Peripartum Testing Protocols: A Common Sense Approach

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- I have no disclosures.

Caveats/definitions

- Birthing persons/pregnant people/pronouns
- Breast/chestfeeding
- DCF

The Administration's vision is that all pregnant women with SUD will be identified early in pregnancy and prioritized to receive evidence-based treatment, services, and other recovery and social supports. Health care delivery will be well coordinated to optimize outcomes for families and prevent foster care placement where possible. Clear coordination of health care and early childhood systems, including public health, early learning, courts, child welfare systems, and family economic supports will optimize the outcomes for infants and pregnant women with SUD.

5. Improving coordination of public health, criminal justice systems, treatment and early childhood systems can optimize outcomes and reduce disparities.

3. Everyone has the right to effective treatment, and denying such care on the basis of sex or disability is a violation of civil rights.[23]
4. Pregnant women using substances or having SUD, should be encouraged to access support and care systems, and barriers to access should be addressed, mitigated, and eliminated where possible.
5. Improving coordination of public health, criminal justice systems, treatment and early childhood systems can optimize outcomes and reduce disparities.

Substance Use Disorder in Pregnancy:
Improving Outcomes for Families
(The White House
Executive Office of the President
Office of National Drug Control Policy)
Published 10/2022

Learning Objectives

- Reconsider the clinical utility of toxicology testing in the peripartum period, for both pregnant/birthing person and newborn
- Examine the inequitable impact of peripartum toxicology testing on patients and families
- Describe the relative benefits and risks of universal or selective peripartum toxicology testing protocols
- Appreciate the effect of instituting an objective protocol on rates of newborn toxicology testing and health equity

Patient 1

Healthy newborn delivered vaginally at 38w gestation, product of unremarkable pregnancy
Throughout pregnancy, mom told OB team about ongoing cannabis use to improve appetite & help with sleep
Maternal urine toxicology + for cannabis throughout pregnancy & at delivery
No prior Connecticut Department of Children and Families (DCF) involvement for two older children
SW consulted, no DCF referral
No toxicology testing on newborn requested by SW or DCF
Discharged as planned in AM
Discharged home with parents no DCF involvement
Mom is White

Patient 2

Healthy newborn delivered vaginally at 37w gestation, product of an unremarkable pregnancy
At the time of discharge, mom told RN about cannabis use during pregnancy to improve appetite & help with sleep
Maternal urine toxicology test + for cannabis after delivery
Prior DCF involvement for older sibling not able to participate in virtual school due to lack of internet access
SW consulted, DCF referral made
DCF requested toxicology testing on newborn
DCF took >8hrs to see patient, delaying discharge til 7pm
Discharged home with parents and DCF follow up
Mom is Black

Patient 1	Relevant differences	Patient 2
Throughout pregnancy, mom told OB team about ongoing cannabis use to improve appetite & help with sleep	FEAR OF CONSEQUENCES LEADS TO LACK OF DISCLOSURE[1]	At the time of discharge, mom told RN about cannabis use during pregnancy to improve appetite & help with sleep
No prior DCF involvement for two older children	COMPOUNDING THE EFFECTS OF POVERTY, STIGMA ASSOCIATED WITH PRIOR “CHILD PROTECTICE SERVICES” INVOVLVEMENT[1]	Prior DCF involvement for older sibling not being able to participate in virtual school due to lack of internet access
No toxicology testing on newborn requested	EVIDENCE TO SUBSTANTIATE CLAIMS OF HARM[2]	DCF requested toxicology testing on newborn
Mom is White	INSTITUTIONALIZED AND PERSONALLY MEDIATED RACISM[3]	Mom is Black

What are the effects of use during pregnancy?

Substance A

- Possible increased risk of stillbirth
- Possible increased risk of preterm birth (mixed data)
- Possible increased risk of fetal growth restriction (mixed data)
- Possible adverse effects on neurodevelopment
- No established association with specific congenital anomalies

American Journal of Obstetrics & Gynecology DEC 2015 761-778

Substance B

- Preterm delivery
- Poor intrauterine growth
- Abnormal facies and other structural problems (heart/limb/brain)
- Withdrawal
- Neuromuscular problems e.g. seizures, gross motor problems
- Behavioral, attention & cognitive problems leading to school difficulty
- Autism
- Increased risk of psychiatric disorders
- Socio-economic vulnerability
- Premature death

Addiction, March 2020, Volume: 115, Issue: 11: 2148-2163

Substance C

- Miscarriage, stillbirth or preterm delivery
- Poor intrauterine growth
- SIDS or other infant death
- Birth defects including cleft lip/palate, clubfoot, gastroschisis, heart defects
- ADHD

Centers for Disease Control and Prevention [last updated 2017 Sep 29

What are the effects of post-natal parental use?

Substance A

- More likely that children will use cannabis and alcohol as adults.
- Risks associated with parental impaired judgement.

Psychol Addict Behav 2019 Sept 9

Substance B

- Highly variable effects, at least partially depending on how parents communicate about use.
- If use disorder is a contributor, potential for significant negative psychological effects.
- Risks associated with parental impaired judgement.

Multiple sources

Substance C

- Ear infections
- Lung infections
- Asthma and chronic lung disease
- Allergies
- SIDS

February 27, 2020 Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion

Which is most concerning?

CANNABIS

STRENGTH OF EVIDENCE: WEAK

Prenatal effects:

- Weak evidence for possible fetal growth restriction, possible effects on neurodevelopment
- Many unanswered research questions, recommendations tentative

Postnatal effects

- Possible higher risk of use of cannabis and alcohol as adults
- Risks related to parental impaired judgement

ALCOHOL

STRENGTH OF EVIDENCE: STRONG

Prenatal effects

- Strong evidence for adverse pregnancy outcomes, fetal growth restriction, structural problems, neuromuscular problems, potentially life-long psychiatric and neurocognitive effects up to and including premature death
- Evidence base and recommendations well established

Postnatal effects

- Highly variable post-natal effects
- Potentially significant psychological impacts if alcohol use disorder involved
- Risks related to parental impaired judgement

CIGARETTE SMOKING

STRENGTH OF EVIDENCE: STRONG

Prenatal effects

- Strong evidence for adverse pregnancy outcomes, fetal growth restriction, structural problems, increased risk for SIDS, potentially life-long neurocognitive effects
- Evidence base and recommendations well established

Postnatal effects

- Increased risk of SIDS
- Increased risk of ear infections, lung infections, asthma and chronic lung disease, allergies

- If we did toxicology testing with the intent of finding those things that were most concerning for the health of the pregnant patient, the viability of the pregnancy, and the health of the infant that may be born of the pregnancy, we would be testing for nicotine and alcohol metabolites.

Which is most concerning?

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Postnatal effects

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- Increased risk of ear infections, lung infections, asthma and chronic lung disease, allergies

POVERTY
STRENGTH OF EVIDENCE: STRONG

Prenatal effects

- Strong evidence for adverse pregnancy outcomes, fetal growth restriction, potentially life-long neurocognitive effects up to and including premature death

Postnatal effects

- Potentially significant psychological impacts
- Increased risks of accidents including accidental death
- Increased risk of illness including asthma and lung infections
- Increased risk of neurocognitive effects including unfulfilled potential educational and vocational achievement

Aber et al. THE EFFECTS OF POVERTY ON CHILD HEALTH AND DEVELOPMENT. *Annu. Rev. Public Health. 1997. 18:463–83*

What about other substances?

TABLE 2 Summary of Effects of Prenatal Drug Exposure

	Nicotine	Alcohol	Marijuana	Opiates	Cocaine	Methamphetamine
Short-term effects/birth outcome						
Fetal growth	Effect	Strong effect	No effect	Effect	Effect	Effect
Anomalies	No consensus on effect	Strong effect	No effect	No effect	No effect	No effect
Withdrawal	No effect	No effect	No effect	Strong effect	No effect	*
Neurobehavior	Effect	Effect	Effect	Effect	Effect	Effect
Long-term effects						
Growth	No consensus on effect	Strong effect	No effect	No effect	No consensus on effect	*
Behavior	Effect	Strong effect	Effect	Effect	Effect	*
Cognition	Effect	Strong effect	Effect	No consensus on effect	Effect	*
Language	Effect	Effect	No effect	*	Effect	*
Achievement	Effect	Strong effect	Effect	*	No consensus on effect	*

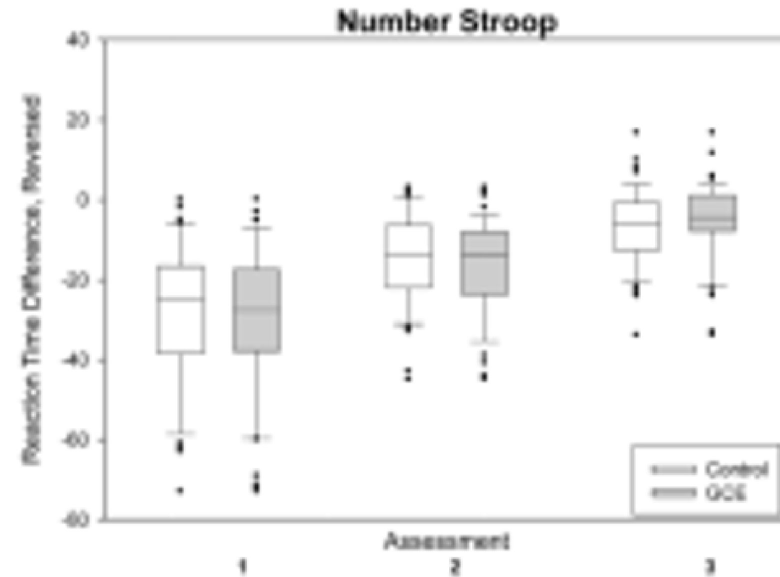
* Limited or no data available.

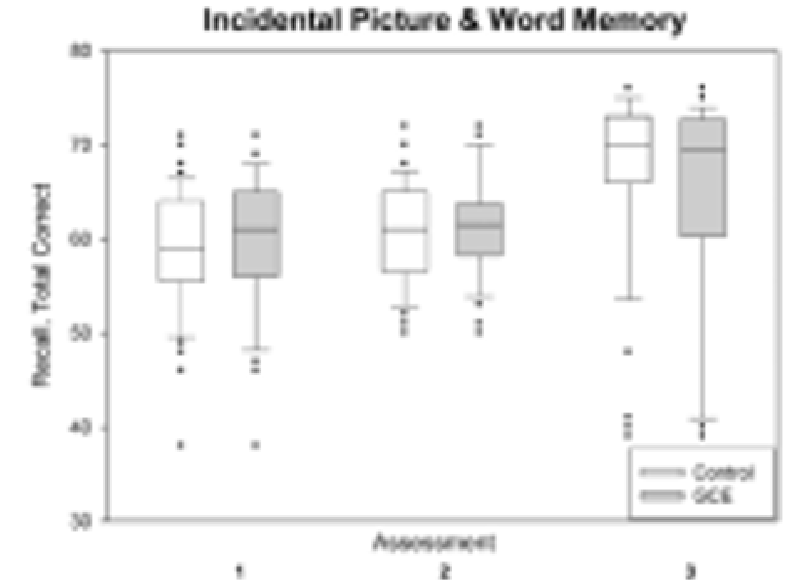
AAP Technical Report 2013 Prenatal Substance Abuse: Short- and Long-Term Effects on the Exposed Fetus

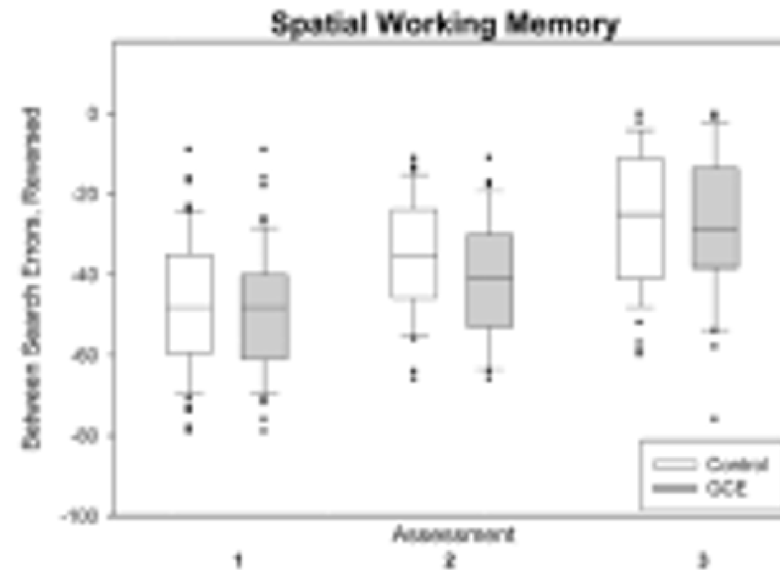
Hallam Hurt

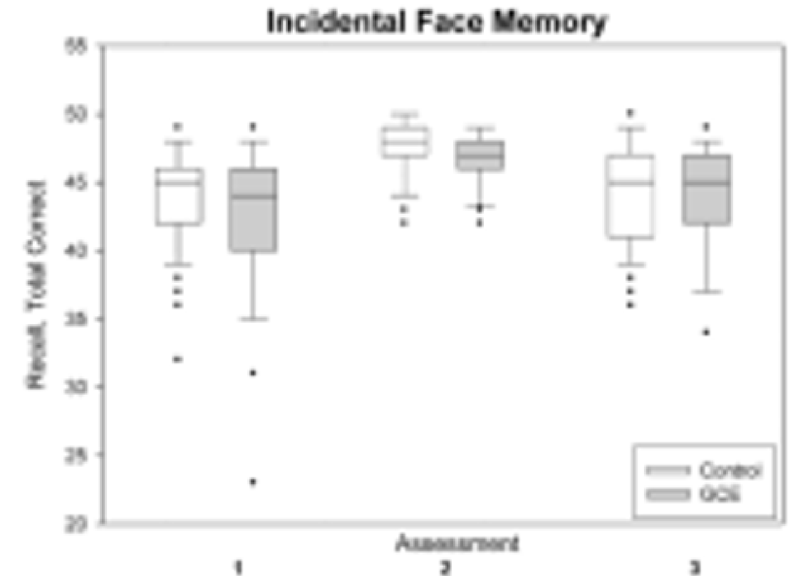
Adolescents with and without Gestational Cocaine Exposure: Longitudinal Analysis of Inhibitory Control, Memory and Receptive Language

Neurotoxicol Teratol. 2011 ; 33(1): 36–46.
doi:10.1016/j.ntt.2010.08.004.

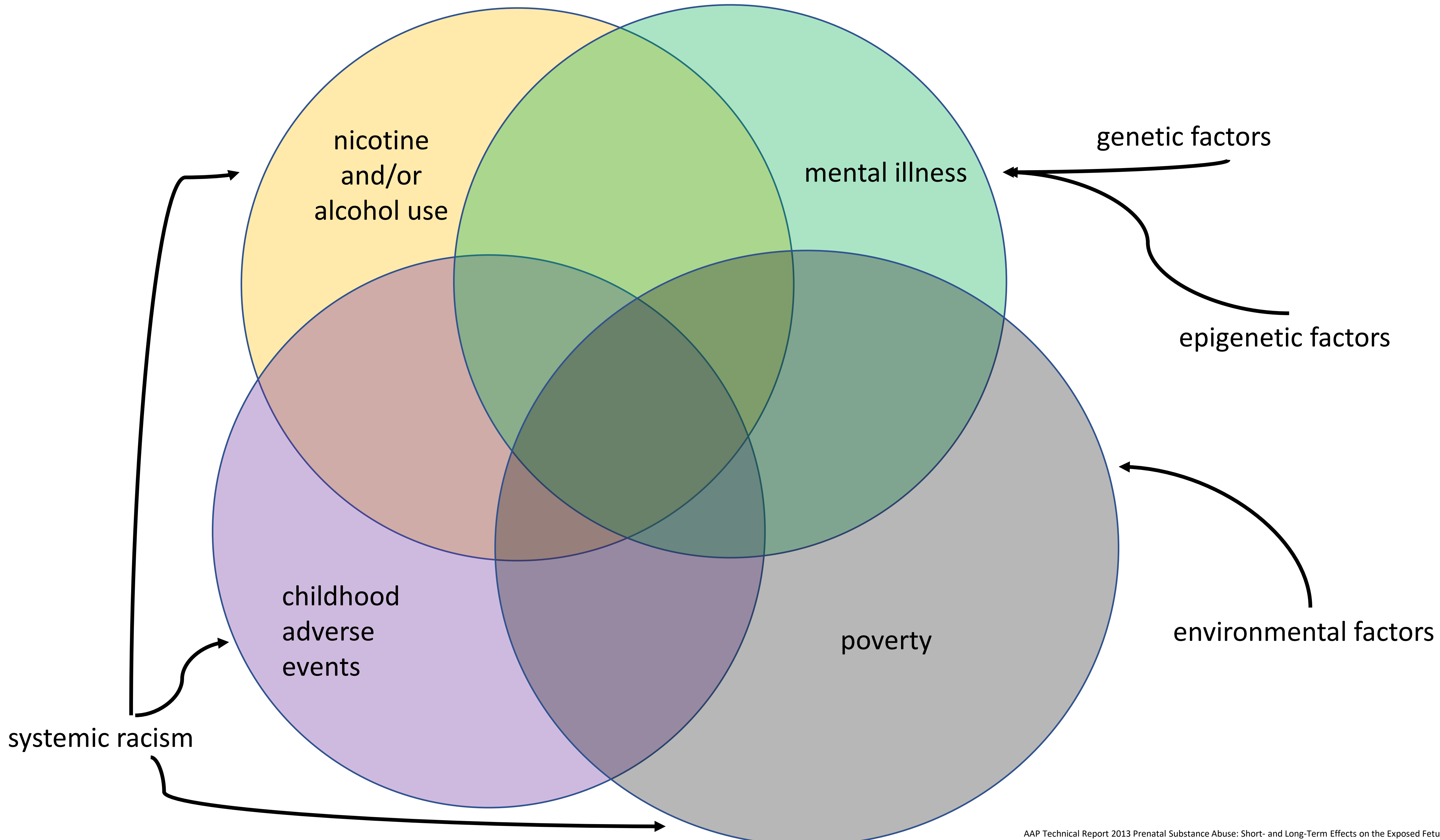








ages 12, 14.5 and 17 years



AAP Technical Report 2013 Prenatal Substance Abuse: Short- and Long-Term Effects on the Exposed Fetus

- The physiologic impact of maternal substance use on the fetus is highly variable.

- Neuropsychiatric effects due to pre-natal exposure are highly mitigated by positive parenting interventions post-natally.

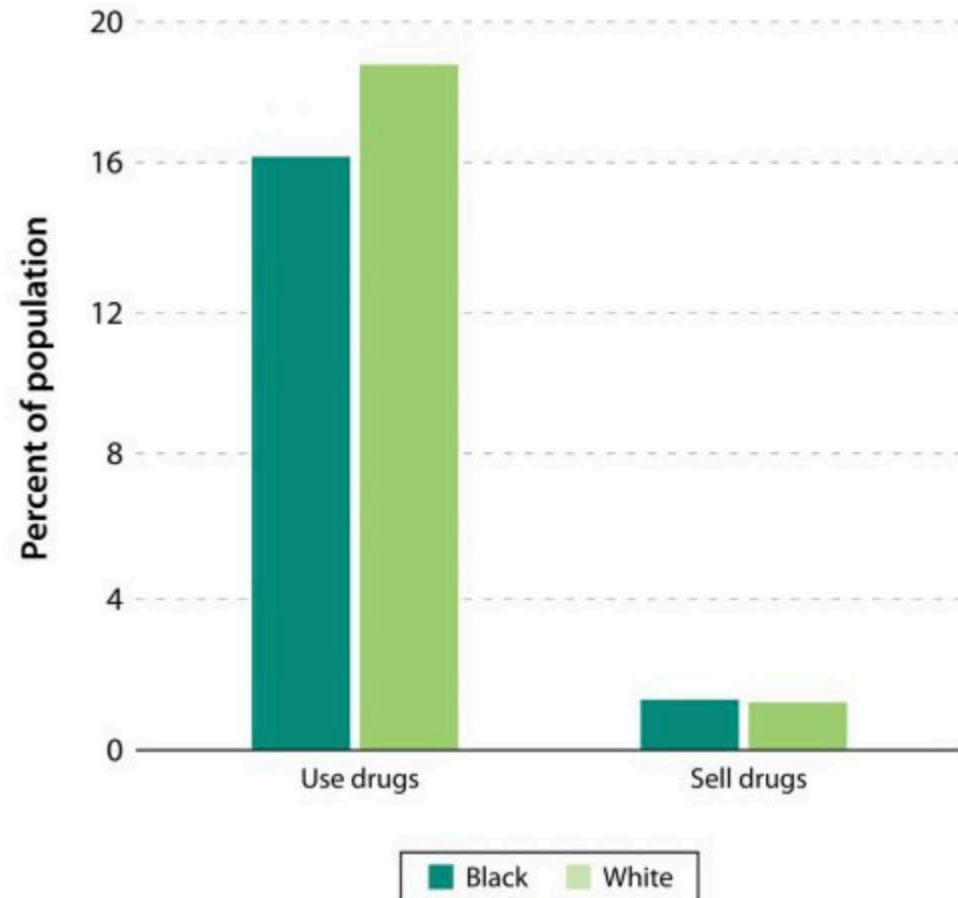
Infant and Child Development. The role of mother's prenatal substance use disorder and early parenting on child social cognition at school age
Volume30, Issue3 May/June 2021

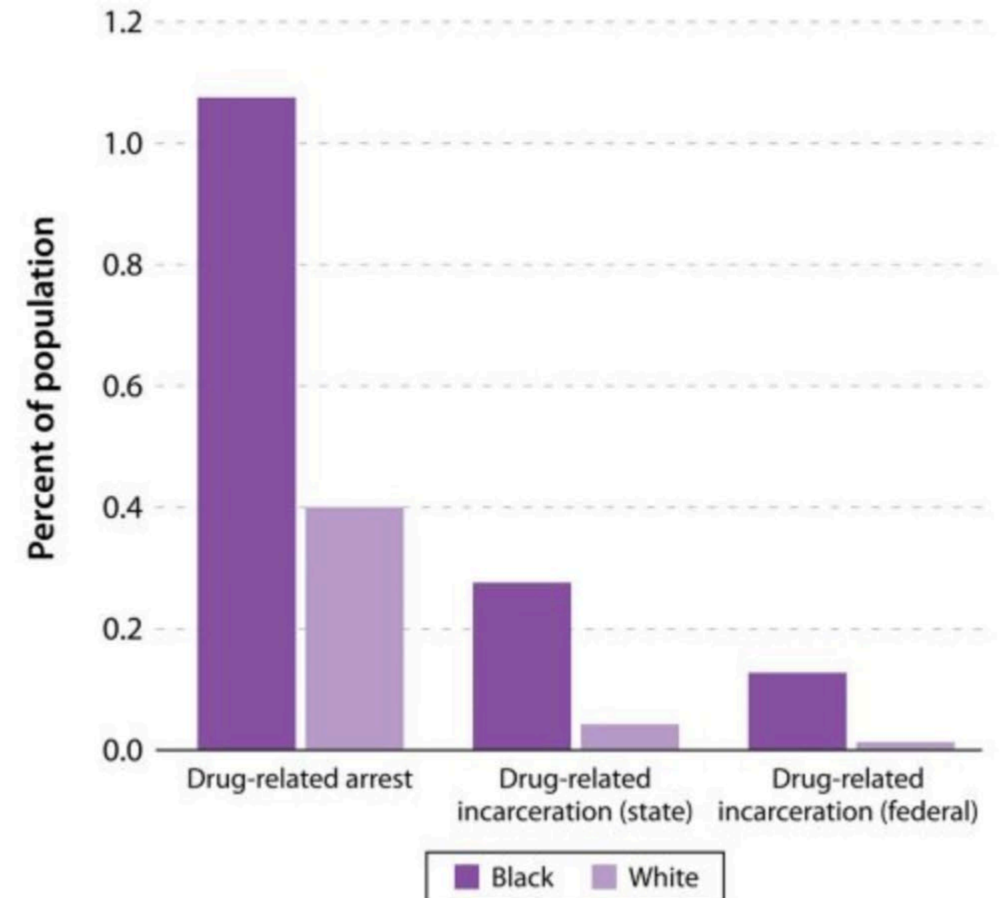
Other health risks related to mode of use

- Infection
  - HIV
  - HBV
  - HCV
  - Bacterial infection (cellulitis, endocarditis) → sepsis
- Overdose
  - Nonfatal: hypoxic insult, preterm delivery
  - Fatal

- Safe supply, harm reduction, and access to treatment are key

Legalization & inequality





https://www.hamiltonproject.org/charts/rates_of_drug_use_and_sales_by_race_rates_of_drug_related_criminal_justice

Our ultimate goals are…

- To identify substance use during pregnancy to counsel patients and enroll in treatment if indicated
  - Smoking cessation
  - Alcohol use cessation
  - Opioid use cessation including MOUD
  - Cannabis use cessation and/or risk mitigation
  - Cessation of other substances: cocaine, PCP etc
- To support parents in their responsibility of parenting
  - Treat associated mental health issues
  - Enroll in social assistance programs
- To provide the best start in life for newborns
  - Best evidence supports promoting families remaining together

NYU Review of Law & Social Change 2019 The Harm of Child Removal Shanta Trivedi
Mical Raz, Alan Dettlaff, Frank Edwards; The Perils of Child "Protection" for Children of Color: Lessons From History. *Pediatrics* July 2021; 148 (1).

What is the purpose of drug testing in pregnant patients?

- "The official position of the American Society of Addiction Medicine (ASAM) and the American College of Obstetricians and Gynecologists is that all women should be screened using a validated screening test, and not biochemical measures."

Screening Pregnant Women and Their Neonates for Illicit Drug Use: Consideration of the Integrated Technical, Medical, Ethical, Legal, and Social Issues. Hayley R. Price, Abby C. Collier, and Tricia E. Wright· Front Pharmacol. 2018; 9: 961.

Example of validated screener: TAPS: Tobacco, Alcohol, Prescription medication, and other Substance use Tool

- In the past 12 months, how often have you used tobacco or any other nicotine delivery product (i.e., e-cigarette, vaping or chewing tobacco)?
  - Daily or almost daily, weekly, monthly, less than monthly, never
- In the past 12 months, how often have you had 4 or more drinks (women) containing alcohol in one day?
  - Daily or almost daily, weekly, monthly, less than monthly, never
- In the past 12 months, how often have you used any prescription medications just for the feeling, more than prescribed or that were not prescribed for you?
  - Daily or almost daily, weekly, monthly, less than monthly, never
- In the past 12 months, how often have you used any drugs including marijuana, cocaine or crack, heroin, methamphetamine (crystal meth), hallucinogens, ecstasy/MDMA?
  - Daily or almost daily, weekly, monthly, less than monthly, never

TAPS cont'd

- If any positive answer to above questions:
- In the past 3 months have you used ____?
- If yes:
- In the past 3 months have you had a strong desire or urge to use ____ at least once a week or more often?
  - Yes/no
- In the past 3 months, has anyone expressed concern about your use of ____?

What is the purpose of drug testing in pregnant patients?

- Results of urine testing should have limited impact on clinical decisionmaking
  - “A positive test result, even when confirmed, only indicates that a particular substance is present in the test subject’s tissue. It does not indicate abuse or addiction, recency, frequency, or amount of use; or impairment.”

U.S. Department of Justice, A National Report from the Bureau of Justice Statistics (Dec. 1992), NCJ-133652 at 119.

  - “Biomedical surveillance should be conducted only for clinical purposes having to do with ensuring access to and delivering quality health care.”

AMA Journal of Ethics. When Should Screening and Surveillance Be Used during Pregnancy? Nancy D. Campbell, PhD, March 2018.

- Results may not be necessary to provide treatment
  - Patients have to desire substance use treatment for it to be successful

What is the purpose of drug testing in pregnant patients?

- Results of tests do not provide information about parenting
  - “Routine urine drug testing…does not provide valid or reliable information about harm or risk of harm to children.”

ACOG Toolkit for State Legislature Pregnant Women & Prescription Drug Abuse, Dependence & Addiction

- “The practice of drug testing by health care professionals is based on misinformed assumptions:
  - Tests accurately capture recent drug use (they don’t);
  - Tests identify people with addiction (they don’t);
  - Federal law requires testing and the reporting of positive results to local child welfare agencies (it doesn’t); and
  - (Illicit) drug exposure cause significant developmental harm (it doesn’t).”

Terplan, M. Test or talk: Empiric bias and epistemic injustice. Obstetrics & Gynecology. Volume 140; No. 2, Aug 2022.

What is the purpose of newborn toxicology testing?

- A positive infant toxicology screen is frequently used as an indicator of harm in discharge planning, and by DCF to substantiate legal claims of harm.
- Similarly, the use of negative infant toxicology results to refute claims of harm is not a legitimate use of these tests, as these results do not capture any information about the safety of the parenting.

What is the purpose of newborn toxicology testing?

- The information obtained by infant toxicology testing is rarely clinically useful given that it
  - is redundant to known information about maternal drug use history and/or toxicology studies
  - does not change the clinical care of the newborn

- Care for infants at risk for neonatal opioid withdrawal syndrome depends on
  - a comprehensive understanding of substance use by the pregnant patient throughout the pregnancy
  - the symptoms demonstrated by the individual patient

Legal considerations when obtaining toxicology testing

- “The U.S. Supreme Court has ruled that it is unconstitutional to use the results of drug testing obtained in the guise of medical care for law enforcement purposes without informed specific consent to a search for evidence of a crime.”

Ferguson v. City of Charleston, 532 U.S. 67 (2001); Id. on remand, 308 F.3d 380 (4th Cir. 2002)

Cited in National Advocates for Pregnant Women policy statement: Clinical Drug Testing of Pregnant Women and Newborns March 2019

Informed consent for toxicology testing on pregnant patients and infants (local practice)

- Informed consent must be obtained prior to testing either the pregnant/post-partum patient or the infant (current practice is verbal consent, this may be shifting to written).
- Unless DCF has taken action to curtail their parental rights, a parent has the right to decline testing of their infant.
- If testing is indicated for the infant and the parent declines, social work will be informed.
- If testing is deemed essential to preserve the life or health of the infant and the parent declines, it will be performed regardless.

How does CAPTA relate to mandated reporting?

- The Child Abuse Prevention and Treatment Act is a federal law, one aspect of which mandates that states put systems in place to collect data on substance exposure during pregnancy.
- A CAPTA notification must be filled out online within 12 hours of delivery if substance use occurred (or was suspected to occur) during pregnancy.

How does CAPTA relate to mandated reporting?

- In Connecticut, if there are no concerns for harm to the infant (i.e. use of prescribed methadone throughout pregnancy), the information is anonymized and no further action is taken in relation to the patient.

Margaret Lloyd Sieger, Cynthia Nichols, Shiyi Chen, Melissa Sienna, Marilyn Sanders; Novel Implementation of State Reporting Policy for Substance-Exposed Infants. *Hosp Pediatr* October 2022; 12 (10): 841–848. https://doi.org/10.1542/hpeds.2022-006562

- If there are concerns for harm to the infant (i.e. pregnant patient plans to continue using cocaine after delivery and does not seem concerned about how this will affect the infant), the form automatically redirects you to file a DCF report.

Is infant testing required to fulfill CAPTA requirements?

- There is no requirement for infant toxicology testing in the CAPTA legislation.
- In the case that a DCF referral has been made separate from substance-related concerns, CAPTA information is only important for anonymized data collection and all information regarding concern for harm should be provided directly to DCF.

Is infant testing required to fulfill CAPTA requirements?

- The intent of the “Plan of Safe Care” requirement in CAPTA is for there to be connection to services outside of DCF referral, i.e. DCF referral is not considered the optimal way to access social/support services.

What kind of test?

T1 Specimen Collection Considerations

	Urine	Umbilical Cord	Meconium
Collection	Difficult	Easy	Moderate
Typical Turnaround Time	<4 hrs	1–2 days	12 hrs–2 days
Window of Detection	Short	Intermediate	Long
Drug Concentrations	Moderate	Low	High
Extent of Characterization	Moderate	Low	High

Facing Challenges in Neonatal Drug Testing
How Laboratory Stewardship Enhances Care for a Vulnerable Population
Author: Jennifer M. Colby, PhD, and Steven W. Cotten, PhD **Date:** MAR.1.2018 **Source:** Clinical Laboratory News

Evolution of newborn toxicology testing

- Urine testing
- 1989 – development of meconium testing

Drug screening of meconium in infants of drug-dependent mothers: An alternative to urine testing

Enrique M. Ostrea, Jr., MD, Mark J. Brady, Patricia M. Parks, Dennis C. Asensio, MD, and Alexander Naluz, MD

From the Departments of Pediatrics, Hutzel Hospital and Wayne State University, Detroit, Michigan

The Journal of Pediatrics
September 1989

- “…success of any treatment of infants of drug-dependent mothers requires that the infants be identified soon after birth.”
- “In this study we did not correlate the recovery of drugs in meconium with the maternal drug history because of the poor reliability of the latter.”

Evolution of newborn toxicology testing

- Urine testing
- 1989 – development of meconium testing
- 2006 – development of umbilical cord testing

Testing for fetal exposure to illicit drugs using umbilical cord tissue vs meconium

D Montgomery[1], C Plate[2], SC Alder[3], M Jones[2], J Jones[2] and RD Christensen[1]

[1]*Department of Women and Newborns, Intermountain Health Care and McKay Dee Hospital, Ogden, UT, USA;* [2]*The United States Drug Testing Laboratories, Des Plaines, IL, USA and* [3]*Department of Family and Preventive Medicine, University of Utah, Salt Lake City, UT, USA*

Journal of Perinatology (2006) 26, 11–14
© 2006 Nature Publishing Group All rights reserved. 0743-8346/06 $30

- “…accurate data are needed on the incidence of illicit drug use in pregnancy”

- “…testing was carried out if any of the following were present:

  -history of a previous pregnancy where drug abuse was proven

  -maternal report of drug abuse during this pregnancy

  -no prenatal care

  -no permanent address

  -sexually transmitted diseases

  -mother or father appearing intoxicated, ‘high,’ or abusive or inappropriate.”

To summarize this literature

- The reasons cited for sending these tests are not clinically relevant to the care of the newborn
- Notable bias against those in poverty and those who use substances
- The original derivation of both meconium and umbilical cord testing did not even attempt to correlate with patient-reported substance use
- Acknowledgement that fear of consequences to their family was a reason for inaccuracy in patient report of substance use

If toxicology testing is deemed relevant to the clinical care of the newborn

- Urine toxicology is the only kind of testing that provides actionable information

Would universal testing provide equitable care to pregnant patients and families?

- While the testing would be distributed evenly, the downstream consequences (including who gets referred to DCF and whose families are separated, for how long, and at what cost) differ greatly

NYU Review of Law & Social Change 2019 The Harm of Child Removal Shanta Trivedi

Final note about identifying substance use in pregnancy

- If we are concerned about a person's ability to parent we (as a medical care team) should be assessing that
- A person's ability to parent safely and/or well is poorly identified by toxicology testing
- A person's ability to parent safely and/or well may be affected by substance use, but likely more by our current system's criminalization of substance use than the use itself
- Decreasing punitive responses to substance use in pregnancy will allow access to care for people we want to help have healthy pregnancies and subsequent families
- The threat of legal use of toxicology tests is a sharp edge of the punitive response

Our ultimate goals are…

- To identify substance use during pregnancy to counsel patients and enroll in treatment if indicated
  - Smoking cessation
  - Alcohol use cessation
  - Opioid use cessation including MOUD
  - Cannabis use cessation and/or risk mitigation
  - Cessation of other substances: cocaine, PCP etc
- To support parents in their responsibility of parenting
  - Treat associated mental health issues
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Mical Raz, Alan Dettlaff, Frank Edwards; The Perils of Child "Protection" for Children of Color: Lessons From History. *Pediatrics* July 2021; 148 (1).

Yale New Haven Hospital

Department of Women's Services

YNHH Prenatal Urine Toxicology

Standard Operating Procedure

Original: 04/22
Last Reviewed: 04/22
Approved by: Katie Donohue, Interim Vice President Women's Health and Children's Hospital NNICU

Standard Operating Procedure:

Indications for urine toxicology testing during pregnancy include:

- History of substance use or unhealthy substance use within the last 12 months
- Current substance use
- If unable to confirm treatment adherence with current methadone/buprenorphine or other substance treatment center
- Current or history of benzodiazepine misuse in the last 12 months
- If unable to confirm treatment adherence of long-term opioid medication use with prescribing provider (long-term opioid use: >3 months continuous use)
- Clinical signs/symptoms consistent with possible substance or alcohol intoxication and not immediately attributable to another cause (slurred speech, unstable gait, somnolence etc.)
- Patient request for testing
- At time of triage or presenting at Labor & Birth when the history or exam indicates possibility of maternal substance use.
    - Examples include but are not limited to:
        - Unexplained acute hypertension
        - Unexplained abruption
        - Suspected substance or alcohol intoxication of patient
        - No prenatal care or no available prenatal records
        - All unregistered patients (except formal transfers)
- After delivery:
    - Newborn presenting with unexplained withdrawal symptoms
    - Newborn with fetal alcohol spectrum disorder.

Urine toxicology testing can be obtained, after explicit verbal informed consent of the patient, in the following scenarios

- Initial prenatal visit (if known risk factor (indications) as above or if **universal screening** with a validated screening questionnaire shows a positive screening result.
    - All positive screening results should be followed by additional diagnostic evaluation and referral for treatment
- Any clinical visit associated with the above indications
- When a patient declines indicated testing during a pregnancy, the Obstetrical provider counsels the patient that newborn toxicology testing may be recommended at the discretion of the newborn's clinician if there is concern for possible development of neonatal withdrawal syndrome to assist in determining newborn medical management.

EPIC Order:

- 9 Drug toxicology panel with confirmation,
- Fentanyl testing
- Buprenorphine testing if mother prescribed buprenorphine

How often to test:

- Testing on admission for childbirth will be based off the above criteria
- If positive test early in pregnancy, one single repeat testing will take place early third trimester (around 28 weeks)

Counseling

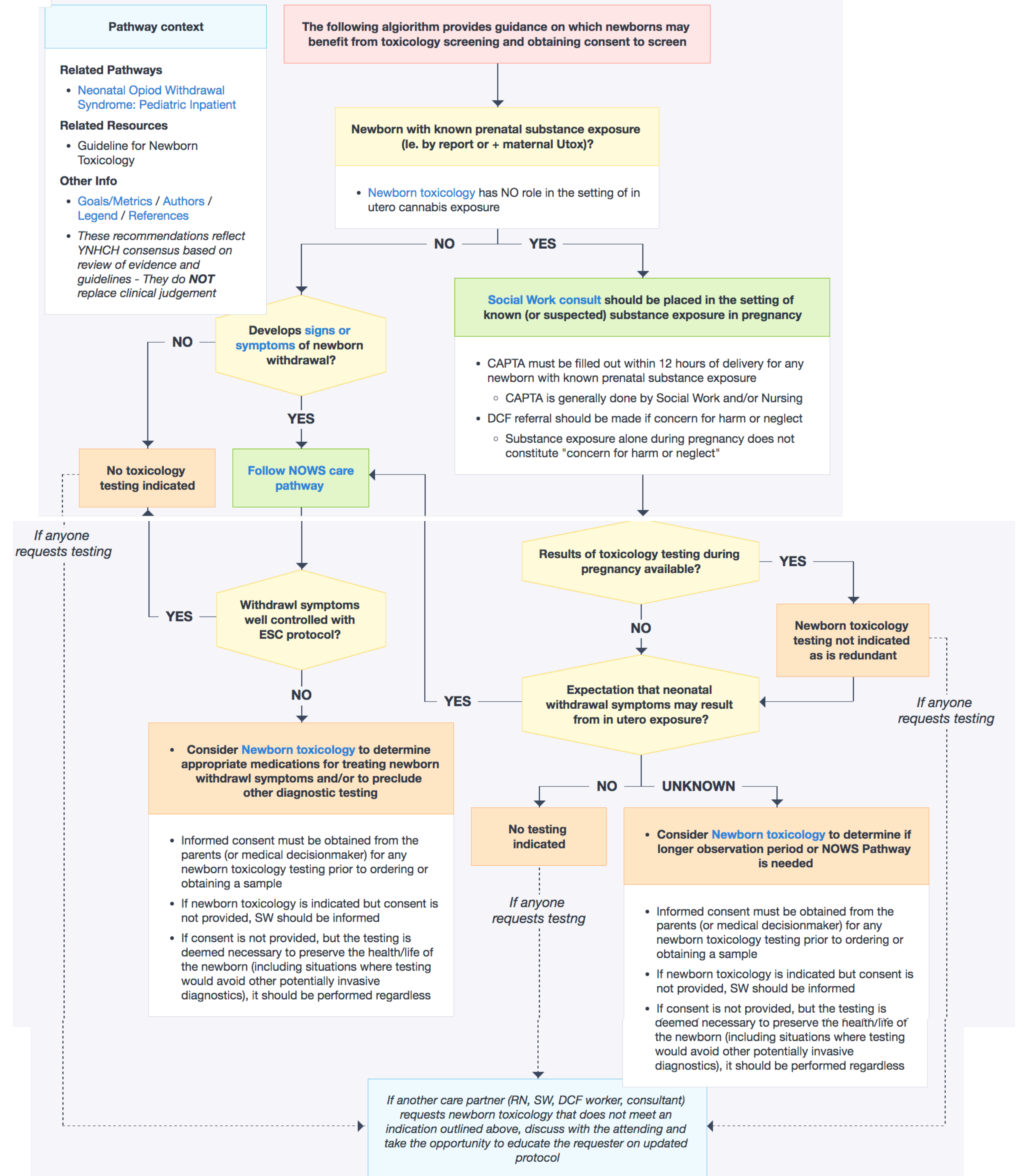
- Patients should be counseled prior to testing. Patients who are at risk prenatally, should be counseled at the initial visit regarding initiating testing, frequency of testing and implications of testing
- Patients who have screened positive through the Universal Screening process should be referred to Social Work or Social Work equivalent prenatally, even before initiating testing, to discuss support services available as well as implications of testing.

Action for positive result:

- If urine toxicology test is positive for a prescribed medication either during pregnancy or after delivery confirm medication adherence with the prescribing provider and/or by checking the CT Prescription Drug Monitoring Program.
- During pregnancy:
    - Counsel patient of positive result and potential need to refer Social Work or other appropriate services
    - Initiate Plan of Safe Care
    - Refer patient for further evaluation and/or treatment for substance use disorder, if present
    - For any patient with children in the home who tests positive at any point in their pregnancy, Social Work or other appropriate services will be consulted for further assessment to ensure safety and wellbeing of child(ren) in the home and a safe plan of care is established.

- During/after delivery:
    - *Law requires CAPTA notification within* ***12 hours*** *of delivery if known exposure, or of concern for exposure.*
    - If a patient screens or tests positive for substance misuse within 30 days of delivery Social Work will be consulted for further assessment to ensure safety and well-being of the newborn or child(ren) in the home.
    - Consider addiction medicine/psychiatry consult at Yale New Haven Hospital
    - Verify plan of safe care
    - Collaborate with Lactation and pediatrician regarding breastfeeding recommendations/guidelines
    - Roles that are mandated to report suspected neglect or harm to a child(ren) include: Social Worker, Nurse, Advance Practice Provider, Certified Nurse Midwife, Resident or Attending Physician or other health care providers

The newborn toxicology pathway



Pathway context

Related Pathways

- Neonatal Opiod Withdrawal Syndrome: Pediatric Inpatient

Related Resources

- Guideline for Newborn Toxicology

Other Info

- Goals/Metrics / Authors / Legend / References
- *These recommendations reflect YNHCH consensus based on review of evidence and guidelines - They do **NOT** replace clinical judgement*

The following algiorithm provides guidance on which newborns may benefit from toxicology screening and obtaining consent to screen

Newborn with known prenatal substance exposure (Ie. by report or + maternal Utox)?

- Newborn toxicology has NO role in the setting of in utero cannabis exposure

NO / YES

Social Work consult should be placed in the setting of known (or suspected) substance exposure in pregnancy

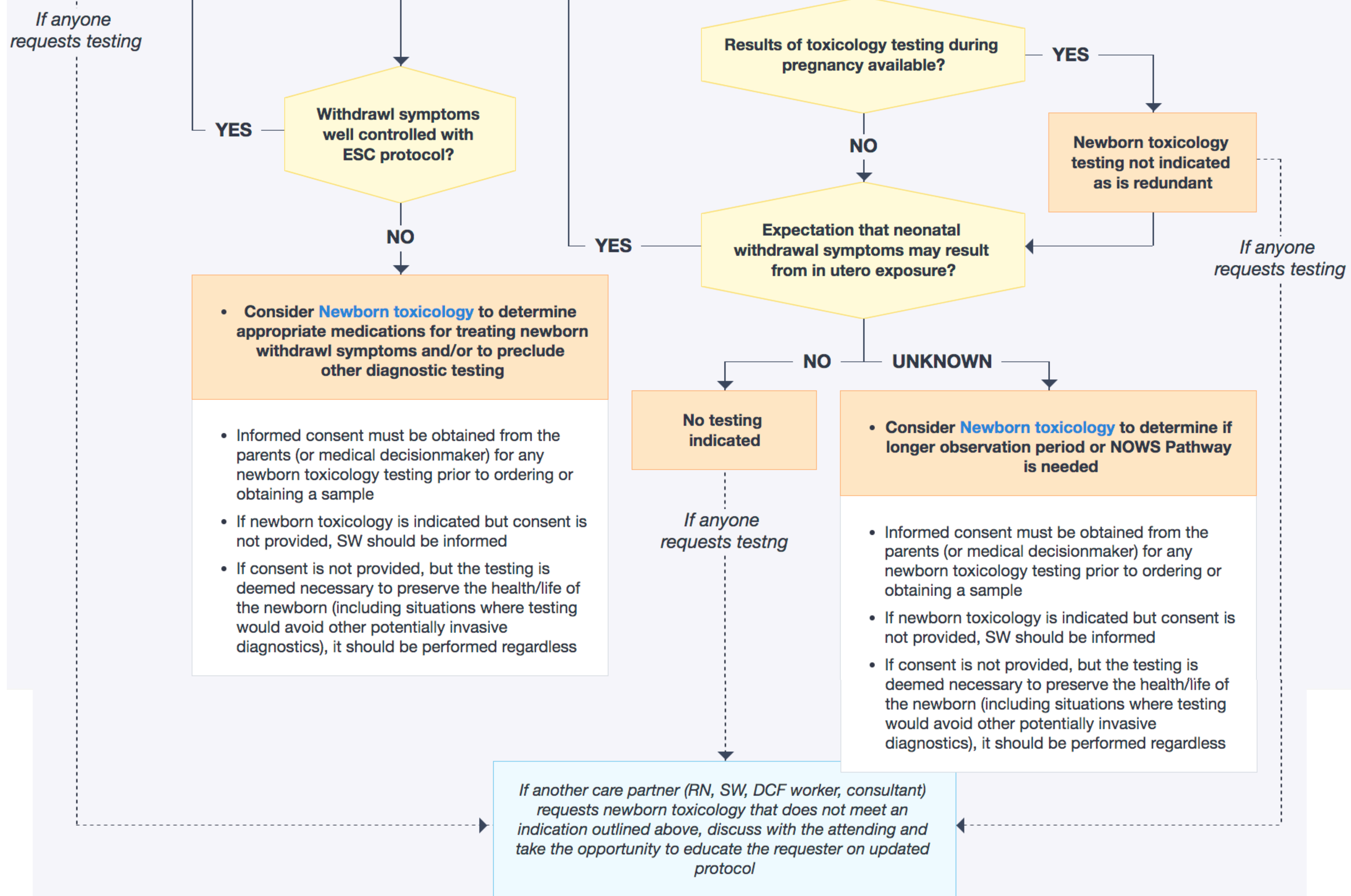
- CAPTA must be filled out within 12 hours of delivery for any newborn with known prenatal substance exposure
  - CAPTA is generally done by Social Work and/or Nursing
- DCF referral should be made if concern for harm or neglect
  - Substance exposure alone during pregnancy does not constitute "concern for harm or neglect"

Develops signs or symptoms of newborn withdrawal?

NO / YES

No toxicology testing indicated

Follow NOWS care pathway


If anyone requests testing
Results of toxicology testing during pregnancy available?
YES
Newborn toxicology testing not indicated as is redundant
NO
YES
Withdrawl symptoms well controlled with ESC protocol?
NO
YES
Expectation that neonatal withdrawal symptoms may result from in utero exposure?
If anyone requests testing
Consider Newborn toxicology to determine appropriate medications for treating newborn withdrawl symptoms and/or to preclude other diagnostic testing
NO
UNKNOWN
No testing indicated
Consider Newborn toxicology to determine if longer observation period or NOWS Pathway is needed
Informed consent must be obtained from the parents (or medical decisionmaker) for any newborn toxicology testing prior to ordering or obtaining a sample
If newborn toxicology is indicated but consent is not provided, SW should be informed
If consent is not provided, but the testing is deemed necessary to preserve the health/life of the newborn (including situations where testing would avoid other potentially invasive diagnostics), it should be performed regardless
If anyone requests testng
Informed consent must be obtained from the parents (or medical decisionmaker) for any newborn toxicology testing prior to ordering or obtaining a sample
If newborn toxicology is indicated but consent is not provided, SW should be informed
If consent is not provided, but the testing is deemed necessary to preserve the health/life of the newborn (including situations where testing would avoid other potentially invasive diagnostics), it should be performed regardless
If another care partner (RN, SW, DCF worker, consultant) requests newborn toxicology that does not meet an indication outlined above, discuss with the attending and take the opportunity to educate the requester on updated protocol

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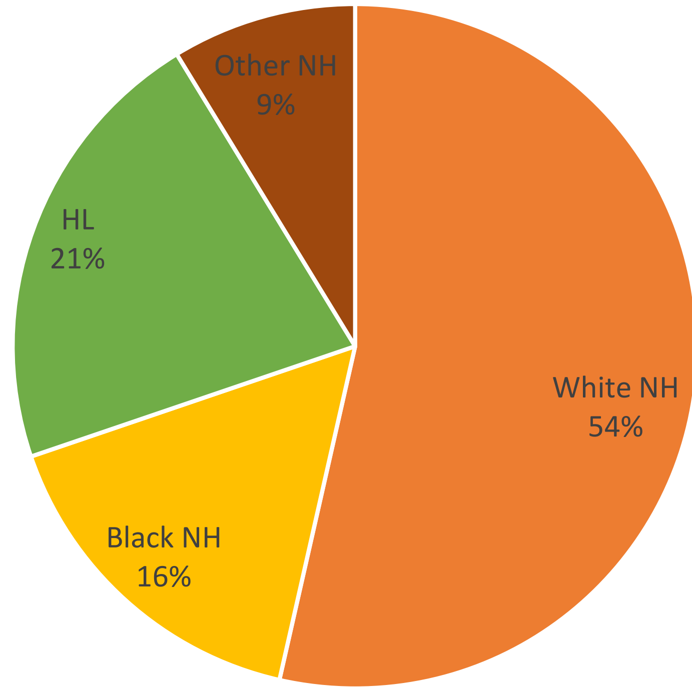
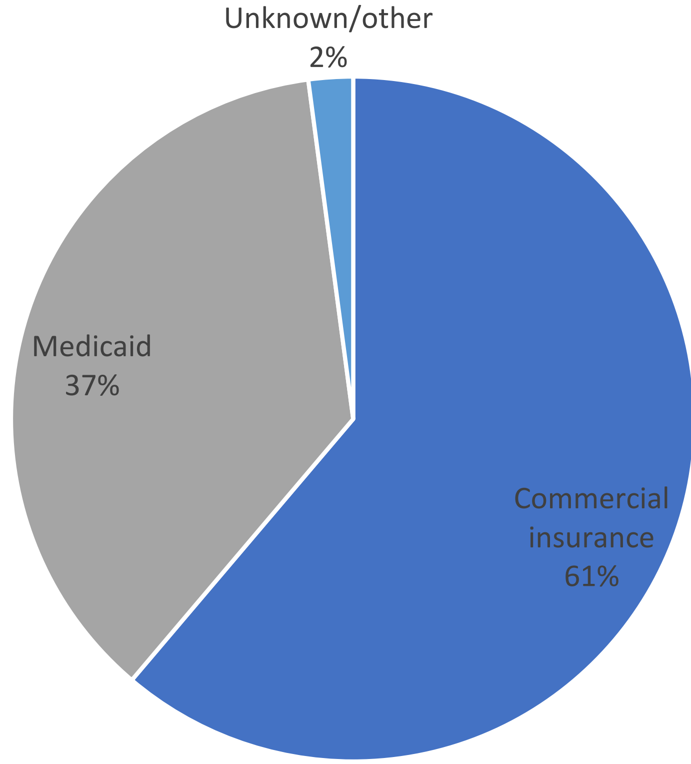
The before times (1/1/2019-12/31/2020)





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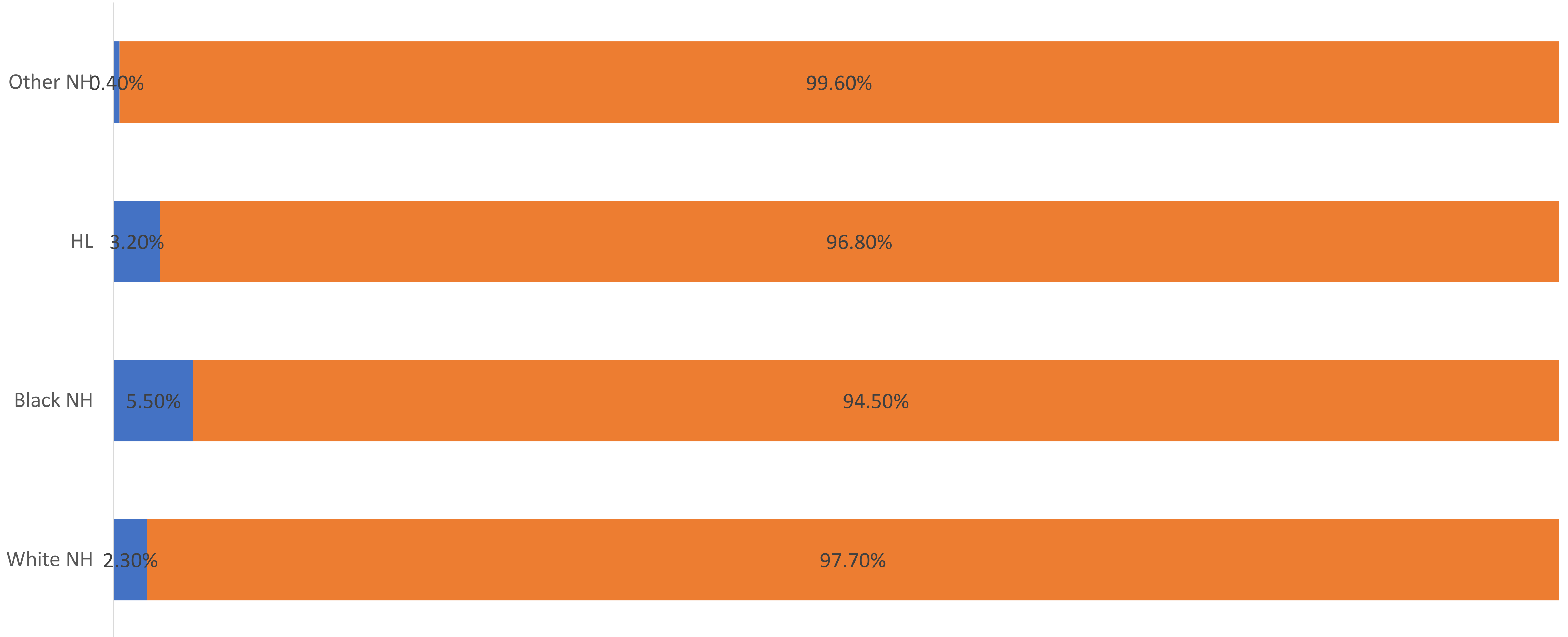

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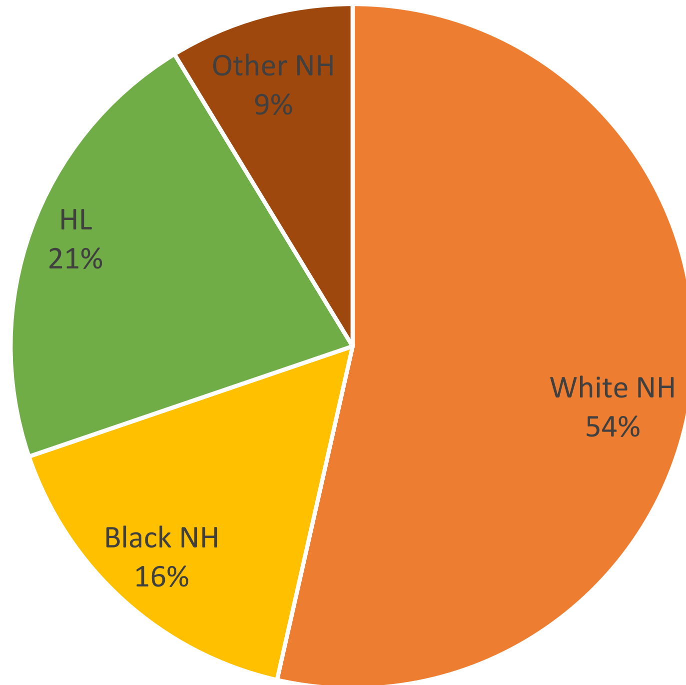

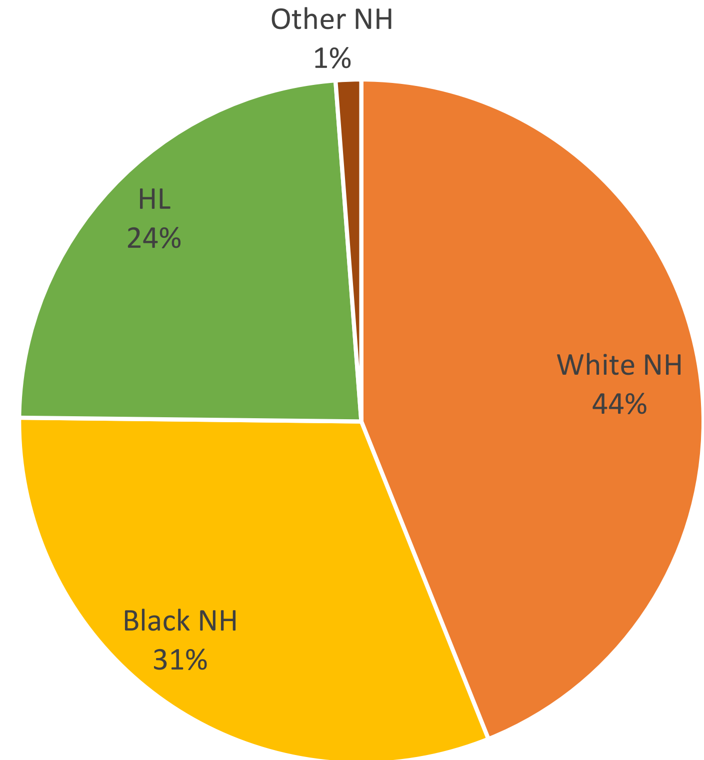

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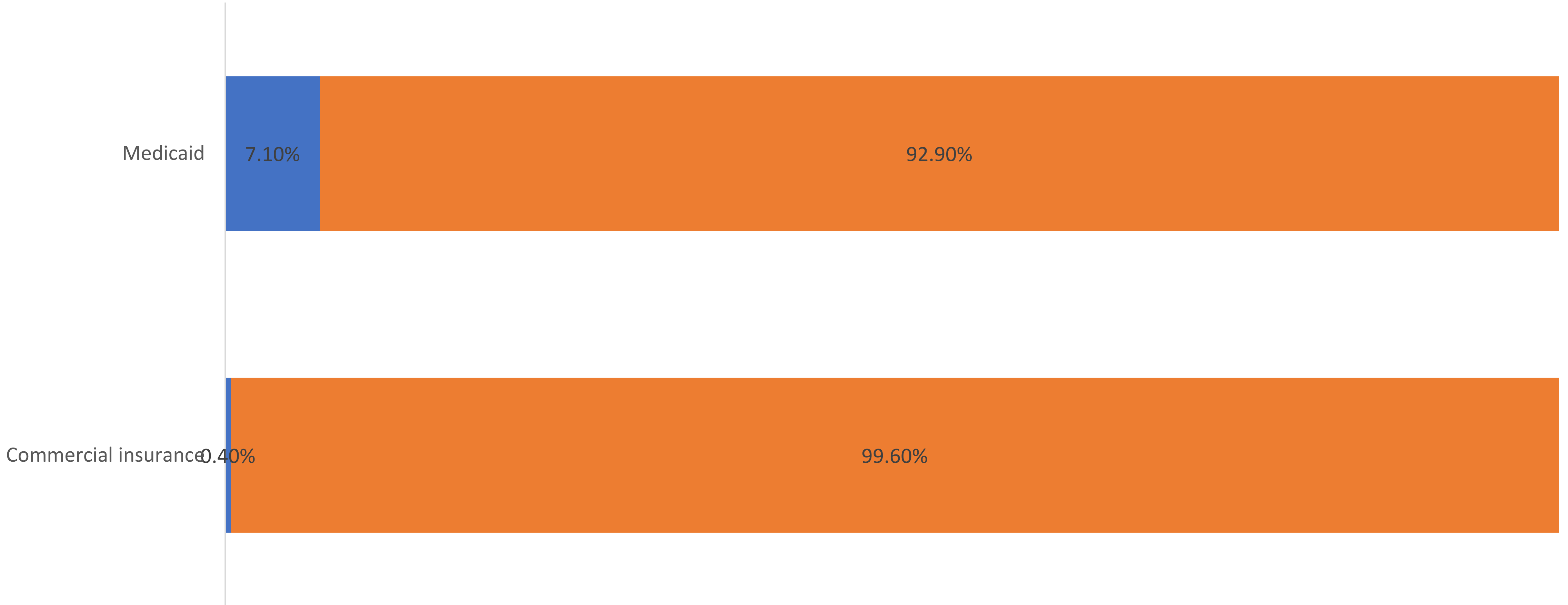
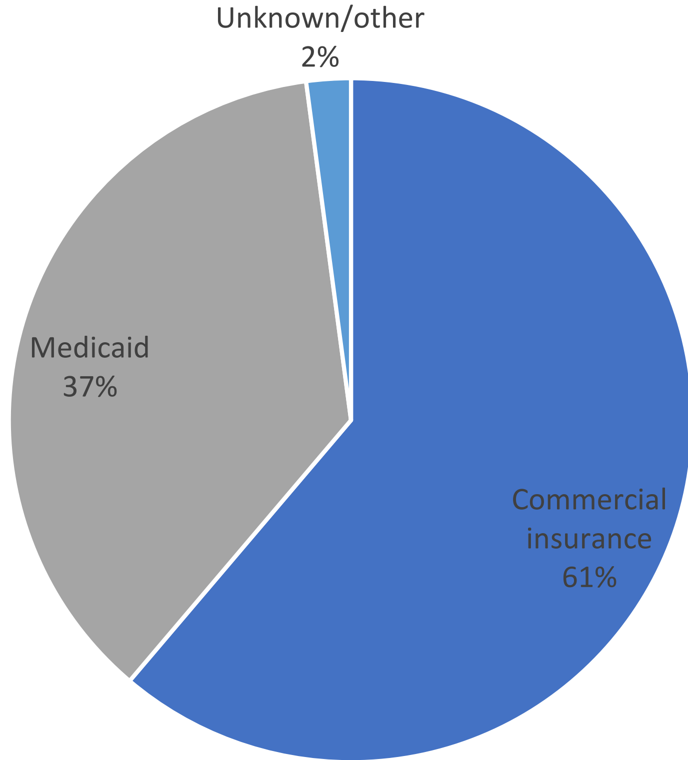
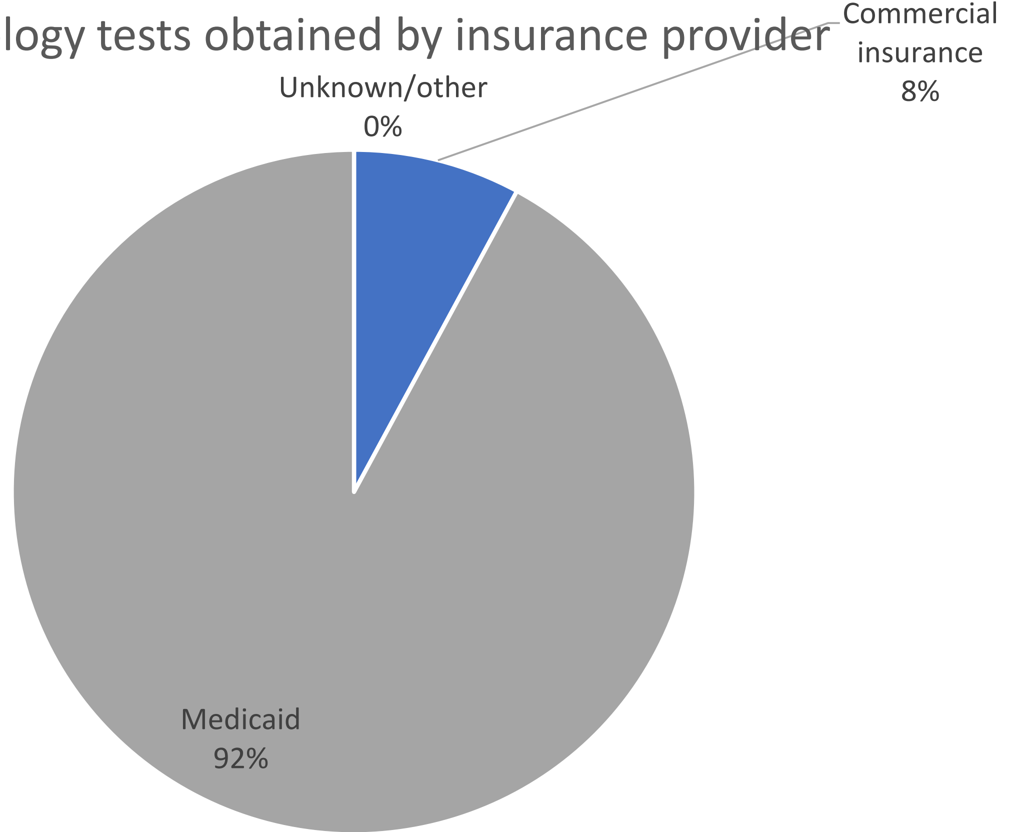



Newborns by insurance provider
Unknown/other
2%
Medicaid
37%
Commercial
insurance
61%


Toxicology tests obtained by insurance provider
Commercial
insurance
8%
Unknown/other
0%
Medicaid
92%

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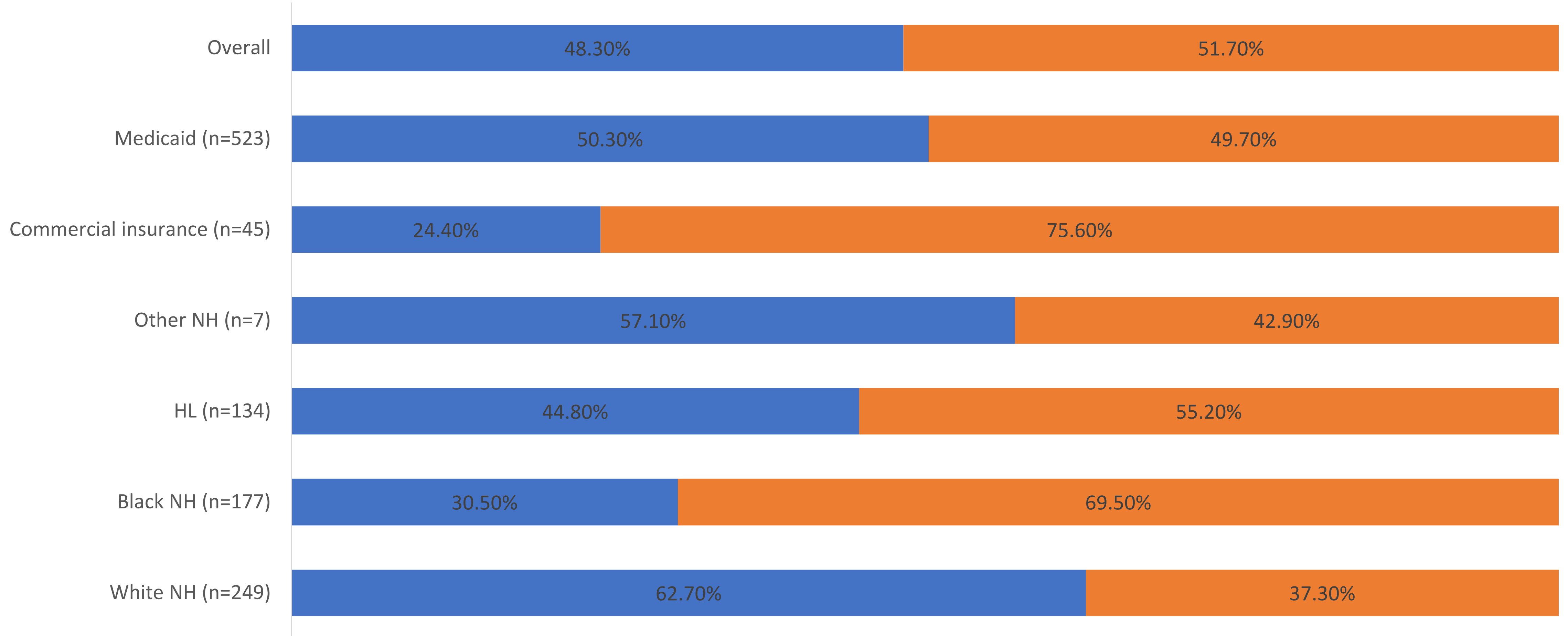

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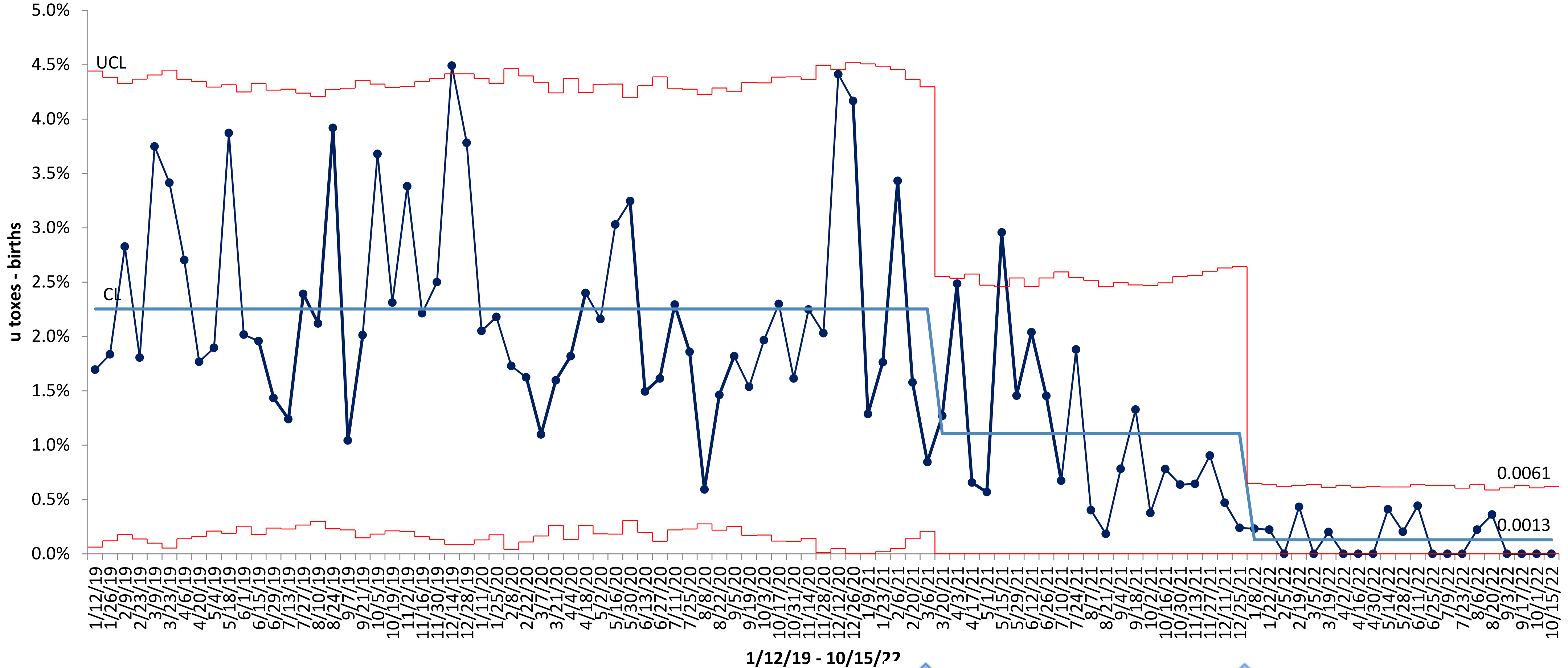
Control chart



(A) Began work on project with conversations and coalition-building

(B) Protocol “live” on hospital intranet

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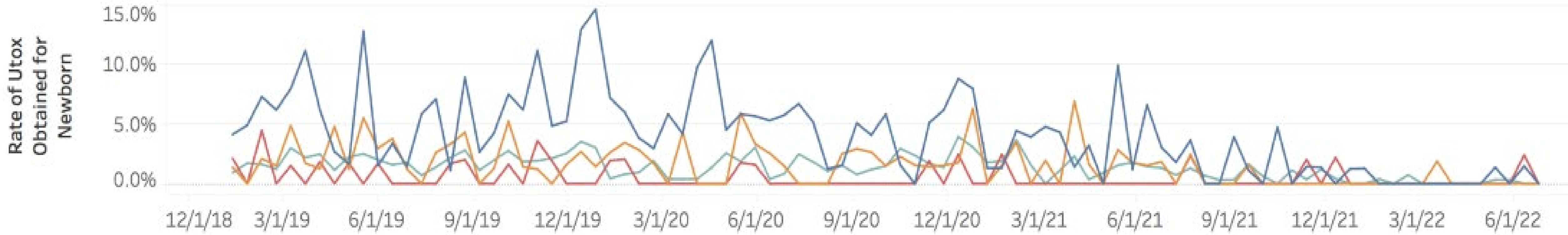

(A) Began work on project with conversations and coalition-building

(B) Protocol "live" on hospital intranet

Race/Ethnicity

- Black
- Hispanic or Latino
- Other
- White

After (1/1/2022-6/3/2022)

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	WNH	BNH	HL	ONH
Tox obtained	3	3	1	0
Total newborns (with available data)	1441	484	716	238
Percentage (pre)	0.2% (2.3%)	0.6% (5.5%)	0.1% (3.2%)	0.0% (0.4%)

not for dissemination preliminary QI data

	Commercial insurance	Medicaid
Tox obtained	2	6
Total newborns (with available data)	1716	1125
Percentage	0.1% (0.4%)	0.5% (7.1%)

Learning Objectives

- Reconsider the clinical utility of toxicology testing in the peripartum period, for both pregnant/birthing person and newborn

- Examine the inequitable impact of peripartum toxicology testing on patients and families

- Describe the relative benefits and risks of universal or selective peripartum toxicology testing protocols

- Appreciate the effect of instituting an objective protocol on rates of newborn toxicology testing and health equity

THANK YOU!

- Please reach out with questions or feedback, conversations or invitations:
  - sharon.ostfeld-johns@yale.edu