

Vaccinations & Equity

Awele Maduka-Ezeh MD MPH PhD

Objectives

- Describe the concept of “Vaccine Equity” as it applies to US populations
- Identify populations at risk for disparities related to vaccinations
- Describe the importance of an equity approach to vaccine program
- Discuss partnerships to promote vaccine access within larger context of Health equity

Important but will not discuss:

- Vaccine Equity in the global context

What is Health Equity?

EQUALITY:

Everyone gets the same – regardless if it's needed or right for them.



EQUITY:

Everyone gets what they need – understanding the barriers, circumstances, and conditions.



Vaccine Equity

“Vaccine equity is when **everyone**, regardless of socioeconomic status, race, ethnicity, geographic location, or other determinants of health, has a **fair and just opportunity to be vaccinated.**” (CDC)

- Vaccine Availability \neq Equity
- Vaccine Equity:
 - Availability
 - Accessibility
 - Acceptability
 - Affordability
- Lessons from COVID

Ask yourself:

- Do you support Vaccine Equity?
- Is this something worth striving towards?

Drivers of Health Disparities in Vaccination

- **Economic Factors:**

- Income, education level, and employment status
- Other conditions that affect health behaviors and access.

- **Access Barriers:**

- Lack of health care services
- Ability to travel to care
- Health care costs, and uninsured/under-insured status.

- **Social Factors:**

- Mistrust in health care providers and systems
- Language barriers
- False or misleading information.

Everyone benefits from Vaccine Equity

- **Individuals:**

- Improved health outcomes and protection against diseases.

- **Employers & Economy:**

- Reduced losses from employees missing work due to illness

- **Society:**

- Reduced occurrence of outbreaks of vaccine preventable diseases.
- Healthier citizens and lower health care costs

Framing Vaccine Equity

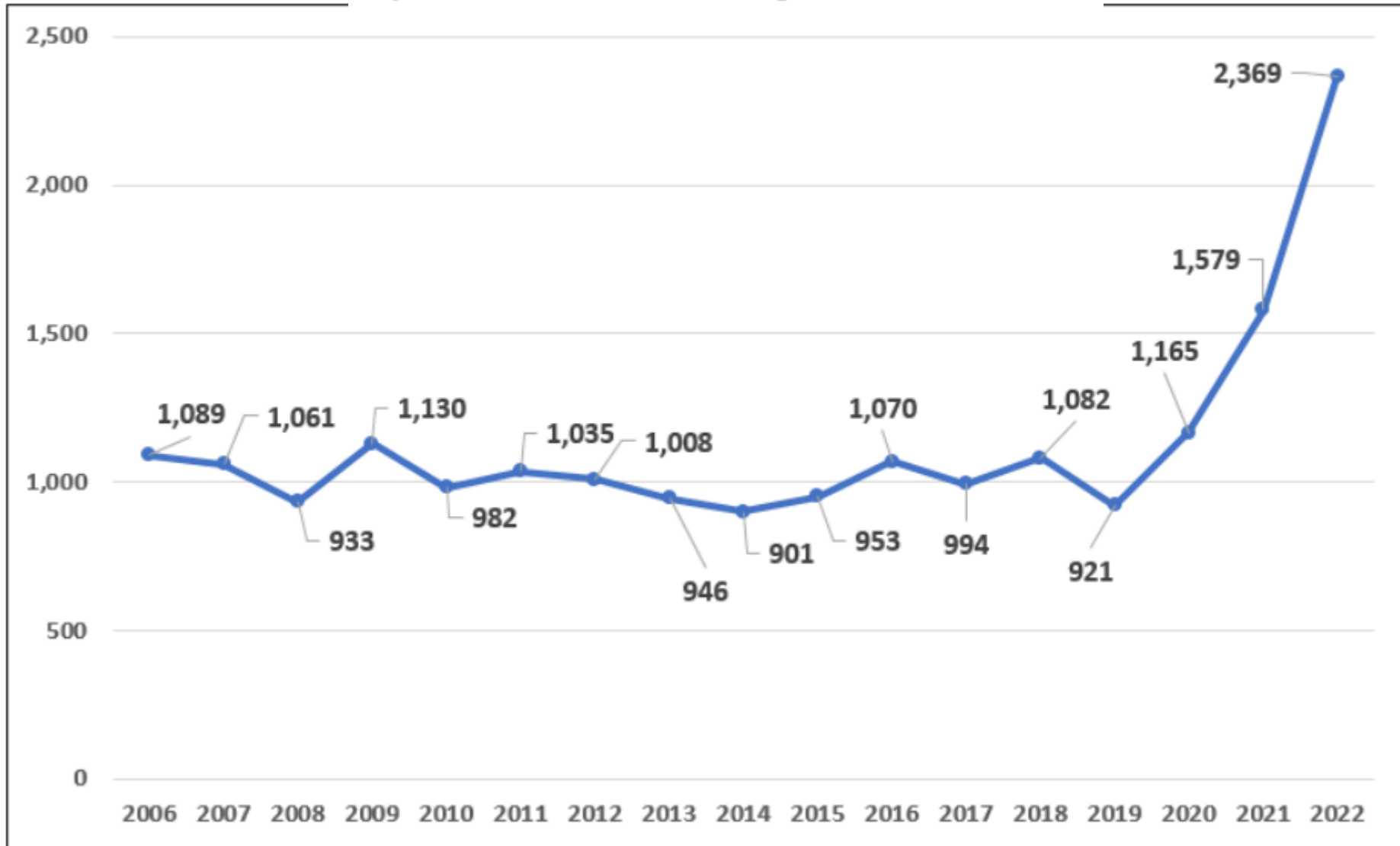
Looking at our Local Context



Homeless

Metraux, S., Pequet, S.W. (2023) *Homelessness In Delaware: An Assessment*. Delaware Journal of Public Health

Figure 1. Total Homeless Population in Delaware⁸



Increasing Proportion of Delawareans Homeless

In abrupt contrast, the second segment of annual Delaware PIT counts shows three consecutive and substantial year-to-year increases. This started with a count of 1,165 in 2020, a 26.5 percent increase and, at the time, Delaware's highest PIT count ever. This rate of increase was also the highest that year of any state. By comparison, the national PIT count only increased by two percent.¹⁰ A closer look shows that Delaware's increase was across the board – among families and individuals, sheltered and unsheltered, and those newly homeless and with long-term, “chronic” homelessness patterns.¹¹ All this indicates a real increase in Delaware's homeless population, rather than minor yearly fluctuations.

The Point-in-Time (PIT) Count is a HUD-mandated assessment that provides a snapshot of how many people are experiencing sheltered and unsheltered homelessness in a community on a given night in January

Homelessness in Delaware:

The 2020 count, conducted in January, preceded the COVID pandemic shutdown, and thus the increase could not be blamed on the pandemic. But additional alarming increases followed into

the pandemic, with a 35 percent increase in 2021 and then a 50 percent increase in 2022. The 2022 count was ultimately more than double that of the then-record 2020 count, and in 2022 the homeless rate stood at 23.6 per 10,000. This was now substantially higher than the national rate of 18,¹² and more than wiped out the population-adjusted decline that occurred over the thirteen years in the first segment.

Homelessness is not a problem limited to big metro areas



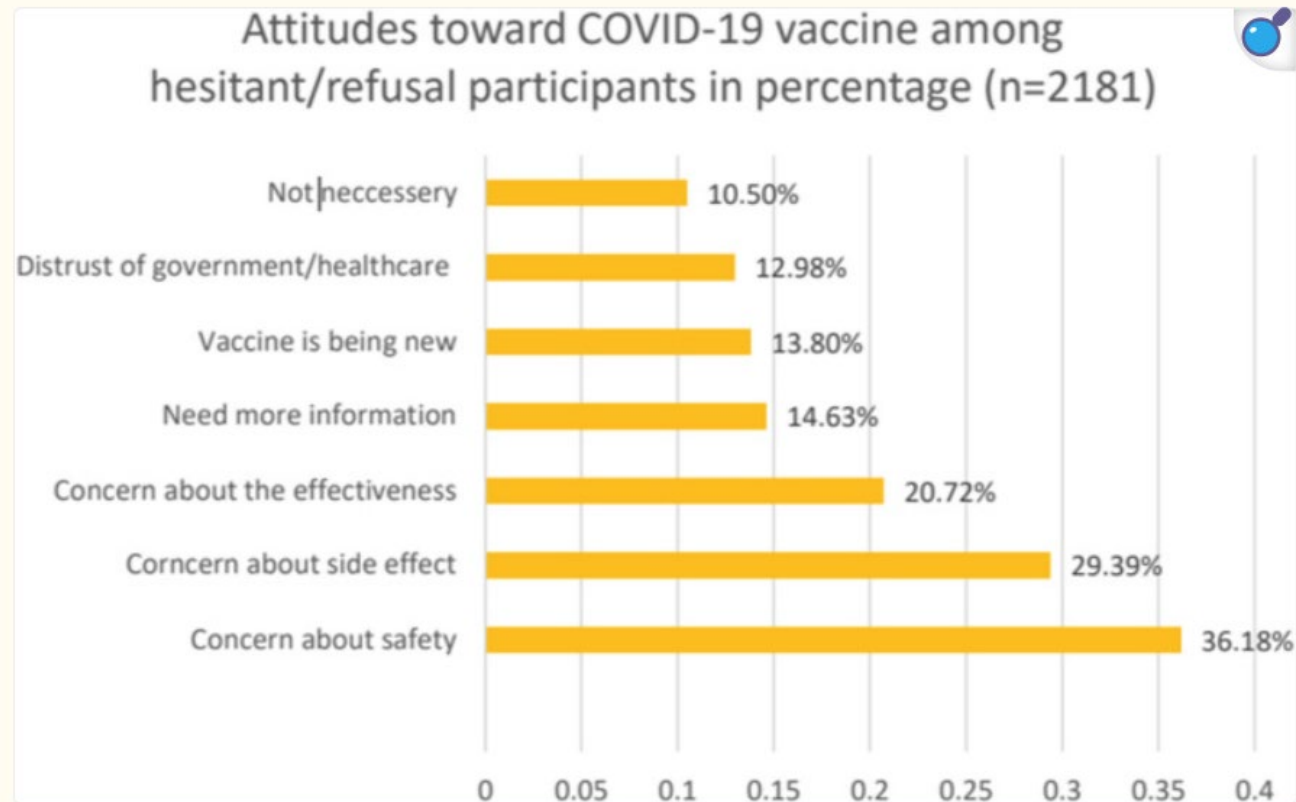
Vaccine Equity?

??? What factors could prevent
persons experiencing homelessness
from getting vaccines when due???

Vaccine acceptance, determinants, and attitudes toward vaccine among people experiencing homelessness: a systematic review and meta-analysis

[Dung Anh Nguyen](#)^{1,2,#}, [Habib Olatunji Alagbo](#)^{2,3,✉,#}, [Toka Adel Hassan](#)^{2,4}, [Leonardo D Mera-Lojano](#)^{2,5}, [Esraa Osama Abdelaziz](#)^{2,6}, [Nguyen Pham Nguyen The](#)^{2,7}, [Abdelrahman M Makram](#)^{2,8}, [Omar M Makram](#)^{2,9}, [Randa Elsheikh](#)^{2,10}, [Nguyen Tien Huy](#)^{2,11}

Fig. 6.



► [Vaccine](#). 2022 Apr 26;40(23):3109–3126. doi: [10.1016/j.vaccine.2022.04.022](https://doi.org/10.1016/j.vaccine.2022.04.022) [↗](#)

Strategies to improve vaccination rates in people who are homeless: A systematic review

[Laura K McCosker](#)^{a,b,c,*}, [Asmaa El-Heneidy](#)^{a,b}, [Holly Seale](#)^c, [Robert S Ware](#)^{a,b}, [Martin J Downes](#)^{a,b}

- *Enablers*

- Use of multiple, convenient locations
- Having different times for vaccination
- Incorporation of vaccination into routine health and social care

- *Barriers*

- Knowledge: two-fifths of people in one study did not know where to go to get vaccine
- Transportation: > 50% lacked transportation to enable them to reach a vaccination site
- Mistrust: of Healthcare and of the vaccines



Refugees



Who is a Refugee?

- Different from Immigrant

- Immigration and Nationality Act (INA) defines an immigrant as any person legally admitted for permanent residence in the United States,

- Different from Migrant

- A person who moves away from their place of usual residence, temporarily or permanently. Includes migrant workers and international students.

- Refugee

- Any person outside of the country their nationality who is *unable or unwilling to return* to ... that country because of persecution, or a well-founded fear of persecution, on account of race, religion, social group, or political opinion.
- Most refugees resettled to the United States are referred by the United Nations High Commissioner for Refugees.
- Others self-refer



Vaccine Equity?

??? What factors could prevent **refugees** from getting vaccines when due???

Refugee Vaccination & Medical Screening: *Pre-Arrival*

- US-Bound refugees offered vaccines overseas through refugee vaccination program:
 - Prevent outbreaks of disease in refugee camps
 - Prevent travel delays due to outbreaks
 - Allow for quick integration into school upon arrival
- Logistics and vaccine availability may impact vaccination
- Vaccination is recommended but not REQUIRED (unlike immigrants)
- However, Asylum seekers often have not undergone overseas medical screening and/or pre-travel vaccination

Refugees in Delaware: FY 2024 & 2025

FY 2024	Total Numbers		County			Country of Origin							
	All Refugees Cases	New Refugees this Month	New Castle	Kent	Sussex	Afghanistan	Brazil	Chile	Cuba	Haiti	Syria	Ukraine	All Other
Oct-23	1986	108	267	519	1200	38	49	55	10	1648	20	102	63
Nov-23	2095	109	272	563	1260	31	49	52	12	1770	20	93	68
Dec-23	2175	80	289	583	1302	31	44	47	16	1858	20	78	81
Jan-24	2233	58	289	607	1337	32	37	35	12	1471	20	80	75
Feb-24	2381	148	308	614	1459	28	35	35	10	2083	20	68	103
Mar-24	2518	137	334	756	1428	33	36	39	10	2211	25	64	100
Apr-24	2646	128	346	855	1445	33	51	65	20	2345	7	100	148
May-24	2794	148	350	889	1555	34	50	69	20	2364	7	94	156
Jun-24	2877	83	373	940	1564	35	51	75	22	2567	7	94	157
Jul-24	2994	117	383	961	1650	32	51	75	19	2690	7	96	154
Aug-24	3085	91	405	975	1705	33	48	72	18	2653	6	95	160
Sep-24	3105	20				15	37	56	13	2238	6	61	103

FY 2025	Total Numbers			County			Country of Origin							
	All Refugees Cases Per Case#	Total# of Individual Per MCI#	New Refugees Cases this Month	New Castle	Kent	Sussex	Afghanistan	Brazil	Chile	Cuba	Haiti	Syria	Ukraine	All Other
Oct-24	3114	4465	9	395	1067	1652	18	46	66	20	2818	7	97	157

Refugee Vaccination & Medical Screening: *Post-Arrival*

- Within 90 days of arrival in US, comprehensive medical screening required for all refugees:
 1. Identify and treat chronic diseases and infectious conditions
 2. Complete/Update vaccinations
 3. Assess for mental health conditions
 4. Connect to ongoing care
 5. Reports provided to federal office of refugee resettlement (ORR)
- Delaware Division of Social Services runs refugee resettlement program
 1. Housing, Cash assistance, “Food Stamps”, Medicaid, etc
 2. Medical Screening primarily handled by FQHCs and PCPs → Primary care
 3. Numbers have risen from 100s → Over 3 thousand
 4. Difficulty keeping pace, meeting federal deadlines
 5. A big proportion of DE refugee population are asylum seekers from Haiti and most enter DE without pre-arrival medical exam



Susceptibility to Vaccine-Preventable Infections in Asylum Seekers

Author: Christian Olivo-Freites, Patricia Miguez-Arosemena, Cristina Olivo-Freites, et al

Publication: The New England Journal of Medicine

Publisher: Massachusetts Medical Society

Date: Nov 21, 2024

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- Cross-sectional study of 1147 unstably housed asylum seekers in NY city
- Among 1147 people (53.2% female; median age, 13 years):
 - 26.9% were seronegative for measles (95% confidence interval 24.3-29.5%)
 - 32% seronegative for varicella (95% CI, 29.3-34.8)
 - 32% seronegative for Hepatitis A (95% CI, 29.3 to 34.8)
 - Seronegative = At risk for the disease
- Estimates higher than those for the general U.S. population (2.2 to 12.4%).
- Conclusion :
 - *“Many unhoused asylum seekers, do not have evidence of immunity to vaccine-preventable infections, which may place them at increased risk for infection. Clinicians and public health officials must prioritize routine vaccination for asylum seekers, along with addressing current structural barriers to their well-being.”*

CDC's Guidance to:

Improve vaccine equity

1. Partnerships

- Religious Organizations, Community leaders, trusted voices

2. Community Engagement Programs:

- Mobile clinics, local health fairs, and vaccination drives.

3. Enhance Immunization Information Systems (IIS)

- Improved data to drive action

4. Policy Changes:

- Reduce financial barriers to being vaccinated.

Reduce Barriers to Vaccination:

1. Education

2. Financial Assistance/Incentives

3. Cultural Competence

- Training health care providers to deliver culturally sensitive care and communication.

Taking action:

Vaccine (and Health) Equity in the real world

“Meet them where they are at”

- Shift in thinking here at DPH
- Born during COVID and currently expanding
- Move away from the “build it and they will come mind set”
- Becoming a true safety net: Meeting clients where they are
 - Mobile Health Units in all counties (Ongoing)
 - Telemedicine clinic (Ready)
 - Refugee medical screening program (Ready)
 - Clinical services for homeless (Exploratory phase)
 - Primary care gaps (Exploratory phase)
- Health Equity training
 - HEIDE

HEIDE: What is it?

- Health Equity Institute of Delaware
- Learning community
- Creating ***POSSIBILITIES***.
- Safe space for collaboration, dialogue, growth and exploration around health equity
- 3 pillars: Training + Action + Research (T.A.R)
- 3 person types:
 - Scholars: Health & Public Health faculty, students, trainees (medical residents)
 - Practitioners: Staff of DPH & non-profits working in public health/policy
 - Allies: Community groups and individuals who work on health equity projects and healthcare workers of all disciplines

Health Equity Institute of DE (HEIDE): Aims

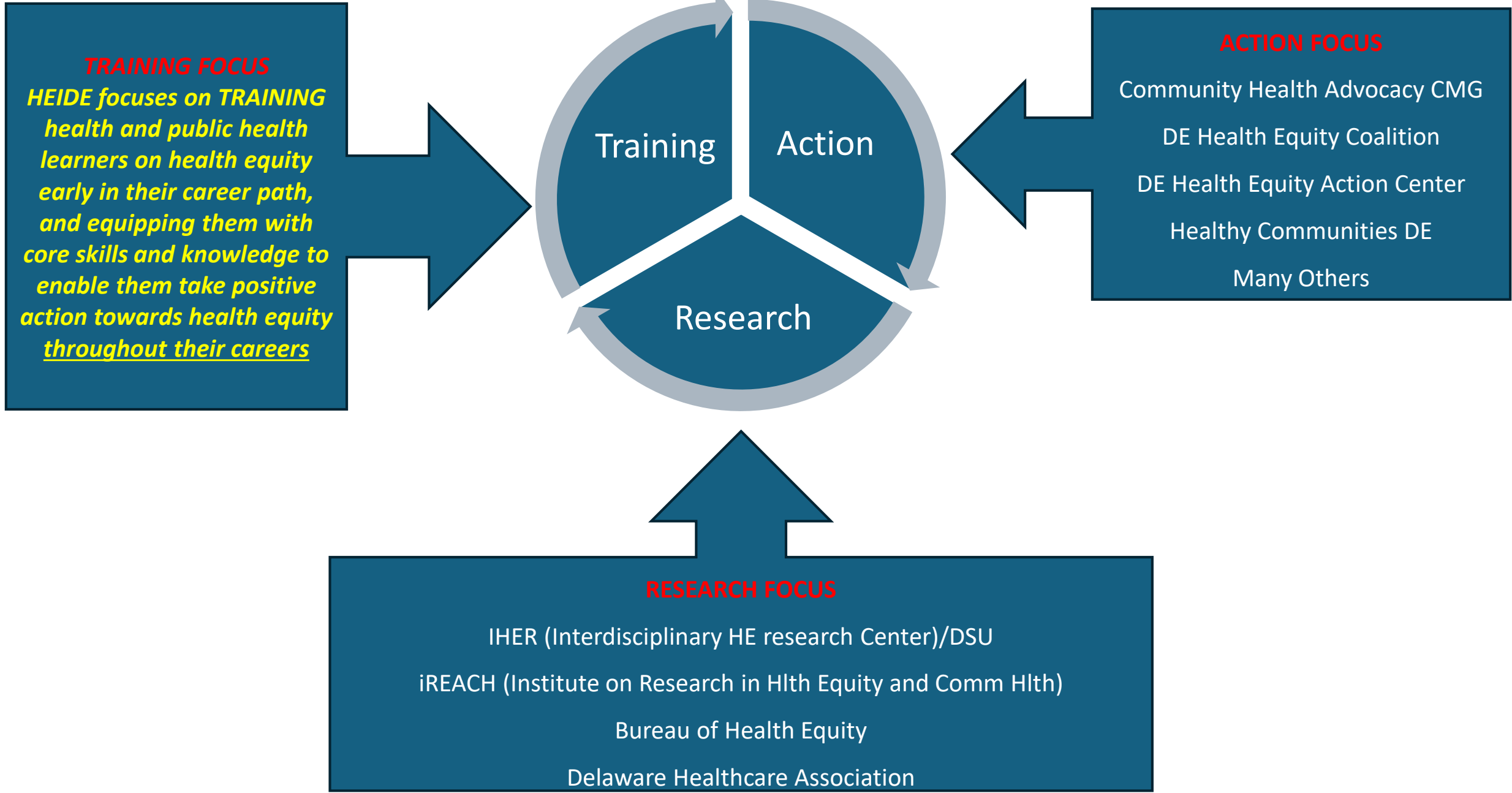
- PRIMARY AIM

- *Train a generation of clinicians and public health professionals who are grounded in health equity and who approach the work in their health careers through a health equity framework*

- SECONDARY:

- Work **together** with the best DE minds around Health equity: Scholars (students/researchers); Practitioners (governmental and non-profits in public health and health disparities work); allies (community members, for-profit businesses)
- **Participate** in the creation of an ecosystem that progressively supports the most vulnerable Delawareans in attaining and maintaining ultimate health

HEIDE: Adds **workforce training** focus to current Health Equity landscape in DE



What Learners Can Expect: Clinician Track

1. 4-week “Public Health Elective” for medical residents
2. Paired with experienced DPH mentor who is MD/DO
3. Weekly didactic sessions tied to equity/disparities.
4. Health Equity curriculum (self-paced)
5. Clinical fieldwork with focus on “Social Determinants of Health”
 - Infectious disease clinic
 - Migrant/refugee health
 - Sexual & Repro health clinic
 - Dental care basics for primary care providers
6. Weekly non-clinical public health fieldwork
 - Correctional health
 - Environmental health

NOTE: During fieldwork, focus will be on how the tenets of health equity apply in each of these areas of public health work. Learners will take principles learned during the didactic sessions and apply in the field

What Learners Can Expect: Public Health Professional Track

1. 8-12 week rotation
2. Paired with experienced DPH faculty with advanced degrees
3. Health Equity curriculum (self-paced)
4. Weekly didactic sessions tied to health equity.
5. Weekly Non-clinical public health fieldwork
6. Completion of a project tied to addressing health disparities

NOTE: During fieldwork, focus will be on how the tenets of health equity apply in each of these areas of public health work. Learners will take principles learned during the didactic sessions and apply in the field



HEIDE-STEPs

- HEIDE - **Summer Training in Equity Program for Secondary students**
- **Aim:** HEIDE-STEPs extends the mission of HEIDE and aims to *train a generation of youth who have a good understanding of the social determinants of health and who will weave principles of equity into their future studies and careers, thus working to build a healthier and happier state, region and nation.*
- **Piloted summer 2024 → Full launch Summer of 2025**
- **Four-week summer internship focusing on the Social Determinants of Health**
 - Economic stability
 - Education access and quality
 - Health care access and quality
 - Neighborhoods and the built environment
 - Social and community connections.
- **Target Audience: High school students rising grades 10 to 12**
- **10 enrolled, 9 completed (July- August 2024)**





HEIDE-STEPs

- 1. Completion of health equity learning materials**
 - Videos from the CDC, APHA
- 2. Weekly meeting with DPH mentors**
- 3. Weekly real-time virtual interactive session** (workshops) on topics related to social determinants of health.
- 4. Public Health in Action: Weekly visits to public health programs**, such as:
 - Restaurant inspections
 - Water treatment plants
 - Interviewing public health field staff.
- 5. Grade-appropriate research training**
- 6. ≥20 hrs. of community service with community organizations impacting social determinants:**
 - Neighborhood clean-up
 - Food pantry
 - School supply drives.
- 7. Final presentation:**
 - Each learner will do a 15-to-20-minute presentation to an audience of peers and DPH staff, articulating how their volunteer work at the agency(ies) they volunteered at impacts the social determinants and moves us towards health equity.

Expanding in summer 2025 with plans to train 50-60 high schoolers.



Test your Support of Vaccine Equity

Scenario:

- It is January 2035. A pandemic of unprecedented proportions has been ravaging the globe causing unthinkable hardship, death, disability and economic losses.
- It is caused by a newly identified respiratory virus for which over the one year since the pandemic began, there has been no vaccine and no effective treatment.
- FINALLY, there is available *very limited* quantities of a new vaccine.
- Because of the very limited supply while awaiting production ramp up by manufacturers, the CDC makes the difficult decision to ration, and they push out guidance to provide vaccine ONLY to persons identified by CDC as approved for vaccination during each "wave" of vaccine availability.

Test your support of Vaccine Equity (contd)

- In the first wave of vaccine allocations, the CDC identifies frontline healthcare workers and persons above 65 who live in nursing homes/assisted living/group setting as the **only** groups to be given the limited vaccine.
- Nursing homes, with support from local health departments begin to roll out vaccine to their residents and healthcare workers.
- The CDC has issued no guidance for prisons or homeless shelters
- Vaccine is not yet available to community dwelling seniors or other individuals
- A state prison has a population of 2500 inmates and 50 frontline HCW
- The 50 frontline HCW have been offered vaccine
- Review of electronic medical records shows there are 60 inmates who are both elderly and have high risk underlying conditions
- Most of these 60 are have life sentences or have very lengthy sentences.

What do you recommend to the prison health services?



In Conclusion: Vaccine Equity

“Vaccine equity is when **everyone**, regardless of socioeconomic status, race, ethnicity, geographic location, or other determinants of health, has a **fair and just opportunity to be vaccinated.**” (CDC)

Thank you.

To learn more about (or partner with) the Health Equity Institute of Delaware, email HEIDE.DPH@delaware.gov

References

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- [Strategies to improve vaccination rates in people who are homeless: A systematic review – PMC](#)
- [Susceptibility to Vaccine-Preventable Infections in Asylum Seekers | New England Journal of Medicine](#)