

# **The Places We Go After a Ripple; The Effects of the Lucas County Learning Collaborative EHDI Annual Conference 2023**

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# Learning Objectives

1. Review the key strategies used to create community partnerships and determine the level of improvement post Learning Collaborative work.
2. Identify how the Learning Collaborative has benefited the community by reviewing data indicators and further improvements to the EHDI system.
3. Describe how using an integrated services approach creates innovative changes statewide.

# A Three-Year Learning Collaborative



- HRSA Quality Improvement Project.
- November 2017 to March 2020.
- One County in Ohio.
- Data metrics.
- Care coordination for the community for EHDI components and beyond.

# Data metrics

## Lucas County- Northwest Ohio:

- Birth, screening, and lost to follow up rates.
- Maternal metrics: maternal age, demographics, race, and ethnicity.
- Ohio Equity Institute.

## Lucas County, OH

Peer Group: Urban, Up-and-Coming



POPULATION

**428,348**

LAND AREA

**340** SQ MI

<https://www.usnews.com/news/healthiest-communities/ohio/lucas-county>

# Goals of Lucas County Learning Collaborative (LCLC)- Key Strategies

- Community based workgroup.
- Key stakeholders engaged.
- Increase in coordination of services-EHDI.
- Identification of hearing loss/deafness and referral/enrollment in Early Intervention.
- Professional and parent partnerships.
- Creation of access points of care.

# Data, Then and Now

**Table 1. Lucas County Screening Results**

Year (Total Births)	Passes	Refers	Missed	Total Screened
<b>2017</b> (n=7,733)	96.0% (n=7,424)	2.9% (n=225)	1.1% (n=84)	98.9% (n=7,649)
<b>2018</b> (n=5,375)	94.4% (n=5,024)	4.0% (n=219)	1.6% (n=118)	95.7% (n=5,142)
<b>2019</b> (n=5,194)	94.3% (n=4,896)	4.5% (n=231)	1.2% (n=64)	98.7% (n=5,127)
<b>2020</b> (n=5,145)	92.8% (n=4,774)	5.6% (n=289)	0.7% (n=38)	98.4% (n=5,063)

**Table 2. Lucas County Diagnostic Results after Screening Referral**

Year (Referrals)	Loss	No Loss	Transient	LTFU	Total Follow-Ups
<b>2017</b> (n=225)	6.7% (n=15)	58.2% (n=131)	2.2%	22.2% (n=50)	67.1% (n=151)
<b>2018</b> (n=219)	6.5% (N=10)	63.0% (n=138)	3.9%	28.8% (N=63)	70.0% (N=154)
<b>2019</b> (n=231)	11.9% (n=19)	83.8% (n=134)	4.4%	30.1% (n=71)	69.3% (n=160)
<b>2020</b> (n=289)	3.5% (n=10)	93.9% (n=186)	2.5%	27.7% (n=80)	69.5% (n=198)

**Table 3. Lucas County EI Enrollment Results after Screening Referral & Permanent Loss Found**

Year	Enrolled	LTFU
<b>2017</b>	26.7%	33.3%
<b>2018</b>	25.0%	50.0%
<b>2019</b>	42.3%	31.6%
<b>2020</b>	57.1%	14.3%

# Maternal Demographics

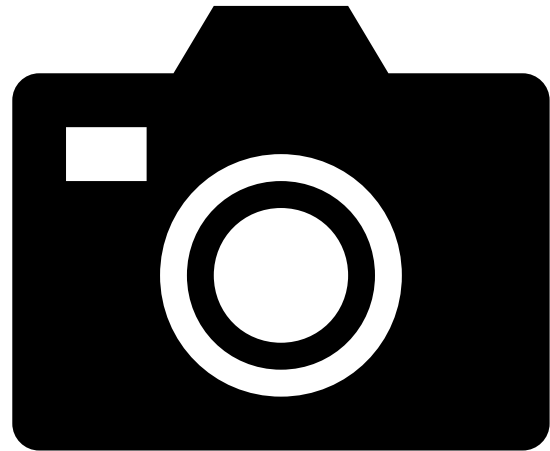
	Percentages				
	Total Live Births	Total Pass	Total Referred	Total with Diagnostic Follow-up	Total with No Diagnostic Follow-up
Totals	5194	4896	231	141	90
<b>Maternal Age</b>					
<15 years	0.04%	0.04%	0.00%	0.00%	0.00%
15-19 years	5.78%	5.80%	6.06%	7.09%	4.44%
20 – 24 years	23.53%	23.37%	27.71%	21.28%	37.78%
<b>25-34 years</b>	<b>58.55%</b>	<b>58.62%</b>	<b>56.71%</b>	<b>61.70%</b>	<b>48.89%</b>
35 – 50 years	12.11%	12.17%	9.52%	9.93%	8.89%
> 50 years	0.00%	0.00%	0.00%	0.00%	0.00%
Unknown	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Maternal Education</b>					
Less than High School	13.77%	13.68%	16.02%	14.18%	18.89%
<b>High School Graduate or GED</b>	<b>31.00%</b>	<b>30.84%</b>	<b>34.63%</b>	<b>27.66%</b>	<b>45.56%</b>
Some College or AA/AS degree	31.44%	31.45%	32.90%	34.04%	31.11%
College Graduate or above	23.78%	24.02%	16.45%	24.11%	4.44%
Unknown	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Maternal Ethnicity</b>					
Hispanic or Latino	8.61%	8.54%	11.69%	10.64%	13.33%
<b>Not Hispanic or Latino</b>	<b>91.36%</b>	<b>91.44%</b>	<b>88.31%</b>	<b>89.36%</b>	<b>86.67%</b>
Unknown	0.04%	0.02%	0.00%	0.00%	0.00%
<b>Maternal Race</b>					
<b>White (Not Hispanic)</b>	<b>60.38%</b>	<b>60.60%</b>	<b>54.11%</b>	<b>56.74%</b>	<b>50.00%</b>
White (Hispanic)	6.06%	5.90%	10.39%	9.22%	12.22%
White (Ethnicity Unknown)	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Black or African American (Not Hispanic)</b>	<b>29.42%</b>	<b>29.19%</b>	<b>34.20%</b>	<b>32.62%</b>	<b>36.67%</b>
Black or African American (Hispanic)	0.71%	0.74%	0.43%	0.00%	1.11%
Black or African American (Ethnicity Unknown)	0.00%	0.00%	0.00%	0.00%	0.00%
Asian	1.46%	1.55%	0.00%	0.00%	0.00%
Native Hawaiian or Pacific Islander	0.00%	0.00%	0.00%	0.00%	0.00%
American Indian or Alaskan Native	0.12%	0.12%	0.00%	0.00%	0.00%
Unknown	0.10%	0.08%	0.00%	0.00%	0.00%
Other	1.75%	1.82%	0.87%	1.42%	0.00%

	Percentages				
	Percentages	Total Pass	Total Referred	Total with Diagnostic Follow-up	Total with No Diagnostic Follow-up
<b>Maternal Age</b>					
<15 years	0.08%	0.08%	0.00%	0.00%	0.00%
15-19 years	6.69%	6.66%	5.54%	4.57%	7.61%
20 – 24 years	23.42%	23.31%	26.64%	22.34%	35.87%
<b>25-34 years</b>	<b>56.29%</b>	<b>56.28%</b>	<b>56.75%</b>	<b>59.90%</b>	<b>50.00%</b>
35 – 50 years	13.45%	13.59%	11.07%	13.20%	6.52%
> 50 years	0.00%	0.00%	0.00%	0.00%	0.00%
Unknown	0.08%	0.06%	0.00%	0.00%	0.00%
<b>Maternal Education</b>					
Less than High School	14.99%	15.06%	13.84%	10.66%	20.65%
<b>High School Graduate or GED</b>	<b>30.22%</b>	<b>29.85%</b>	<b>39.45%</b>	<b>37.06%</b>	<b>44.57%</b>
Some College or AA/AS degree	30.30%	30.33%	30.80%	29.95%	32.61%
College Graduate or above	24.30%	24.72%	15.92%	22.34%	2.17%
Unknown	0.19%	0.10%	0.00%	0.00%	0.00%
<b>Maternal Ethnicity</b>					
Hispanic or Latino	8.40%	8.23%	11.07%	9.64%	14.13%
<b>Not Hispanic or Latino</b>	<b>91.43%</b>	<b>91.64%</b>	<b>88.58%</b>	<b>90.36%</b>	<b>84.78%</b>
Unknown	0.17%	0.13%	0.35%	0.00%	1.09%
<b>Maternal Race</b>					
<b>White (Not Hispanic)</b>	<b>60.31%</b>	<b>61.04%</b>	<b>51.21%</b>	<b>54.31%</b>	<b>44.57%</b>
White (Hispanic)	5.64%	5.47%	7.61%	6.09%	10.87%
White (Ethnicity Unknown)	0.10%	0.08%	0.35%	0.00%	1.09%
<b>Black or African American (Not Hispanic)</b>	<b>29.27%</b>	<b>28.72%</b>	<b>36.33%</b>	<b>35.03%</b>	<b>39.13%</b>
Black or African American (Hispanic)	0.97%	0.92%	2.08%	1.52%	3.26%
Black or African American (Ethnicity Unknown)	0.00%	0.00%	0.00%	0.00%	0.00%
Asian	1.46%	1.53%	0.69%	0.51%	1.09%
Native Hawaiian or Pacific Islander	0.00%	0.00%	0.00%	0.00%	0.00%
American Indian or Alaskan Native	0.29%	0.27%	0.35%	0.51%	0.00%
Unknown	0.12%	0.06%	0.00%	0.00%	0.00%
Other	1.85%	1.91%	1.38%	2.03%	0.00%

# Some thoughts- What can we decipher after the LCLC work concluded?

- Health Belief Model (HBM) Hochbaum.
- End of LCLC work was on 3/31/2020; pandemic beginning and statewide closures in place for a few months. LCLC work ended in the first quarter; the data is representative of the entire year.
- Influencing factors are considered (COACH protocol, pandemic year, increased efforts and statewide education of medical home/professional toolkit).
- Maternal demographics (2019 and 2020) such as age, race, education and ethnicity as contributing factors.
- Early Intervention (EI) enrollment post identification of Hearing Loss/Deafness (HL/D) increased as a result of coordination of care and proper handoffs. Lost to follow-up for EI enrollment decreased.
- Coordination of EHDI and ongoing efforts to increase collaboration are evident.





# Snapshot of LCLC efforts

- Education and training for:
  - American Academy of Pediatrics (AAP) Ohio Workgroup for Children with Disabilities.
  - Public Health Nurses for Children with Medical Handicaps (PHN- CMH).
  - Pediatric Residents' lectures- live and recorded.
- Publications.
- Parent meetings at the local library.
- Medical home and parent and professional guidance documents, medical home toolkit.
- Cross collaboration with local level partners and parents in Lucas County.

# LCLC Core Members

1. ENT Physician.
2. Audiologist(s).
3. Family member(s)/parent(s) of deaf or hard of hearing children.
4. Family Engagement Provider.
5. UNHS Coordinator(s).
6. LEND program representative.
7. Primary Care Physicians (2).
8. Educational audiologist.
9. EI service providers (2 -County coverage).
10. Local Public Health Nurses(PHN) with Children with Medical Handicaps (CMH)Program.
11. Speech Language Pathologists.

# Ongoing Efforts

- Updated website for the Ohio EHDI program.
- Collaborative efforts with pediatric audiologists statewide; revision of the diagnostic protocols for testing newborns post non pass UNHS.
- Use of EHDI PALS website to increase access to updated pediatric diagnostic sites.
- Use of QR codes on parent letters and translation of parent letters in 12 languages.
- Ongoing coordinated efforts with a Family Support Agency and subgrantees.

# Future Directions= Sustainability

- Use of previous materials (PDSA- QI tested) such as medical home toolkit, parent and professional guidance documents.
- Collaboration with other programs statewide that service the same population, focusing on maternal programs, prenatal programs and programs that have ongoing connections such as local health departments, WIC, home visiting, early intervention and other public health programs to reach populations with highest percentages of lost to follow-up.
- Using updated platforms- websites, and other electronic sources to share materials and assist with accessing information.
- Continued presentations to various groups to provide updates related to EHDI and beyond.

# Co-Contributors

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# Contact Information



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<https://odh.ohio.gov/know-our-programs/infant-hearing-program/welcome>