

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

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# Disclosures

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# Learning Objectives

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

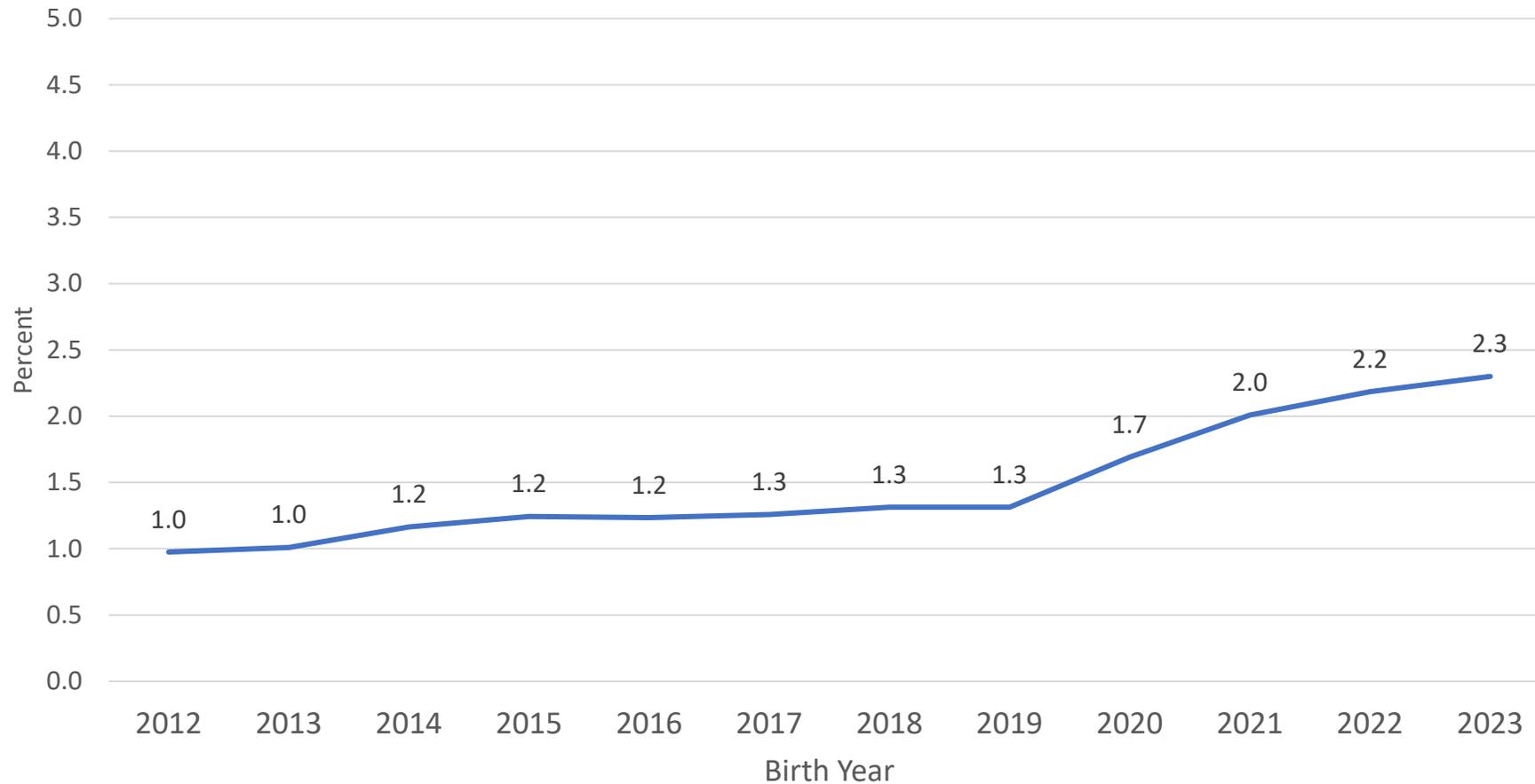
1. Explain the approach used to develop a training program for community birth providers.
2. Assess the effectiveness of the training program by analyzing the training outcomes.
3. Apply best practices to implement a similar program in your own community birth settings.

# 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

### Percent of Intended Community Births, 2012-2023



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  
EHDl Program Coordinator



Amy Rakowski  
CCHD/EHDl Epidemiologist



Isabel Hurden  
NBS Bloodspot Epidemiologist



Kristen Thompson  
NBS Program Coordinator



Nan Asher  
EHDl Program Consultant



Tori McIntosh  
EHDl 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.



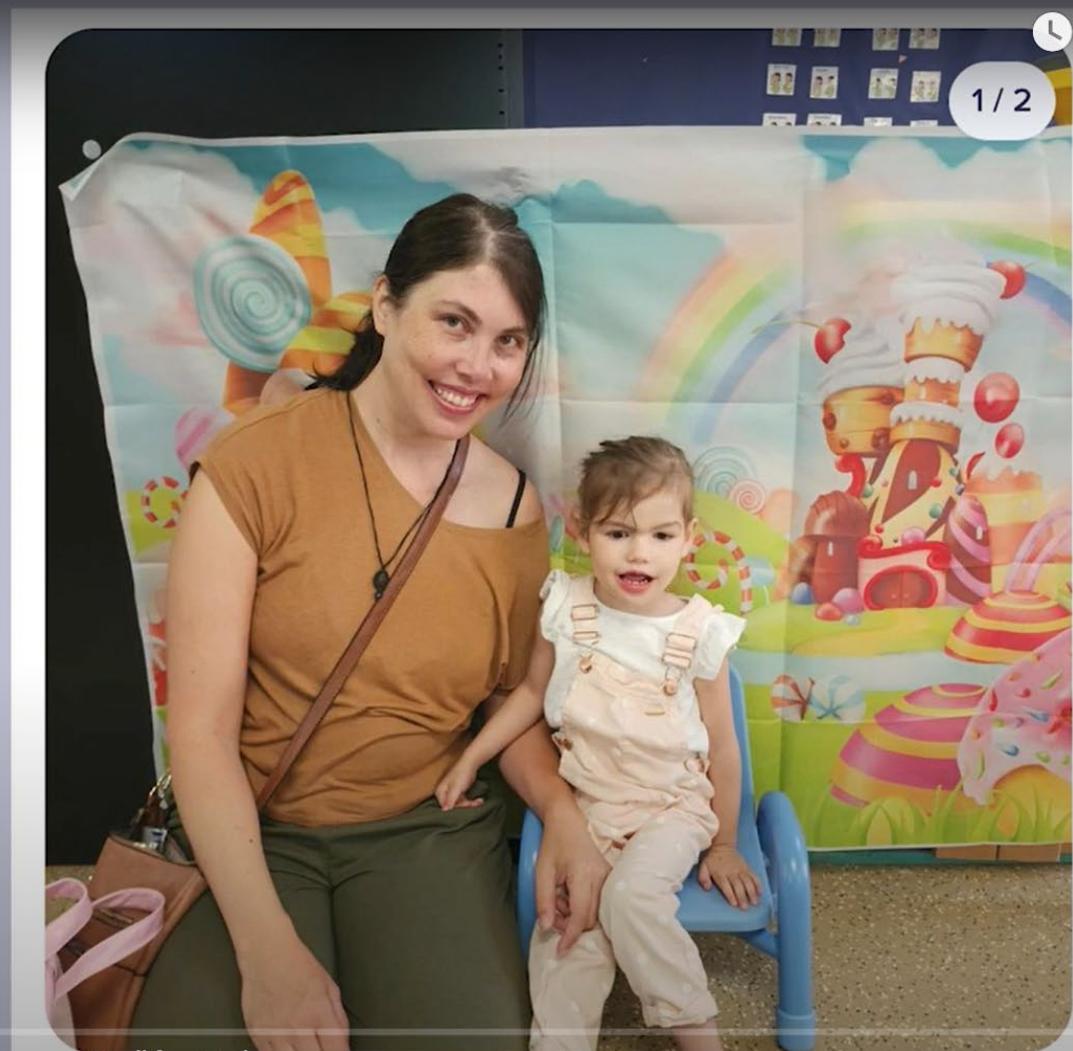
Image: Unite Newborn Screening Training (Jan. 2024), Division of Maternal & Infant Health and Lifecourse Epidemiology and Genomics Division, Michigan Department of Health and Human Services.

# 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/Vq1aRalghi4?si=ANNUukFvKMM3yjo1](https://youtu.be/Vq1aRalghi4?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*

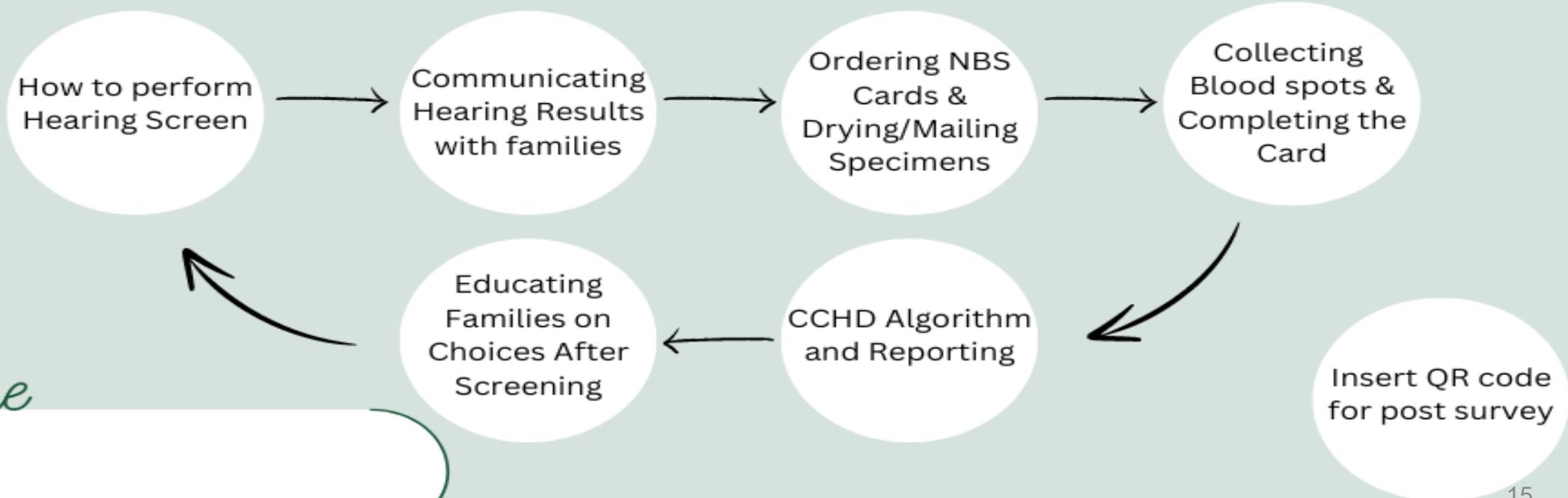




Image: Unite Newborn Screening Training (Jan. 2024), Division of Maternal & Infant Health and Lifecourse Epidemiology and Genomics Division, Michigan Department of Health and Human Services.



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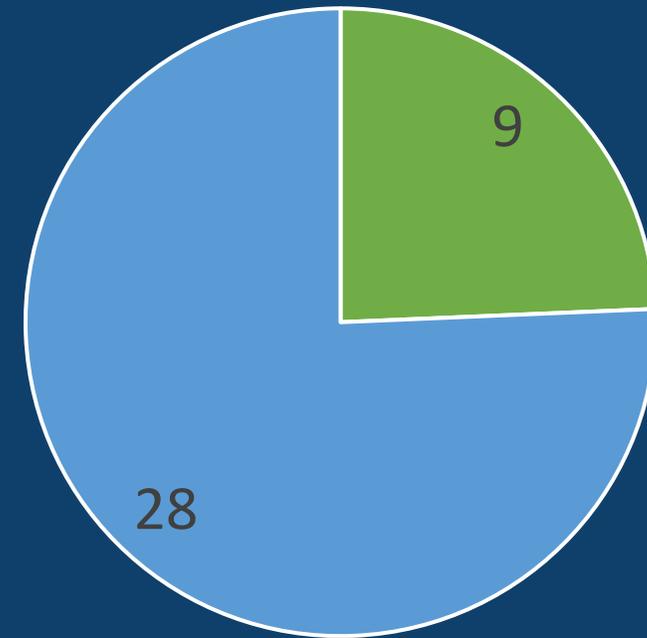
# Training Outcomes

- **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)



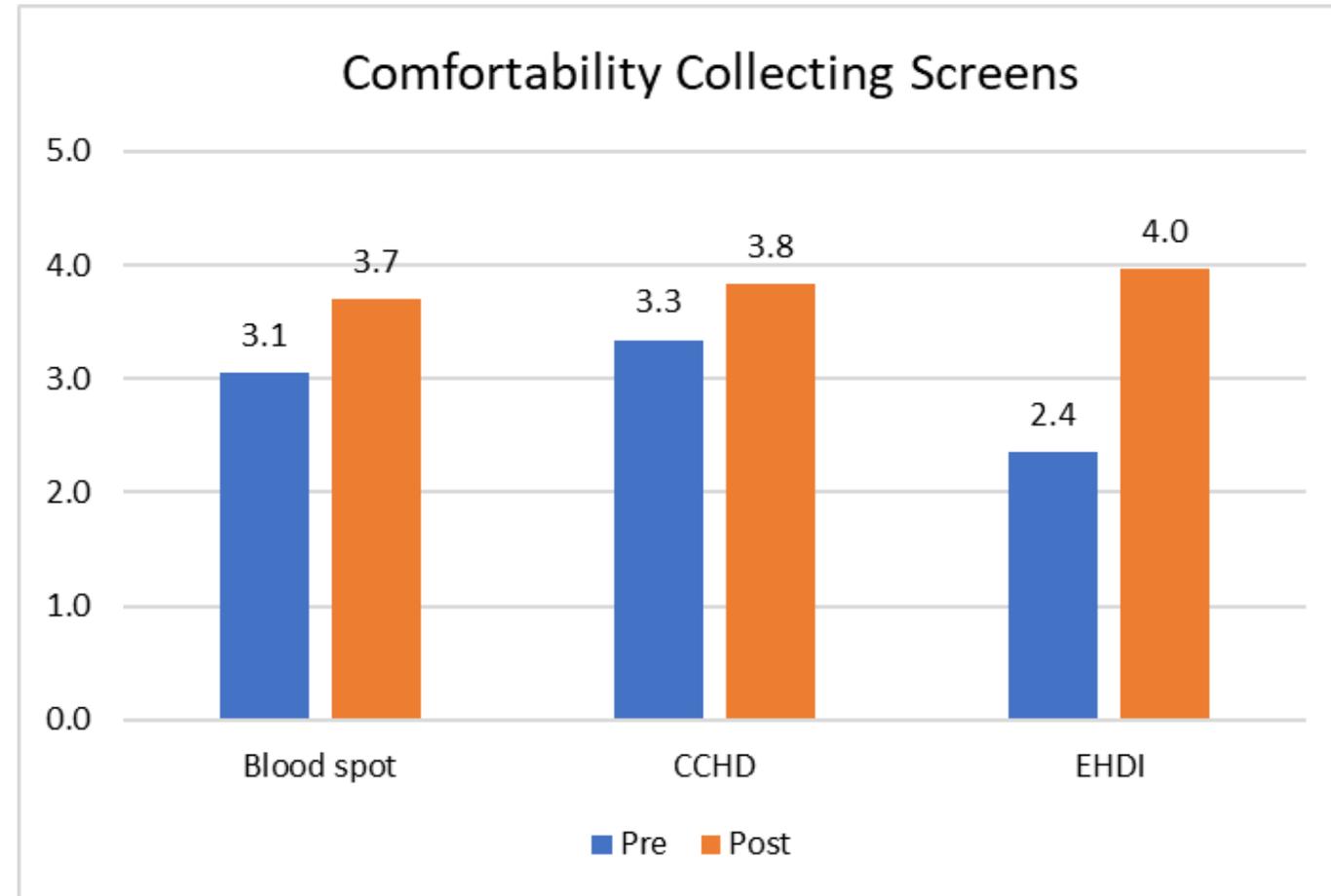
■ Virtual ■ In-Person

# Results and Impact

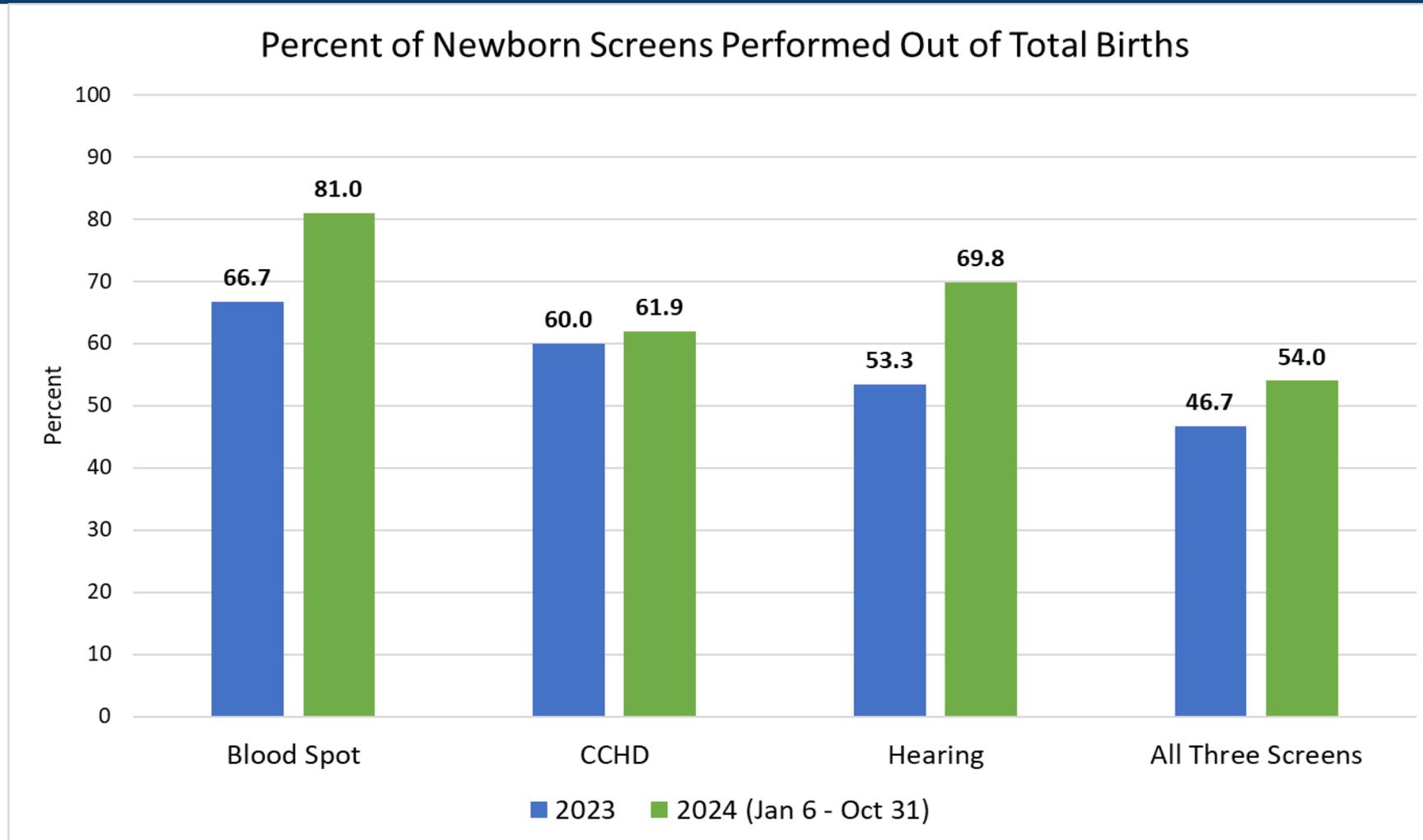
- **Increased Comfort Levels:**
  - Self-reported improvements in comfort with all three screening types (Hearing, DBS, CCHD).
- **Improved Screening Rates:**
  - Data shows increased screening rates post-training.

# 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?

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