work and accomplishments.

CURRENT MEASURES OF PERFORMANCE

Personnel

<u>Faculty: 6</u>	<u>Staff: 2</u>	<u>Masters’ students: 0</u>	<u>Undergraduates: 3</u>
Dr. LeChauncy Woodard, 50%	Christian ‘Coco’ Oats admin, 100%		Maya Singh (shared hire with DSI)
Dr. Omolola Adepoju, 50%	Mary E. Tipton program manager, 100%	<u>Doctoral students: 1</u>	Arlette Chavez (shared hire with DSI, Jan -Apr 2023)
Dr. Ben King, 10%	Monica McKey, 50%	Jordan Holbrook	Patrick Dang
Dr. Lauren Gilbert, Community Health Affiliate 10%		Yi Tang	
Dr. Jiangtao Luo, Biostatistician 10%			
Dr. Summer Chavez, Quality Improvement 10%			
Dr. Lu Wang, Health Informatics, 10%			

In addition to directly hired personnel, the institute has members and collaborations spanning multiple colleges and institutes, including the Honors College; the Colleges of Natural Sciences and Mathematics,

Education, Medicine, Social Work, Nursing, and Optometry; the HEALTH Research Centers in Minority Institutions (RCMI); the Data Sciences Institute; and, UH Population Health. Humana Institute Faculty have mentored and served on committees for students from the Colleges of Education, Pharmacy, Computer Science, and Sociology.

Table 3. Humana Institute Students

<u>Name</u>	<u>UH Affiliation</u>	<u>Humana Institute Role</u>
Arlette Chavez	College of Natural Sciences and Mathematics	Research Assistant
Patrick Dang	College of Natural Sciences and Mathematics	Research Assistant
Jordan Holbrook	College of Liberal Arts and Social Sciences	Graduate Research Assistant
Yi Tang	Tilman J. Fertitta Family College of Medicine	Graduate Research Assistant
Maya Singh	College of Natural Sciences and Mathematics	Research Assistant
Kashish Sorathia	C.T. Bauer College of Business	SHERP 2023 Participant
Rashda Khan	Jack J. Valenti School of Communication	SHERP 2023 Participant
Sheheryar Ali	C.T. Bauer College of Business	SHERP 2023 Participant
Linda Yamthe	Tilman J. Fertitta Family College of Medicine	SHERP 2023 Participant
Amani Halawa	Tilman J. Fertitta Family College of Medicine	SHERP 2023 Participant
Priyanka Saribala	C.T. Bauer College of Business	SHERP 2023 Participant
Jessica Medrano	Tilman J. Fertitta Family College of Medicine	SHERP 2023 Participant
Annabella Awazi	Tilman J. Fertitta Family College of Medicine	SHERP 2023 Participant
Chijioko Okeke	College of Pharmacy	SHERP 2023 Participant
Guillermo Saldana	Tilman J. Fertitta Family College of Medicine	SHERP 2023 Participant
Cecilia Pham	Tilman J. Fertitta Family College of Medicine	SHERP 2023 Participant
Andy Castaneda	Tilman J. Fertitta Family College of Medicine	SHERP 2023 Participant

Contracts and Grants

Funding proposals submitted by Humana Institute faculty are detailed in Table 3. Partnered Health Equity Programs with Humana, Inc. are outlined in Table 4. The Primary Care Forecast grant (PI: Dr. Winston Liaw) represents one of the first that fully incorporates use of health-related data from Humana, Inc. to develop a decision support tool that incorporates social risk to help predict diabetes progression and risk of diabetes related adverse outcomes with the goal of early identification and allocation of resources to those at highest risk. The ability to successfully secure this funding, which will support hiring of a faculty member with expertise in informatics, reflects significant collaborative efforts between the Institute, led by research director, Dr. Lola Adepaju, Humana, Inc, led by Jess Dobbins, and UH Information technology at the college and university levels, to develop the data infrastructure required to house protected health information.

Table 3. Humana Institute Faculty Funding

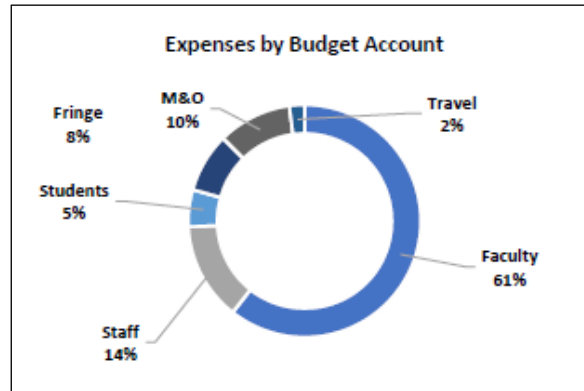
Grant	Sponsor	Amount
Improving Public Health Data Systems to Address Health Equity Challenges for At-Risk Communities: Multisectoral Partnerships to Address Successive Disaster Events, Affordable Housing and Mental Health in Underserved Communities <i>PI: Dr. Lola Adepaju</i>	National Academies of Sciences, Engineering, and Medicine	\$ 1,499,058
Evaluating Telemedicine Related Opioid Use Disorder (OUD) Services in Underserved Populations <i>PI: Dr. Lola Adepaju Co-I: Dr. Lauren Gilbert</i>	NIMHD/NIH NOSI	\$ 155,029
Identifying opportunities for intervention and prevention of overdose deaths associated with homelessness. <i>PI: Dr. Ben King Co-I: Dr. Lauren Gilbert</i>	National Institutes of Health / National Institute on Minority Health and Health Disparities (NIH/NIMHD)	\$49,411
HEALTH Center for Addictions Research and Cancer Prevention <i>PI: Dr. Ezemenari Obasi, Institute Co-I: Dr. LeChauncy Woodard</i>	NIH	\$1,707,351
Addressing Tobacco-Related and Lung Cancer Inequities among Black Adults: A mixed methods pilot project <i>PI: Dr. Maggie Britton, Institute Co-I: Dr. LeChauncy Woodard</i>	NIH	\$155,000
Primary Care Forecast: Using Social Risk Factors and Actionable, Explainable Artificial Intelligence / Machine Learning to Prevent of Diabetes Complications <i>PI: Dr. Winston Liaw, Institute Co-Is: Drs. Lola Adepaju, Ben King, Jiangtao Luo, LeChauncy Woodard</i>	ABFM Foundation	\$499,998

Table 4. Humana Institute–Humana Partnered Health Equity Programs

Program	Description	Funding
Summer Health Equity Research Training Program <i>Drs. LeChauncy Woodard, Lauren Gilbert, Lola Adepoju</i>	To address the critical shortage of underrepresented racial/ethnic minorities, individuals with disabilities, and low-income / educationally disadvantaged individuals in biomedical research and the health professions, we designed, implemented, and conducted a preliminary evaluation of an evidence-based, culturally relevant research training and mentoring program specifically designed for college students from groups underrepresented in biomedical science.	\$80,000
Health Equity in Birth and Postpartum <i>Drs. Mc Clain Sampson, Jessica Dobbins, Ms. Ebony Bell</i>	This project leverages an ongoing community-based program at the UH Graduate College of Social Work that aims to decrease infant and maternal mortality (UH Healthy Start program). UH Healthy Start is a federally funded program that emphasizes community outreach and case management for direct program services to improve health. To address data gaps, investigators are conducting a rigorous, data driven analysis of maternal and infant health outcomes during the perinatal period to inform programs and services on how to prevent severe morbidity and mortality among our most at-risk populations.	\$50,000
UH Medical-Legal Partnership: Improving Health by Addressing Health-Harming Legal Needs <i>Drs. Winston Liaw, Jessica Dobbins, LeChauncy Woodard</i>	This collaborative project between UH Colleges of Medicine and Law and Lone Star Circle of Care implements and evaluates a partnership to address health-harming legal needs through referral to Lone Star Legal Aid in order to conduct legal assessments and develop plans to address identified legal issues.	\$36,688
Chatbot Development <i>Dr. Ioannis Kakadiaris</i>	To ensure that individuals providing social services have access to timely, accurate information regarding the COVID-19 vaccine, we develop virtual conversation agent (e.g., chatbot) technology to provide up-to-date data and guidance regarding specific issues related to vaccine hesitancy and uptake. This work was foundational to the NIH ADVANCES grant submission.	\$40,412
Social Determinants of Health Screening <i>Drs. LeChauncy Woodard, Lola Adepoju</i>	This project will examine approaches to effective social determinants and health related social needs screening in clinical settings.	\$30,000
Pilot project with Health Research Institute <i>Drs. LeChauncy Woodard, Ezemenari Obasi, Lola Adepoju, Jessica Dobbins</i>	In collaboration with the Health Research Institute, we will develop a request for authorization to solicit pilot projects from UH faculty/students to address topics that advance health equity.	\$45,000

Expenditures

	Original budget	Adjustment	FY23 expenses	FY22 committed	Balance
State	\$ 188,593	\$(65,372)	\$113,914	-	\$9,357
Local	\$ 43,859	\$1770	\$30,865	-	\$14,764
Gifts	\$253,091	\$ 83,040	\$193,852	\$2,774	\$139,505
Total	\$ 485,543	\$34,412	\$380,980	\$2,774	\$163,627



	Faculty	Staff	Total
Current	1.41	2.00	3.41
Committed	0.00	0.00	0.00
Search	0.00	1.00	2.00
FY target	1.41	1.00	2.41
% to target	100%	50%	70%

LeChauncy Woodard, Founding Director	0.51
Omolola Adepoju, Clinical Assoc. Prof.	0.50
Lauren Gilbert, Clinical Asst. Prof.	0.10
Ben King, Clinical Asst. Prof.	0.10
Jiangtao Luo, Clinical Asst. Prof	0.10
Mary E. Tipton, Program Manager	1.00
Christian “Coco” Coco	1.00
Summer Chavez	0.10

Publications and Presentations

Presentations

Institute faculty and students disseminated work in a variety of settings including local, regional, and national meetings (full list available upon request) including the American Public Health Association (APHA), American Society of Health Economists, Stanford AI+Health Conference,

National Medical Association, Student National Medical Association, and National Drug Abuse Clinical Trials Network Annual Meeting.

Select Publications (Humana Institute Faculty)

- Adepoju OE, Dang P, Jacobs W, Baiden P. Long Way to Go: Attitudes, Knowledge, and Perception of Artificial Intelligence in Health Care, Among a Racially Diverse, Lower Income Population in Houston, New York, and Los Angeles. *Popul Health Manag.* 2023 Dec 13. doi: 10.1089/pop.2023.0256. Epub ahead of print. PMID: 38100075.
- Adepoju OE, Kiaghadi A, Shokouhi Niaki D, Karunwi A, Chen H, Woodard L. Rethinking access to care: A spatial-economic analysis of the potential impact of pharmacy closures in the United States. *PLoS One.* 2023 Jul 27;18(7):e0289284. doi: 10.1371/journal.pone.0289284. PMID: 37498949; PMCID: PMC10374066.
- Banks J, Amspoker AB, Vaughan EM, Woodard L, Naik AD. Ascertainment of Minimal Clinically Important Differences in the Diabetes Distress Scale-17: A Secondary Analysis of a Randomized Clinical Trial. *JAMA Netw Open.* 2023 Nov 1;6(11):e2342950. doi: 10.1001/jamanetworkopen.2023.42950. PMID: 37966840; PMCID: PMC10652154.
- Chae M, Chavez A, Singh M, Holbrook J, Glasheen WP, Woodard L, Adepoju OE. Evaluating Predictors of Participation in Telephone-Based Social-Connectedness Interventions for Older Adults: A Dual Machine-Learning and Regression Approach. *Gerontol Geriatr Med.* 2023 Sep 28;9:23337214231201204. doi: 10.1177/23337214231201204. PMID: 37781643; PMCID: PMC10540577.
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Community Outreach and Service

The Humana Institute focuses on communities in the greater Houston metropolitan area. These include the Third Ward, East End, and Northwest Houston. Through community linkages, the institute infuses research with collaboration from the community, connects patients with community resources, and implements quality improvement principles within community practices. For example, the institute regularly collaborates with community working groups in Houston's Third Ward and East End. The purpose of the groups is to work with members of the community to identify health priorities from the community's perspective and to develop research and other collaborative projects that address these priorities. From these efforts, a food insecurity collaborative that includes residents and community partners is working to address food insecurity and nutrition in the Third Ward.

Immediate results from the community working groups include research into food insecurity and direct services to support access to healthy food in the Third Ward. For example, as described above, the Humana Institute partnered with the American Heart Association, and UH Population Health to provide education, blood pressure monitoring equipment, and healthy food options to students, parent, grandparents, faculty, and staff at Blackshear Elementary. Institute members have also participated in the Cuney Homes Redevelopment Project in collaboration with the Houston Housing Authority and City of Houston, with Dr. LeChauncy Woodard co-leading the health task force with Dr. Dan Price and Cuney Homes residents. Similarly, Dr. Lola Adepoju, collaborated with community stakeholders to develop a geospatial-photo ethnography dashboard that chronicles the impact of successive disaster events on the physical and mental health outcomes. Dr. Ben King, whose work focuses on individuals experiencing homelessness has partnered with the Houston Coalition for the Homeless as part of his research efforts. The Institute continues to work in partnership with faith-based communities located in the Third Ward community, including Boynton United Methodist Church, to address health care needs including access to influenza and COVID-19 vaccinations. In partnership with the Tilman J. Fertitta Family College of Medicine Office of Community Health, the Institute supported efforts to provide necessary educational resources to Blackshear Elementary faculty and students.

FUTURE MEASURES OF PERFORMANCE

We expect the five-year projected outcomes to remain consistent over the next year. Our current measures of performance are as follows:

1. Advance understanding of how social risk influences health contributes to disparities, and impacts health care value.
2. Develop collaborations with community partners to develop research and educational initiatives guided by community needs.
3. Foster student success through workforce development programs focused on training the next generation of health professionals, researchers, and leaders skilled in improving health care value, enhancing population health, and mitigating health disparities.
4. Engage in scholarly activities to disseminate findings to inform clinical practice, health policy, and population health programs aimed at mitigating health inequities.