

Ensuring EHDI During Time of Crisis and the Impact on Existing Health Disparities

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Meet the Team



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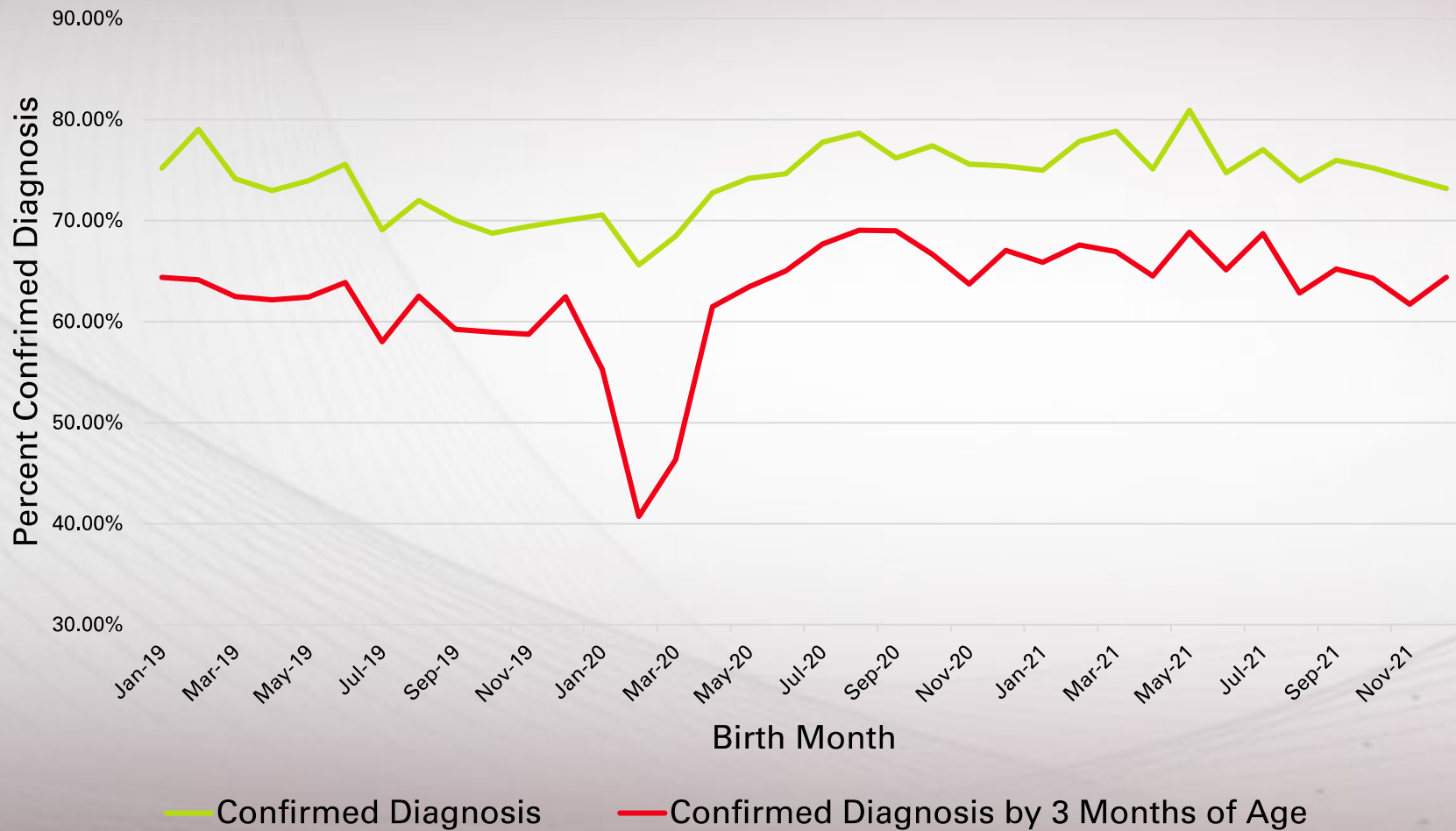
Learning Outcomes

1. Participants will be able to list two major changes to Ohio's diagnostic scheduling procedures during the COVID-19 pandemic.
2. Participants will be able to identify health disparities in Ohio's EHDI LTFU rates prior to the COVID-19 pandemic.
3. Participants will be able to identify areas where health disparities improved, worsened, or stayed the same because of the diagnostic scheduling changes.

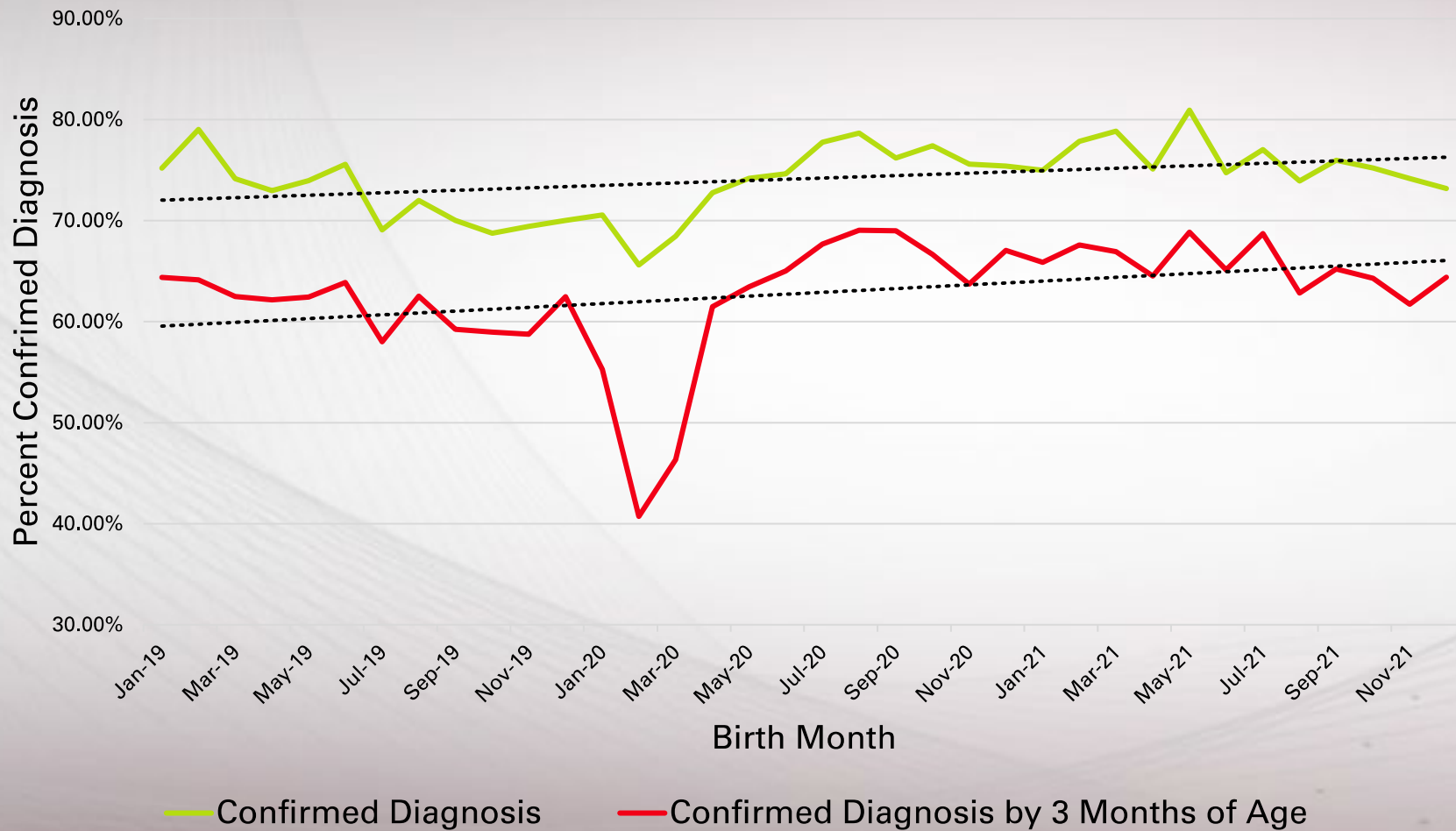
Data Background and Study Goals

- Data utilized is from final annual reports to the CDC for birth years 2019, 2020, and 2021.
- Goal of this study is to examine trends of confirmed diagnoses after screening referrals and age of diagnosis.
- Examine trends from three groups that consistently see disparities in various parts of EHDI follow-up and care.
 - Birth coverage by Medicaid compared to Private Insurance.
 - Receiving WIC compared to not receiving WIC benefits.
 - Non-Hispanic Black compared to Non-Hispanic white mothers.

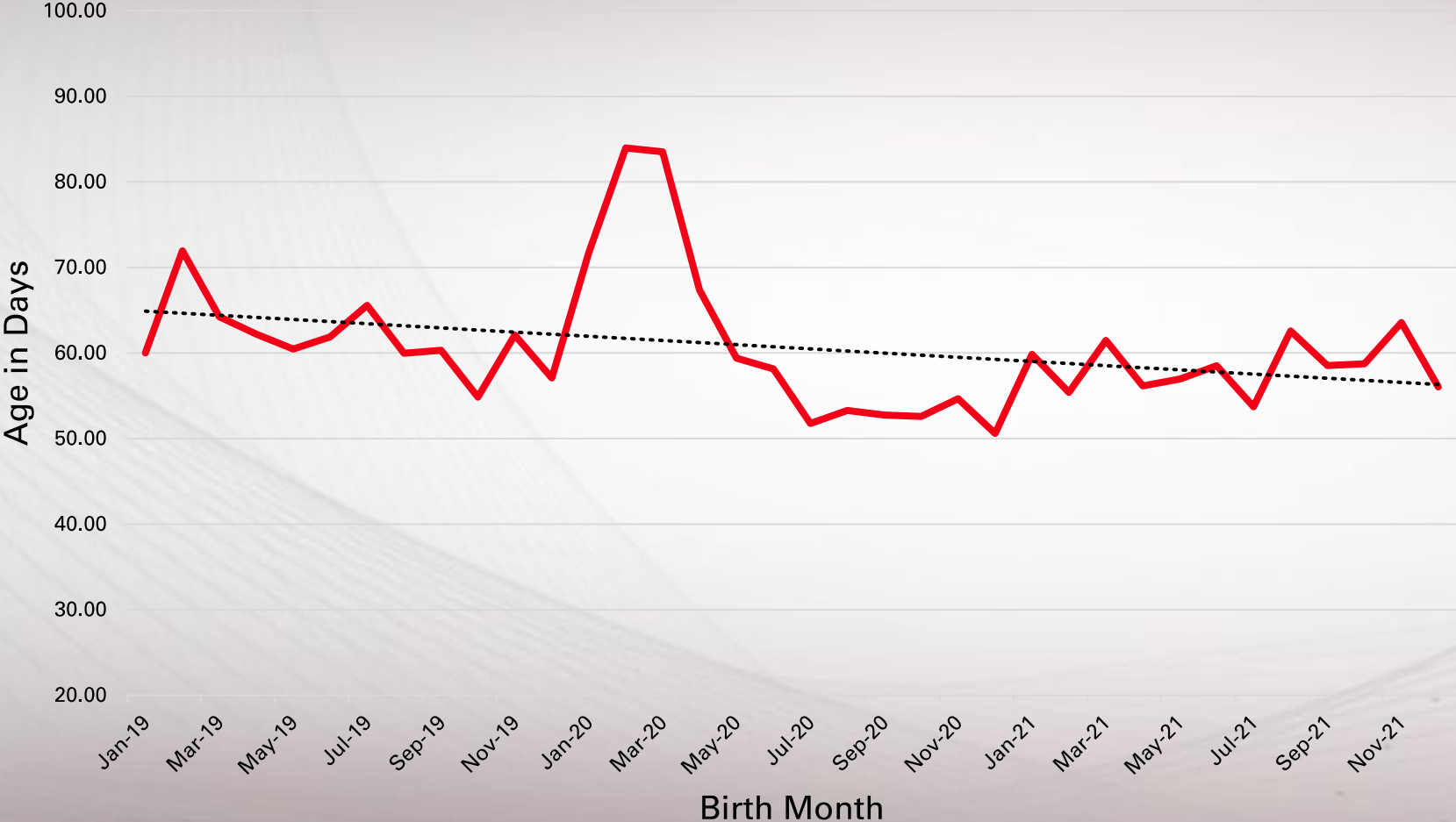
Percent of Infants with a Confirmed Diagnosis after a Screening Referral



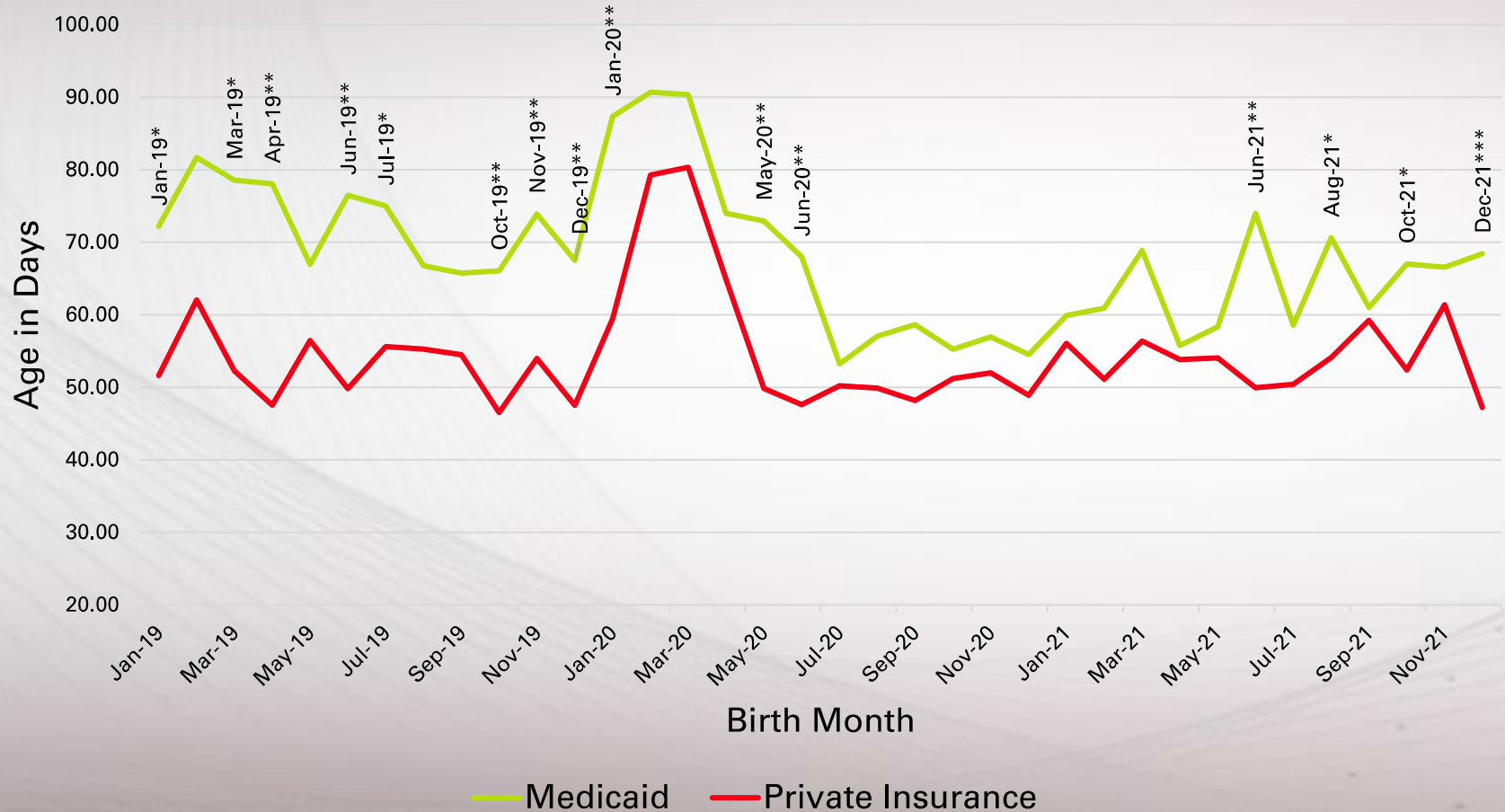
Percent of Infants with a Confirmed Diagnosis after a Screening Referral



Infants Mean Age of Confirmed Diagnosis after a Screening Referral by Birth Month

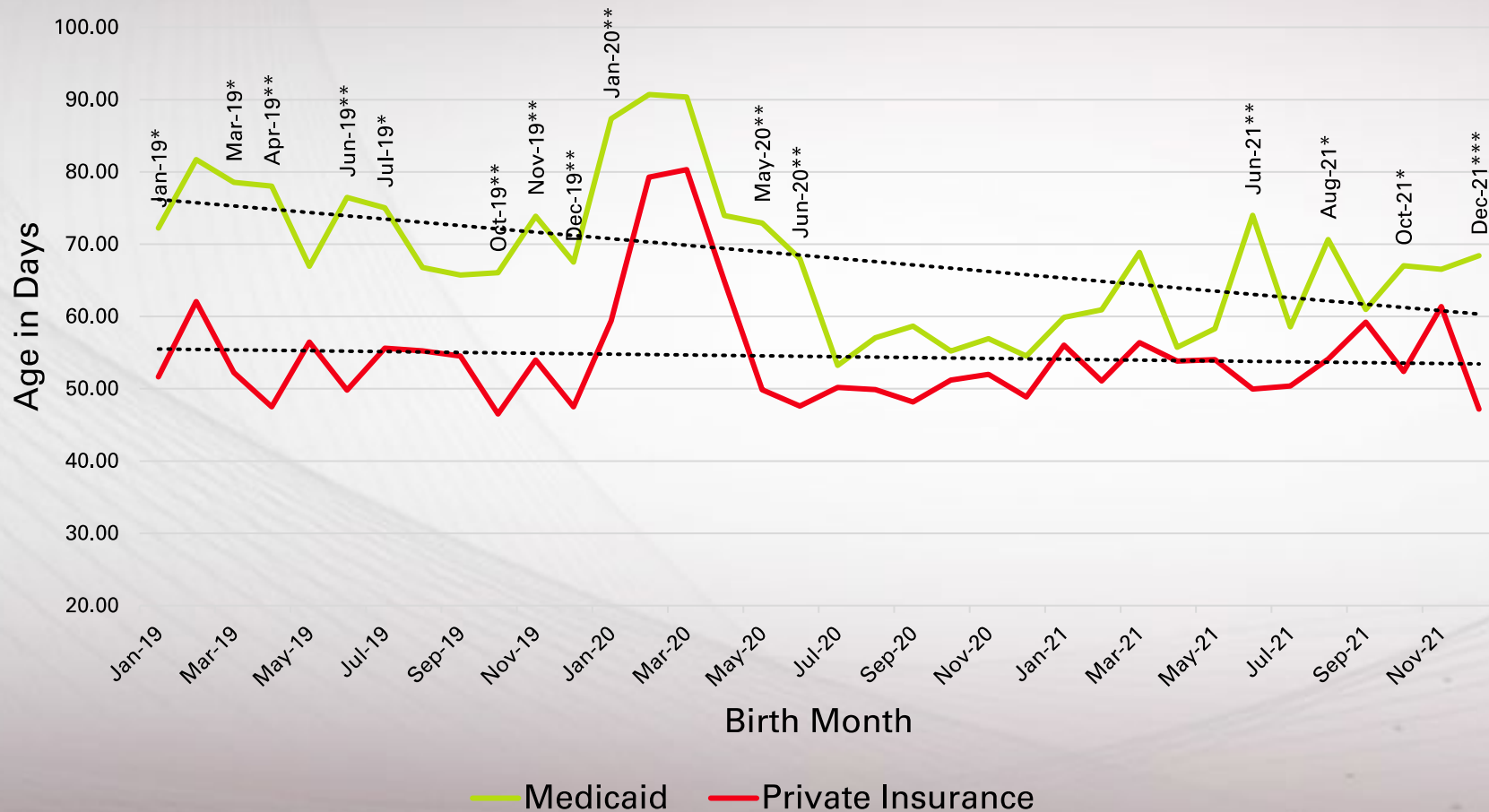


Infants Mean Age of Confirmed Diagnosis after a Screening Referral by Birth Month for Payment of Birth with Medicaid and Private Insurance



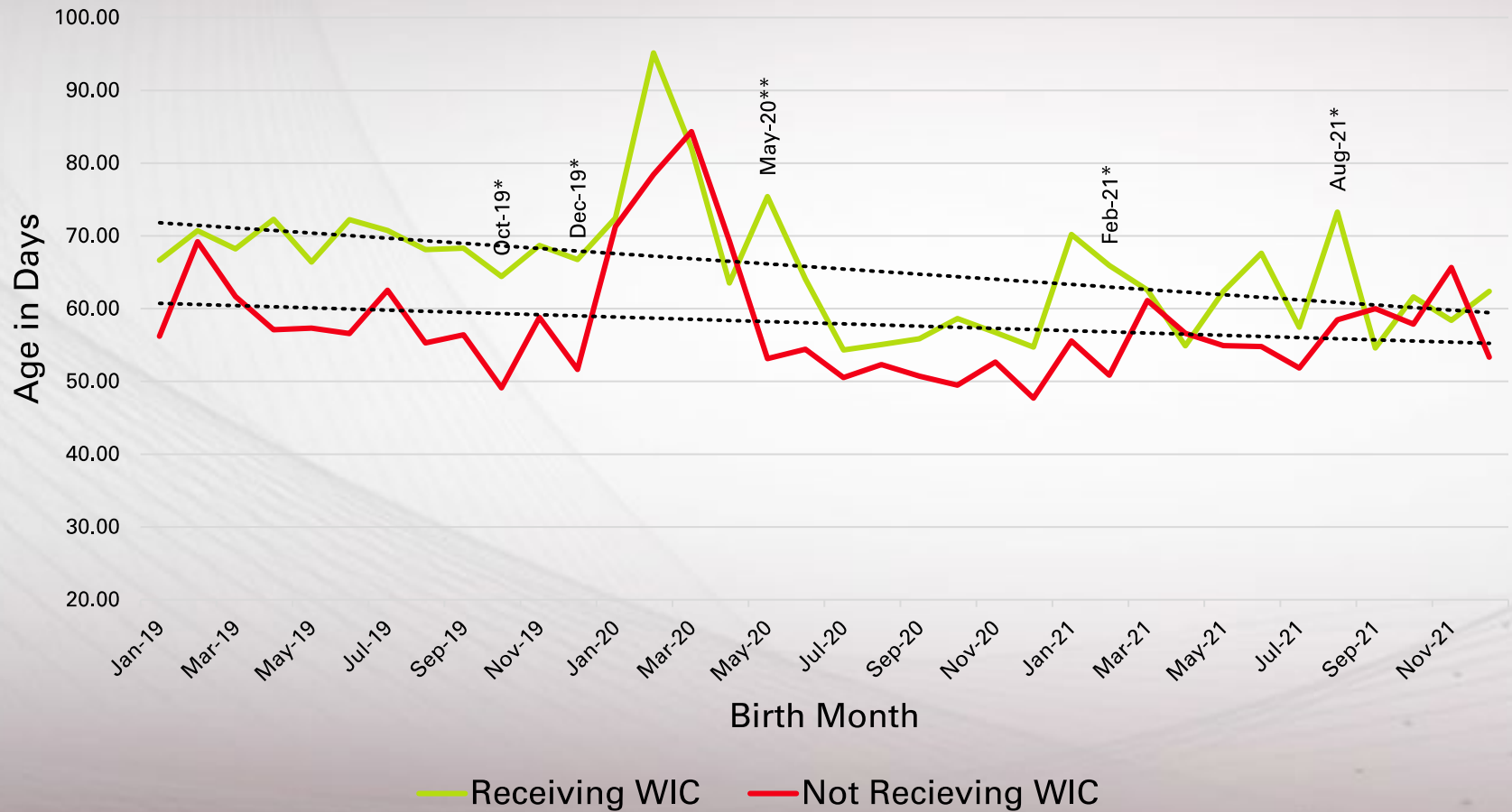
Note: T-test indicated a significant difference between means; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Infants Mean Age of Confirmed Diagnosis after a Screening Referral by Birth Month for Payment of Birth with Medicaid and Private Insurance



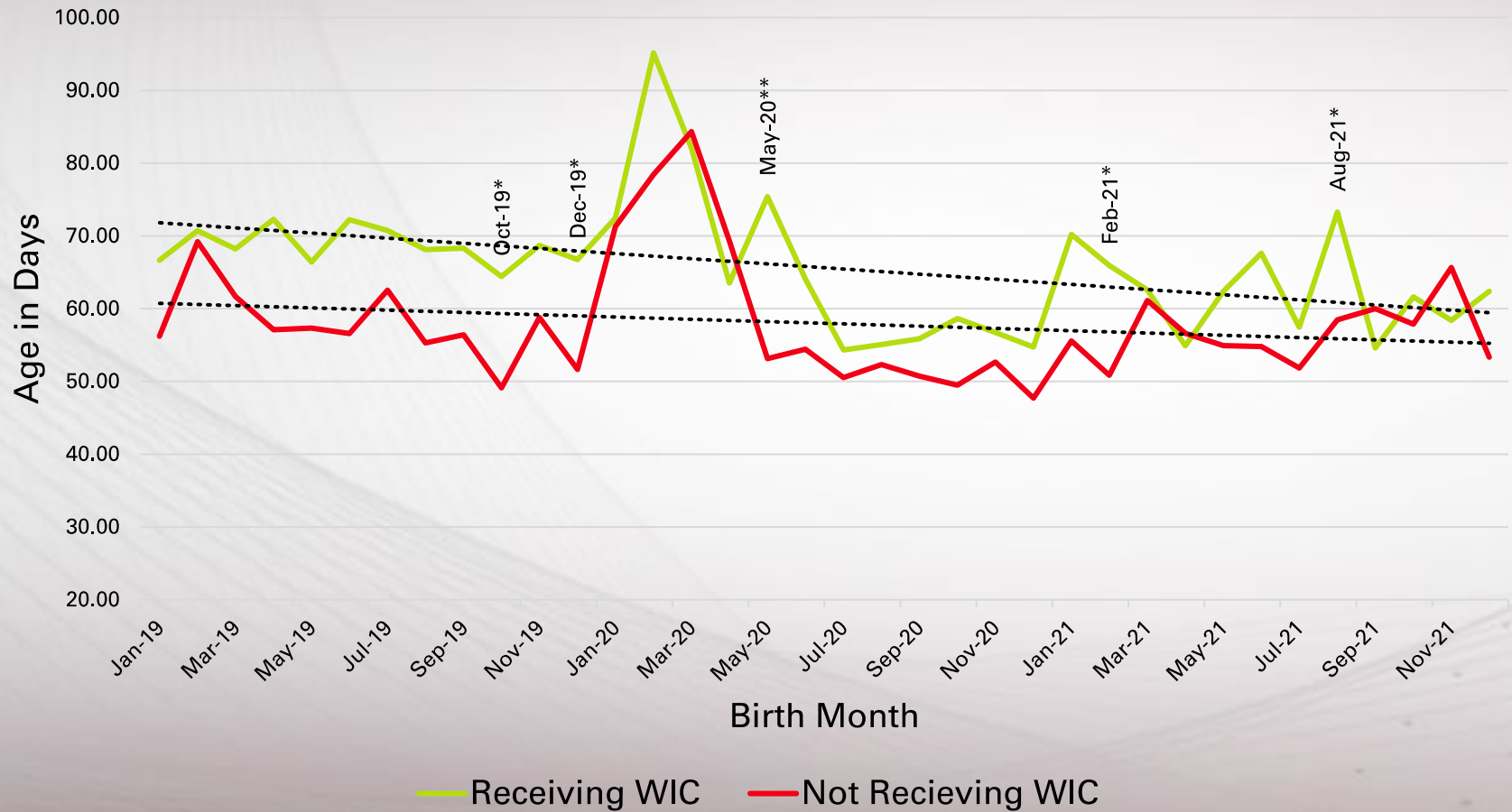
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Infants Mean Age of Confirmed Diagnosis after a Screening Referral by Birth Month for Families Receiving and not Receiving WIC



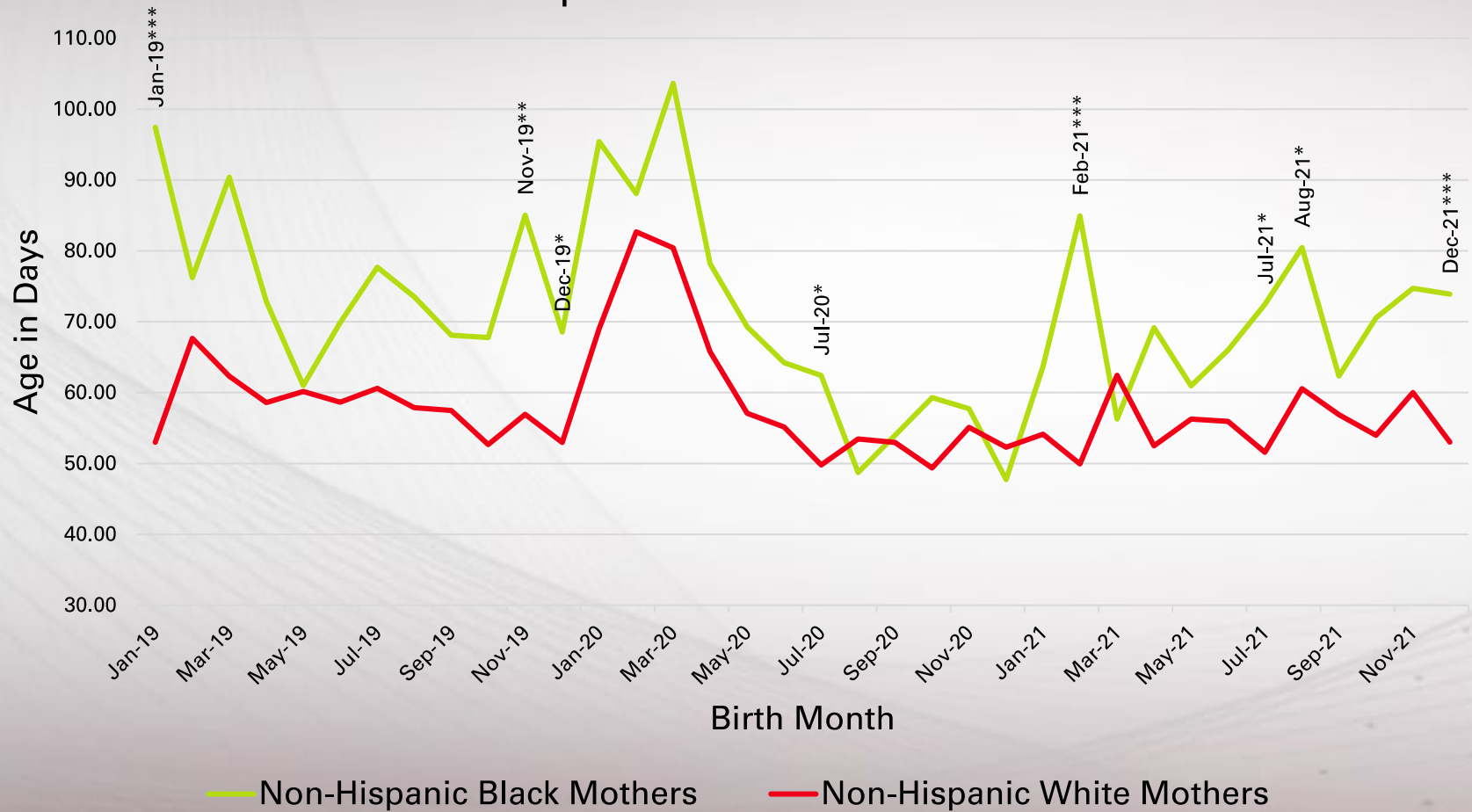
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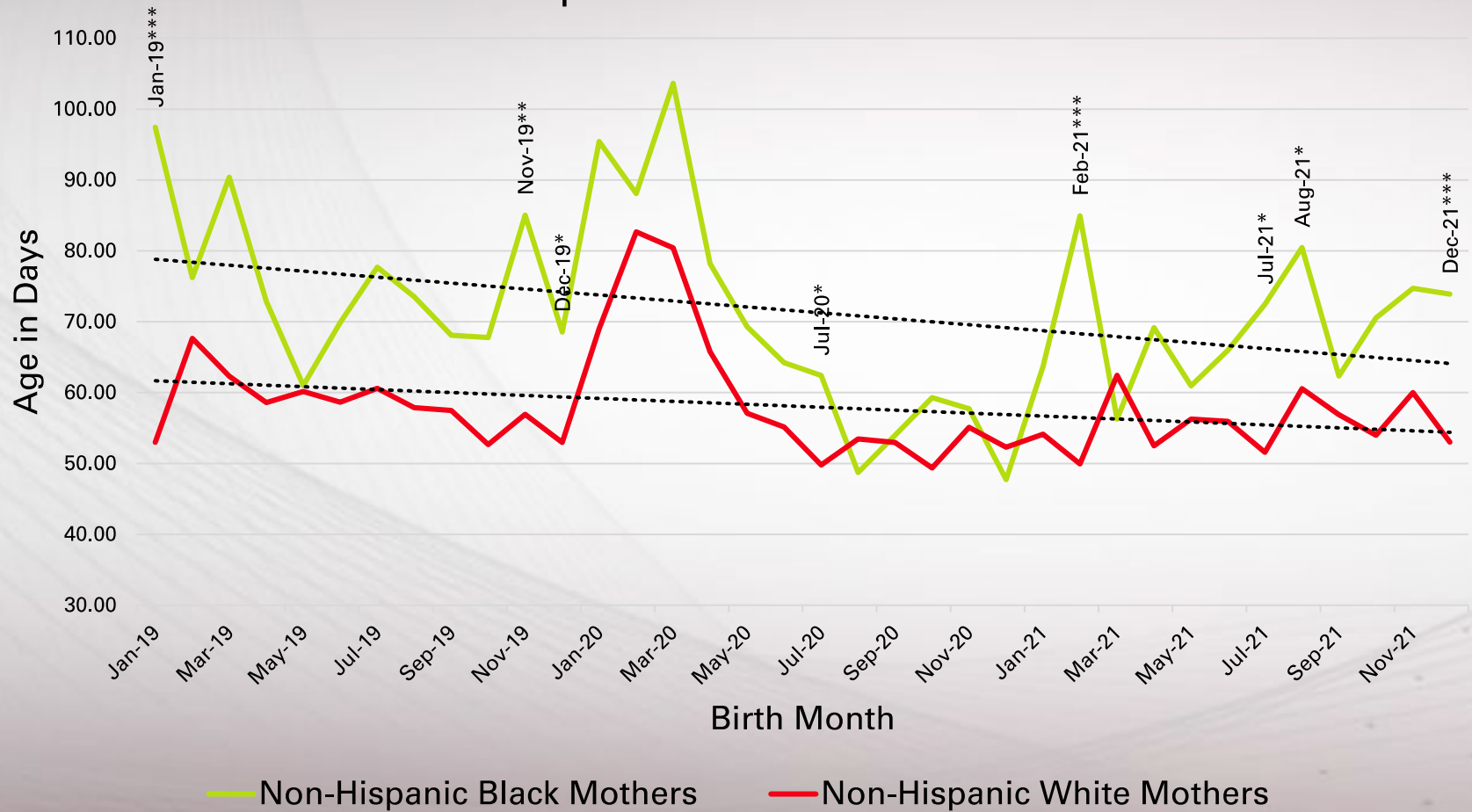
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Infants Mean Age of Confirmed Diagnosis after a Screening Referral by Birth Month for Non-Hispanic Black and Non-Hispanic White Mothers



Note: T-test indicated a significant difference between means; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Infants Mean Age of Confirmed Diagnosis after a Screening Referral by Birth Month for Non-Hispanic Black and Non-Hispanic White Mothers



Note: T-test indicated a significant difference between means; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Key Findings

- Despite COVID-19 disruptions to EHDI, Ohio has continued to see increases in confirmed diagnoses after a screening referral from 2019 through 2021.
- Continued increases in diagnosis by 3 months of age.
- Reduction in age to confirmed diagnosis overall.
- Faster decreases in age to diagnosis present for:
 - Families paying for birth using Medicaid compared to Private Insurance.
 - Families receiving WIC compared to not receiving WIC benefits.
 - Non-Hispanic Black mothers compared to Non-Hispanic white mothers.

Potential Contributors

- Community Collaboration with stakeholders 2016-2022.
- COACH Diagnostic Protocol.
- AWG COVID Guidelines for Scheduling/Triaging.

COACH Protocol

- IHSS-endorsed state-wide protocol for evidence-based diagnosis of congenital hearing loss instituted in 2016.
- Using protocols that prioritize frequency-specific ABR testing has been shown to decrease age at diagnosis. (Findlen et al., 2019)

Audiology Work Group (AWG)

Established: 2020

Goal: To provide evidence-based guidance to diagnostic centers regarding the implementation of triage/prioritization for the catch-up phase of diagnostic testing in Ohio.

Expected Outcomes:

1. To ensure timely diagnosis (by 3 months of age or as soon as possible).
2. To reduce loss-to follow-up that can occur as a result of interruption of typical clinical service delivery during national or global crises.

Audiology Work Group

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Triaging & Scheduling

Priority 1	Priority 2	Priority 3
<ul style="list-style-type: none">▪ Bilateral referral > 6 weeks of age	<ul style="list-style-type: none">▪ Bilateral referral < 6 weeks of age▪ Unilateral referral > 6 weeks of age	<ul style="list-style-type: none">▪ Unilateral referral < 6 weeks of age
<ul style="list-style-type: none">▪ Schedule ASAP, preferably within 2 weeks	<ul style="list-style-type: none">▪ Schedule within 1 month	<ul style="list-style-type: none">▪ Schedule in 1-2 months

Considerations:

- **Current age** of infant must be taken into account- schedule older infants first.
- Associated **Risk Factors**- schedule infants with more risk factors first.
- If laterality of screening unknown, assume bilateral.

Conclusions

- Collaborative efforts between EHDI programs and community stakeholders can have measurable impact on diagnosis completion rates and age at diagnosis.

Limitations

- This study only looks at those families who received a diagnosis.
- True uptake of recommended guidelines is unknown and will be the subject of future studies.

Next Steps

- Examine trends to see if disparities persist or begin to widen again.
- Further examine possible reasons in reductions of time to diagnosis and reduced disparities.
- Survey providers to see sustainability of changes implemented based upon the Audiology Work Group guidelines and recommendations to better understand changes made across Ohio.

References

- Findlen, U. M., Hounam, G. M., Alexy, E., & Adunka, O. F. (2019). Early hearing detection and intervention: timely diagnosis, timely management. *Ear and Hearing, 40*(3), 651-658.

Thank you!

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