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Implementation and Evaluation of a Novel Health Equity, Advocacy, and Research Training (H.E.A.R.T.) Track at a Family Medicine Residency Program

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Abstract

Background: Growing numbers of curricula have emerged following the Accreditation Council for Graduate Medical Education (ACGME) mandate for health disparities education in medical training. The Health Equity, Advocacy, and Research Track (H.E.A.R.T.) was designed and implemented as a longitudinal program within an academic family and community medicine residency in Dallas, Texas, aimed at providing innovative training in health systems science and addressing health disparities in vulnerable populations.

Methods: The H.E.A.R.T. track enrolls up two resident physicians per pathway annually, selected through a competitive application in December of their first year, with all requirements completed within their 3-year residency. The curriculum was evaluated using Likert-scale surveys assessing attitudes, knowledge, confidence, skills, and overall satisfaction. Scholarly outputs were tracked throughout. A pre-graduation survey assessed future career plans, including commitment to vulnerable populations and advancing health equity.

Results: Since its inception in 2020, nine residents have participated, with six graduating with H.E.A.R.T. distinction. Preliminary evaluation indicates residents learned key health equity and advocacy concepts, disseminated relevant community research, and pursued careers aligned with their training.

Conclusions: The H.E.A.R.T. track has demonstrated promise in preparing physicians to serve underserved communities, conduct impactful research, and advance health equity through advocacy and outreach. Graduate feedback will continue to inform iterative curriculum improvements.

Keywords: Health Equity, Community Medicine, Graduate Medical Education, Health Disparities

Background

Vulnerable communities across the United States continue to experience significant social and structural health disparities that adversely affect health outcomes. In recent years—particularly following the Accreditation Council for Graduate Medical Education (ACGME) mandate for health disparities education in medical training [1]—numerous curricula addressing social determinants of health have been developed within primary care residency programs [2, 3, 4]. In parallel, specialized training tracks have emerged to equip residents with the skills necessary to serve as effective leaders in this domain [5, 6, 7], such as the Community Health, Advocacy, and Managing Populations (CHAMPS) curriculum, which has demonstrated efficacy in training residents to address health disparities [5]. Still, advocacy training remains challenging to implement and evaluate, though it is an essential competency for contemporary physicians seeking to advance health equity [8, 9].

The Community Action Research Track (CARE) was implemented in our Family Medicine Residency program from 2010-2020. A revision was considered to better distinguish it from standard residency requirements and to intentionally focus on health equity, social determinants of health (SDOH), and community partnerships [10]. Our residents reported wanting additional training in SDOH, advocacy, and community engagement. Many felt their medical school education did not adequately prepare them to address these factors effectively in clinical practice. While they rated their knowledge of health equity highly, they were less confident in applying it to advocacy, community engagement, and community-centered practice beyond residency.

The health equity, advocacy, and research track (H.E.A.R.T.) was then designed and implemented as a longitudinal program within an academic family and community medicine residency program in Dallas, Texas. The goal of this track is to equip family medicine residents with public health education, diverse clinical experiences, community engagement, research, and advocacy skills that will enable them to address health inequities. In creating the H.E.A.R.T. curriculum, we aimed to provide innovative training in health systems science, address health disparities in vulnerable populations, produce a generalizable model of health equity education and advocacy skills training, and expand the diversity of the primary care workforce to reflect the growing diversity in our communities.

Methods

The H.E.A.R.T curriculum developed in 2020, combines public health courses, training in advocacy and research, expert-led workshops and community based clinical experiences

(Figure 1). The track enrolls up to 2 residents annually to complete track requirements by the end of their 3-year residency program. Residents are chosen through a competitive application with guidance from H.E.A.R.T. faculty and faculty advisors during December of their first post-graduate year. The number of residents selected is determined by qualifications, interest, and available funding.

The curriculum was evaluated using Likert-scale surveys and knowledge questionnaires. These questionnaires were developed to evaluate the program activities (see supplementary forms). Scholarly activity was tracked by community-based participatory research (CBPR) outputs. A pre-graduation survey assessed residents' future, including commitment to working with vulnerable populations and advancing health equity. This project was reviewed by the UT Southwestern Human Research Protection Program , which determined that the activity does not constitute human subjects research as defined by 45 CFR 46.102 and therefore does not require formal IRB oversight

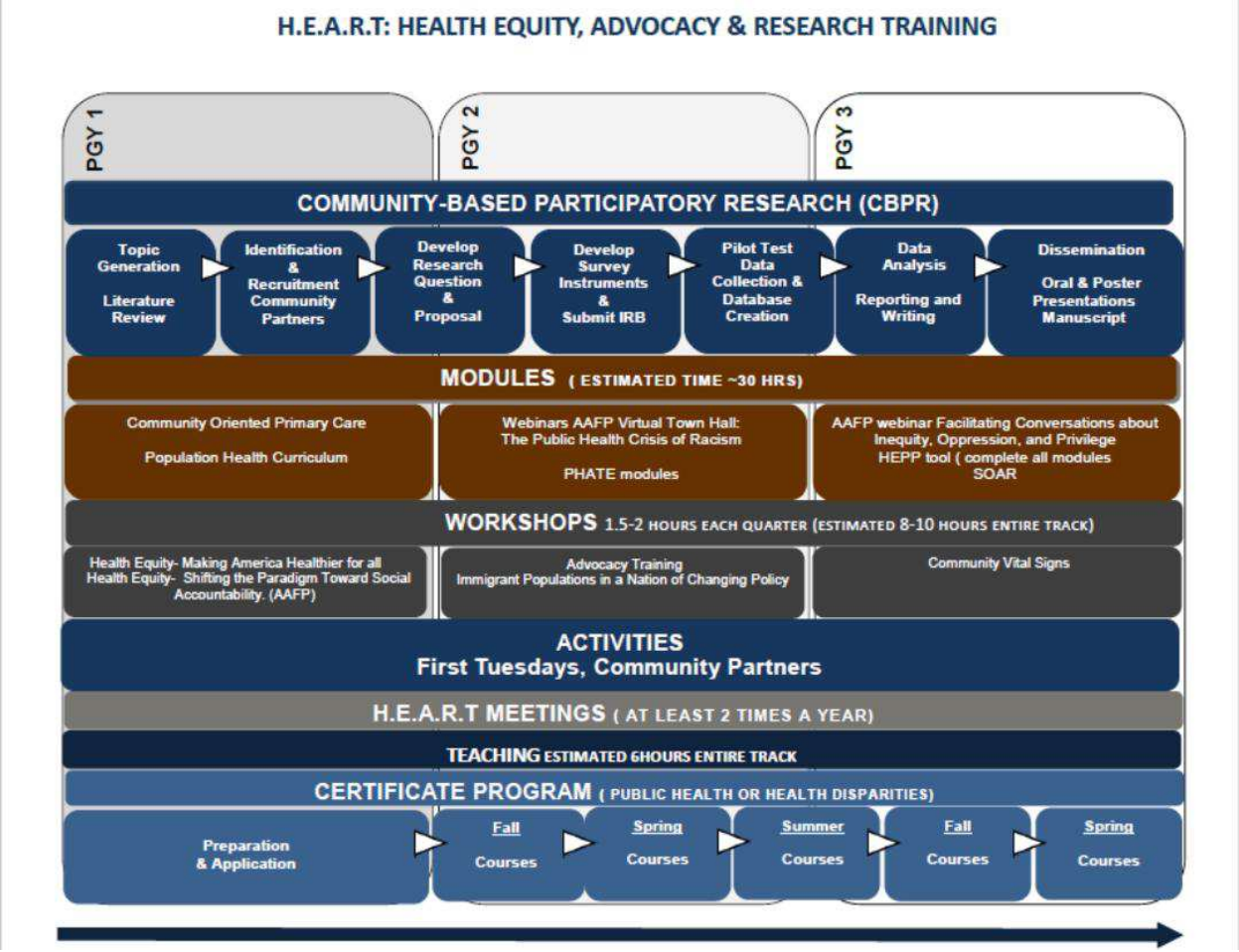


Figure 1: HEART curriculum and longitudinal experiences

Results

Since its inception, 9 residents have been part of this track. Six have graduated with a H.E.A.R.T. distinction.

Resident attitudes and perceptions

Overall, residents felt that the H.E.A.R.T. curriculum met their educational, research, and advocacy goals. All graduating residents could correctly define key concepts of health equity. The scholarly goals for the track were also met. (Table 1).

All residents had community-oriented post-graduate plans and felt the H.E.A.R.T. track prepared them for their future career that involved addressing SDOH, health inequities, advocacy, and community-based research (Table 2). The track therefore contributed to graduating physicians committed to serving in community settings (level 4 of Kirkpatrick Model (KM)). All residents graduating from the track would recommend it to future residents (level 1 of KM).

Residents feedback identified strengths and areas for improvement. Though the COVID-19 pandemic limited some experiential opportunities, residents were still able to build strong and meaningful relationships with community partners to expand patient outreach, indicating positive behavior change (level 3 of KM). They felt that faculty were supportive of resident efforts, but broader department support would have been helpful in larger-scale research projects and community experiences. In general, residents had a positive experience that allowed for valuable and impactful community interventions and supported career goals in caring for underserved populations.

Post-graduation plans

Among all the H.E.A.R.T. alumni, one completed a fellowship in Community Medicine and went into academic medicine. Three are currently in fellowship (Community Medicine and Palliative Care). Three are working in community clinics with underserved and/or rural populations.

Table 1: HEART Resident Accomplishments by Graduation Year (2023–2028)

Grad Year	No. of Residents	MPH or Certificate	Research Project Presented **	Publications	Post-Graduate Plans	Community Oriented Projects	Grand Rounds Topic	Advocacy Training/

		of Public Health*						**Experience**
2023	1	1	-Health Disparities Facing Black Transgender Women: Knowledge, Interest, and Comfort Levels	N/A	Non-profit Community Clinic	Started UTSW site for *Walk With a Doc program* (WWAD), Walks with patients, learners and staff teaching health topics, monthly	The Fight Against Obesity	STFM Course
2024	1	1	-Patient and Clinician Perspectives on Social Determinants of Health Screening at a Family Medicine Residency Clinic	Udezi V, Dixon J, Bonilla L. Clinician and Patient Perceptions of Social Determinants of Health Screening. Ann Fam Med. 2023;21(Suppl 3):5667. doi:10.1370/afm.22.s1.5667	Fellowship	Food Insecurity and Chronic Disease	Breastfeeding: A Health Equity Issue	STFM Course
2025	4	1**	-Promoting Health Literacy in Refugee Communities Using Videos on Various -Disaster Preparedness: What We Have Learned from the COVID-19 Pandemic	Dabdoub F, AbdelKhaleq H, Udezi V, Jetpuri Z, Gimpel N. Amoebic liver abscess: case report and updates to management. *Consultant*. Published online May 15, 2025. doi:10.25270/con.2025.05.000003 Karaca A, Udezi V, Gimpel N, Strenth C. Disaster preparedness, What we have learned from COVID 19 pandemic. *Ann Fam*	Fellowship (2); Rural Primary Care (1); Community Clinic (1)	Women's health education workshops with community partner, Mosaic Family Services	-Beyond the Clinic Walls: Exploring the Efficacy of Home Visits in Primary Care -Palliative Medicine in Low Resource Settings	Physician of the Day at the State Capitol with Texas Academy of Family Physicians STFM

			-Impact of Long-Term Variability in HbA1c and Systolic Blood Pressure on Cardiovascular Disease Risk in Patients with Type 2 Diabetes: A Retrospective Cohort Study and Exploratory Analysis (Received Special Recognition for Research Excellence) -Family Medicine Training with HEART: Evaluation of a Novel Residency Track -Enhancing Knowledge and Confidence of Spiritual History-Taking and Chaplain Referrals Among	*Med*. 2024;22(Suppl 1):6569. doi:10.1370/afm.22.s1.6569			-Re-emerging Diseases -Bridging Culture, Building Health: Family Medicine and Refugee Health	

			Medical Students					
2026	1	0	POCUS Is the New Stethoscope: Improving Familiarity, Knowledge, and Comfort With POCUS Head, Shoulders, Knees, and Toes: Improving Musculoskeletal Examination Skills and ITE Scores		Fellowship	Health Literacy WWAD	- Understanding the World Around Us: Insights into Refugee Mental Health	Community Organization Resident Practicum (CORP) Sessions
2027	0	0			N/A			
2028	2	0			TBD			

Abbreviations: MPH, Master of Public Health; ITE, In-Training Examination; POCUS, Point-of-care ultrasound; TBD, To Be Determined.
**Residents who did not complete Public Health coursework during residency had completed an MPH prior to starting residency.*
***All projects listed were presented as either oral or poster presentations at either the North American Primary Care Research Group (NAPCRG) or the Society of Teachers of Family Medicine (STFM) annual conferences*

Table 2. HEART Curriculum Evaluation Summary

Objective	***Evaluation Tool***	***Goals***	***Outcomes/Impact***
Implement the HEART track to equip motivated residents with health equity,	Community A. Evaluation of residents in track and HEART program	a. Satisfaction 3.75 or above, (Likert scale 1-5)	a. Average scores > 4.5

advocacy and research skills through collaboration to address health disparities in vulnerable populations	Program Structure & Process A. Lecture and workshop evaluations from residents B. Program Satisfaction Evaluation by residents. (Exit Survey)	a. Satisfaction 3.5 or above, Likert scale1-5 b. Satisfaction 3.5 or above, Likert scale1-5	a. Average scores > 4.5 b. Average score >4.5
Measure scholarly accomplishments of residents in the HEART track	A. Track scholarly activities, submissions and dissemination in department shared drive.	a. 100% will complete projects working with underserved populations b. 75% will submit to at least one conference	a. Goal met; 100% of residents completed a project with an underserved population. b. Goal met. 100% submission rate. Conferences residents have presented at include • Society of teachers of Family (2) • North American Primary Care Research Group (3) • Shine Academy (1) • Abstracts Published (2)
Measure the intent of residents to continue health equity promotion work post residency (Long term)	A. Survey Residents during program and prior to graduation. (HEART survey and Exit Survey)	a. 100% of residents in the track will commit to working with vulnerable populations and continue advocacy for health equity post-graduation.	a. 100% indicate intent to continue community based participatory research. Post-grad plans: • Rural Clinic (1) • Community Clinic (2) • Academic/ Fellowship (4)

Discussion

The H.E.A.R.T. track has demonstrated promise in preparing physicians to serve underserved communities, conduct impactful research, and advance health equity through advocacy and outreach — outcomes aligned with a growing body of literature

emphasizing the need for structured, longitudinal curricula addressing SDOH and systemic health disparities [2, 3, 4].

Survey findings indicate that most residents felt they met the program's core educational, research, and advocacy goals. Residents reported that the H.E.A.R.T. curriculum was helpful for learning, reflecting the value of a multimodal approach integrating formal coursework with experiential learning — consistent with findings from similar programs [5]. Notably, most residents felt prepared to participate in community-based research, advocate for their patients, and address health inequities in clinical practice. Training advocacy as a core clinical competency is increasingly recognized as essential given the systemic determinants driving health disparities [8, 9], and exposure to community-engaged and global health frameworks has been shown to strengthen commitment to underserved practice settings [6, 7]. Most graduates indicated they would recommend the H.E.A.R.T. track to future residents, supporting continued investment in similar training models nationally [1].

Generalizability of this evaluation is limited by small sample size and single-institution design. Self-reported outcomes are subject to bias, and the short follow-up period precludes assessment of long-term career outcomes. Future multi-institutional evaluations with longitudinal follow-up would strengthen the evidence base for health equity tracks in graduate medical education.

Feedback from graduates continues to inform iterative curriculum improvements, including expanded advocacy and global health opportunities. Broader dissemination of this model will help build a physician workforce equipped to address the complex social and structural drivers of health disparities nationwide.

Conclusions

With an increasing need for graduate medical education to include curricula relating to health disparities, the H.E.A.R.T. track has provided a foundation for resident physicians to care for vulnerable populations. After completion of the track, residents felt prepared to address health inequities through clinical practice, community-based research, and advocacy in their future careers. With expansion of this curriculum and graduate feedback, this model can equip future leaders in medicine with skills to address systemic health disparities locally and nationally.

List of abbreviations:

- ACGME: Accreditation Council for Graduate Medical Education

- CHAMPS: Community Health, Advocacy, and Managing Populations curriculum
- CARE: Community Action Research Track
- SDOH: social determinants of health
- HEART: Health Equity, Advocacy, and Research Track
- KM: Kirkpatrick Model

Declarations

- Ethics approval and consent to participate: This evaluation project was conducted in strict accordance with the ethical principles of the Declaration of Helsinki. This project was reviewed by the UT Southwestern Human Research Protection Program, which determined that the activity does not constitute human subjects research as defined by 45 CFR 46.102 and therefore does not require formal IRB oversight. Eligible resident physicians were provided with detailed information regarding the evaluation scope and data handling prior to participation. Completion and submission of the questionnaire constituted voluntary informed consent.
- Consent for publication: not applicable
- Availability of data and materials: All data generated or analyzed during this study are included in this published article.
- Competing interests: The authors declare that they have no competing interests.
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- Authors' contributions: VU made substantial contributions to the conception and design of the work, acquisition, analysis, and interpretation of the data, and was a major contributor in writing the manuscript. FD analyzed and interpreted the data and was a major contributor in writing the manuscript. JD analyzed and interpreted the data. SC analyzed and interpreted the data and was a major contributor in writing the manuscript. NG made substantial contributions to the conception and design of the work, acquisition, analysis, and interpretation of the data, and was a major contributor in writing the manuscript. All authors read and approved of the final manuscript.
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