3RD ANNUAL HEALTH EQUITY SUMMIT

Dr. Jerome Adams, Executive Director, Health Equity Initiatives

PURDUE UNIVERSITY® | Health Equity Initiatives

Opening Remarks

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PROVOST PATRICK WOLFE

Opening Remarks

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DR. KAREN PLAUT, EXECUTIVE VICE PRESIDENT FOR RESEARCH

Opening Remarks

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DR. JEROME ADAMS, EXECUTIVE DIRECTOR OF HEALTH EQUITY INITIATIVES

HEI Vision and Progress

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HEALTH EQUITY AT PURDUE
VISION, PROGRESS AND FUTURE DIRECTIONS

Jerome Adams MD, MPH, FASA

Distinguished Professor and Executive Director of Health Equity Initiatives

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40,000
UNDERGRADUATE STUDENTS

12,000
GRADUATE STUDENTS

10,000 +
FACULTY AND STAFF

12
COLLEGES

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Purdue University has earned the distinction of being an R1 university. Purdue is 1 of 71 NCI designated cancer centers, & 1 of only 7 in the country that focuses 100% of its efforts on laboratory research.

THE LAND GRANT MISSION

Land-Grant universities are built on teaching, service roles and research. "Land-grant universities distinguish themselves from other institutions by directing their collective brainpower and resources toward research that addresses society's economic, political or social problems."

"We were going to actually take all of that knowledge and deliberately extend the opportunity to use it, to learn it, to the whole state of Indiana. More broadly, to the people of the country."

- *Martin Jischke, former Purdue University President*

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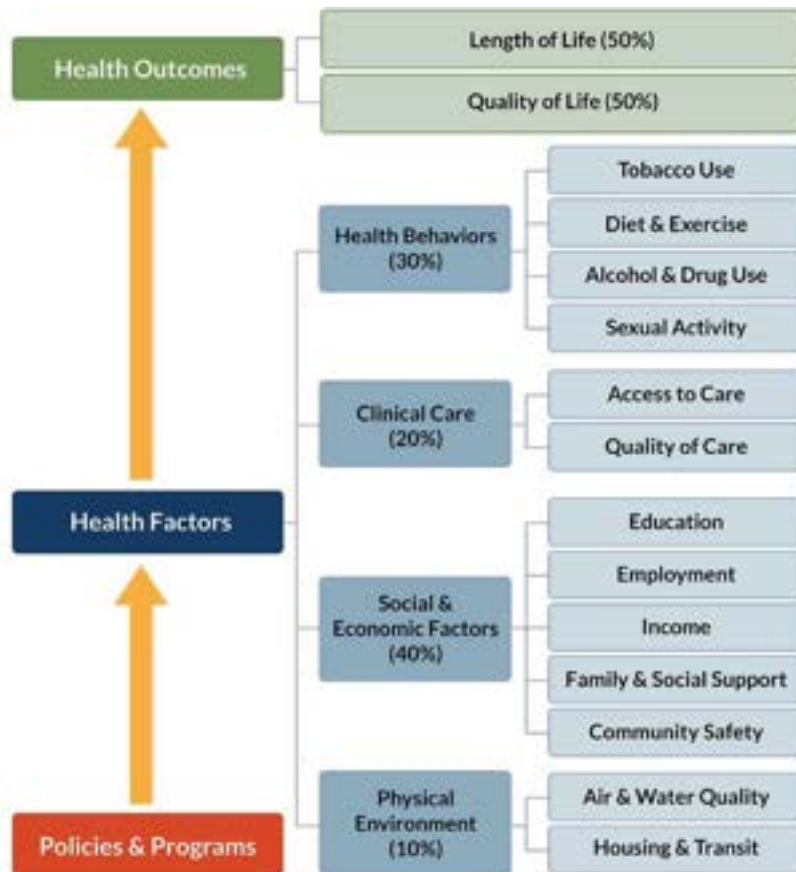Health Equity Initiatives

Teaching

Service Roles

Research
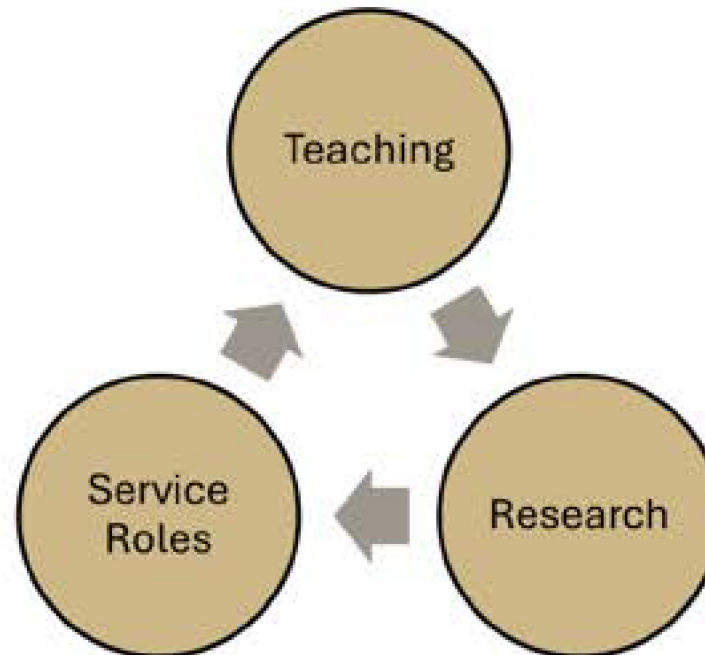
What is health?

Health is more than genetics & medical care. Social drivers of health are the conditions and the places where people live, learn, work, play & worship that can affect a wide range of health & quality of life risks & outcomes.

Healthcare is not Health…

What are health disparities?

We focus on health disparities as preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experiences by populations that have been disadvantaged by their social or economic status, geographic location, and environment.

What is health equity?

Health equity is when everyone, regardless of race, sex, sexual orientation, disability, SES, geographic location, or other societal constructs have fair & just access, opportunity, & resources to achieve their highest potential for health.

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What is health equity?

Health equity is when everyone has a fair opportunity to make healthy choices and can be their healthiest and happiest version of themselves

Health Equity = Everyone has a fair opportunity to live a long and healthy life.

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Health inequities are a major contributor to our U.S. health disadvantage…

Life expectancy at birth in years, 1980-2020

Comparable Country Average

United States
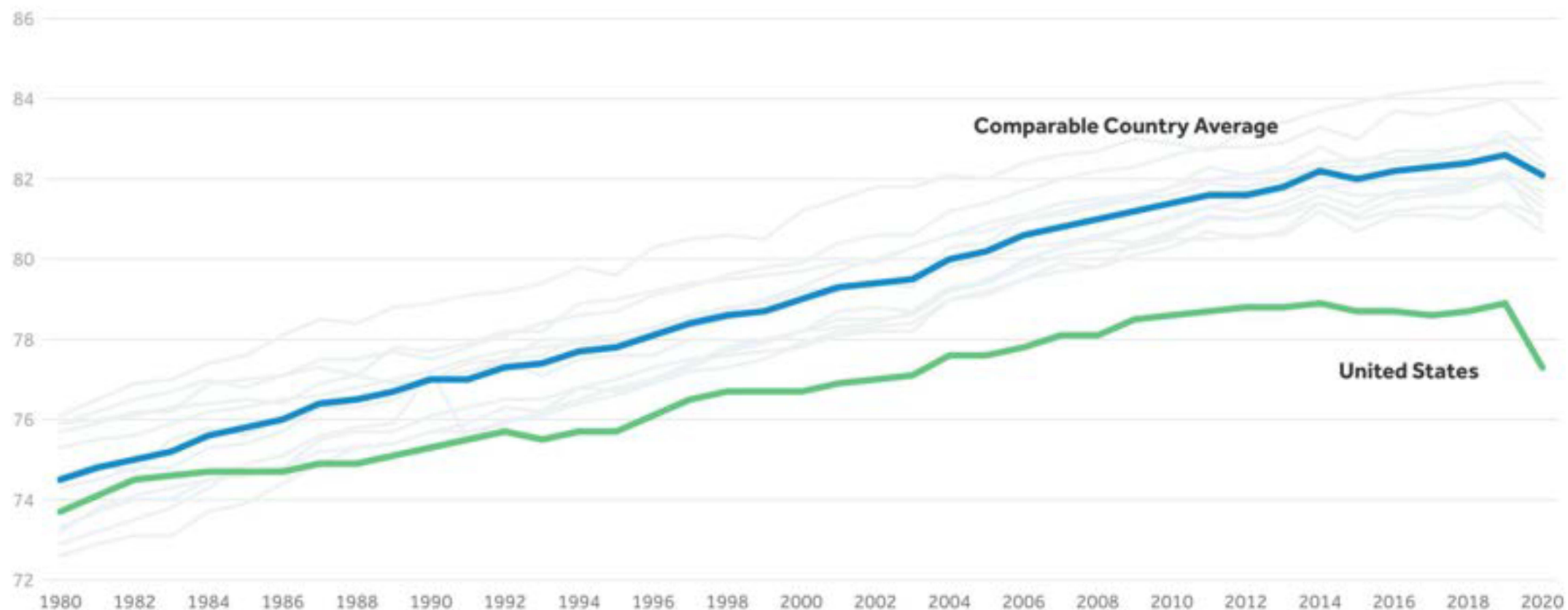
Notes: Data prior to 2020 are from OECD. 2020 data are from CanStat, the CDC, OECD, and Public Health England. 2019 life expectancy values are used for Australia and Japan in 2020. Life expectancy for the United Kingdom in 2020 was calculated by taking the weighted mean of provisional life expectancy values for males and females in England. Break in series for Canada in 1982, Germany in 1991, Switzerland and Belgium in 2011, and France in 2013.

Source: KFF Analysis of CDC, OECD, StatCan, Office for National Stastics, and Public Health England data

U.S. per capita healthcare spending is over twice the average of other wealthy countries
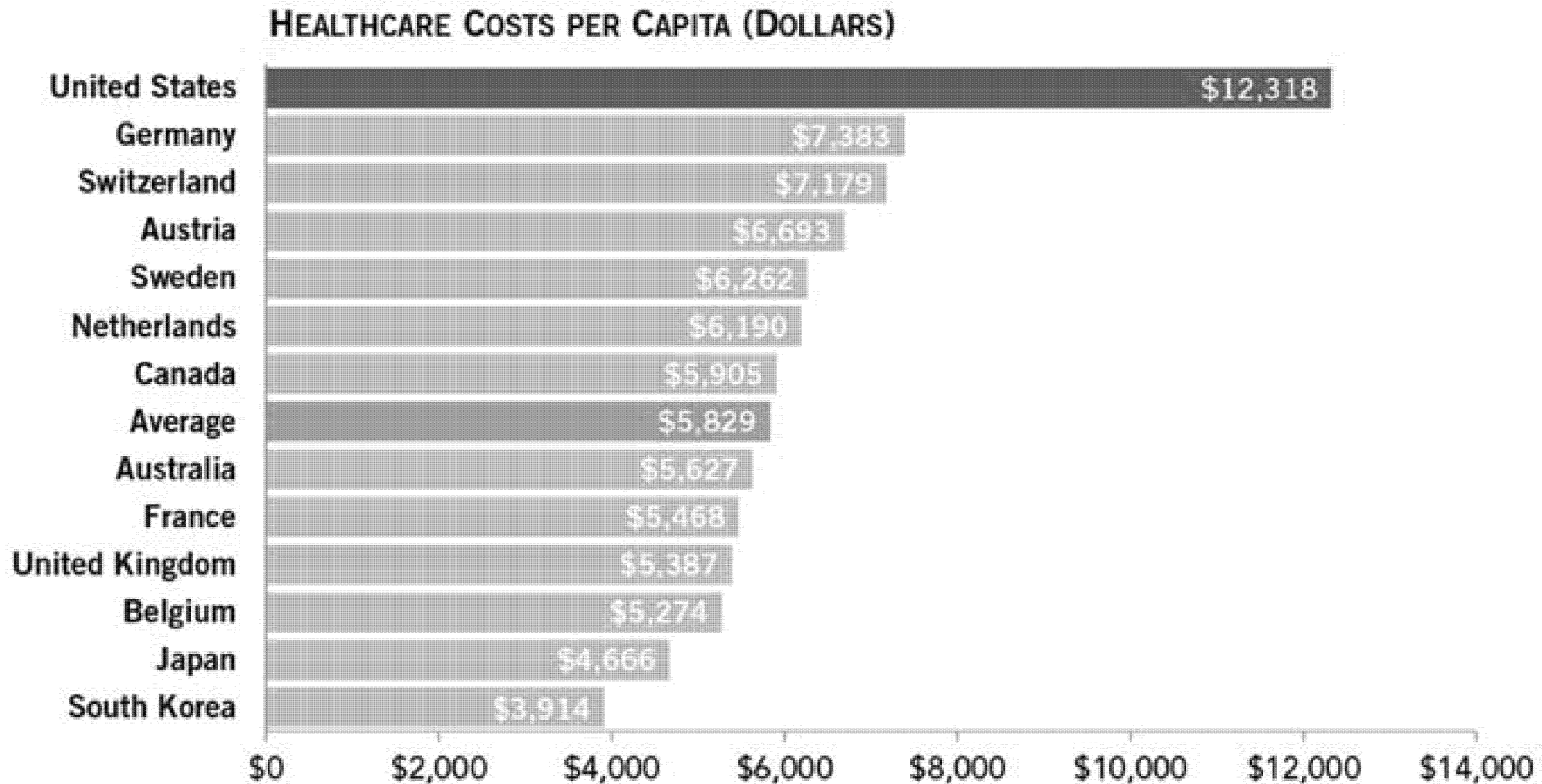
HEALTHCARE COSTS PER CAPITA (DOLLARS)

Country	Cost
United States	$12,318
Germany	$7,383
Switzerland	$7,179
Austria	$6,693
Sweden	$6,262
Netherlands	$6,190
Canada	$5,905
Average	$5,829
Australia	$5,627
France	$5,468
United Kingdom	$5,387
Belgium	$5,274
Japan	$4,666
South Korea	$3,914

$0 $2,000 $4,000 $6,000 $8,000 $10,000 $12,000 $14,000

Health inequities, driven by root causes, are estimated to cost the United States $320 billion a year![1]

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1) According to a recent study by Deloitte

In order to achieve health equity at scale, we must impact the **root causes of inequities**

Racism and bias inside and outside the health care system

There are **deep intersections** across the root causes

Structural flaws in the health system

Deep inequities in the **Drivers of Health**
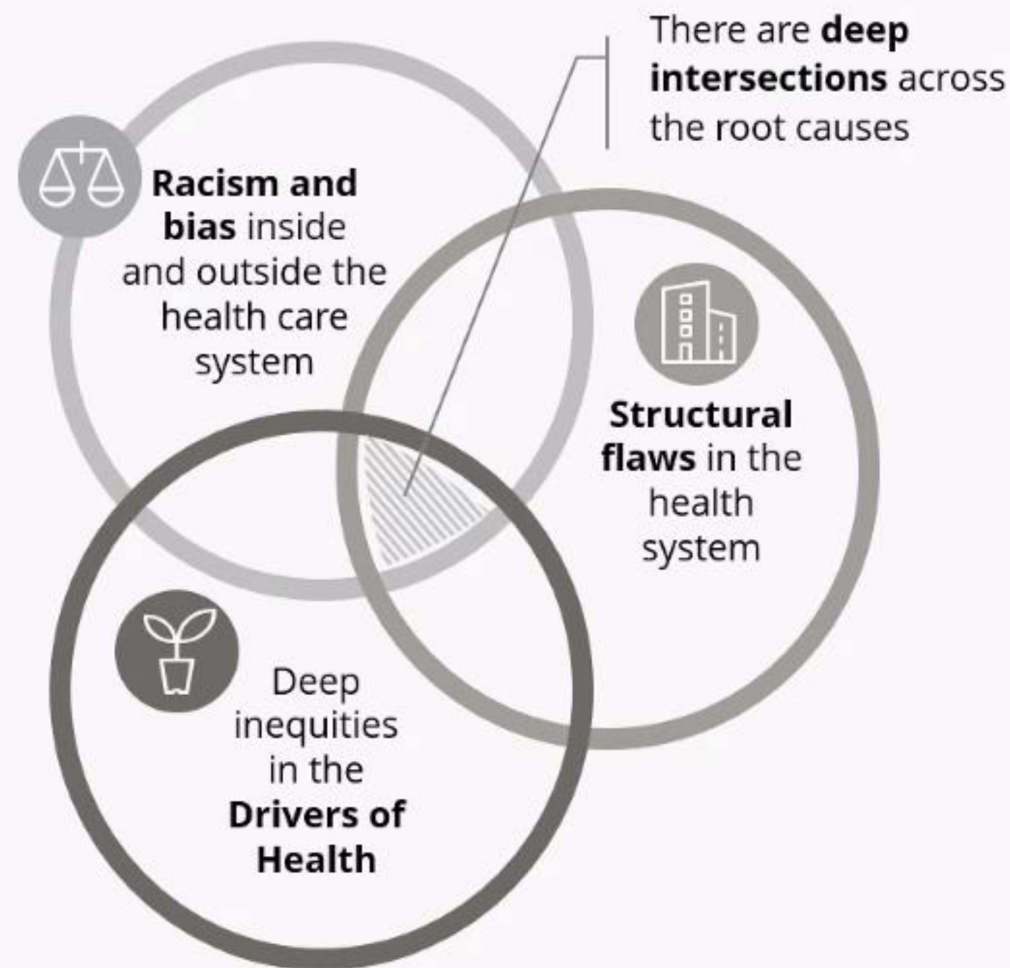
HEI TEAM

Executive Director – Dr. Jerome Adams

Senior Director – Holly Wood

Project Manager – Aubrey Anderson
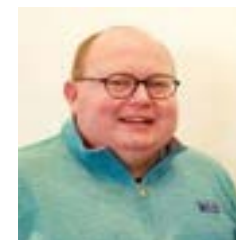
Executive Assistant – Brandi Plantenga

Health Equity Intern – Marla Winters

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OUR FACULTY CHAMPIONS

Food for Health – Dr. Haley Oliver
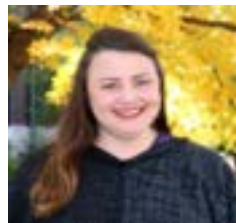
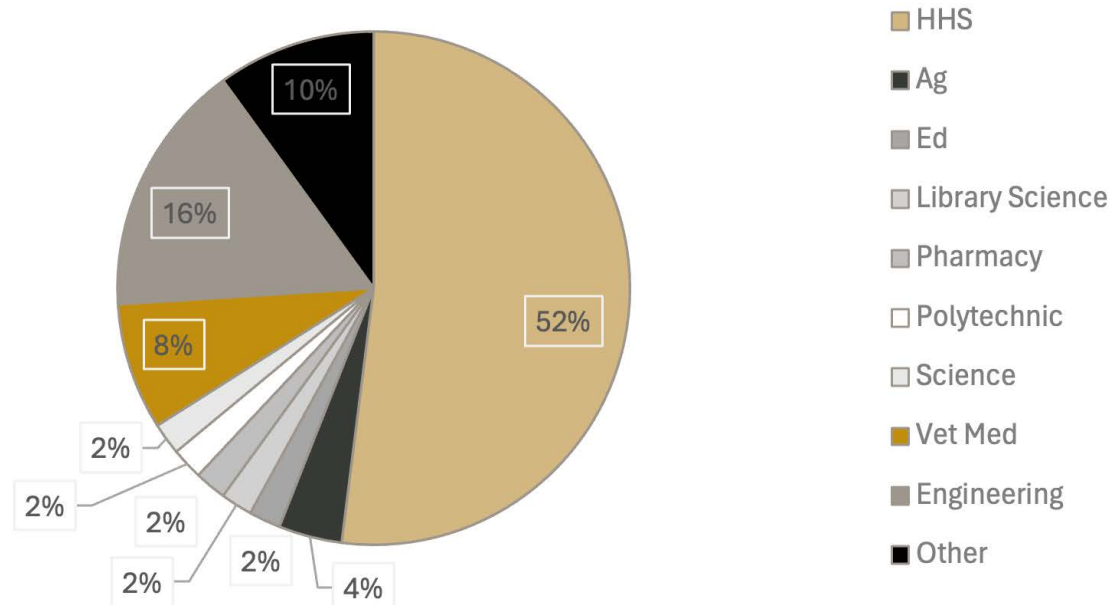**Infectious Diseases – Dr. Steve Steinhubl & Dr. Randy Hubach**

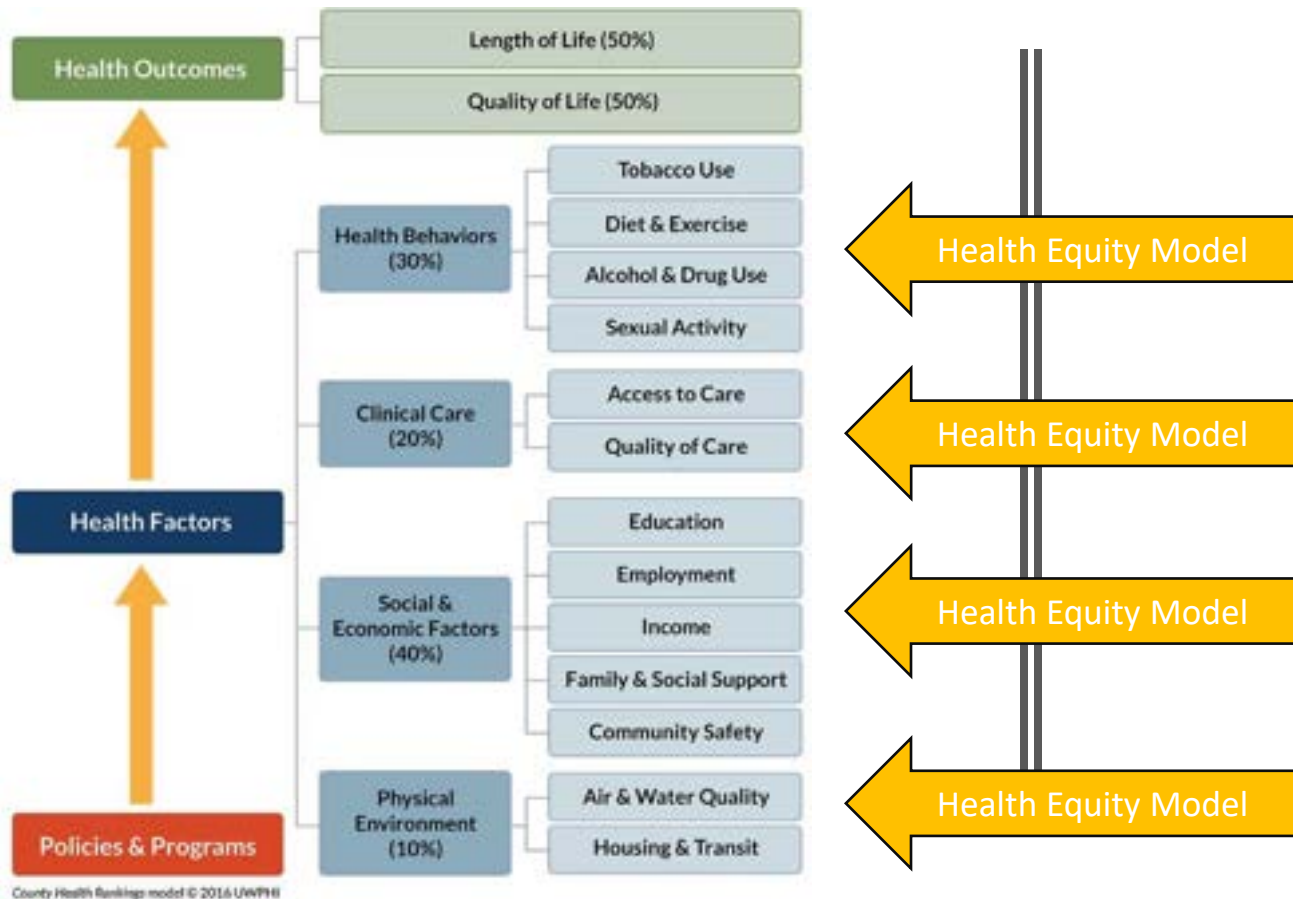**Mental Health & Substance Use Disorders – Dr. Nicole Adams**

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OUR HEI WORKGROUP

Workgroup Members

- HHS
- Ag
- Ed
- Library Science
- Pharmacy
- Polytechnic
- Science
- Vet Med
- Engineering
- Other

52%, 16%, 10%, 8%, 4%, 2%, 2%, 2%, 2%, 2%

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Health equity IS health (and wellbeing)!

County Health Rankings model © 2016 UWPHI

- **College of Agriculture**
- **College of Education**
- **College of Engineering**
- **Exploratory Studies**
- **College of Health and Human Sciences**
- **College of Liberal Arts**
- **Krannert School of Management**
- **College of Pharmacy**
- **Purdue Polytechnic Institute**
- **College of Science**
- **College of Veterinary Medicine**

HEI IN 2023

- **National visibility by facilitating visits to campus with Dr. Judy Monroe, Dr. Rahul Gupta, & now Dr. Francis S. Collins, connecting faculty with National and global partners and meetings**

- **Involvement with student organizations, like Project Icarus, classroom lectures, letters of support/recommendation for students & faculty working on grant applications**

- **Collaboration with the Brian Lamb School of Communication & Dr. Evan Perrault, the Regenstrief Center for Healthcare Engineering, & the Department of Public Health to be able to serve as a preceptor location for an undergraduate internship**

- **Ireland partnership, NBA Partnership, Work with Local health departments and hospitals**

- **PBS Invisible Corps Screening in partnership with the College of Pharmacy, the College of Veterinary Medicine, the College of Health & Human Sciences, & the Honors College**

- **Worked with Eli Lilly to promote diversity in clinical research and STEM in Indianapolis, Lake Co.**

- **Started running social media platforms; 380+ followers on LinkedIn**

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WHAT'S NEXT?

- **Continue to engage with students/student groups & provide opportunities for volunteering, mentorship, & structured learning opportunities**

- **Expand support for new hires, including the equity cluster hires**

- **Support data collection and research to make the case for health improvement in Indiana and beyond**

- **Support Indiana Health First implementation**

- **New partnership with North Central Health Services (NCHS)**

  - **Community benefit grant: NCHS will provide $1 million annually over the next four years for capacity building, data & evaluation support, & technical assistance efforts within NCHS's 8-county region. This service region includes Tippecanoe, Benton, Warren, Carroll, Cass, Clinton, Fountain, White, and Montgomery counties.**

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HEALTH CARE

A red state boosted public health funding by 1,500 percent. This is how they did it.

How careful messaging, a healthy budget and smart leadership boosted local public health funding in Indiana by 1,500 percent.

THIS YEAR, HOLCOMB PUSHED A 1,500-PERCENT INCREASE IN STATE DOLLARS TO LOCAL HEALTH DEPARTMENTS THROUGH THE GOP-CONTROLLED LEGISLATURE, A SIGNIFICANT VICTORY IN A STATE THAT CONSISTENTLY RANKS AMONG THE BOTTOM FOR PUBLIC HEALTH OUTCOMES.

IT ALSO MARKS A NOTABLE DEVIATION FROM THE APPROACH THE REPUBLICAN PARTY — FROM STATE LAWMAKERS TO PRESIDENTIAL CANDIDATES — HAS TAKEN TO PUBLIC HEALTH POST-PANDEMIC AS IT LEANS INTO THE SIZABLE WING OF THE PARTY SKEPTICAL OF GOVERNMENT AND PUBLIC HEALTH AHEAD OF THE 2024 ELECTION.

Indiana Gov. Eric Holcomb spent more time talking specifically about public health in his State of the State address this year than any other governor. | Darron Cummings/AP Photo

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Economic Case for Public Health

- Good health is the foundation of our ability to thrive, from schools to the economy.
- Public health services are best delivered locally by those who know their communities best
- Investing in prevention creates healthier communities
- Easier to recruit workers
- Makes communities more attractive for businesses to locate when they have a healthy workforce
- Reduces healthcare costs for businesses, increases worker productivity
- Makes Indiana a healthier state, physically and fiscally

HIGH ← Opportunity neighborhoods → LOW

Quality schools

Access to early childcare and education

Number of parks and green spaces

Quality housing and public transportation

Access to healthy foods

Availability of jobs and healthy, on-the-job workers

Opportunities for economic growth

Healthy living conditions

Feelings of civic pride and responsibility

Access to local suppliers

CONVENIENCE STORE

So what is digital health equity?

Digital health equity is everyone has fair access to, and trust in, and benefit from new digital health technologies, so all communities can become and stay healthy!

Beware of equity and ethics concerns

- Digital Divide
    - By geography. education, age, economics, home environment (ie privacy), trust deficits (who has my data and what will they be doing with it?)

- Bias

    - AI algorithms are subject to the garbage in = garbage out problem
    - Bias that's baked in can never be fully corrected for, and often gets amplified

- How is the information being used?
    - Are you subjecting people to discrimination (eg jobs, insurance, sports)?
    - Who is profiting? (eg Henrietta Lacks)
    - Is information being given BACK to the patient
    - Just because you can collect and analyze doesn't mean you always should (eg cloning, picking characteristics of your child, knowing when you will die)

Representation and Communication are KEY!

- Need diverse representation at the table from the start, to see past your blind spots

- Need early and frequent outreach to communities- especially marginalized communities- to make sure new technologies are developed in way that meets the communities needs, and not just industry's needs

- Must acknowledge the trust gap, and be proactive vs reactive to it

HOW TO GET INVOLVED

- **Follow us on LinkedIn & Twitter**
  - **Scan QR codes at your table to take you directly to our pages**

- **Attend our monthly faculty meetings**

- **Reach out – we are here to support YOU!!!**

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HOLLY WOOD, SENIOR DIRECTOR OF HEALTH EQUITY INITIATIVES

HEI Vision and Progress

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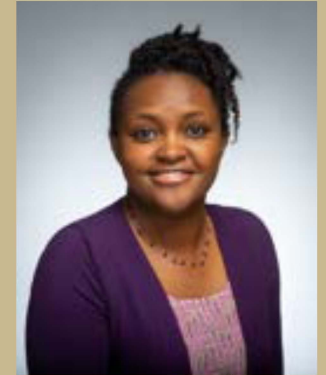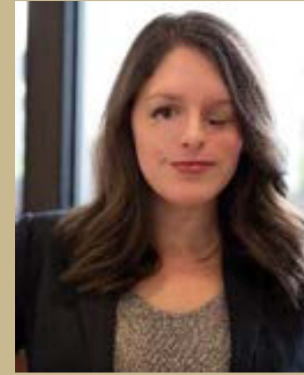
Thank you to all of our partners!

PURDUE UNIVERSITY | Health Equity Initiatives
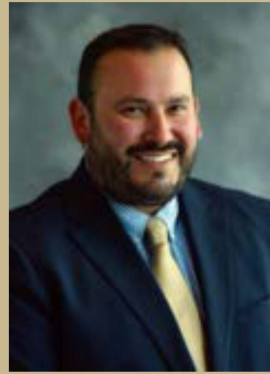
Seed Funding to Advance Health Equity

18 Projects, 11 Counties*

*One project is split in St. Joseph and Elkhart, counted in St. Joseph

Dollars Allocated by Focus Areas of Projects
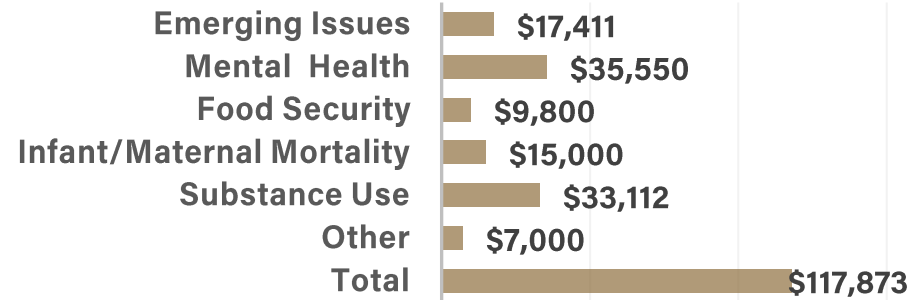
Focus Area	Amount
Emerging Issues	$17,411
Mental Health	$35,550
Food Security	$9,800
Infant/Maternal Mortality	$15,000
Substance Use	$33,112
Other	$7,000
Total	$117,873
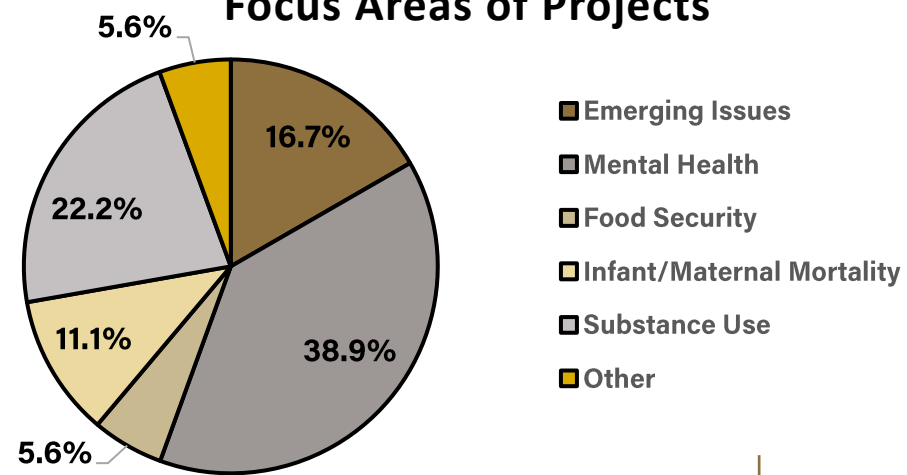
Focus Areas of Projects

- 16.7% Emerging Issues
- 38.9% Mental Health
- 5.6% Food Security
- 11.1% Infant/Maternal Mortality
- 22.2% Substance Use
- 5.6% Other

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Regenstrief Center for Healthcare Engineering

I-HOPE

3/20/2024
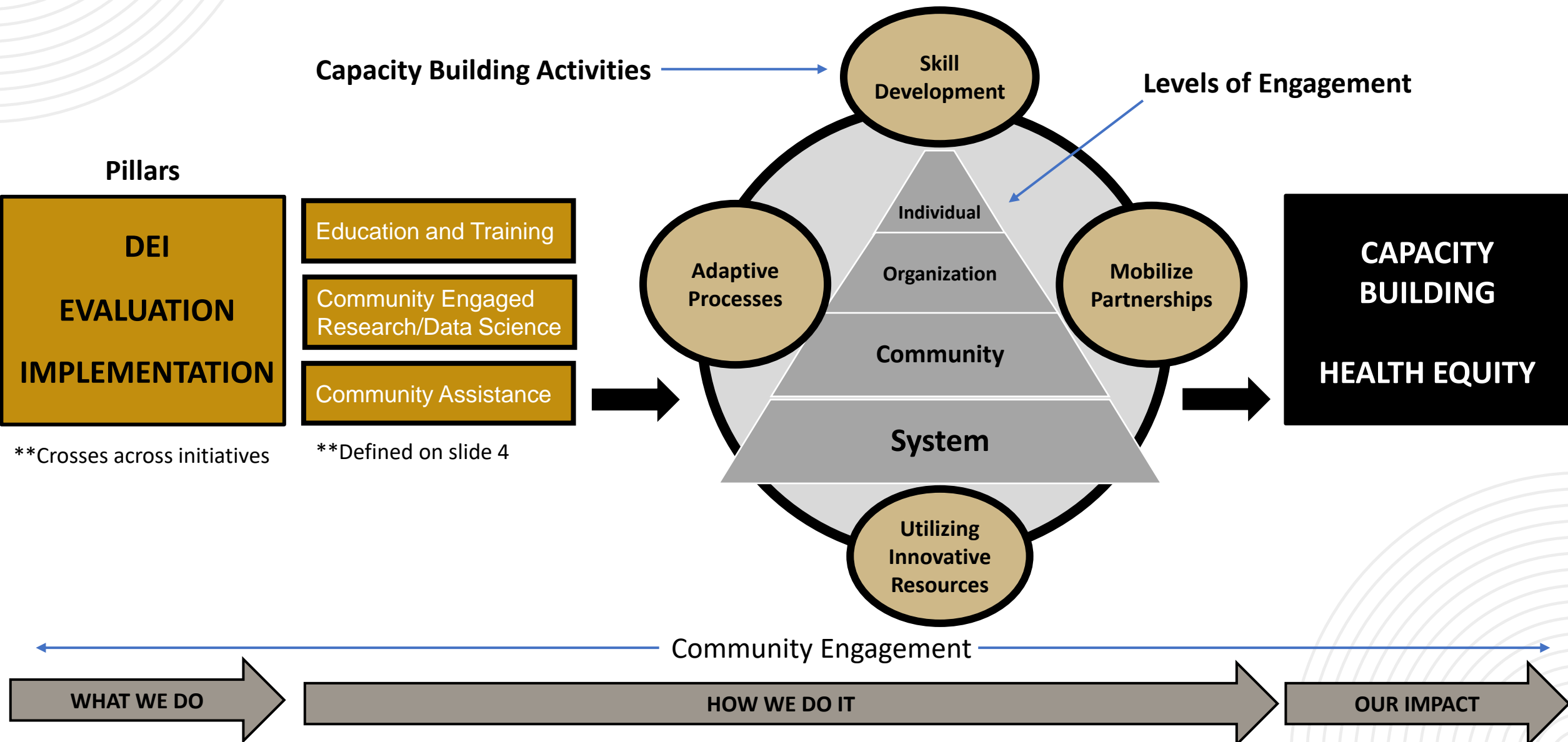
Community Transformation Team Impact Table

Education and Training	Community Engaged Research & Data Science	Community Assistance
Health Equity Trainings - HEA's provided free/low-cost training on Cultural Humility, Adverse Childhood Experiences (ACEs), Diversity, Equity, and Inclusion (DEI), and Health Equity at Franciscan Health, Wayne County Health Department Logansport Memorial Hospital, Indiana Department of Education, Norton Healthcare, Indiana Parks and Recreation Association (IPRA) **Results:** • **89%** of those trained indicated they **learned something new** • **89%** of participants rated the topic of Bias as a 5/5 for **great content** • **78%** **indicated that they would likely apply concepts** within the next 3 months • Franciscan Health & Wayne County Health Dept. have requested additional sessions-including strategy/implementation sessions; Logansport has requested ER and OB departments be trained	**Mom's Movement of Merrillville** – Worked in partnership with Brian Lamb School of Communication to reduce maternal and infant deaths through change in public attitude, creation of access to resources, and strategy implementation. CANI and partners distribute resource information and support; piloting trained CHWs to liaison between moms and services. **Results:** • 60% of participants found the resource guide to be **extremely helpful** (n=15) • 64% of participants found the prenatal care resource to be **extremely helpful** (n=14)	**Lake County Learns** – To increase Hammond School District student enrollment into 21st Century Scholars, Purdue assisted in distributing 830 applications with messaging promoting free tuition. Purdue advocated for auto-enrollment to politicians. **Results:** • Applications returned from minority students increased **5x** from baseline • Qualitative survey demonstrated a perceived **decreased burden on school counselors** following auto-enrollment • Website created to educate Counties on current 21st Century information and promotion

Clinton County Learning Cohort – Subject Matter Experts provided trainings on grant writing, process improvement, ACEs, cultural humility, health communication, and cultural and linguistically appropriate services to the Clark & Clinton Cohort, including 47 unique participants across 4 counties, serving 18 community organizations
Results:
• **Average knowledge increased for each concept** after training (Neutral/Agree -> Agree/Strongly Agree) (n=47).
• Trainees Agreed-Strongly Agreed their **network with other service providers strengthened** because of the cohort.
	Allen County Suicide Data Analysis – Partnership with Allen County's Stop Suicide Coalition to clean analyze raw data on suicide death data from the coroner; IDOH (Allen County); depression, ideation, and suicide attempt data from the Youth Risk Behavior Survey; and Indiana Youth Survey from IU Prevention Insights.
	Results:
	• Created pivot tables, graphs, and summaries of both ideation and attempt data that will be presented to the Stop Suicide Coalition in December of 2023.
	• Results will provide direction for coalition initiatives.
		Seed Funding – Seed funding provided to grow roots and increase resources in under-resourced communities among 11 counties.
		Results:
		• 17 requests **totaling $111,104** have been funded in the areas of:
		  • **Mental Health** (41%)
		  • **Substance Use** (18%)
		  • **Emerging Issues** (17%)
		  • **Infant & Maternal Mortality** (12%)
		  • **Food Insecurity** (6%)

Evidence-based Communication Tool - HEAs developed culturally & and linguistically appropriate education using about safe sleep and youth mental health in Haitian-Creole, Spanish, and English at Logansport Memorial Hospital during discharge and doula home visits and youth mental health during Wayne County Future Achievers youth visits. **Results:**	**Innovative Tools** – *Bridges* utilizes AI technology to inform decision making on clinical and social patient care by collecting data on social drivers of health in conjunction with clinical data. **Results:** • Purdue will support data collection, promotion, and	**Evaluation** – Purdue is assisting IDOH in evaluating the impact of I-HOPE across Indiana and individual I-HOPE activities. **Results:** • Summary of budget, qualitative analysis of

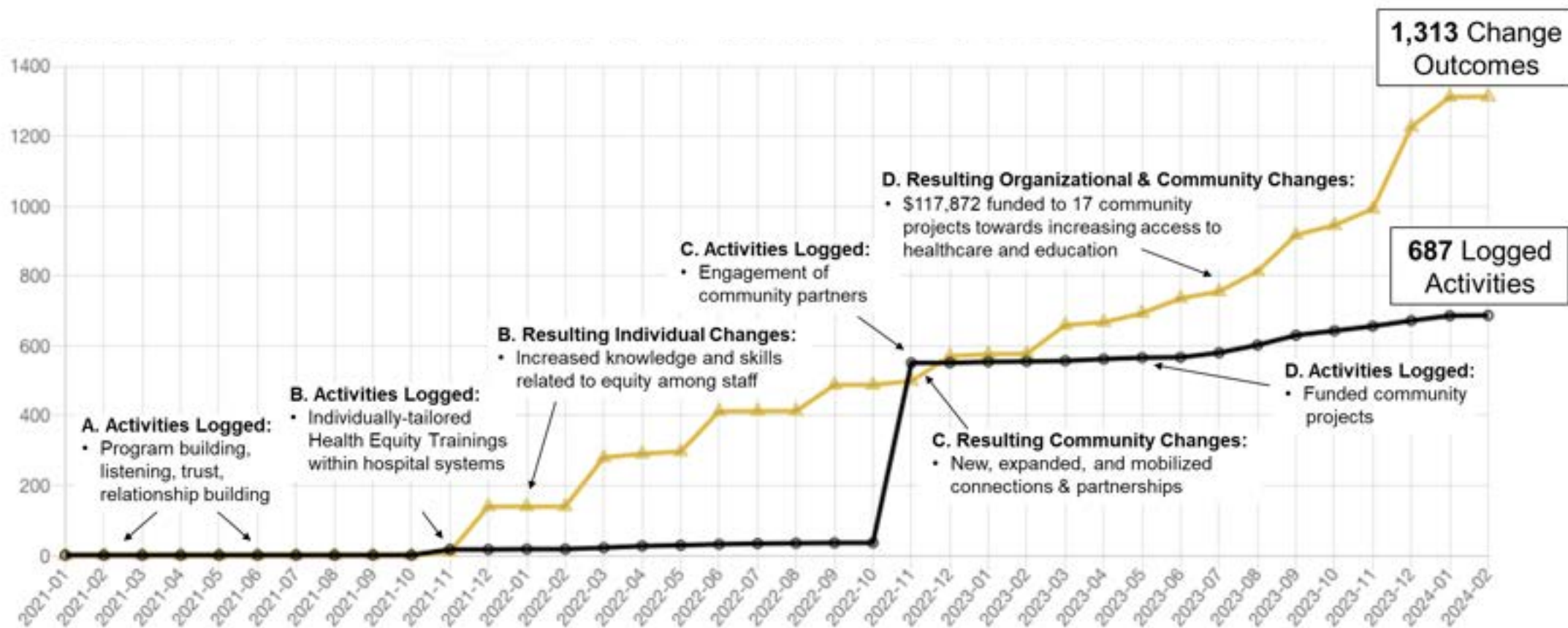# Cumulative Capacity Building Activities & Change Outcomes Over Time

Figure 1. Community Change Graph on Cumulative Activities and Change Outcomes Over Time.
Example activities and outcomes are linked with letters A, B, C, and D (no outcomes linked with activity A).
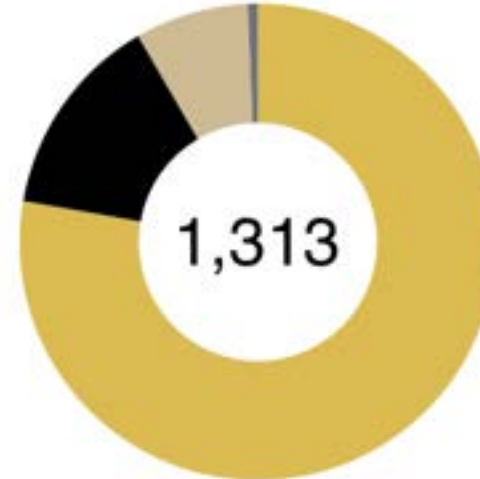
Capacity Building Activities & Change Outcomes Categorized by Type

Capacity Building Activities	Change Outcomes

Capacity Building Activities

687
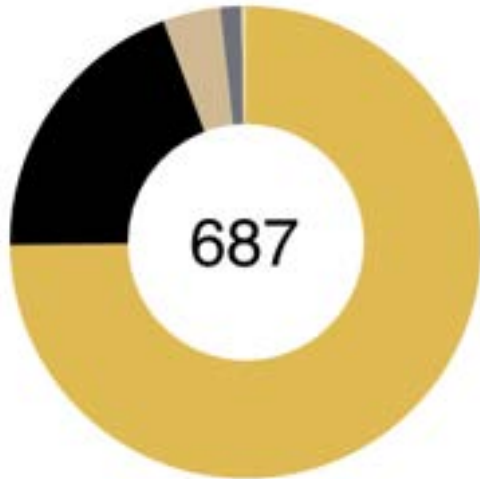
Type	Total	%
Program Building	514	74.8
Service Provided	134	19.5
Resources Generated	27	3.9
Community Action	10	1.5
Other, Not Scored	2	0.3
Media Coverage	0	0.0
Planning Product	0	0.0

Change Outcomes

1,313

Type	Total	%
Community Change	1,021	77.8
Individual Change	182	13.9
Organizational Change	101	7.7
Systems Change	9	0.7

10-Minute Break

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Panel: Fostering Health Equity Through Innovative Biomedical Research

Dr. Sarah Wiehe, Dr. Natalia Rodriguez, Dr. Sylk Sotto, Mary Wachira
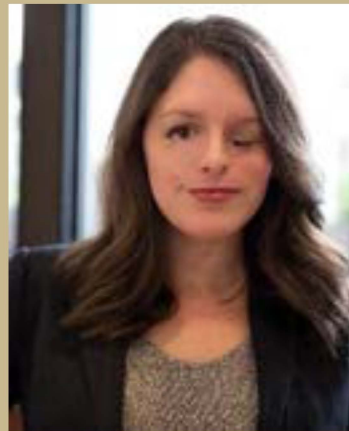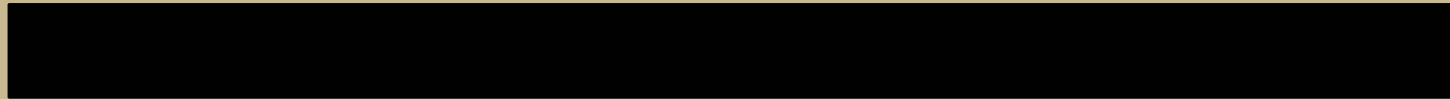
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Panelists
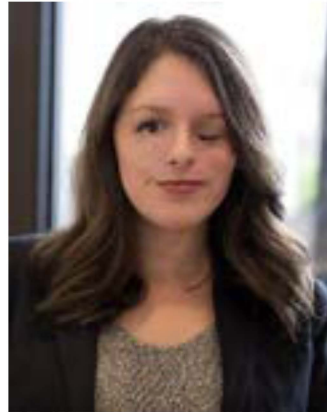
Natalia Rodriguez, PhD, MPH
PURDUE UNIVERSITY
Assistant Professor of Public Health and Biomedical Engineering
Founding Director, Health TechQuity Lab
2023 NIH Director's New Innovator Award

Sylk Sotto, EdD, MPS, MBA
INDIANA SCHOOL
Vice-chair for Faculty Affairs and Professional Development
Vice-chair for Diversity, Health Equity, & Inclusion, Department of Medicine

INDIANA CTSI
Chief Diversity Officer
Director of All IN for Health

Mary Mumbi Wachira, MGA
UNIVERSITY OF NOTRE DAME
Program Director, Health Equity Data Lab, Lucy Family Institute for Data & Society

The Indiana CTSI mission & leadership

We bring together Indiana's brightest minds to solve the state's most pressing health challenges.

Co-Directors

Sarah Wiehe, MD, MPH
Sharon Moe, MD

Deputy Directors

Scott Denne, MD
Indianapolis

Bill Hetrick, PhD
Bloomington

Melanie DeFord, MS
Notre Dame

George Wodicka, PhD
Purdue

Purdue Navigators

We bring together Indiana's brightest minds to solve the state's most pressing health challenges.

Natasha Nikolaidis, MS
Operations Associate Director, Bindley Bioscience Center

Tommy Sors, PhD
Director, Scientific Strategy and Relations, Purdue Institute of Inflammation, Immunology and Infectious Disease

Clinical and Translational Sciences Award National Goals

Support Innovations that Speed the Development of Medicine

Promote Partnerships & Collaborations

Resource for Rapid Response of Public Health Needs

Nurture the Field of Translational Science

Training & Career Development

Address Health Disparities

CTSA Program: Primary Institutions January 2023

The goal of both the Indiana CTSI and the other CTSAs is to provide infrastructure for translational research and national connectivity to promote program impact.

Our Vision

In 2030, at the end of this seven-year renewal funding period, we envision Indiana CTSI will transform our statewide research ecosystem with deliberate attention to diversity and inclusion in our partnerships, workforce development, and research engagement.

We will accelerate innovation and rapidly implement evidence into practice in order to advance health equity.
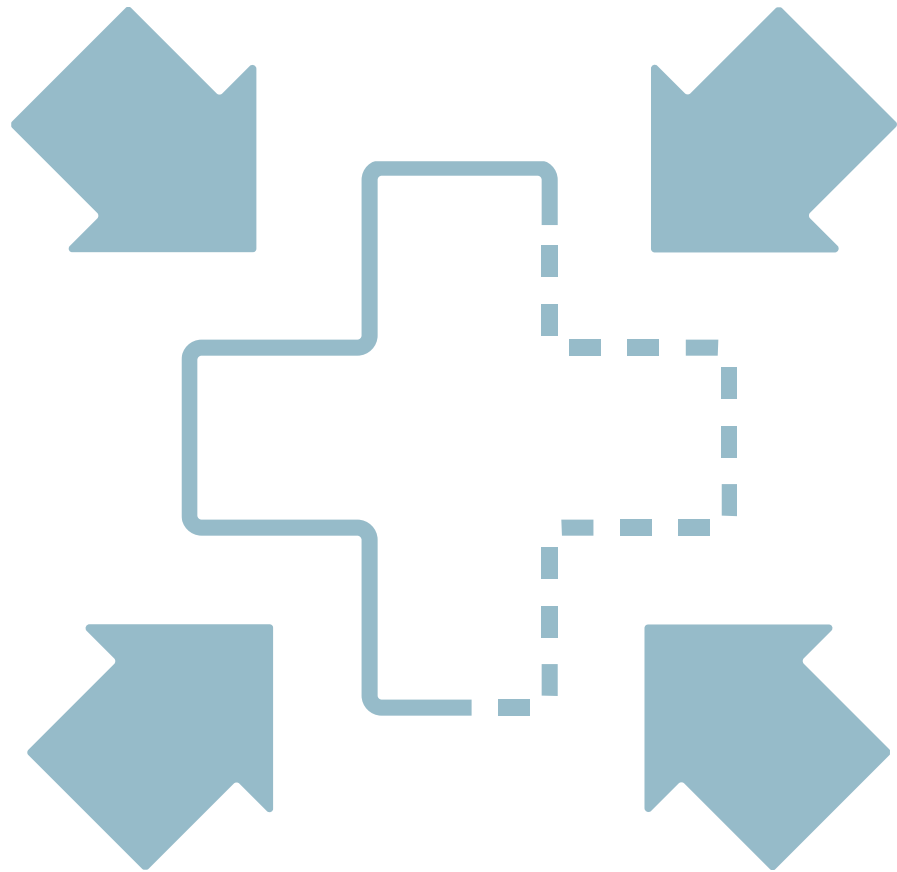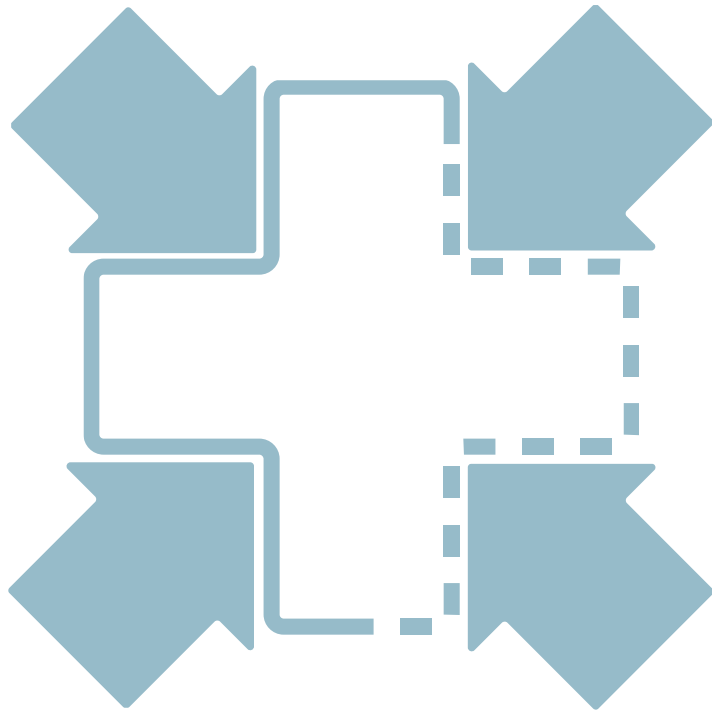
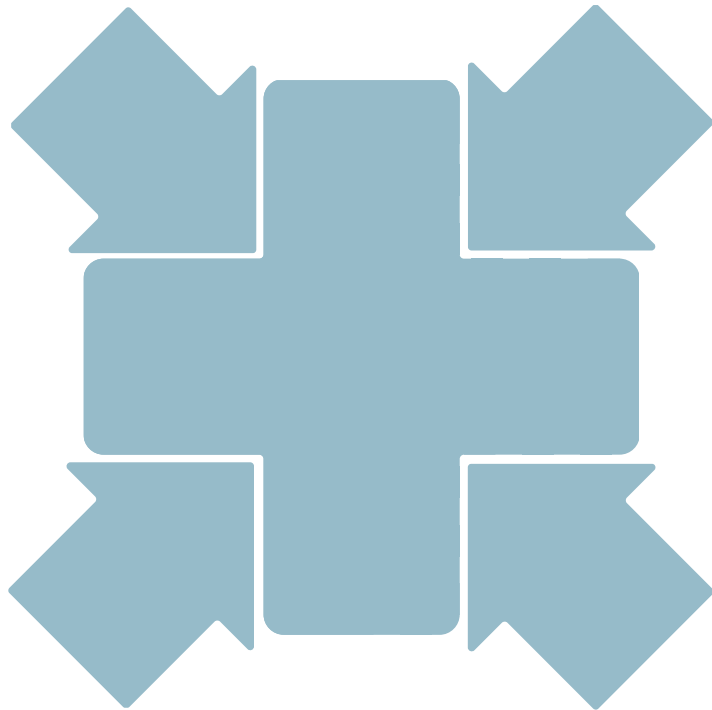The Indiana CTSI listens, engages with, and **CONVENES** researchers, our partners and stakeholders with lived experience, …

In order to advance health equity…

… **COORDINATES** to address the prioritized needs of the community, …

…and **CATALYZES** collaborative activity through ***resources, pilot funding and, most importantly, our people*** to offer bi-directional value and health impact in communities we seek to serve.

Indiana CTSI *resources, pilot funding and expertise* are here for you – YOUR SUCCESS IS OUR SUCCESS!
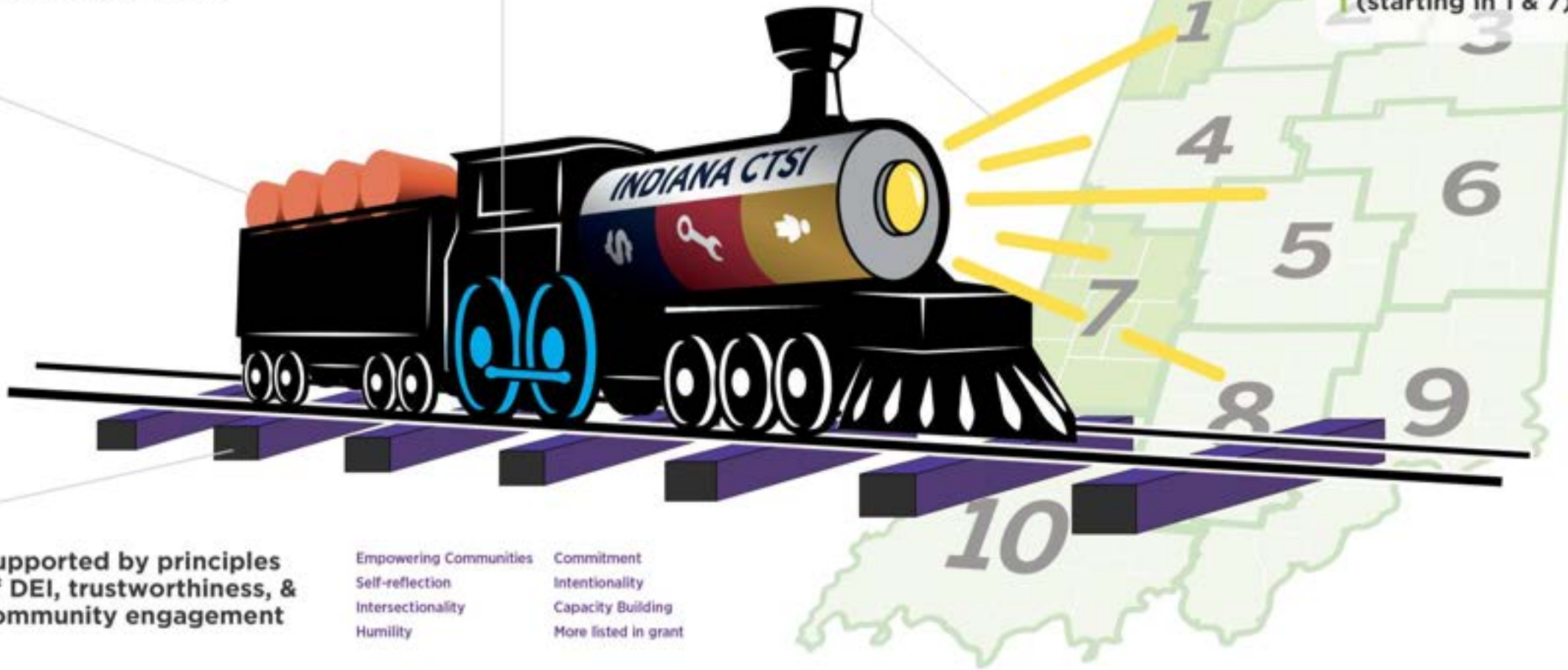
Your success is our success!

Please reach out if we can help.
ictsi@indianactsi.org
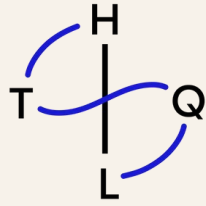
Health TechQuity Lab

Human-Centered Design of Health Technologies

Community-engaged Translational Science

Human Papillomavirus (HPV) Rapid Test for Cervical Cancer Screening

Early Detection of HIV

Smartphone-Based Self-Test for HIV Viral Load Monitoring

1. Without meaningful engagement, even the most innovative technologies will fall through the gap...

1. Without meaningful engagement, even the most innovative technologies will fall through the gap...

A rapid HPV test for cervical cancer screening:

✓Independent of laboratory infrastructure
✓Sample to result in < 1 hour

2. All I know, I learned from the (farmworker) community...

Miami-Dade County

Late stage diagnosis % (cervical cancer, females 18-64 years)

Homestead

0 - 19%   20 - 39%   40 - 59%   60 - 79%   80 - 100%

Community Health Workers

HPV Self-sampling

Farmworker Community
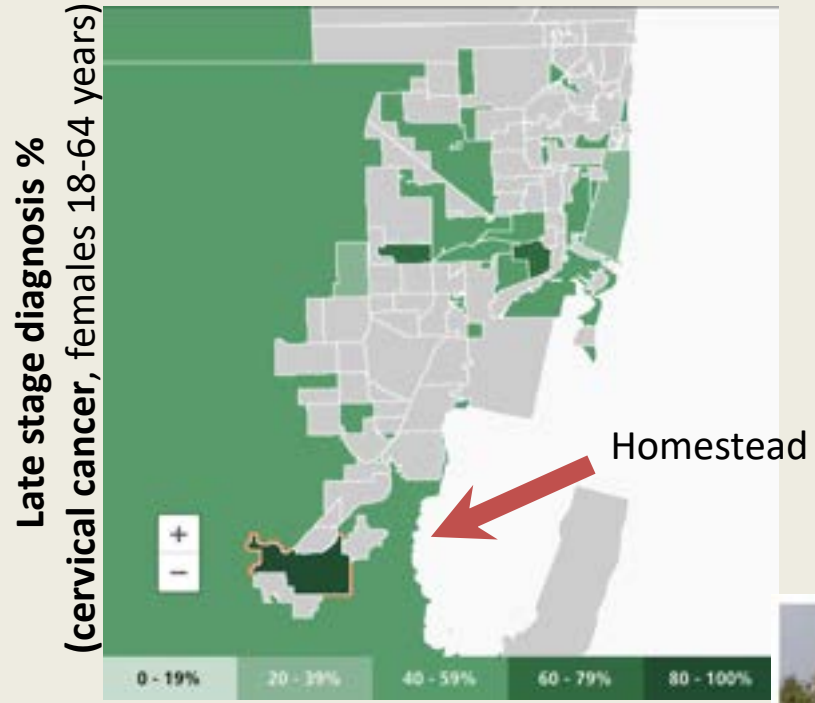
Migrants work work the green-bean fields in Homestead. C.M. GUERRERO MIAMI HERALD FILE

3. Authentic engagement isn't easy… but it is necessary.

Homelessness during COVID-19

4. If you build it, they will come...

Homeless Health and Wellness Committee

In 2020, we established **HAWC**, a multisectoral **community-academic partnership** working to address homelessness and health disparities:

- LTHC Homeless Services
- Tippecanoe County Health Department
- Franciscan Health
- Purdue University:
  Public Health, Nursing, Pharmacy,
  Nutrition & Hospitality

For the past 4 years, HAWC has met weekly to align efforts, co-lead **community-based participatory research,** and help address the diverse health needs of the community.
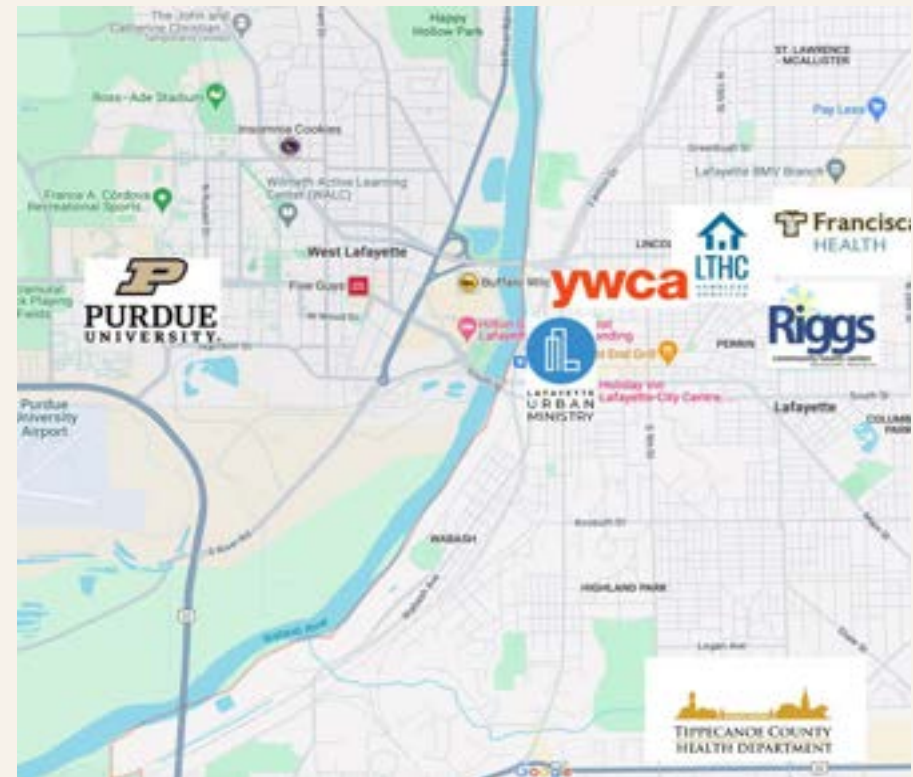
5. If you build it, funding will come...

NIH Rapid Acceleration of Diagnostics – Underserved Populations

Pandemic Response and Infectious Disease Preparedness in Homeless Shelters

Addressing Cervical Cancer Disparities Among People Experiencing Homelessness

6. Interdisciplinarity is essential.

Cervical cancer incidence and mortality rates among people experiencing homelessness are up to <u>4x higher</u> than national averages.

To address this disparity:

1. Understand cervical cancer screening practices, experiences, and barriers.

2. Design interventions to increase knowledge and awareness.
   (CHW outreach, education, navigation)

3. Implement and assess innovations to increase uptake of screening.
   (HPV self-sampling and rapid testing in shelters)

4. Ensure linkage to follow-up care.
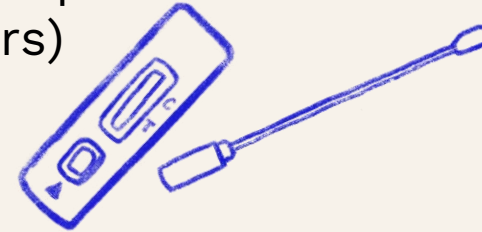
5. Leverage what works as a model for preventive healthcare delivery.

Public Health

Anthropology

Nursing

Pharmacy

Biomedical ENG

Lab Sciences

Clinical Medicine

7. True partnership enables scale-up and broader impact.

Expanding to Indianapolis partners:

- Coalitions (CHIP)

- Homeless shelters

- Social service orgs

- Clinics/FQHCs

- Academic partners

Health
TechQuity
Lab

Thank you!

natalia@purdue.edu

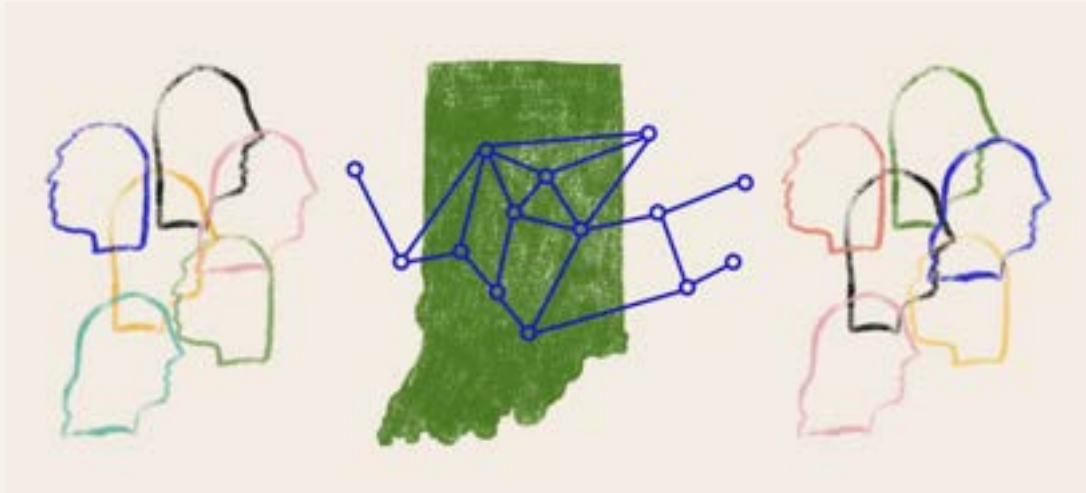IU stands on the historic homelands of the Miami people, the Potawatomi people, the Shawnee people, and many other tribes who were forced through these lands. We also recognized that IUPUI displaced a vibrant Black community in Indianapolis.

Director, All IN for Health
Chief Diversity Officer

"Do they REALLY Trust Us?": Lessons from a Volunteer Research Registry

Dr. Sylk Sotto
Vice Chair for Faculty Affairs and Professional Development
Vice Chair for Diversity, Health Equity, and Inclusion
Associate Professor of Medicine (T)
Department of Medicine

@drssotto
Pubs: Sotto Santiago, S.

DEPARTMENT OF MEDICINE   INDIANA UNIVERSITY SCHOOL OF MEDICINE

What is All IN for Health?

- An initiative of the Indiana Clinical and Translational Sciences Institute (CTSI).

- Mission is to engage the public in understanding the role and value of research toward improving the health of Indiana residents.

- Indiana is home to thousands of health research projects through Indiana University, **Purdue University** and the University of Notre Dame. However, only a small fraction of Indiana residents report being involved or knowing someone who has been involved in a research study.

What is All IN for Health?

Voice

Opportunity for public voices to share their research priorities

Hear about

Hear about health research studies by 5 institutions

Receive

Receive health research information and findings

Connect

Connect to health research resources

I'm all IN for health!

All IN for Health for RESEARCHERS?

Promote research opportunities

Social media ads

Newsletters

Website blog/resources

Study listings

Research volunteer network

Gain public perspective on the research plan

Advisory Board review

In-person events

Digital platforms

Community engagement consultation and referrals

Expertise of larger community and university-based Indiana CTSI network

- Online engagement platform for Hoosiers to promote health and research literacy.

  - Volunteer registry of ~15,000 individuals representing all 92 counties, allowing for tailored recruitment by specific characteristics
  - >30,000 people who are part of an online community
  - Utilizes website, blog, e-newsletter, and multiple social media channels
  - Paid social media promotion available
  - Public-facing study page: research team-owned web page with detailed study info, allowing participants (with or without a volunteer profile) to self-select research opportunities
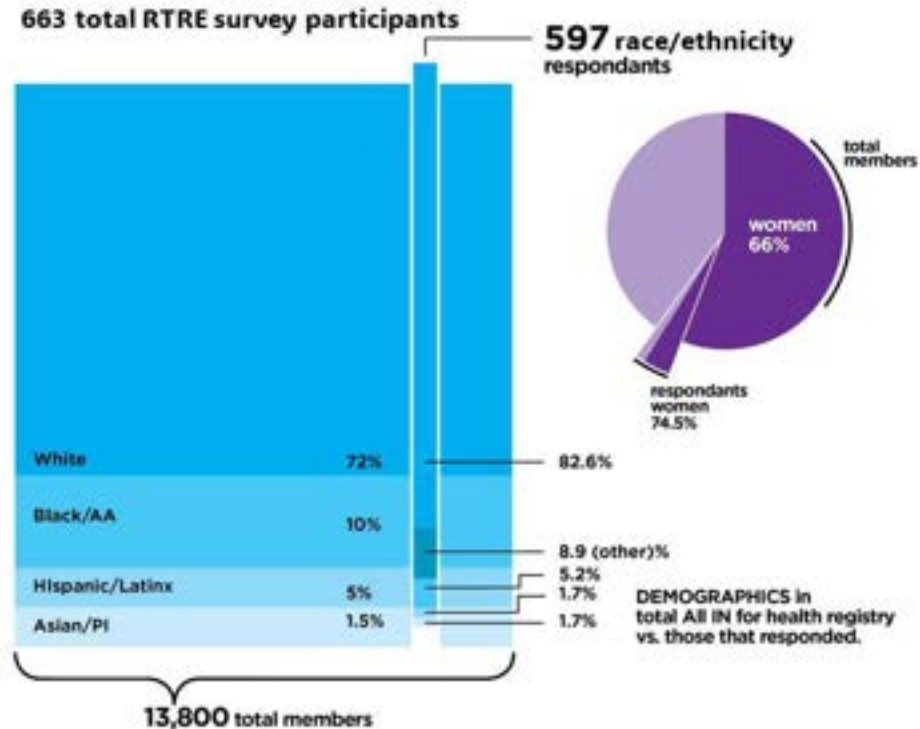
join All IN!

INDIANA UNIVERSITY SCHOOL OF MEDICINE

All IN for Health
Relationship of Trust and Research Engagement Survey

663 total RTRE survey participants

597 race/ethnicity respondants

total members

women 66%

respondants women 74.5%

White	72%	82.6%
Black/AA	10%	
		8.9 (other)%
		5.2%
Hispanic/Latinx	5%	1.7%
Asian/PI	1.5%	1.7%

DEMOGRAPHICS in total All IN for health registry vs. those that responded.

13,800 total members

"Do they REALLY Trust Us?": Lessons from a Volunteer Research Registry"

- 50% disagree that patients get the same medical treatment regardless of race and/or ethnicity.
- 67% percent think it is safe to participate in medical research, yet 79% had never been asked to participate in medical research by their doctor.
- 30% think that medical researchers act differently toward minority participants.
- 10% believe that medical researchers select minorities for their most dangerous studies and some medical research projects are secretly designed to expose minoritized groups to diseases.

Historically marginalized groups in biomedical research

It's safe to be in a medical research study — 40% / 60% (Historically Marginalized); 23% / 77% (White) — p = .0020
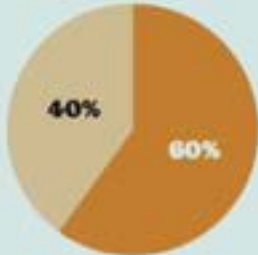
Most medical researchers would not lie to people to try to convince them to participant in a research study — 34% / 66% (Historically Marginalized); 17% / 82% (White) — p = .0009
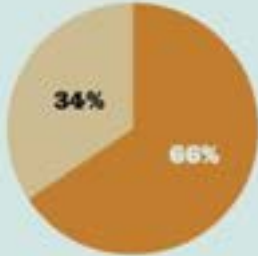
Some medical research projects are secretly designed to expose minority groups to diseases — 74% / 26% (Historically Marginalized); 94% / 6% (White) — p = <.0001
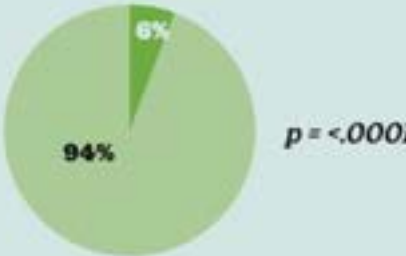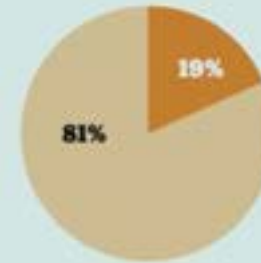
Historically Marginalized Respondents

White Respondents

Historically marginalized groups in biomedical research

Lessons

- Historically marginalized participants are willing to participate, we are just not asking through additional networks
- We need to speak against misinformation and disinformation
- We need to be more transparent as to why we are recruiting participants from historically marginalized groups and be explicit in recruitment materials
- We need researchers and health systems to partner in recruitment at community events, and in marketing materials.
- Endorse and support health equity, trust, and trustworthiness professional and skill development for researchers and research staff.
- Work with researchers on dissemination of results to the public.

Dr. Sylk Sotto

Director, All IN for Health
Chief Diversity Officer
Indiana CTSI

Associate Professor of Medicine

Vice-chair for Diversity, Health Equity, and Inclusion

Vice-chair for Faculty Affairs and Professional

Development

Department of Medicine
Faculty Investigator, IU Center for Bioethics
Indiana University School of Medicine

Affiliate Faculty,
   Health Equity Advancing through Learning health systems-Research
   (HEAL-R) IU Health

Ssotto@iu.edu
Pubmed/Google Scholar: Sotto-Santiago, S.
LinkedIn: Sylk Sotto

Health Equity Data Lab

Vision

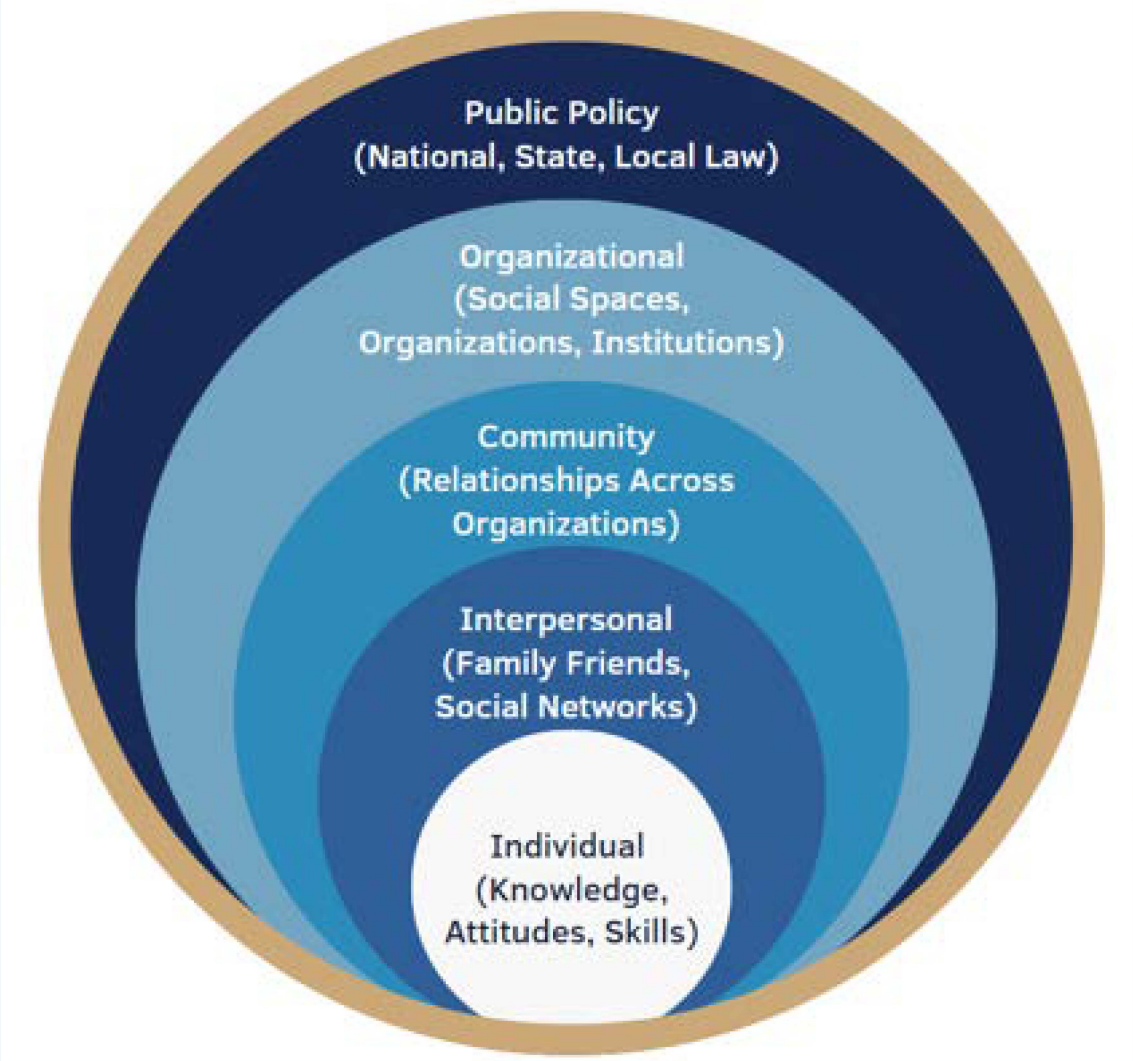Become the pre-eminent convening center of discussions, problem scoping, and solutions on health equity data and responsible AI for health & wellbeing.
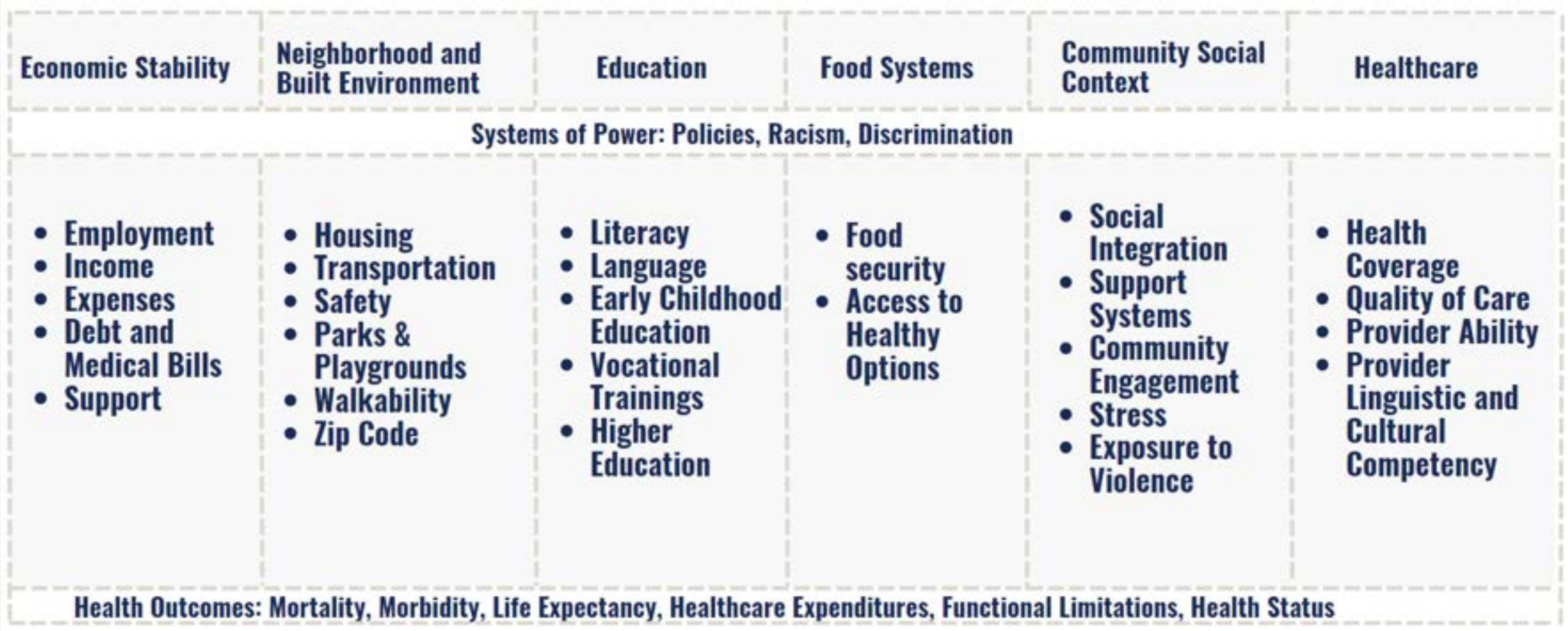
Mission

Advance interdisciplinary research and translation at the intersection of health equity and data science / AI, identified through a collaborative process.

8

Lucy Family Institute for Data & Society

UNIVERSITY OF NOTRE DAME

HEDL Health Research Model

Health Research Lens: SDOH

Economic Stability	Neighborhood and Built Environment	Education	Food Systems	Community Social Context	Healthcare
Systems of Power: Policies, Racism, Discrimination					
• Employment • Income • Expenses • Debt and Medical Bills • Support	• Housing • Transportation • Safety • Parks & Playgrounds • Walkability • Zip Code	• Literacy • Language • Early Childhood Education • Vocational Trainings • Higher Education	• Food security • Access to Healthy Options	• Social Integration • Support Systems • Community Engagement • Stress • Exposure to Violence	• Health Coverage • Quality of Care • Provider Ability • Provider Linguistic and Cultural Competency
Health Outcomes: Mortality, Morbidity, Life Expectancy, Healthcare Expenditures, Functional Limitations, Health Status					

Source: Kaiser Health Foundation

Lucy Family Institute for Data & Society

UNIVERSITY OF NOTRE DAME

HEDL Pillars

Precision Social Determinants of Health (SDOH)

Health Equity Data Index

Beyond Human Resources (HR) – the Health and Well-Being of Communities

The Health Workforce of the Future/ Responsible AI

UNIVERSITY OF NOTRE DAME

HEDL Pillars Focus

Precision SDOH

- Black Maternal Health

- Food as Medicine

Workforce of the Future

- Analysis of Gaps in the Current Workforce

- Improve Community Health Literacy

- Future of Healthcare Worker

- Responsible AI

Health Equity Index

- Definition of Health Equity

- Metrics That Derive the Index

- Pilot the Health Equity Index

Beyond HR

- Community Interventions for Employers

Ongoing HEDL Working Groups

Maternal Health Initiative

Food as Medicine

Workforce of the Future /Responsible AI

Lucy Family Institute for Data & Society

UNIVERSITY OF NOTRE DAME
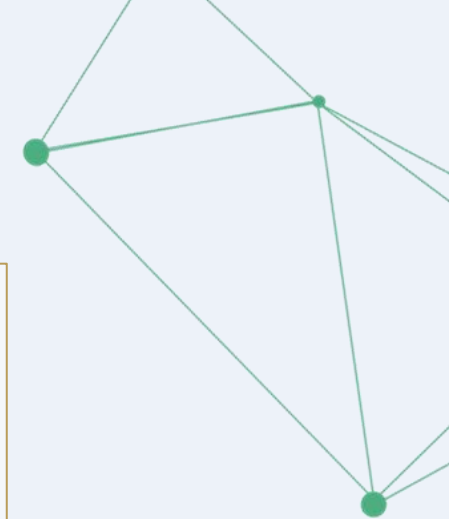
Health Research Incubation

Housing - Health Equity Nexus: Better Housing as Health Risk Mediator (HOUSE4HEALTH)

Responsible use of Artificial Intelligence (AI) and Empowering the Workforce of the Future I

Responsible use of AI and Empowering the Workforce of the Future II

Health Research Incubation

From Data to Action: Reducing mortality from illicit drugs in South Bend, Indiana

How can Artificial Intelligence inform air quality and incentives for environmental justice

Rapid Personalized Image-Based Cardiovascular Flow Modelling using Bayesian Deep Learning

Lucy Family Institute for Data & Society

UNIVERSITY OF NOTRE DAME

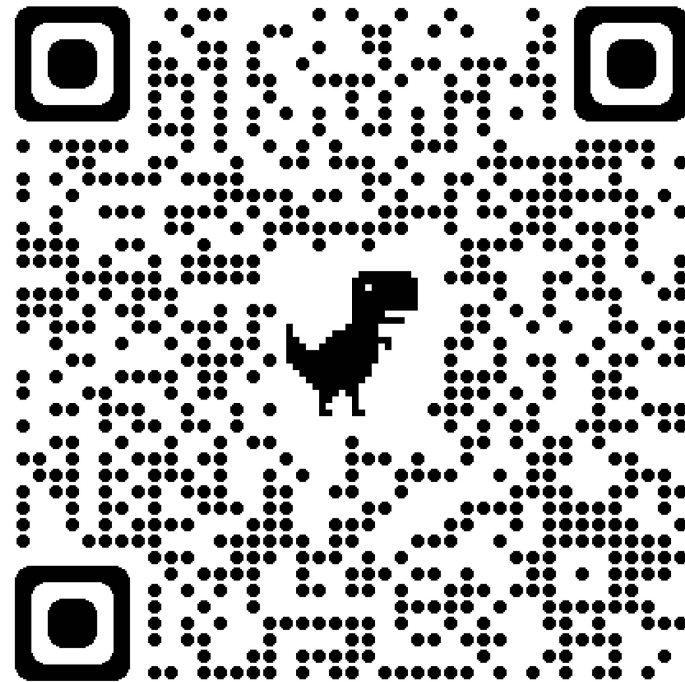# Questions?

Thank You.

Lunch/Poster Session

PURDUE UNIVERSITY® | Health Equity Initiatives

SCAN TO ACCESS POSTERS

JENNY HANSEN

Purdue for Life Foundation, Office of Foundation Relations

Office of Foundation Relations
Purdue for Life Foundation

Jenny Hansen
Director of Foundation Relations

Relations

Foundation Relations

The Office of Foundation Relations has extensive experience working with foundations with a wide range of interests.

The OFR team specializes in:

- Connecting foundations with the relevant faculty, staff, and programs.

- Assisting with development of proposals, gift agreements, and any other relevant documents.

- Overseeing reporting on gifts and grants.

- Organizing conference calls and campus visits for foundations with members of our campus community.

- Providing and reviewing valuable research information, networking opportunities, and data about our foundation partners, Purdue and our community.
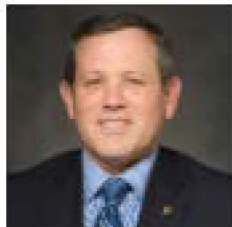
Office of Foundation Relations
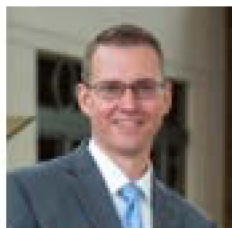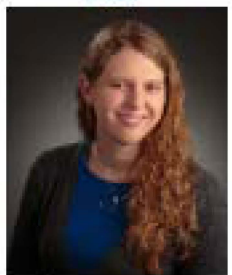
Drew Weintraut – Associate Vice President
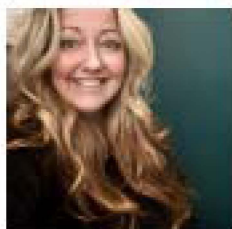
Laura Henzl – Senior Director
- Engineering
- Agriculture
- Vet Med
- Cancer Center

Jim Priest – Director
- HHS
- Science
- Pharmacy
- Nursing

Jenny Hansen – Director
- DIB Initiatives
- Purdue Polytechnic
- Krach Institute for Tech Diplomacy

Alexandra Pflug – Director
- Liberal Arts
- Education
- Libraries
- Honors
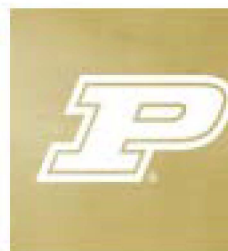- Daniels School of Business

Stephanie Merrill – Director
- Discovery Park District

Kristen Noel – Director of Operations
- Lily Endowment Expert
- Proposal Development Specialist
- Project Management
- Stewardship
- RFP Management
- Communications/Proposal training

Ashlee Wright – Operations Coordinator

PURDUE FOR LIFE
FOUNDATION

Office of Foundation Relations

Working with the Office of Foundation Relations

We are here to help

- Choose your own adventure book of support
  - Support in aligning your work with the foundations' needs
  - Application support (writing, editing, reviewing, submitting)
- Managing relationships and contacts
- Insight into prior history between Purdue and the Foundation
- Streamlined communications – sometimes it is preferred, sometimes not
- Expand your bandwidth
- We do not replace SPS, they are still necessary

PURDUE FOR LIFE
FOUNDATION

Relations

Jenny Hansen

Director of Foundation Relations
Office of Foundation Relations
JMHansen@purdueforlife.org

tions

Indiana Hepatitis C Resources
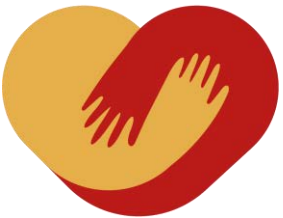
CONNECT TO CURE.ORG

Subscribe to the IDOH
Viral Hepatitis Newsletter

INDIANA UNIVERSITY INDIANAPOLIS
ECHO CENTER
For more information, or to register, visit: fsph.iupui.edu/echo

IN-HAMP
Hepatitis Academic Mentorship Program
Scan here to learn more & register.

ZERO is Possible
Bringing together the essential people, tools, and resources to end the HIV epidemic and eliminate Hepatitis C in Indiana

Indiana Department of Health

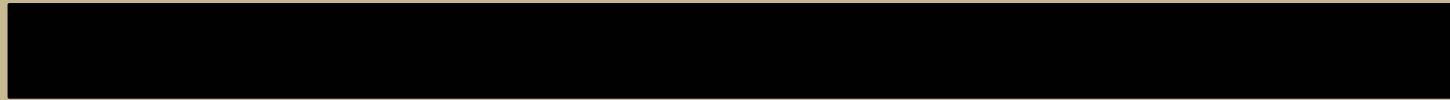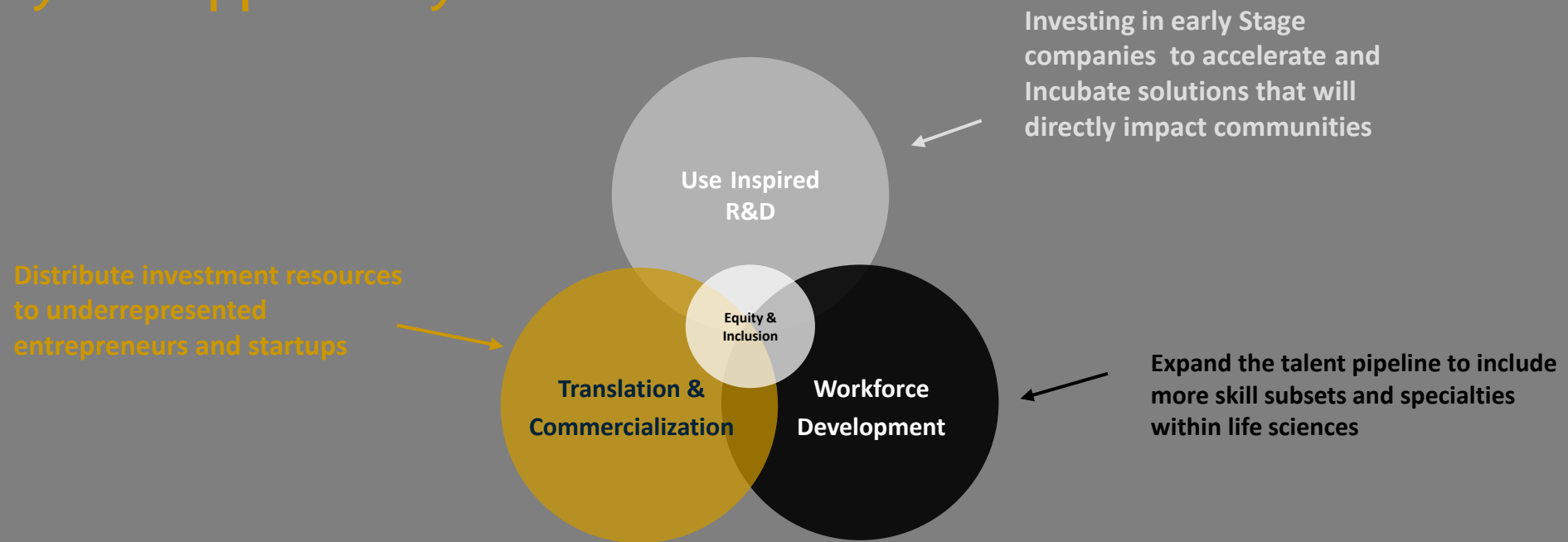# Panel: Revolutionizing Health Equity Through Community-Engaged Research

Dr. Leslie Amonoo, Kier Crites Muller, Victor Garcia, Lynn Herr, Stephanie Long

PURDUE UNIVERSITY | Health Equity Initiatives

Millennial Beacon Chicago

The Mission: Foster a South Side ecosystem – a life science engine that eliminates tragic health disparities while revitalizing community through prosperity and opportunity

Investing in early Stage companies to accelerate and Incubate solutions that will directly impact communities

Distribute investment resources to underrepresented entrepreneurs and startups

Use Inspired R&D

Equity & Inclusion

Translation & Commercialization

Workforce Development

Expand the talent pipeline to include more skill subsets and specialties within life sciences

Health Disparities in Chicago

Achieving health equity requires targeted and dedicated resources toward developing solutions

| DEATH RATE PER 100,000 POPULATION	Near North Side	Washington Park
Heart Disease	131.6	296.5
Cancer	143.6	290.2
Diabetes	8.2	53
Stroke	28.5	53.4
COVID-19	23.3	129.2
YEARS Life Expectancy	81.1	69
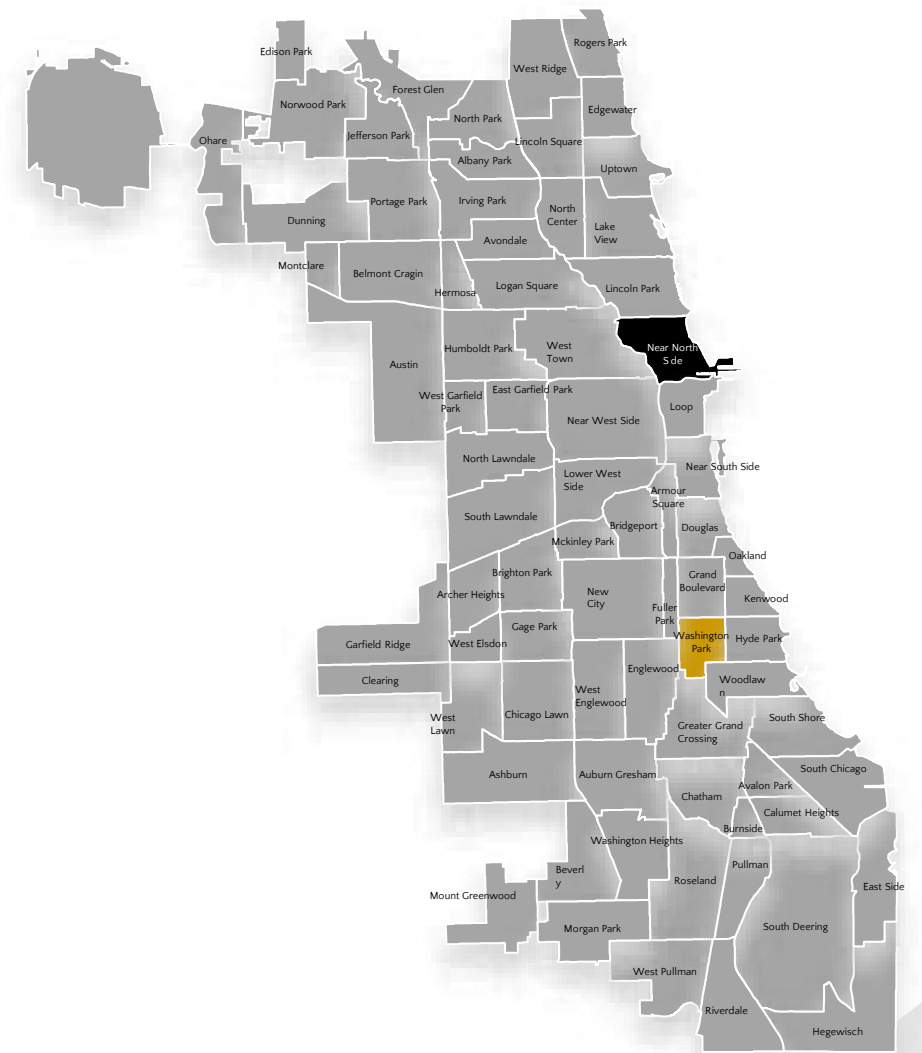
Source: Chicago Health Atlas Healthy Chicago 2.0,

Healthcare Investment Disparities

Chicago's South Side has endured significant disparities in healthcare investment when compared to the North Side

Total Certificate of Need (CON) Approved Permits for New Construction

CON Applications Filed for Chicago, 2012–2018

Area of Chicago	Permit Amount	Percent of Total
North of Roosevelt	**$1.87 billion**	**76%**
South of Roosevelt	**0.60 Billion**	**24%**
Total	**2.47 Billion**	**100%**
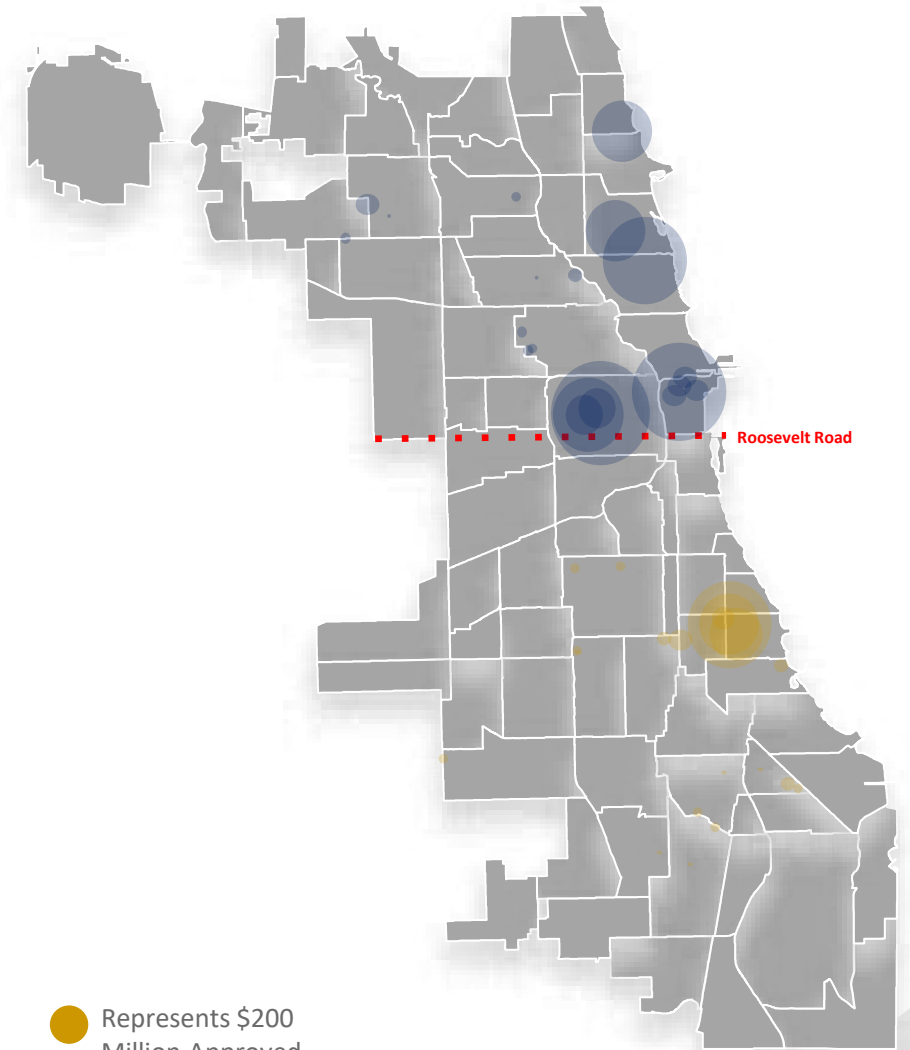
Roosevelt Road

● Represents $200 Million Approved North of Roosevelt

● Represents $200 Million Approved South of Roosevelt

How we do Clinical Trials

Health Disparities in Chicago

Achieving health equity requires targeted and dedicated resources toward developing solutions

DEATH RATE PER 100,000 POPULATION	Near North Side	Washington Park
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Diabetes	8.2	53
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COVID-19	23.3	129.2
Life Expectancy (YEARS)	81.1	69

Future of Clinical Discovery

Future State: All activities are centered around the patient

Hospitals and PIs
Investigators continue their current responsibilities and oversee larger numbers of remote patients whose trial activities occur in the community, at home and virtually.

Participant access
More patients access and participate in trials, including diverse and difficult to recruit populations, that are conducted (fully or partially) in more convenient locations that reduce time and travel commitments.

Participant experience
Patients are able to integrate trial activities into their daily lives with minimal disruption and reduced burden.

At home
HCPs complete trial related activities within the patients home.

Virtual
Patients and/or their caregivers complete trial activities without an HCP physically present, independently or with an HCP / site staff via telemedicine.

Community / local health clinic
HCPs complete trial activities in retail health clinics, community practices, outpatient facilities, etc. that are located proximate to patients homes and work.
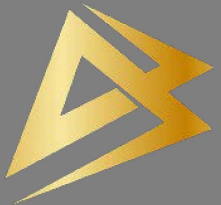
Biopharma
continues current responsibilities and leverages new trial delivery channels to tailor trial designs based on patient needs and preferences.

CRO
No near term changes to CRO activities; anticipated shift to DCT adapted monitoring strategy in the future.
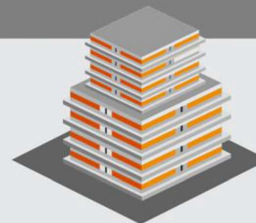
True Innovation Includes Everyone

If any community is suited to benefit from the strong economic engine that is the life sciences it has to built with every citizen in mind.

Sterling Bay Lincoln Yards

Fulton Market Labs

University of Illinois Innovative Research center

University of Chicago Hyde Park Labs

ARC Innovation Center

"A rising tide lifts all boats"
-John F. Kennedy

Purdue & FFFB
Academic Community Partnerships

What is Food Finders?

- Our mission is to provide food and connections to life-stabilizing resources when our neighbors need us most.

- Through 8 programs and 100 partner agencies, we distribute more than 12M pounds of food annually to the more than 65,000 individuals facing hunger who live in the 16 counties served by FFFB.

Food Finders
Food Bank, Inc.

Why is this needed?

Strengthening pathways out of hunger.
- Hunger is a complex issue.
- When people face hunger, they often struggle to meet other basic needs as well — such as housing, employment, and healthcare.
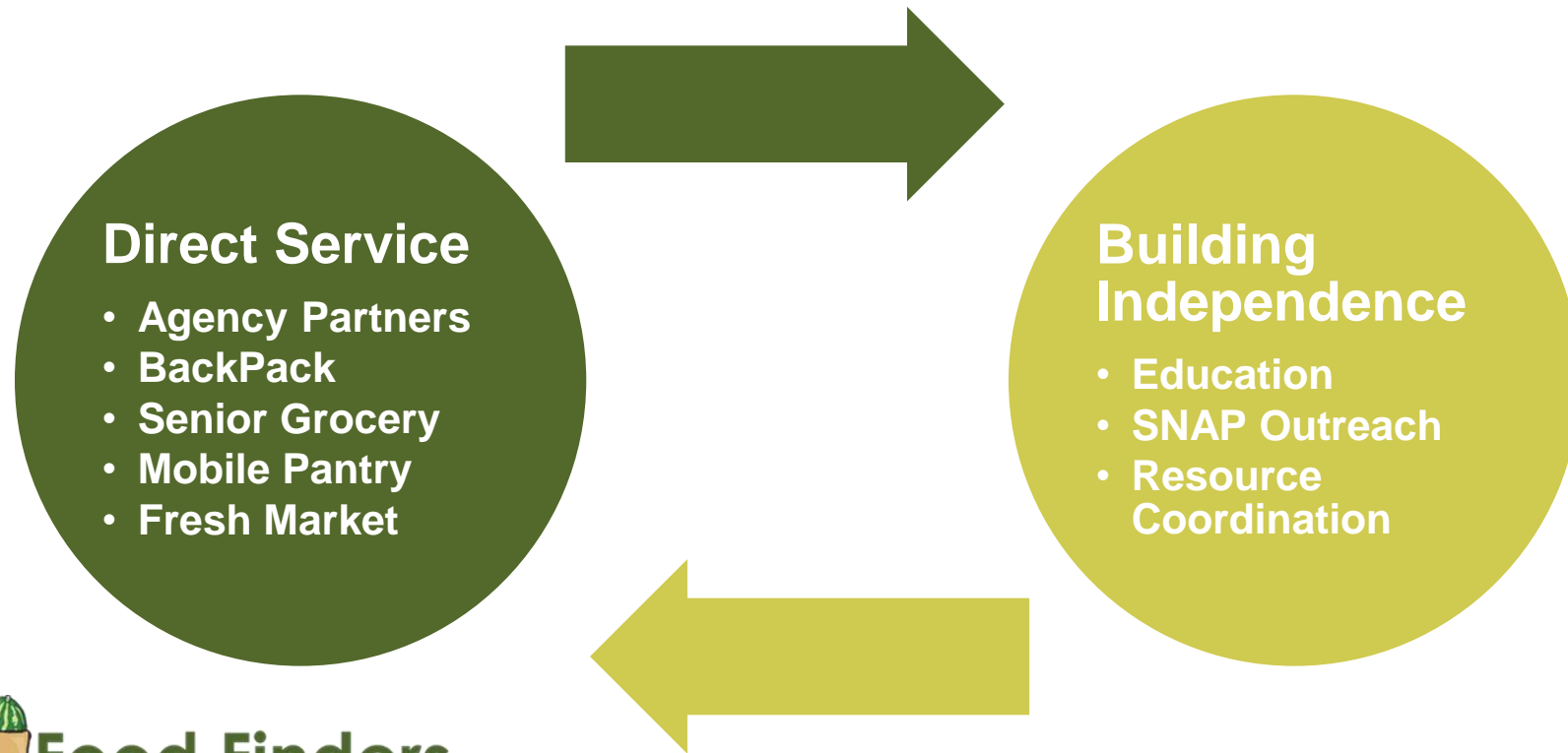
Some root causes include:
- poverty
- unemployment and low-income
- lack of affordable housing
- lack of access to healthcare
- systemic racism and racial discrimination

Food Finders Food Bank, Inc.

Fighting Hunger, Giving Hope

Direct Service
- Agency Partners
- BackPack
- Senior Grocery
- Mobile Pantry
- Fresh Market

Building Independence
- Education
- SNAP Outreach
- Resource Coordination

Food Finders
Food Bank, Inc.

What is the need? (Post COVID)

USDA report released Oct. 2023

- The number of individuals living in food insecure households in the US in 2022 _increased_ to 44 million, including 13 million children.

- This is an increase of 31% since 2021 (34 M) and 44% since 2020 (48M).

- This is the _highest rate and number since 2014 (8 M)_ and the _most significant one-year increase since 2008_.

Fighting hunger in your community

Food Finders Food Bank, Inc.

Purdue Collaborations (2023-2024!)

- **Agency Partners**
  - ACE Campus Food Pantry
  - Purdue United Way
  - FFFB Club
- **Events & Food Drives**
  - College of Ag + Blue Jean Ball
  - College of Ag food drive
  - PRF Casino Night/food drive
  - PMO fundraiser
  - HTM Black Tie Dinner
  - Purdue Athletics & Elf Drive
  - Civil Eng. Student Advisory Council
- **Service Learning**
  - EEE 472
  - Industrial Engineering Capstone
- **FFFB Board of Directors**

Student Projects
- ENG 420
- HONR 499
- Anthropology
- EDCI 350
- Food Safety
- HTM 462

Education & Classes
- Purdue Extension
- Dietetics
- Health & Human Services – Public Health & Health Equity internship
- Internships

Expertise
- Center for Food Demand Analysis & Sustainability
- Center for Rural Research, Education & Outreach

Food Finders Food Bank, Inc.

Did we mention volunteers?!

Throughout FY23,
469 Purdue volunteers
covered 1,170 volunteer
shifts and donated
2,476 hours of service!

Food Finders
Food Bank, Inc.

Purdue & FFFB collaborations:

- Expand FFFB services through the communities we serve
- Share student and faculty knowledge and expertise with people served by FFFB
- Provide FFFB with gaps in knowledge, skills and expertise we may not have access to otherwise (data, analytics, etc.)
- Raise food, funds and awareness

- Data shows that FFFB services are helping the most in need:
  - Higher poverty neighborhoods
  - Areas closest to the FFFB
  - Those with less education.
  - Those with less income.

- Further, when these groups use services to a higher degree than others, they are more likely to use services for less time.

- Certain programs indeed assist users with these steps.

PURDUE | School of Engineering Educatic

Food Finders
Food Bank, Inc.

FIGHTING HUNGER, GIVING HOPE

Kier Crites Muller
President/CEO
kcrites@food-finders.org

Food Finders Food Bank
1204 Greenbush Street, Lafayette

www.food-finders.org
765.471.0062

Pre to 3 Home Visitation Program

Lynn Herr RN, BSN, CPN

Vanderburgh County Health Department

January 25, 2024

AGENDA

Review of Data

Program Overview

Summary of Program Data

Expansion/Growth Plan

Questions
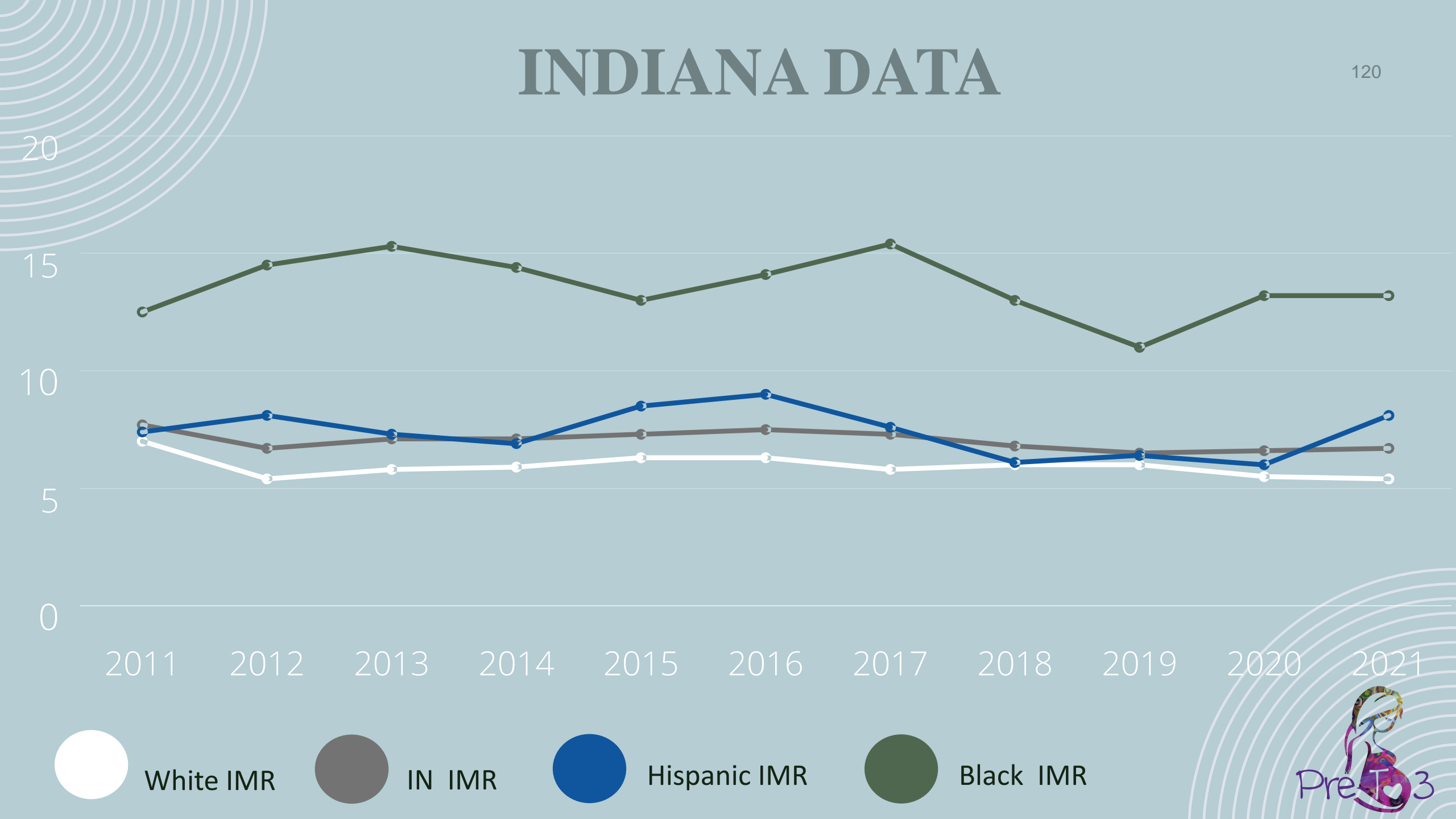
VANDERBURGH COUNTY DATA
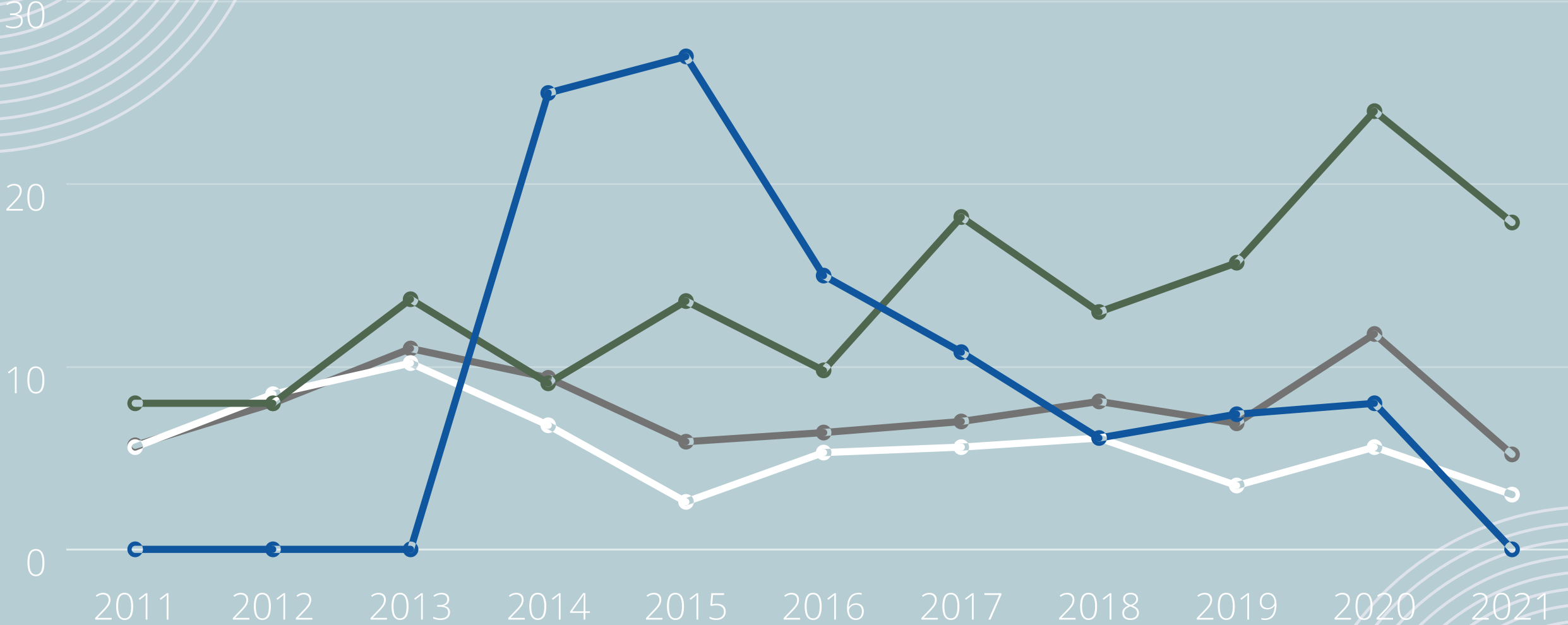
INDIANA DATA

2016-2020 Highest Stable Black
Infant Mortality by County

2017-2021 Stable Black
Infant Mortality Rate

Elkhart 23.4
Vanderburgh 16.9
St. Joe 15.3
Allen 15.2
Lake 13.9
Marion 12

**Vanderburgh 19.1 /1000
live births**
Remains 2nd highest in
Indiana

WHAT IS PRE TO 3

- Home visiting program utilizing community health workers (CHW), client advocates, and registered nurses

- Provide long-term, consistent, hands-on support for families utilizing an evidence-based curriculum

- Designed to reduce infant mortality and improve maternal/child outcomes

PROGRAM OBJECTIVES

1. Improve maternal/child outcomes

2. Foster the parent-child interaction

3. Establish healthy environment for early childhood development

4. Chart paths to family self-sufficiency

ENROLLMENT

- Anyone who is pregnant or has a baby less than 90 days old
- Can remain in the program until 3 years of age
- No enrollment requirements based on
  - Income
  - Parity
  - Education level

Pre 3

SCREENINGS & ASSESSMENTS

- ACES/Resilience Questionnaire

- Intimate Partner Violence

- Edinburgh Postnatal Depression Scale

- ASQ-3 and ASQ:SE-2

- Home Safety

- Healthy Families Parenting Inventory

CURRENT NUMBERS

1,095 REACH — clients who completed an intake appointment
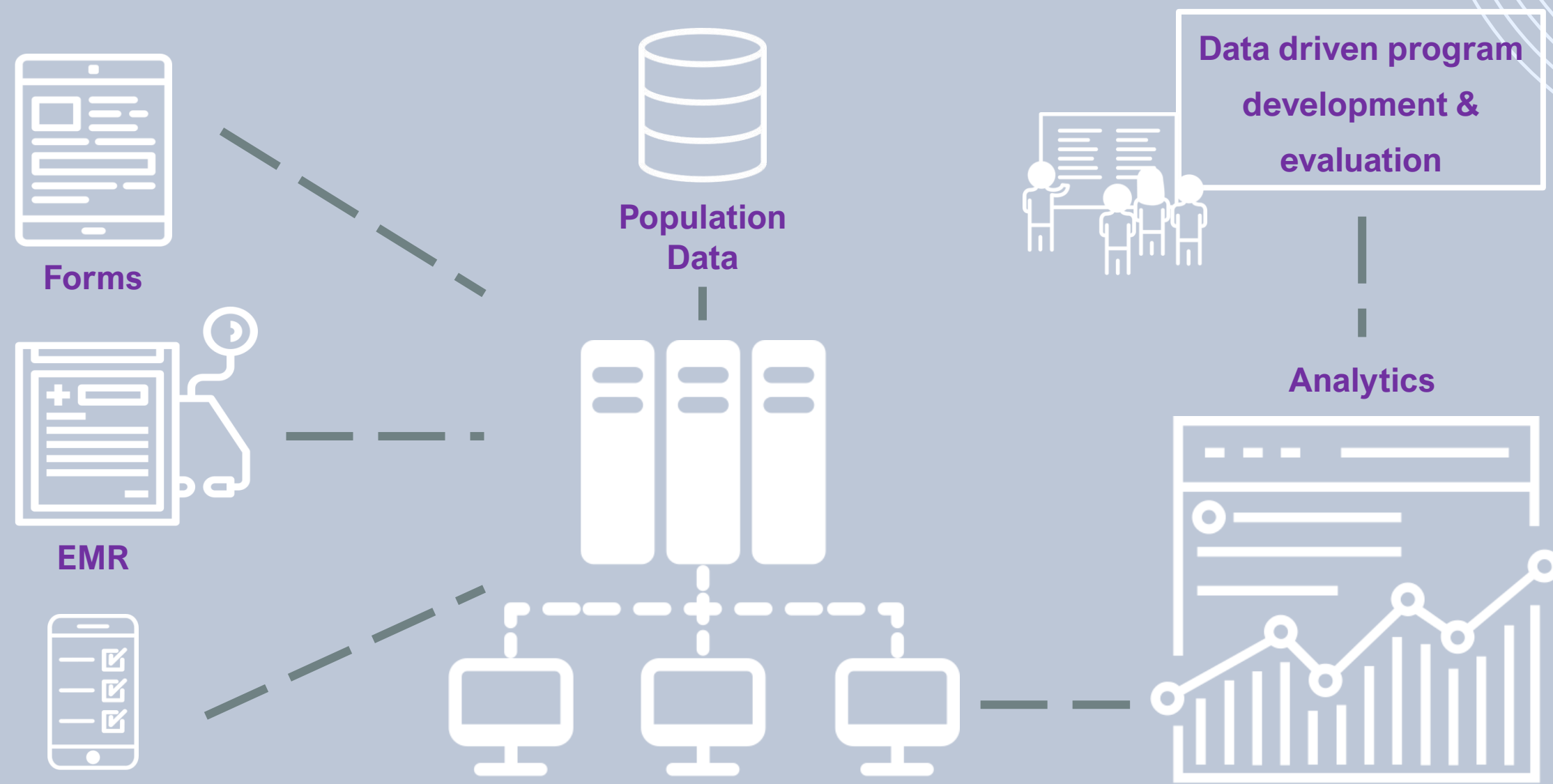
232 ACTIVE — clients currently active in Pre to 3

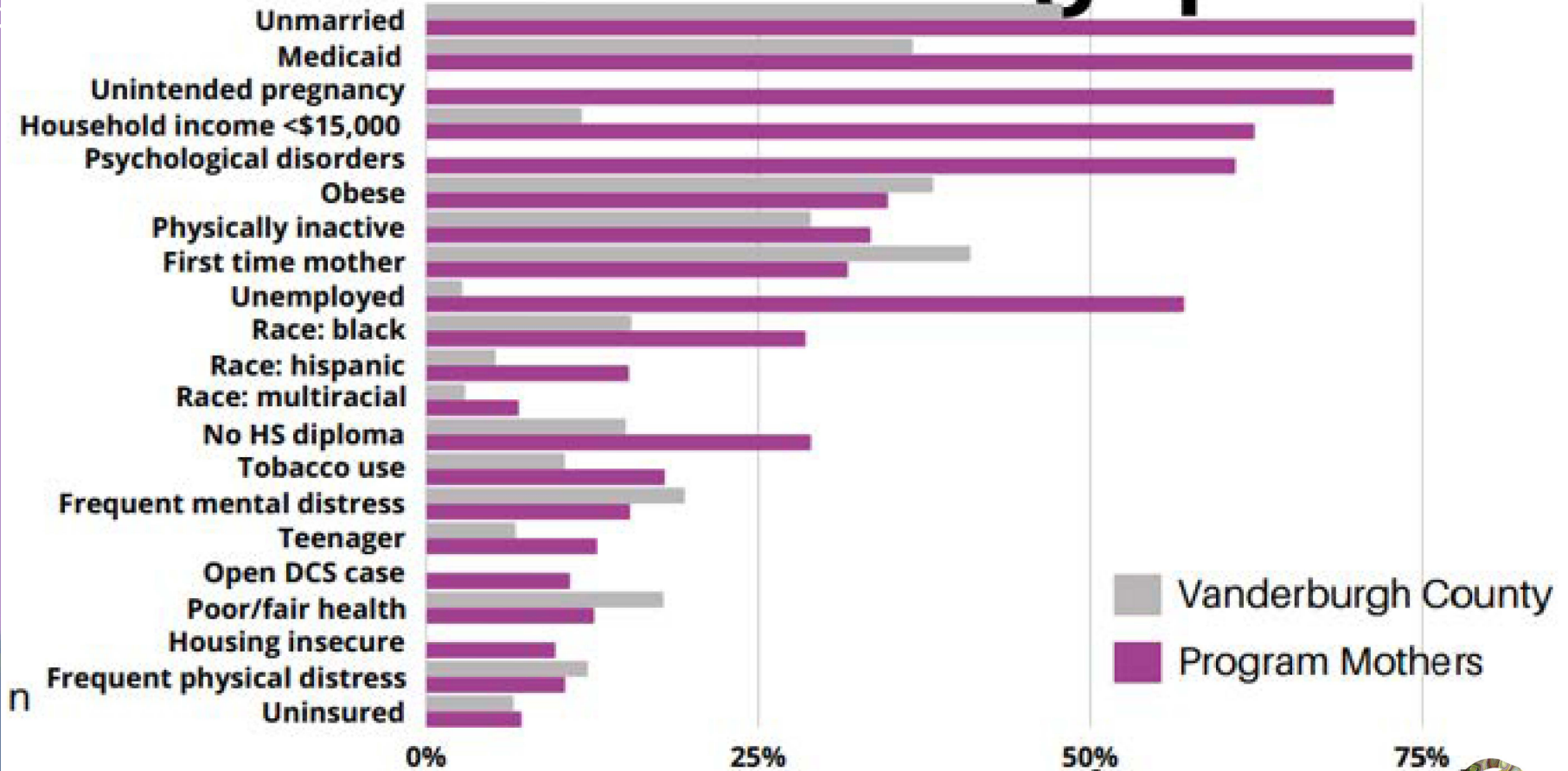**454** BIRTHS — births while enrolled in the program (2019 YTD)

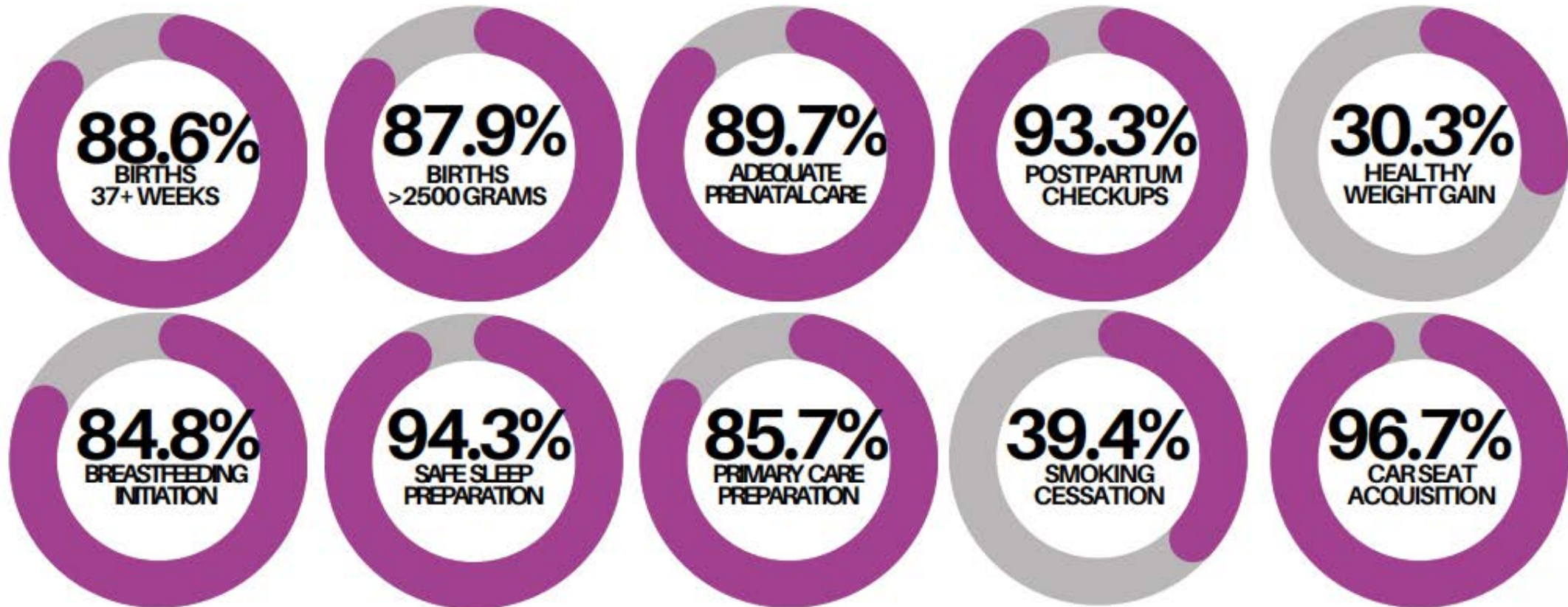**23,909** VISITS — visits completed (2019 YTD)

DATA INFRASTRUCTURE

Forms

EMR

Screenings

Population Data

Data driven program development & evaluation

Analytics

Pre 3

Selected Mother Demographics
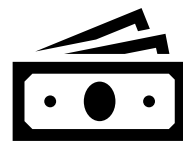
PRE TO 3 CLIENT OUTCOMES

REVENUE/BILLING

25,530
Processed claims
(2019 YTD)

$376,297.18
Payment
(2019 YTD)

- No private insurance reimbursement
- Cost per visit – about $200/1 hour visit
  - Salary
  - Travel
  - Curriculum
- Average Medicaid reimbursement - $22.36/1 hour visit

Pre 3

PROGRAM EXPANSION

PLANNING	GUIDE	ORIENTATION	PILOT	QUALITY
Developed a contract – interlocal agreement	Created an expansion & implementation toolkit	Tailored an orientation curriculum for other counties	Started duplication in Dubois County – anticipate expansion to two additional counties in 2024	Focus on continuous improvement and maintaining fidelity of program

THANK YOU

Lynn Herr RN, BSN, CPN

Vanderburgh County Health Department

lherr@vanderburghcounty.in.gov

yourvchd.org

Poster Awards / Closing

Health Equity Initiatives

THANK YOU!

Dr. Jerome Adams - adams616@purdue.edu

Holly Wood - hawood@purdue.edu

Aubrey Anderson - adams339@purdue.edu

Brandi Plantenga – bplante@purdue.edu

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