

# A Collaborative Initiative for Community Birth Providers: Integrating EHDI and NBS Education

Gina Cooper, Au.D.

Nan Asher, M.L.S

Tori McIntosh, Ph.D.



# Disclosures

Thank you to our partners at the Association of Public Health Laboratories (APHL), the National Center for Hearing Assessment and Management (NCHAM), and the Unite Newborn Screening Learning Community for this funding opportunity.

This project is 100% supported by the Health Resources and Services Administration (HRSA) under grant #UG8MC31893 as part of an award totaling \$3.3 million. This information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by, HRSA, HHS or the U.S. Government.

# Learning Objectives

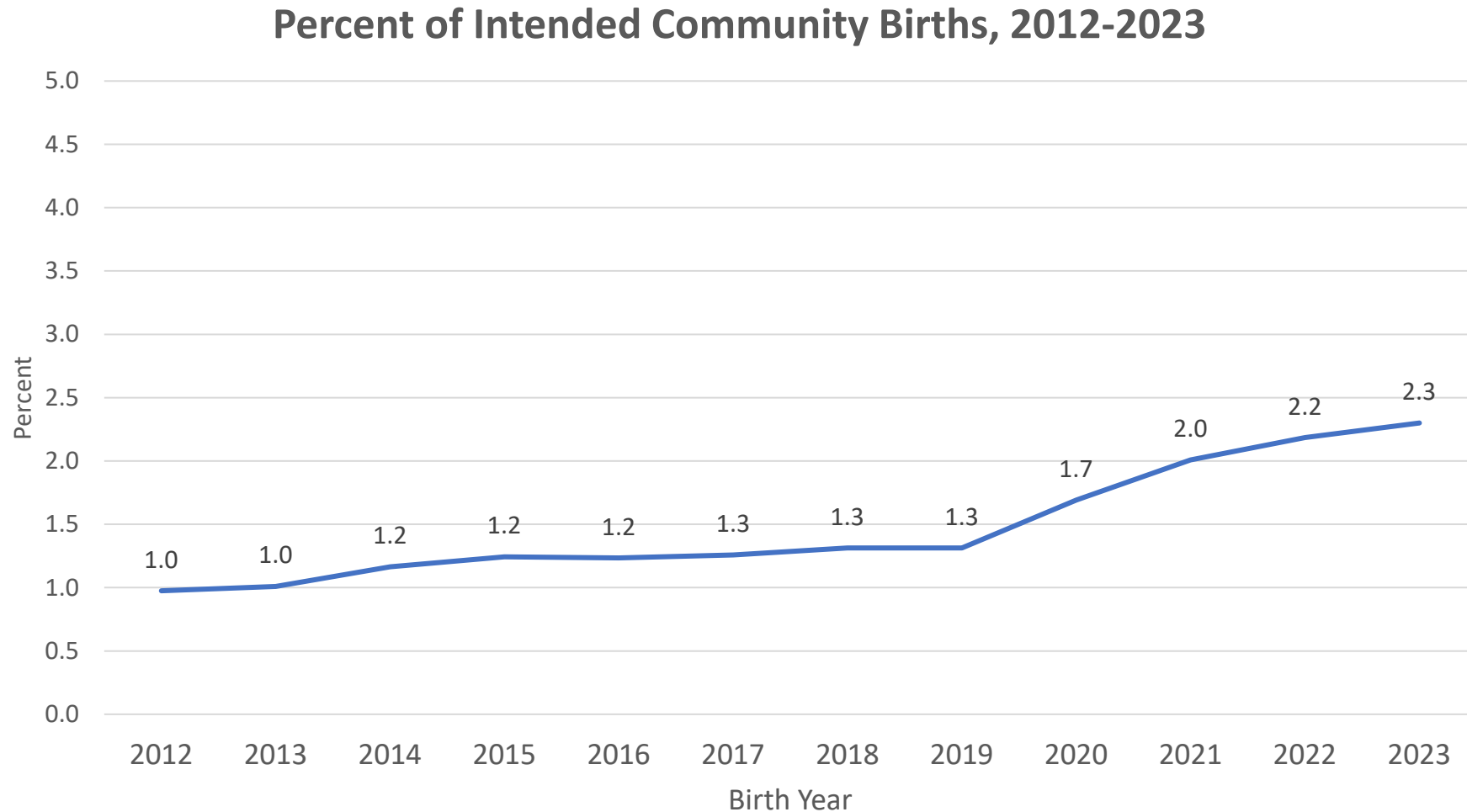
At the end of the session today, you will be able to:

1. Explain the approach used to develop a training program for community birth providers.
2. Assess the effectiveness of the training program by analyzing the training outcomes.
3. Apply best practices to implement a similar program in your own community birth settings.

# Objective of the Project

- **Focus:**
  - Improve screening rates in Michigan for hearing, dried blood spot (DBS), and critical congenital heart disease (CCHD).
- **Target Audience:**
  - Community birth providers.
- **Context:**
  - Approximately 2% of births in Michigan occur in community settings, a number expected to rise.

# Community Births Over Time



Reference: 2023 Live Births by Place of Delivery and Type of Attendant, Michigan Resident Birth File, Division for Vital Records & Health Statistics, Michigan Department of Health & Human Services.

# Problem Statement

- **Challenge:**
  - No combined training program for community birth providers to address multiple screening types (Hearing, DBS, CCHD).
  - Lack of standardized education for midwives and other community birth providers.
- **Need for Collaboration:**
  - Improve provider knowledge, skills, access, and comfort with all screenings.
  - Address the increasing number of births outside hospital settings.

# The Collaboration

- **Partnerships & Collaborations:**

- Unite Newborn Screening Learning Community.
- Key Collaborators:
  - Michigan Early Hearing Detection and Intervention (EHDI).
  - Michigan Newborn Screening (NBS).
    - Blood spot, Bio Trust for Health, CCHD.
  - Epidemiology.
  - Michigan Hands & Voices.
  - Parents of children identified through screenings.

- **Training Development:**

- A collaborative team designed a comprehensive educational program.

# Unite Newborn Screening Learning Community

## Michigan Team Members



Gina Cooper  
EHD Program Coordinator



Amy Rakowski  
CCHD/EHDI Epidemiologist



Isabel Hurden  
NBS Bloodspot Epidemiologist



Kristen Thompson  
NBS Program Coordinator



Nan Asher  
EHD Program Consultant



Tori McIntosh  
EHD Parent Rep.  
Michigan Hands & Voices



Joe Hallisy  
DBS Parent Rep.



Angela Aldrich  
NBS Nurse Consultant



# The Educational Program

- **Program Features:**
  - Didactic presentations.
  - Testimonial video.
  - Hands-on practical stations.
  - Networking opportunities.
- **Delivery:**
  - Virtual and in-person sessions offered.

# The Educational Program

- **Focus Areas:**
  - Screening basics.
  - Logistics of screening.
  - Parental support.
- **Specific Topics:**
  - Blood spot screening and follow-up.
  - NBS card ordering and payment.
  - Michigan BioTrust for Health.
  - NBS parent education.
  - Hearing screening, reporting and follow-up.
  - CCHD screening and reporting of data.
  - Parent story.

# Program Location and Partnerships



- **Collaborative Partnership with Birthing Centers.**
  - Each training was hosted at a birthing center that expressed interest in training.
  - This approach increased relevance and engagement for participants.
- **Benefits of Location Choice:**
  - Hands-on, real-world setting for practical learning.
  - Opportunities for networking and collaboration among community birth providers.
  - Created a more effective and context-specific training experience.

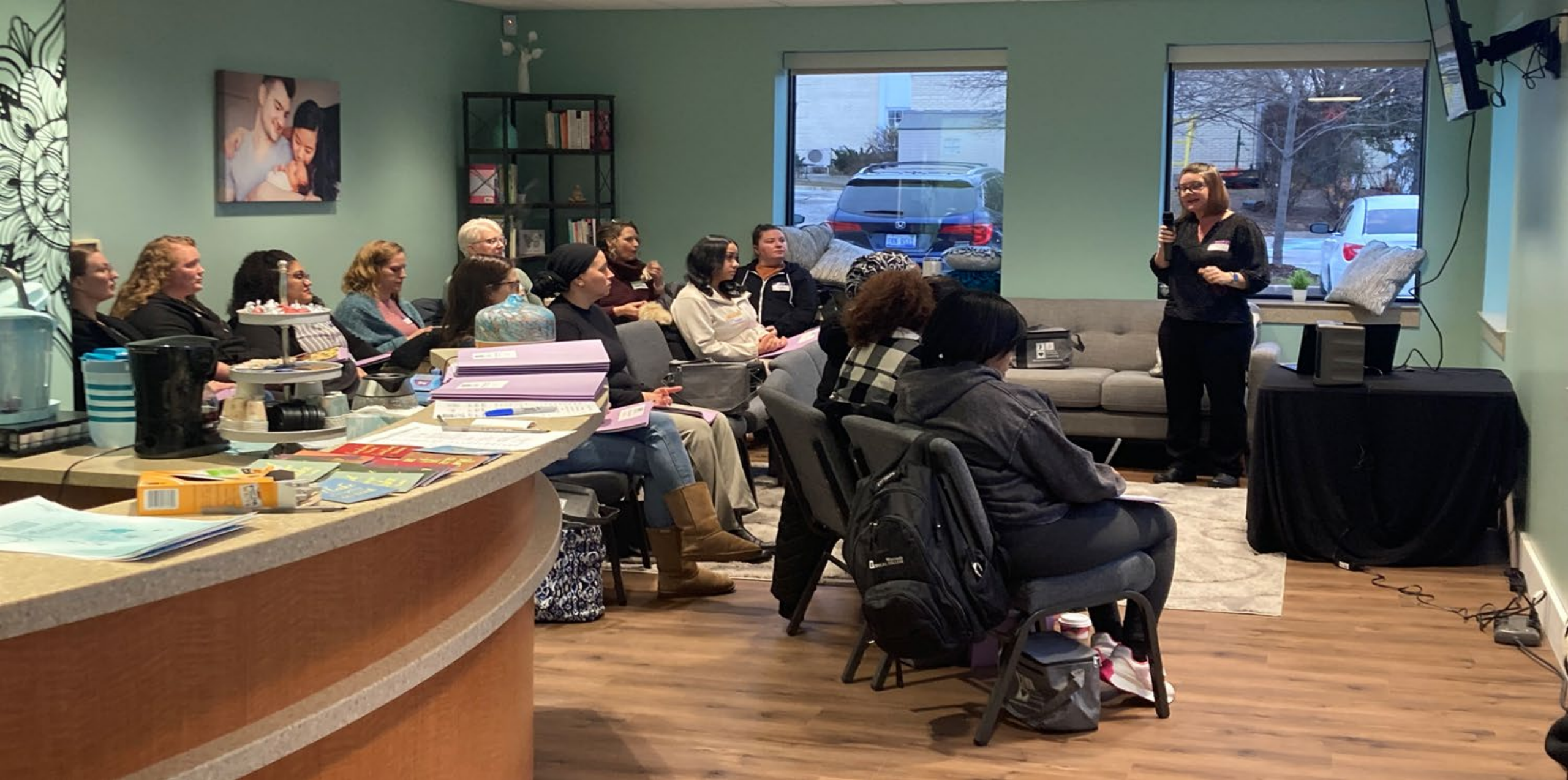


Image: Unite Newborn Screening Training (Jan. 2024), Division of Maternal & Infant Health and Lifecourse Epidemiology and Genomics Division, Michigan Department of Health and Human Services.



# Parent Testimonial

Lucy and Brooke - home birth story

## Lucy's Story

A family perspective  
on newborn screening  
and hearing loss



Image/Reference: Lucy and Brooke - Home Birth Story. Unite Newborn Screening Learning Community (2024), [Available at: [Youtu.be/Vq1aRaIghi4?si=ANNUukFvKMM3yjo1](https://youtu.be/Vq1aRaIghi4?si=ANNUukFvKMM3yjo1)].



Image: Unite Newborn Screening Training (Jan. 2024), Division of Maternal & Infant Health and Lifecourse Epidemiology and Genomics Division, Michigan Department of Health and Human Services.



# Breakout Sessions

## breakout sessions

*complete them all to enter a prize drawing*

How to perform  
Hearing Screen

Communicating  
Hearing Results  
with families

Ordering NBS  
Cards &  
Drying/Mailing  
Specimens

Collecting  
Blood spots &  
Completing the  
Card

Educating  
Families on  
Choices After  
Screening

CCHD Algorithm  
and Reporting

Insert QR code  
for post survey

*Name*



Image: Unite Newborn Screening Training (Jan. 2024), Division of Maternal & Infant Health and Lifecourse Epidemiology and Genomics Division, Michigan Department of Health and Human Services.





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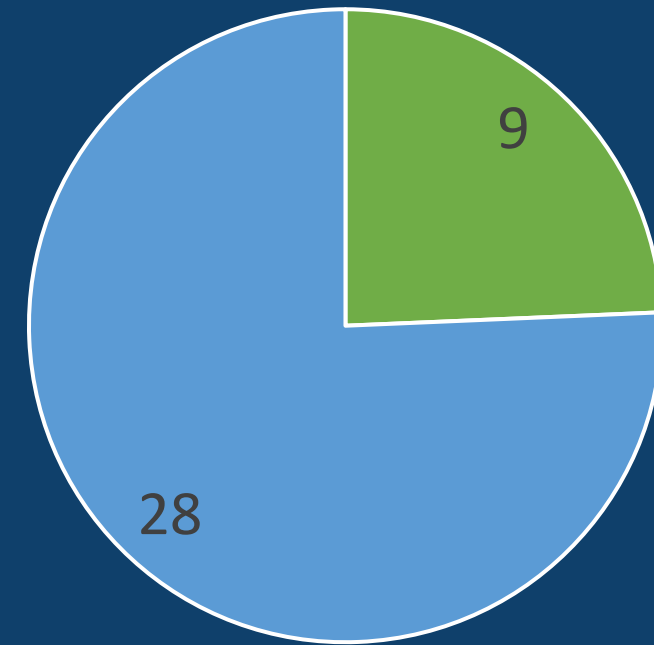
# Training Outcomes

- **Participant Engagement:**
  - Midwife students.
  - Certified nurse midwives.
  - Certified professional midwives.
- **Assessment Process:**
  - Pre- and post-training self-assessments to gauge comfort levels with performing screenings.
  - Screening rates measured after training and compared to a pre-training baseline.

# Participant Engagement

- **Three trainings:**
  - 1/5/24 (in-person).
  - 3/5/24 (virtual).
  - 10/4/24 (in-person).
- **37 total participants:**
  - 28 in person.
  - Nine virtual.

Participant Training Attendance  
Type (N = 37)



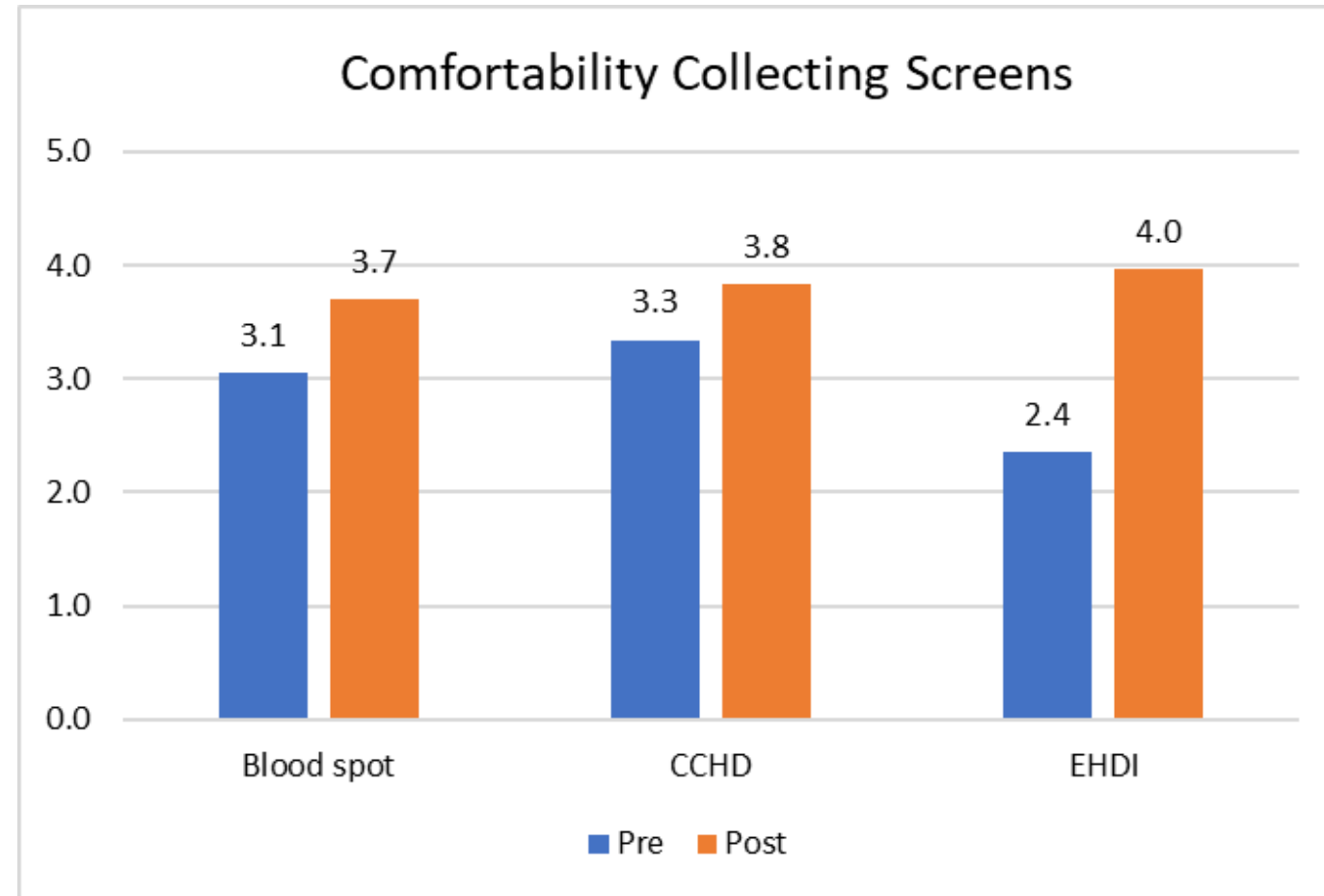
■ Virtual ■ In-Person

# Results and Impact

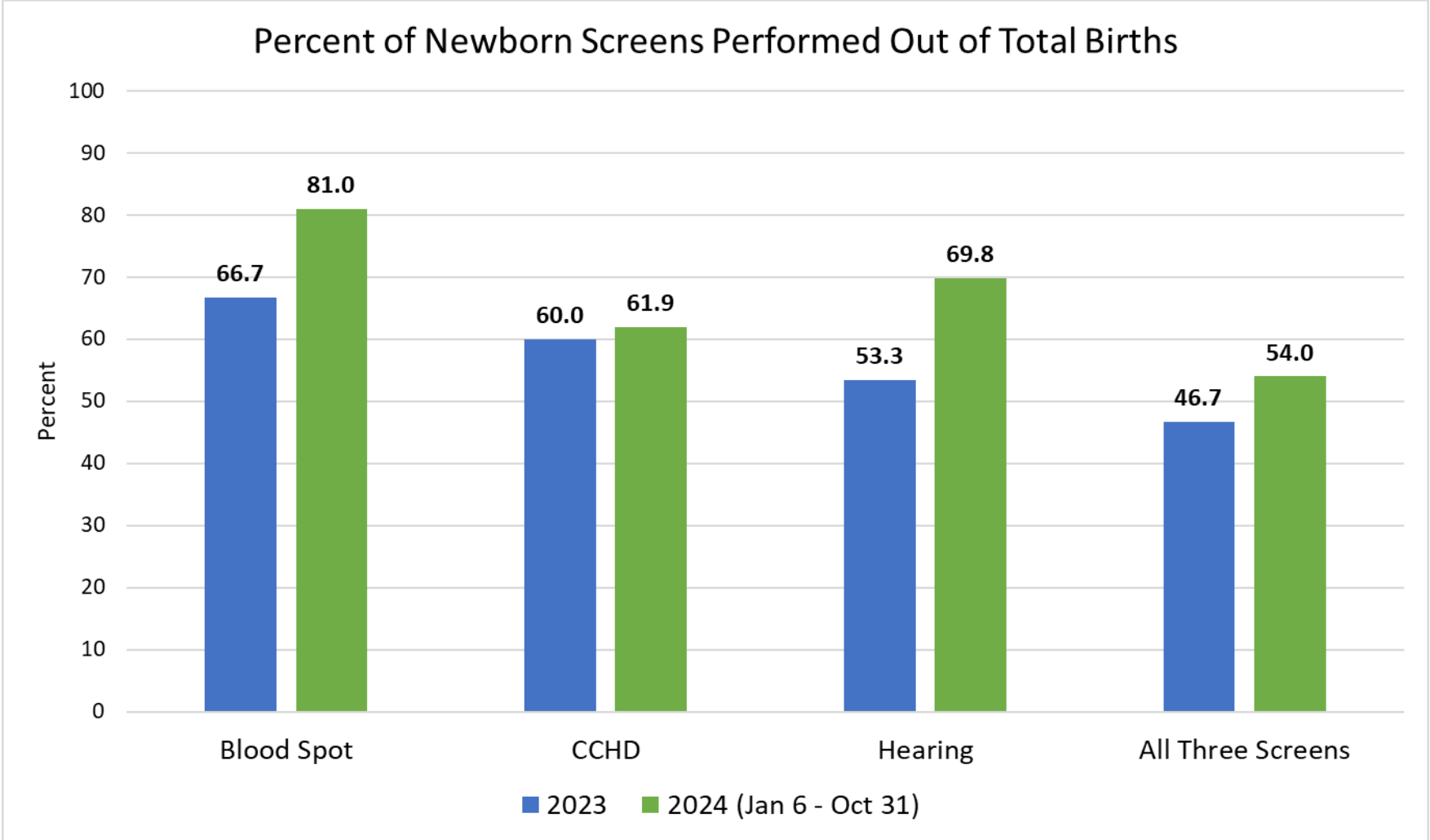
- **Increased Comfort Levels:**
  - Self-reported improvements in comfort with all three screening types (Hearing, DBS, CCHD).
- **Improved Screening Rates:**
  - Data shows increased screening rates post-training.

# Comfortability Performing Screens

- Participants rated their comfort level with each screening on a scale of 0 (not comfortable) to five (very comfortable).
- Average Comfort Ratings (Pre- vs. Post-Training):
  - Blood Spot: 3.1 → 3.7
  - CCHD Screening: 3.3 → 3.8
  - Hearing Screening: 2.4 → 4.0



# Screens Performed Pre and Post Training



Reference: 2023-2024 Newborn Screening Data, Division of Maternal & Infant Health and Lifecourse Epidemiology and Genomics Division, Michigan Department of Health and Human Services.

# Conclusion

- **Key Takeaways:**
  - The collaborative educational program was successful in increasing provider comfort levels and screening rates.
  - Training for community birth providers is essential to support newborn screening efforts in Michigan.
  - Parent representation for the population served is a key to success.
  - Plans for statewide expansion and annual training opportunities.
  - Collaborative benefits exist beyond the scope of this project.

# Acknowledgements

- **Thanks to:**
  - The project team, collaborators, and participants.
  - The parents willing to share their lived experience.
  - Michigan EHDI and NBS programs.
  - NCHAM, APHL, and the Unite Newborn Screening Learning Community.



# Questions?

[Michigan.gov/EHDI](https://michigan.gov/EHDI)

[CooperG5@michigan.gov](mailto:CooperG5@michigan.gov)