

The image shows a grayscale photograph of the University of Houston campus, featuring several large academic buildings and a city skyline in the background. A semi-transparent red vertical bar is overlaid on the right side of the image, containing the title text. A thin white vertical line is positioned to the left of the text within the red bar.

University of Houston

**Review of
Academic
Centers and
Institutes**

2022

Humana Integrated Health System Sciences Institute

GOALS AND OBJECTIVES

The Humana Integrated Health System Sciences Institute is a strategic partnership between the University of Houston (UH) and Humana. The institute seeks to increase the value of health care and improve health outcomes through interprofessional health education (IPE), innovative research, and community engagement. Working with colleges across the UH campus, community partners, and colleagues across multiple sectors, the institute's goal is to advance the health of our community by focusing on social needs, risk factors, and determinants of health and by increasing the use of value-based care (VBC) delivery models. Specifically, the goals of the institute are to:

1. Train health care professions 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.

One of the Institute's signature programs is the Value Based Care (VBC) Certificate Program which we have continued to administer via Coursera ([Coursera](#)). To create this program, we partnered with the College

of Education to develop both the educational pedagogy and refine the course content. Consisting of six courses and a capstone project, the specialization is designed to develop an awareness of VBC reimbursement and operating models (Table 1), providing health systems science education for a broad range of learners, including health professions faculty, students, and staff; industry leaders; and lay community members. For clinicians, this first-of-its-kind specialization provides the tools necessary to support development of novel ideas and skills to elevate frontline patient care. Current course enrollment is 2616 individuals. The overall course rating is 4.7/5.0. We have successfully obtained continuing education (CE) credits for physicians and nurses through the American Academy of Family Physicians. We have partnered with CE Zoom to administer and track credits for clinicians who complete this course as part of their ongoing continuing education and self-directed learning. In addition, we have obtained microcredentialing for this course via Credly.



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 second annual Summer Health Equity Research Program which was a 6-week, mentored, virtual research and training experience. Co-directed by Drs. Lauren Gilbert, Omolola Adepoju, and LeChauncy Woodard, the program welcomed 13 graduate students in health related disciplines representing University of Houston College of Optometry, Tilman J. Fertitta Family College of Medicine, Texas Southern University School of Pharmacy, and George Washington University School of Public Health and 11 undergraduate students from 7 historically Black colleges and universities (HBCUs) and minority-serving institutions (MSIs) nationwide. Each week included approximately 40 hours of synchronous learning, group activities, and independent-learning tasks, equipping students with skills in health equity, population health, community engagement, and research methods. Students engaged in virtual sessions led by national experts in topics that included mental health, maternal health, immigrant health, individuals experiencing homelessness, and health care for individuals experiencing incarceration. Collectively, the program introduced research methods and taught students to collaboratively address complex social issues impacting health equity, as they would in their future medical careers.

Additionally, over the past 2 years, the Summer Health Equity Research Program has been conducted with community and/or industry partners to ensure that the projects are relevant and help to inform partners efforts to address health disparities. In year 1, the program partnered with Dispensary of Hope to address issues specific to their philanthropic efforts to provide needed medications to underserved and under resourced communities. In its second year, the program partnered with Humana, Inc. to conduct scoping reviews to address the following topics that aligned with organizational priorities at Humana, Inc., and academic research interests at the University of Houston:

Learning Community 1 – Discrimination in healthcare

Learning Community 2 – Maternal health and community health workers

Learning Community 3 – Technology and health literacy

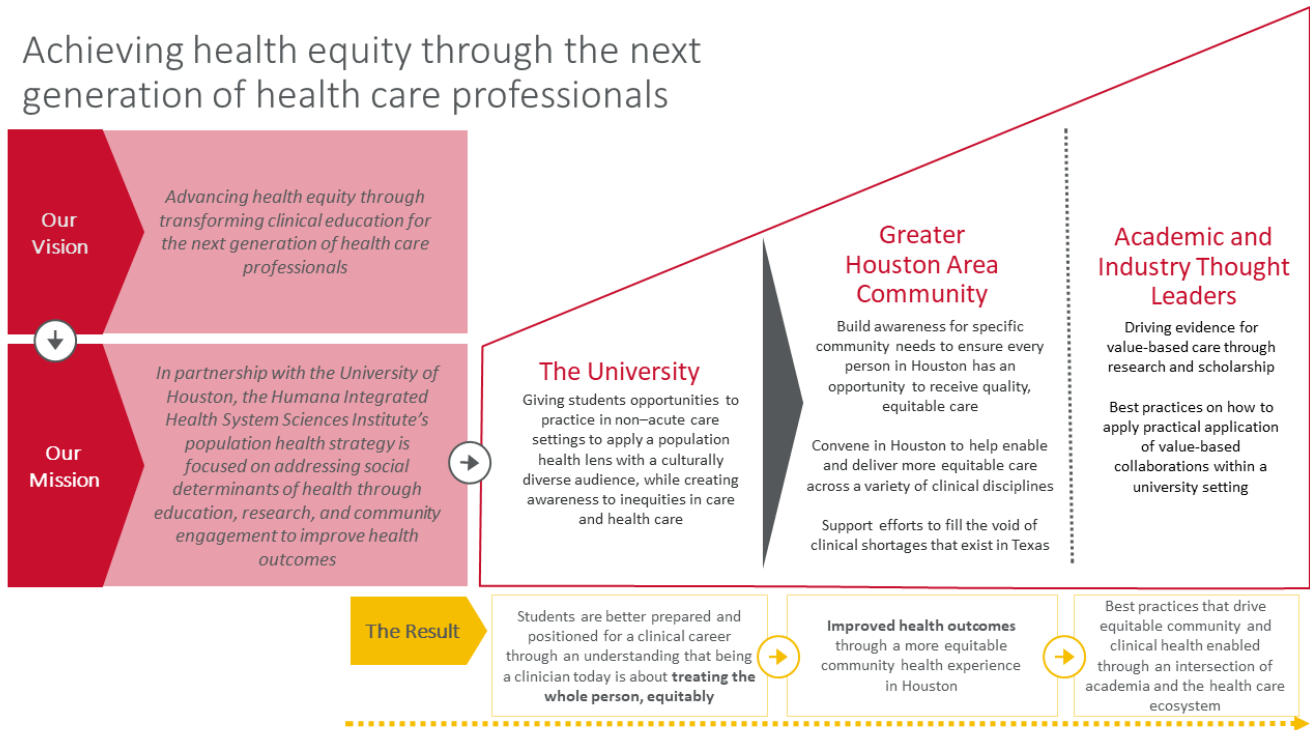
Learning Community 4 – Machine learning and predictive analytics to reduce bias and achieve health equity

Learning Community 5 – Effective and culturally appropriate social determinants of health screening in the clinical setting

The learning communities were intentionally formed to ensure diversity in educational backgrounds, research interests, and health professions careers (graduate) or desired careers (undergraduate). Research teams were guided by faculty mentors from the University of Houston, industry coaches from Humana, Inc., and peer mentors who were graduates of the inaugural program. The summer program culminated in a virtual research

symposium where students presented their research findings to their peers, senior researchers, and the community at large. This research, conducted by student led teams and the Humana Institute, in collaboration with academic, community, and industry partners, informs its coordinating and supporting role in facilitating the establishment of new educational initiatives.

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, PhD—Community Health Initiative Leader
 - Summer Chavez, DO, MPH, MPM – Faculty, Emergency Medicine/Quality Improvement
 - TBD —Program Manager*
 - Monica McKey— Executive Administrative Assistant to Drs. Woodard (Humana Institute) and Liaw (Health Systems and Population Health Science Department)
 - TBD – administrative assistant, shared between Humana Institute and Health Systems and Population Health Sciences Department
- * Our prior program manager, Ms. Sumaita Choudhury, successfully passed her qualifying exams and is completing her DrPH degree.

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 |
| ▪ University of Texas (UT) at Austin School of Social Work | ▪ Texas State University | ▪ Center for Innovations in Quality, Effectiveness and Safety (IQuEST) |
| ▪ UT Health Science Center at Houston School of Public Health | ▪ Texas A&M University | ▪ University of Texas Health Science Center at Houston |
| ▪ UT Rio Grande Valley | ▪ Baylor College of Medicine | ▪ Center for Recovery and Wellness Resources |
| ▪ University of North Carolina at Chapel Hill | ▪ Dell Medical School | ▪ Lone Star Circle of Care |
| ▪ City of Houston Health Department | ▪ Mercer University | ▪ Blodgett Urban Gardens |
| ▪ Center for Civic and Public Policy Improvement | ▪ Houston Recovery Center | ▪ Fit Houston |
| ▪ Harris Center for Mental Health and Intellectual/Developmental Disability (IDD) | ▪ Harris County Public Health | |
| ▪ Coalition for the Homeless Houston | ▪ Walmart Foundation | |
| ▪ Cuney Homes Redevelopment Project | ▪ New Hope Housing | |
| | ▪ Center for Houston’s Future | |
| | ▪ Stanford Center for Continuing Education | |



Initiatives with these partners include collaborations on research projects, educational initiatives, and community-engaged programs. For example, the Institute has partnered with the American Heart Association to address food insecurity by developing a Student Food Council that include students from varied disciplines at UH, Texas Southern University, and Rice University to address food security and nutrition within our community. As part of this work, we partnered with Blackshear Elementary, the Blackshear Elementary Parent Teacher Organization, and University of Houston Population Health to respond to a request from the school, faculty, and families, to develop intergenerational program that spanned grandparents, parents, and students focused on heart healthy nutrition.

Additionally, the Institute has partnered with the University of Houston’s Healthy Start Program, led by Dr. McClain Sampson, to provide mentoring to a medical student team comprised of Ms. Breanna Chachere, Taylor Jackson, and Zikora Stephens, who were selected to participate in the Albert Schweitzer Fellowship Program. Their project, Project MatCHrescence, focuses on sister circle peer mentoring to increase support for the reproductive wellness needs of people experiencing pregnancy and postpartum in Houston. Similarly, this group of students is working on another project, again partnering with the Institute, American Heart Association, and Healthy Start to develop educational resources for pregnant and postpartum women regarding appropriate blood pressure control and resources to address abnormal blood pressure measurements. These resources are currently in production with the American Heart Association for dissemination to Healthy Start and Project MatCHrescence participants. The institute has also partnered with local health departments, other community organizations, university colleagues, and industry to address the COVID-19 pandemic through educational programs, and provision of vaccinations (COVID-19 and influenza) co-located with social services. One such example is the Institute’s work in collaboration with UH Population Health. In preparation for the “We’ve Got Next” grant funded by the Centers for Disease Control (PI: B. Beech), the Institute partnered to conduct Design Thinking Workshops aimed at gaining greater understanding of challenges and opportunities in developing vaccination efforts targeted at young adults. The “We’ve Got Next Design Thinking” project used the design thinking methodology for four goals of the initiative:

- Development of key salient messages to be communicated by trusted community messengers
- Planning for pop-up vaccination events
- Planning for home testing kit distribution
- Design of an online, asynchronous course

The design thinking process was conducted via a series of three virtual workshops, as well as additional small group and one-on-one conversations. The results of this work helped to address the pressing need for vaccine knowledge, testing, and vaccine access among racial and ethnic minority Millennials and early Generation X'ers, as well as educating the next generation of health care providers about health equity and social justice with respect to vaccination campaigns and public health more generally. The design thinking methodology was selected for this project because it is human-centered and works to learn directly from participants about *their* ideas, emotions, needs, pains, and gains. In this way, interventions and activities are informed by the community rather than imposed institutionally. The “We’ve Go Next” project is currently ongoing, and in addition to its initial aims regarding COVID-19 vaccination, has partnered to address issues related to chronic disease management, including blood pressure control in collaboration with Blackshear Elementary (see above) and the Harris Center for Mental Health and IDD.

The Humana Institute has also leveraged our partnership with the University of Houston Household Centered Care Program (led by Dr. Claudine Johnson) to 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 second year (hosted last year at Texas Southern University), exposes and sensitizes participants to the realities of living in poverty with the goal of helping them to 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.

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 of 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 institute continues to provide in-kind data support to the Data Analytics in Students' Hands (DASH) program in collaboration with Dr. Dan Price (Honors College) and Dr. Claudia Neuhauser (Data Sciences Institute), as well as data 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. In 2022, numerous UH participated in projects with the institute or with our industry partner, Humana. Students engaged in health equity projects, clinical rotations, and other health service-related projects. The Graduate College of Social Work has one student working with the Humana Bold Goal Team located in Houston, Texas, and another student working with Humana, Inc. in Louisiana. The Humana Institute has continued to partner with our nursing colleagues as part of the University of Houston College of Nursing Health Clinic. Co-located with St. Paul's United Methodist Church and the Emergency Aid Coalition, the clinic has provided wellness exams, chronic disease management, and laboratory services. Start-up costs for this effort were supported, in part, by funding from the Institute through our partnership with Humana, Inc.

The College of Pharmacy has several bi-directional education, training and mentoring programs including: (1) UH College of Pharmacy Academy of Managed Care Pharmacy Student Chapter structured mentorship program where Humana Pharmacists are paired with students to give the students exposure to managed care pharmacy practice setting; (2) Humana Pharmacists serve as panelists for the UH College of Pharmacy Academy of Managed Care Pharmacy Student Chapter organization presentations; (3) Managed Care Pharmacy Rotation – Humana pharmacists, Debbie Meyer and Dr. Heather Wind have served as preceptors for the rotation both virtually and in their Kentucky location. Between 2020-2023, they have precepted 12 UH College of Pharmacy students; (4) Ambulatory Care Pharmacy Rotation in Houston, Texas – Humana pharmacists have precepted students in an Ambulatory Care clinical rotation in the CenterWell Senior Primary Care – Gulfgate and CenterWell Senior Primary Care – Baytown. There has been a total of 14 students who have rotated in the clinics between 2021-2023. Dr. Amy Kelleh, one of the preceptors and also a UH College of Pharmacy alumnus, was awarded the 2022 University of Houston College of Pharmacy Ambulatory Care Preceptor of the Year Award for her outstanding mentorship of pharmacy students in an ambulator care practice setting; and (5) Irene Huang, PharmD, was matched to the Humana, Inc as a PGY-1 Managed Care Residency program in Kentucky. There are ongoing discussions with

CenterWell to develop value-based care rotations for both Tilman J. Fertitta Family College of Medicine medical students and residents in 2023. Several students have subsequently successfully secured admission to medical schools, graduate schools, internships, and permanent positions with Humana, Inc.

Houston Community

Within the Houston community, our work focuses on improving population health outcomes by addressing social determinants of health, with the greatest attention on the Third Ward, East End, and Northwest Houston. Projects have been varied, focusing on older adults, Medicaid enrollees, individuals experiencing homelessness or substance abuse, and populations with low health literacy and socioeconomic status. As part of our work, we have partnered with community working groups to identify health priorities from the community's perspective, to develop the infrastructure needed to support community-based participatory research, and to initiate collaborative projects addressing local priorities, such as food insecurity, social isolation, and direct services to support 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, promoting synergy between the two institutes and serving as a catalyst for ongoing collaboration.

ANTICIPATED CHANGES

Size: As we continue to successfully obtain grant funding, we anticipate increasing 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 are actively recruiting a health informaticist. Additionally, we will 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, 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.

Mission and (New/Updated) Goals: The mission of the institute will continue 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 COM marketing which has recently onboarded new staff who are working with Institute faculty to share ongoing institute work and accomplishments.

CURRENT MEASURES OF PERFORMANCE

Personnel

Table 2. Humana Institute Personnel			
<u>Faculty: 6</u>	<u>Staff: 2</u>	<u>Masters’ students: 0</u>	<u>Undergraduates: 3</u>
Dr. LeChauncy Woodard, 50%	TBD admin , 100%		Maya Singh (shared hire with DSI)
Dr. Omolola Adepoju, 50%	TBD program manager, 100%	<u>Doctoral students: 1</u>	Josiah Mercado
Dr. Ben King, 10%	Monica McKey, 50%	Jordan Holbrook	Rahsul Katambusi
Dr. Lauren Gilbert, 10%	Arlette Chavez, 100%		
Dr. Jiangtao Luo, 10%	(shared hire with DSI)		
Dr. Summer Chavez, 10%			
TBD, Health Informatics, 10%			

In addition to directly hired personnel, the institute has members and collaborations spanning multiple colleges, including the Honors College; the Colleges of Natural Sciences and Mathematics, Education, Medicine, Social Work, Nursing, and Optometry; and the Data Sciences Institute. Humana Institute Faculty have mentored and served on committees for students from the Colleges of Education, Pharmacy, Computer Science, and Sociology.

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 Adepoju, 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

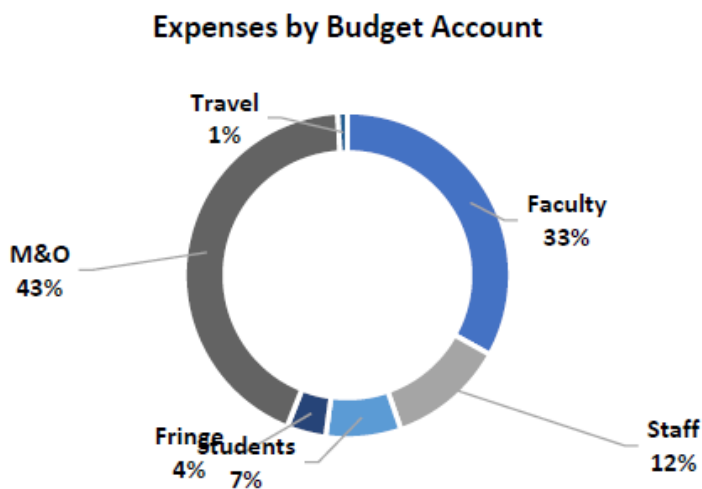
Grant	Sponsor	Amount
Texas CEAL Consortium: Identifying Facilitators and Barriers to Increasing COVID-19 Vaccination and Trial Participation in Vietnamese Americans. <i>Sub-Award PI: Dr. Bich-May Nguyen, Institute Co-I: Dr. Lauren Gilbert</i>	National Heart, Lung, and Blood Institute; NIH	\$325,000
National Initiative to Address COVID-19 Health Disparities Among Populations at High-Risk and Underserved, Including Racial and Ethnic Minority Populations and Rural Communities. <i>PI: Dr. Bettina Beech, Institute Co-I: Dr. LeChauncy Woodard</i>	Centers for Disease Control and Prevention	\$500,000
HEALTH Center for Addictions Research and Cancer Prevention <i>PI: Dr. E. 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 Adepoju, 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>L. Woodard, L. Gilbert, L. 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>M. Sampson, J. Dobbins, E. 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>W. Liaw, J. Dobbins, L. 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>I. 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>L. Woodard, L. 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>L. Woodard, E. Obasi, L. Adepoju, J. 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	FY22 expenses	FY21 committed	Balance
State	-	\$30,002	\$30,002	-	-
State grant	\$144,850	(\$47,098)	\$97,752	-	-
Local	\$315,654	\$(296,616)	\$19,038	-	-
Gifts	-	\$428,142	\$162,056	\$14,974	\$251,112
Total	\$460,504	\$114,430	\$308,848	\$14,974	\$251,112



	Faculty	Staff	Total
Current	1.21	0.00	1.21
Committed	0.00	1.00	1.00
Search	0.00	1.00	1.00
FY target	1.21	3.00	3.21
% to target	100%	0%	38%

Employee Name and Title	FTE Status
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

** Please note that expenditures represent fiscal rather than calendar year. During calendar year 2022, the Humana Institute added Drs. Jiangtao Luo and Summer Chavez, both at 0.10 FTE. Additionally, Ms. Monica McKey was promoted to Executive Administrative Assistant and is now shared at 0.50 FTE between the Humana Institute and the Department of Health Systems and Population Health Sciences.

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, Liaw WR, Patel N, Obasi E, Renda A, Woodard LW. Unmet Health-Related Social Needs Among Medicare Advantage Members with Mental Illness. *JAMA Netw Open*. 2022;5(11):e2239855. doi:10.1001/jamanetworkopen.2022.39855
- Adepoju OE, Angelocci T, Matuk-Villazon O. Increased Revenue From Averted Missed Appointments Following Telemedicine Adoption at a large Federally Qualified Health Center. *Health Services Insights*, 15, 11786329221125409. <https://doi.org/10.1177/11786329221125409>
- Adepoju OE, Chavez, Duong K. Telemedicine During the Pandemic: Leaving the Visually Impaired and others with Disabilities Behind?" *Health Affairs Forefront*, Sep 6, 2022. <https://www.healthaffairs.org/doi/10.1377/forefront.20220902.944304>
- Chae M, Choudhury S, Franco-Castano J, Adepoju OE. "Self-Perceived Disaster Preparedness in Minority Older Adults: A Cross-Sectional Study" *American Journal of Disaster Medicine*, Vol 17, No 2 (2022) <https://doi.org/10.5055/ajdm.2022.0425>
- Woodard LD, Liaw WR, Adepoju OE, Prabhu S, Chae M, Matuk-Villazon M, Beech BM. Evaluating a Contact Tracing Course: How Universities Can Develop the Public Health Workforce. *J Am Coll Health*. 2022 Aug 18:1-7. doi: 10.1080/07448481.2022.2103380. Online ahead of print. PMID: 35981316
- Adepoju OE, Tran, L, Agwuncha R, Chae M, Franco-Castano J, Ojinnaka CO, Angelocci T, Liaw WR. Associations between Patient- and Provider Level Factors, and Telemedicine Utilization in Community-based Family Practice Clinics Across Texas. *J Am Board Fam Med May/June 2022; 35:457-464; doi:10.3122/jabfm.2022.03.210416*
- King B, Spadaro A, Schiff G, Rodriguez-Monguio R, Jordan A, Flaherty L, Lee WC, Zito J, Fein O, on behalf of the APHA Medical Care Section. (2022) The American Public Health Association Endorses Single-Payer Health System Reform. *Medical Care*. 60(6):397-401.
- Raza SA, Zhang X, Oluyomi A, Adepoju OE, King B, Amos CI, Badr H. (2022) Predictors of COVID-19 perceived susceptibility: insights from population-based self-reported survey during lockdown in the United States. *Journal of Infection and Public Health*. 15(5):508-514.
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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 around 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. Dr. Lauren Gilbert has developed a community advisory committee to guide her work in opioid addiction by engaging members of local substance abuse treatment programs as well as individuals with lived experiences involving opioid addiction. Similarly, Dr. Lola Adepoju, worked with community members to inform submission of a grant focused on expanding access to telehealth to the Patient Centered Outcomes Research Institute. 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. Finally, in partnership with the American Heart Association, the Institute secured gift cards to Little Red Box to make resources available as needed to College of Medicine 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.