



Prenatal Substance Exposure Data Update

Presented to Perinatal Substance Exposure Collaborative Meeting

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Outline

- Importance of screening and monitoring for substance exposure
 - Prevalence of Preterm and Low Birth Weight by Substance Exposure
- Prenatal care by Substance Exposure
- Infants monitored for Substance Exposure by year;
 - Monitored for Opioid
 - Monitored by County, State, Payer and Race, Mother's age
- Infants Affected by Substance Withdrawal Symptoms by:
 - County, Hospital and POSC
- Plan of Safe Care by:
 - State, County, Hospital, Payer, Mother's age.
- Naloxone Discussion
- Question to be added on the birth worksheet
- Acknowledgement

Scope of Data Used in This Presentation

- The statistics on the following slides include all births that occurred in New Hampshire from May through November 29th, 2022.
- Out-of-state residents born in NH are *included*
- New Hampshire residents born out-of-state are *excluded* because the substance exposure question was not asked (*fields are marked as unknown*)

Q1: Is there <u>documentation</u> that access to naloxone (<u>e.g.</u> Narcan) was discussed with the patient?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> Unknown
Aim: Determine frequency of practice.

<p>Prenatal Substance Exposure</p> <p>82A. Was the infant monitored for effects of in utero substance exposure?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If YES, Type of substance(s): (check all that apply)</p> <p><input type="checkbox"/> opioids</p> <p><input type="checkbox"/> stimulants (amphetamines, methamphetamines, other)</p> <p><input type="checkbox"/> cocaine</p> <p><input type="checkbox"/> cannabis</p> <p><input type="checkbox"/> benzodiazepines</p> <p><input type="checkbox"/> barbiturates</p> <p><input type="checkbox"/> alcohol</p> <p><input type="checkbox"/> nicotine</p> <p><input type="checkbox"/> bath salts</p> <p><input type="checkbox"/> Kratom</p> <p><input type="checkbox"/> Other (Specify) _____</p> <p>B. Was the infant identified as being affected by substance misuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Plan of Safe/Supportive Care</p> <p>83. Was a Plan of Safe/Supportive Care (POSC) created?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>

Why is it important to Screen and Monitor for Substance Exposure During Pregnancy

Preterm Births by Monitored for Substance Exposure During Pregnancy
(2020-2022)

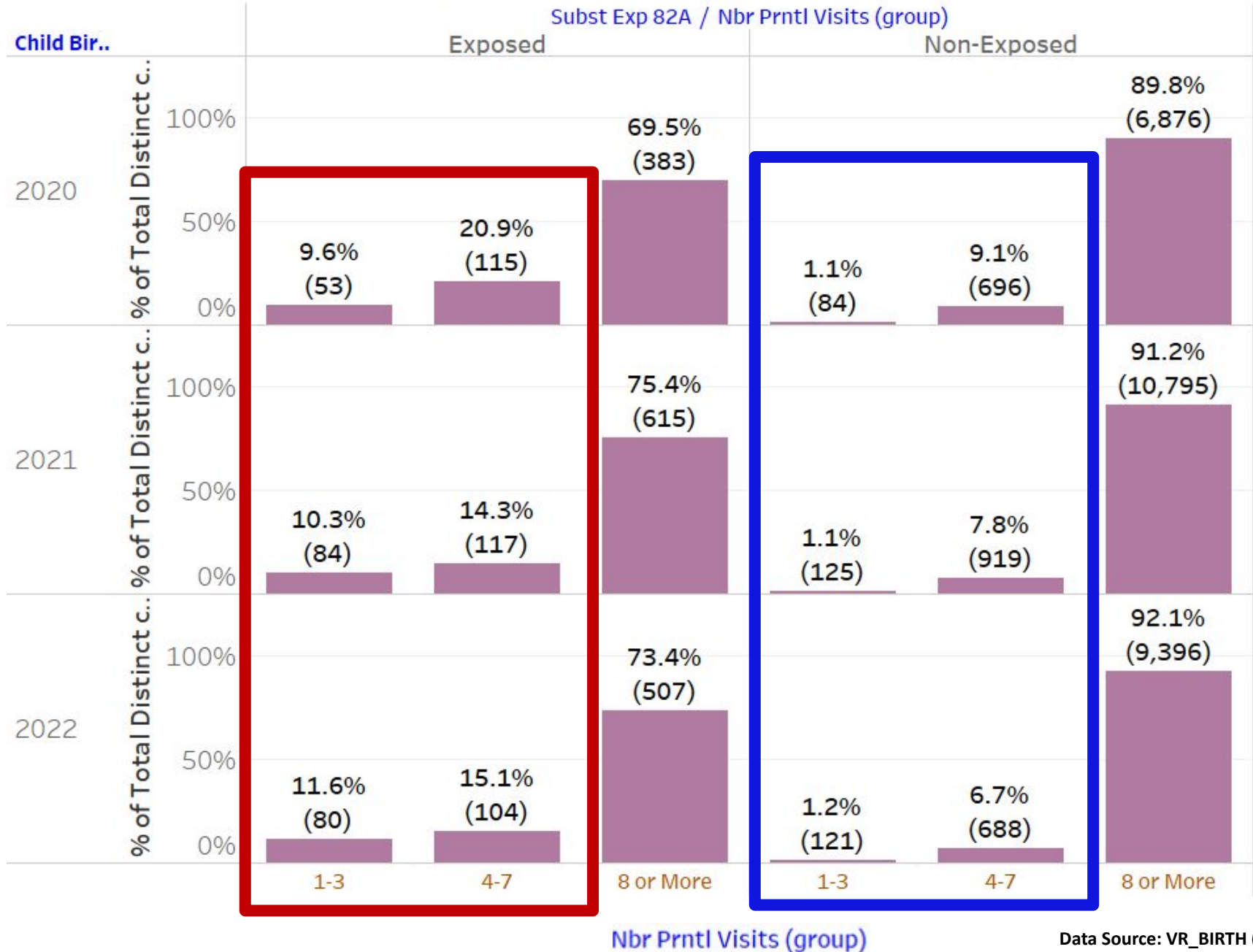
Subst Exp 8..	<37wks	37+wks	Null	Grand Total
Exposed	15.7% (323)	83.6% (1,721)	0.7% (14)	100.0% (2,058)
Non-Exposed	7.4% (2,193)	92.5% (27,482)	0.1% (25)	100.0% (29,700)
Unknown	8.6% (314)	91.2% (3,331)	0.2% (6)	100.0% (3,651)
Grand Total	8.0% (2,830)	91.9% (32,534)	0.1% (45)	100.0% (35,409)

The proportion of LBW among the exposed is **13.5%** when preterm births are included, however, many risk factors other than substance use are associated with preterm births therefore I excluded preterm births.

Low Birth Weight Among Term Infants by Substance Exposure During Pregnancy (2020-2022)

Subst Exp 8..	<2500g	2500+g	Unknown	Grand Total
Exposed	6.7% (116)	93.2% (1,604)	0.1% (1)	100.0% (1,721)
Non-Exposed	2.2% (595)	97.8% (26,865)	0.1% (22)	100.0% (27,482)
Unknown	2.4% (79)	97.6% (3,252)		100.0% (3,331)
Grand Total	2.4% (790)	97.5% (31,721)	0.1% (23)	100.0% (32,534)

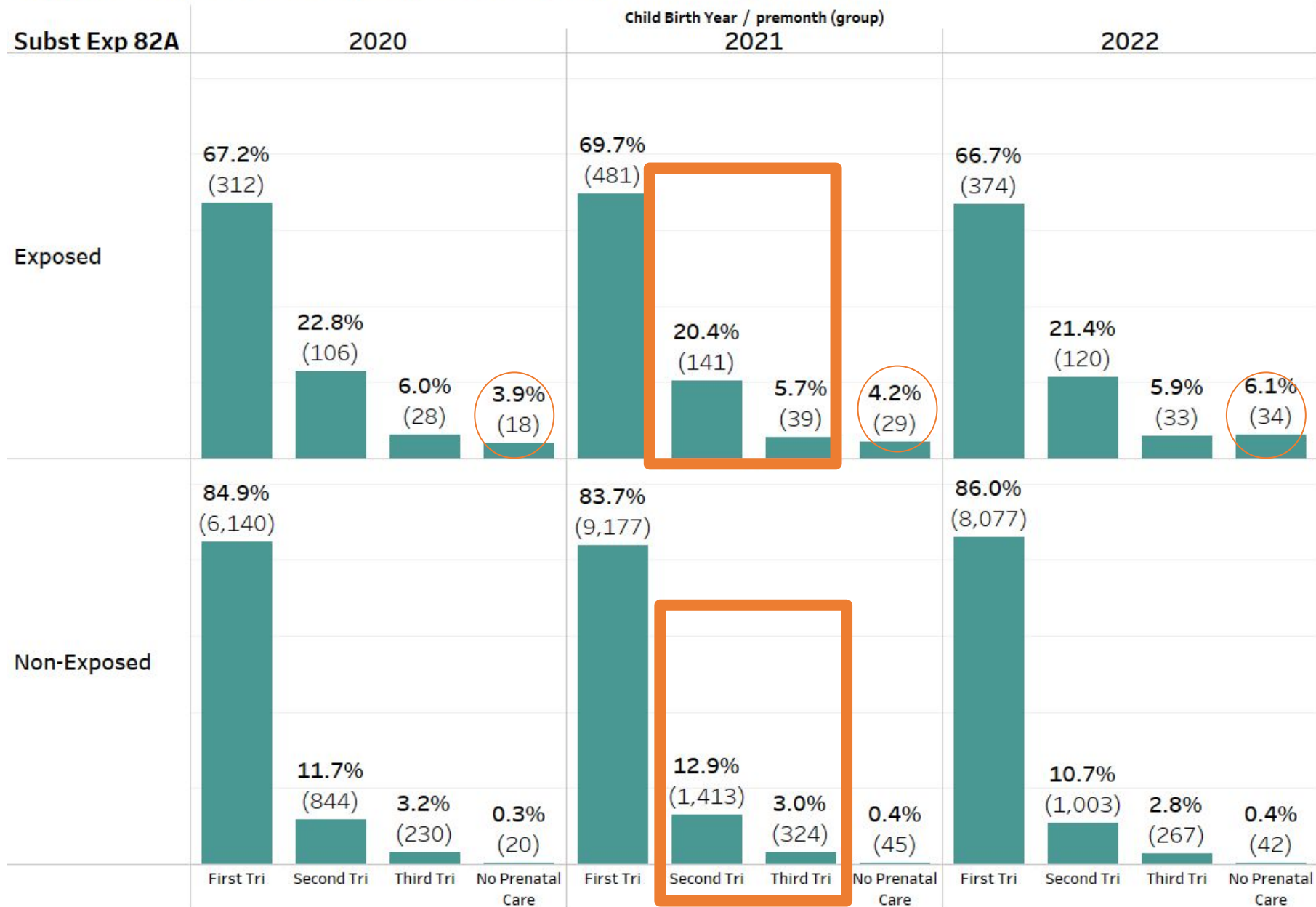
Total Number of Prenatal Care Visits by Monitored for Substance Exposure (Births Occurring in NH Hospitals)



The World Health Organization doubled the recommended number of health visits for pregnant women from four to eight <https://www.who.int/en/news-room/detail/07-11-2016>

The proportion of women **not** seeking enough number of prenatal care visits (**8 or more**) as recommended by WHO is more in the substance exposed group as compared to non exposed

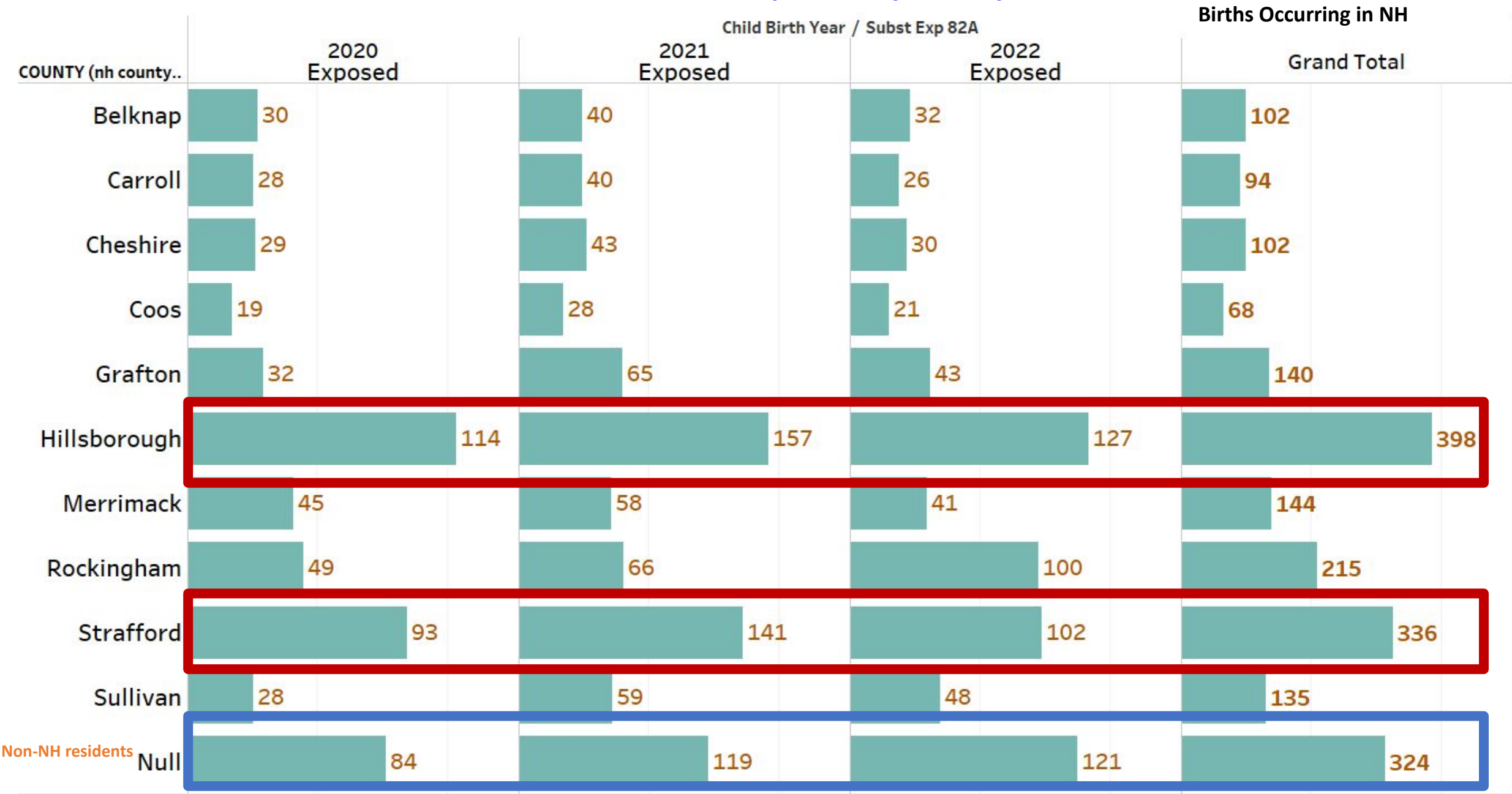
Timing of First Prenatal Care Visit by Substance Exposure Calculated Using LMP and First and Last Date of Prenatal Care



Data Source: VR_BIRTH (EBI_DATAMART) NHDPHS Maternal and Child Health Section

- The proportion of birthing people who start seeking prenatal care during the 2nd and 3rd trimester is double in the exposed as compared to the non exposed.
- Significantly more birthing individuals did not receive prenatal care in the exposed group as compared to non-exposed across the years

82A: Infant Monitored for Effect of In Utero Substance Exposure By County of Residence 2020-Nov 2022



Infants Monitored for Substance Exposure (May-Dec 2020 Births Occurring in NH Hospitals)

82A: Was the infant monitored for effects of in utero substance exposure? (by Hospital #)

Infant born 5/1/2020 to 12/31/2020 (includes infants born in currently active 16 birth hospitals only)

Data refreshed: 6/16/2022 7:05:34 AM

Data source: VR_BIRTH (EBI_DATAMART.VR_BIRTH)+(EBI_DATAMART)

Delivery Payer

- ☒ Medicaid
- ☒ NH CHIP
- ☒ Other (specify)
- ☒ Other Government
- ☒ Private Insurance
- ☒ Self-pay
- ☒ Unknown

iDOB Start Date

5/1/2020

iDOB End Date

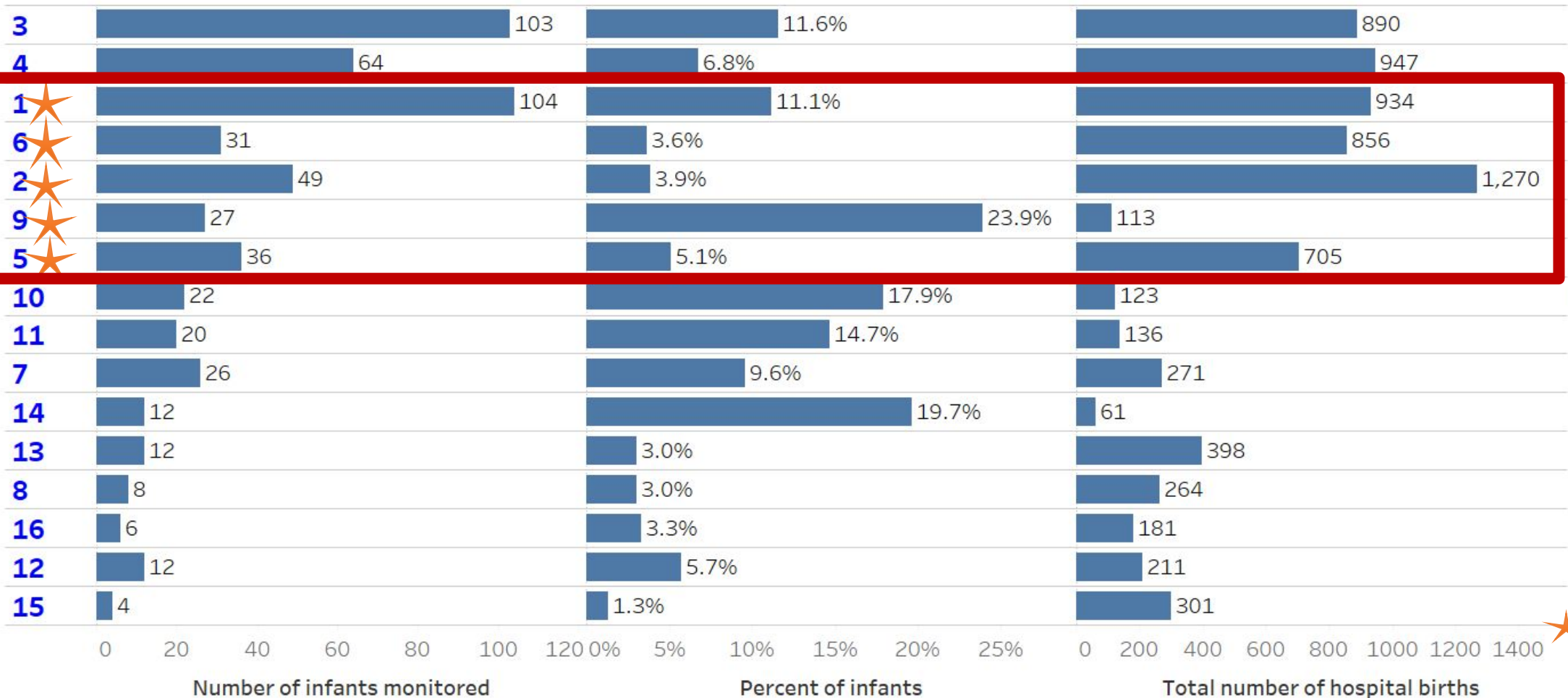
12/31/2020

-Occurrent births

-NH Res and Non-Res

-Hospital Births

★ Hospitals are located in counties with a higher number of birthing individuals with prenatal substance exposure (Hillsborough and Strafford counties)



552

6.9%

8,051

Infants Monitored for Substance Exposure (2021 Births Occurring in NH Hospitals)

82A: Was the infant monitored for effects of in utero substance exposure? (by Hospital #)2021

Infant born 1/1/2021 to 12/31/2021 (includes infants born in currently active 16 birth hospitals only)

Data refreshed: 6/16/2022 7:05:34 AM

Data source: VR_BIRTH (EBI_DATAMART.VR_BIRTH)+(EBI_DATAMART)

Delivery Payer

- ☒ Medicaid
- ☒ NH CHIP
- ☒ Other (specify)
- ☒ Other Government
- ☒ Private Insurance
- ☒ Self-pay
- ☒ Unknown

iDOB Start Date

1/1/2021

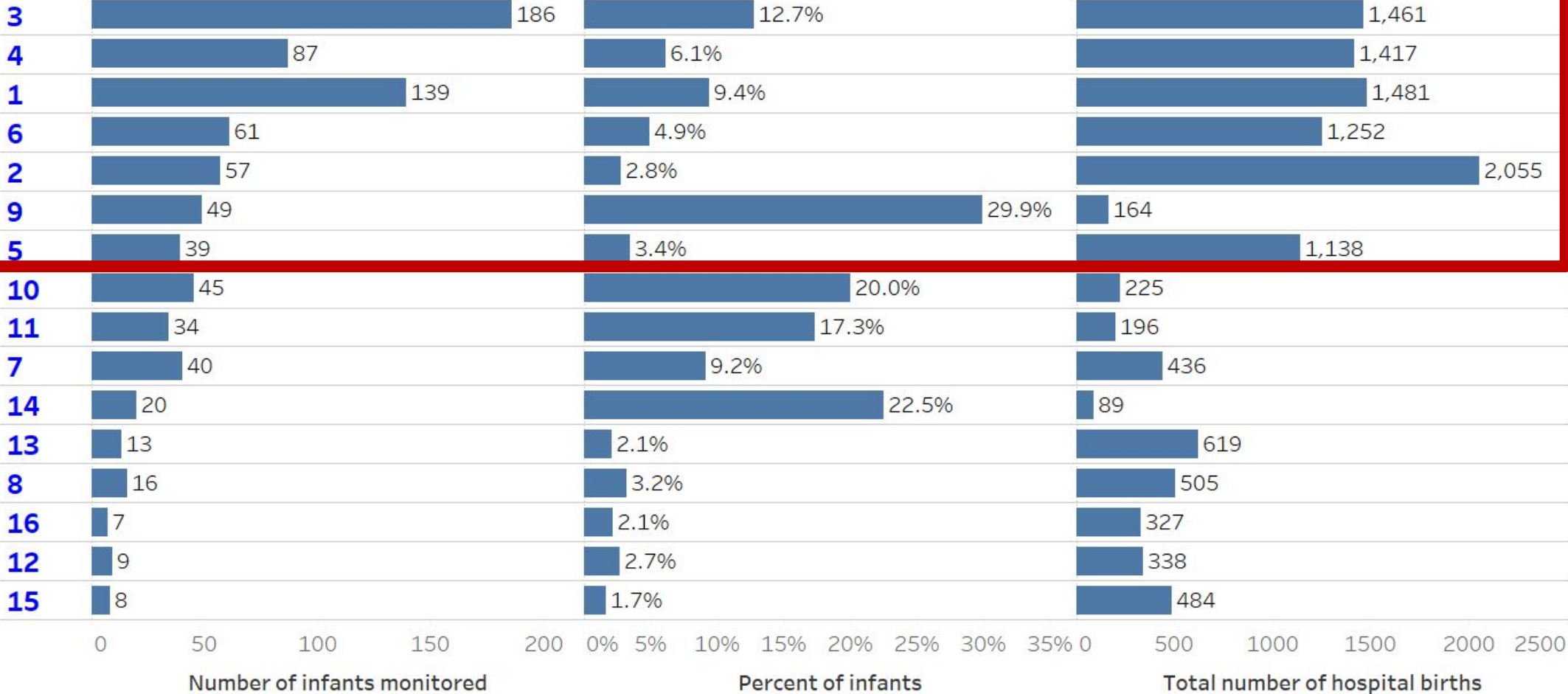
iDOB End Date

12/31/2021

-Occurrent births

-NH Res and Non-Res

-Hospital Births



823

6.5%

12,674

82A: Infants Monitored for Substance Exposure (2022 Births Occurring in NH Hospitals)

82A: Was the infant monitored for effects of in utero substance exposure? (by Hospital #)

Infant born 1/1/2022 to 11/29/2022 (includes infants born in currently active 16 birth hospitals only)

Data refreshed: 11/29/2022 2:39:33 PM

Data source: VR_BIRTH (EBI_DATAMART.VR_BIRTH)+(EBI_DATAMART)

Delivery Payer

- ✓ Null
- ✓ Medicaid
- ✓ NH CHIP
- ✓ Other (specify)
- ✓ Other Government
- ✓ Private Insurance
- ✓ Self-pay
- ✓ Unknown

iDOB Start Date

1/1/2022

iDOB End Date

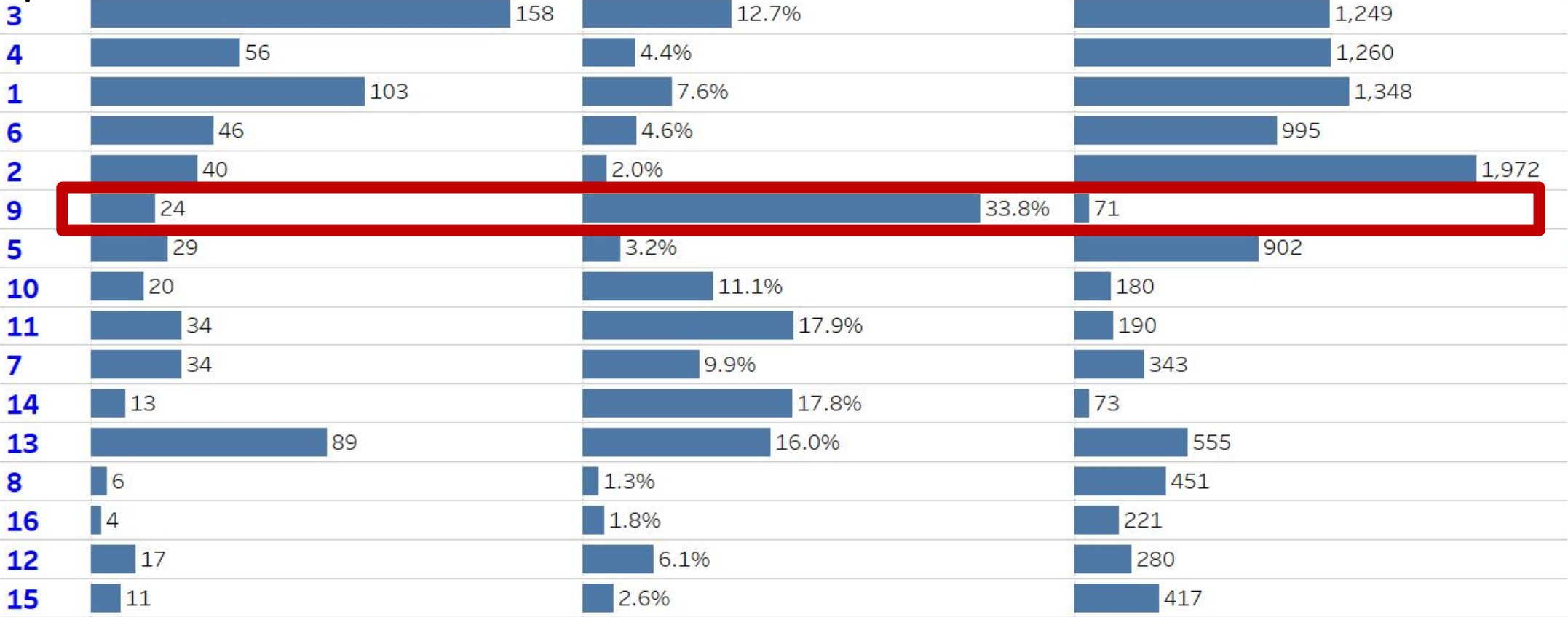
11/29/2022

-Occurrent births

-NH Res and Non-Res

-Hospital Births

Hospital Blind #



0 20 40 60 80 100 120 140 160 180 0% 5% 10% 15% 20% 25% 30% 35% 40% 0 500 1000 1500 2000

Number of infants monitored

Percent of infants

Total number of hospital births

692

6.3%

10,916

82A: Was the infant monitored for effects of in utero substance exposure? (by Hospital)

Subset: *Opioid or Stimulant Reported*

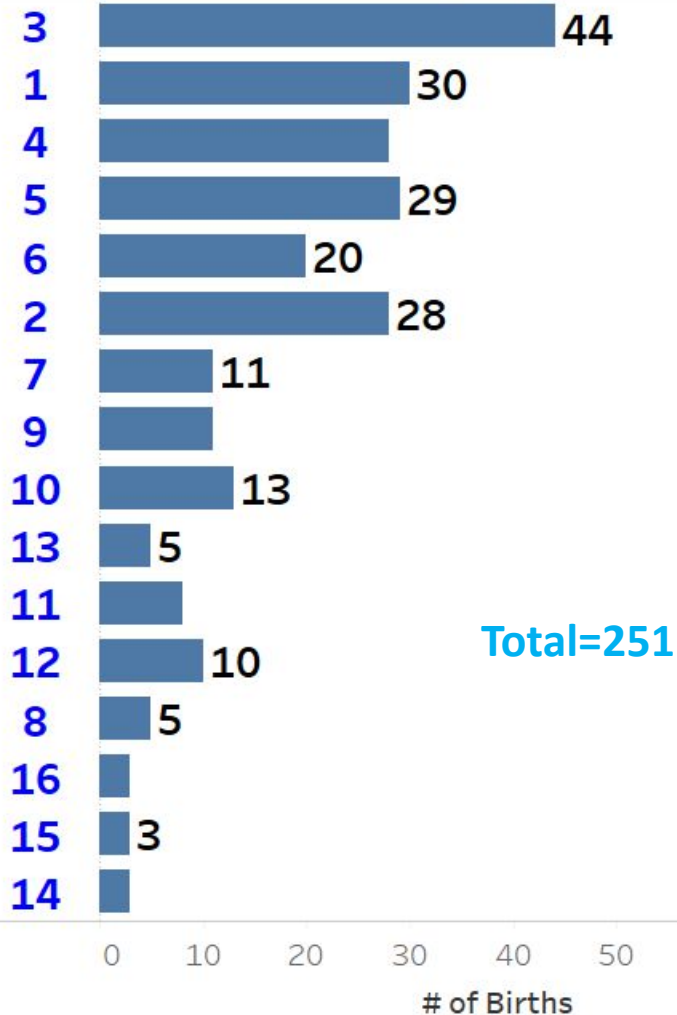
Infant born 5/1/2020 to 11/29/2022 (includes infants born in currently active 16 birth hospitals only)

Data refreshed: 11/29/2022 4:32:31 PM

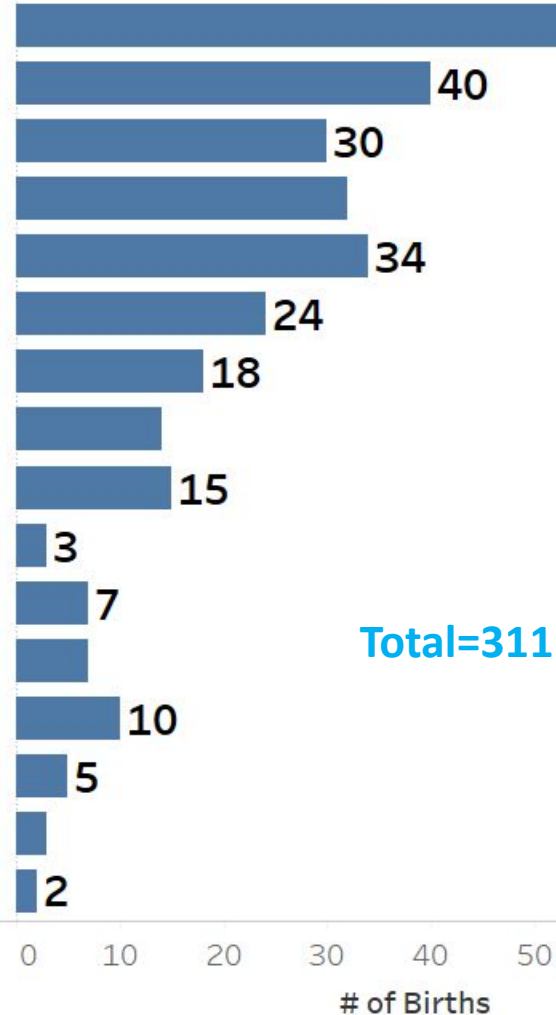
Data source: VR_BIRTH (EBI_DATAMART.VR_BIRTH)+ (EBI_DATAMART)

Monitored for Opioid or Stimulant

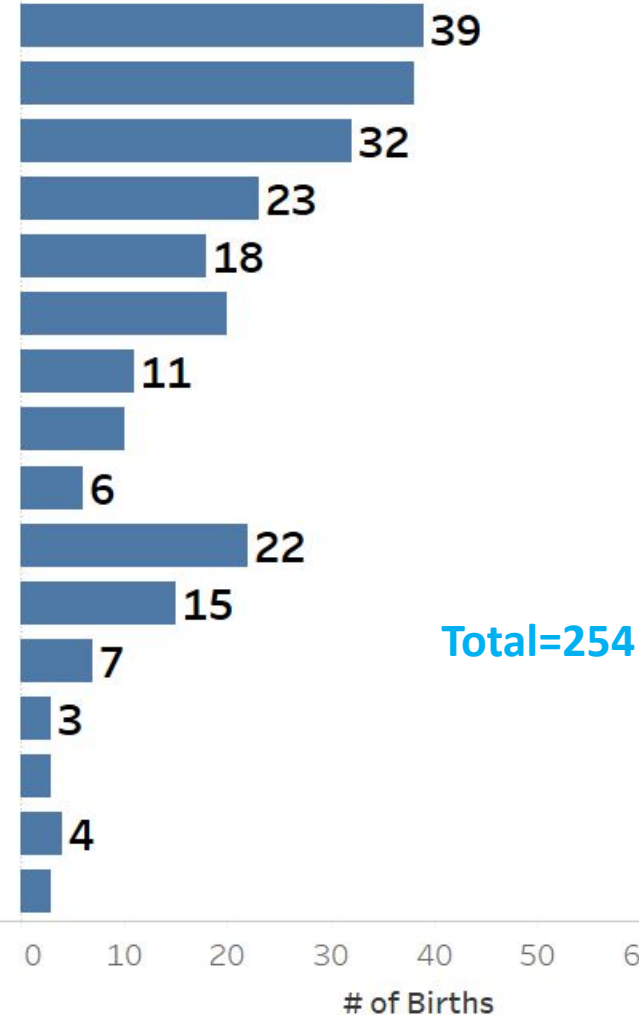
2020



2021



2022



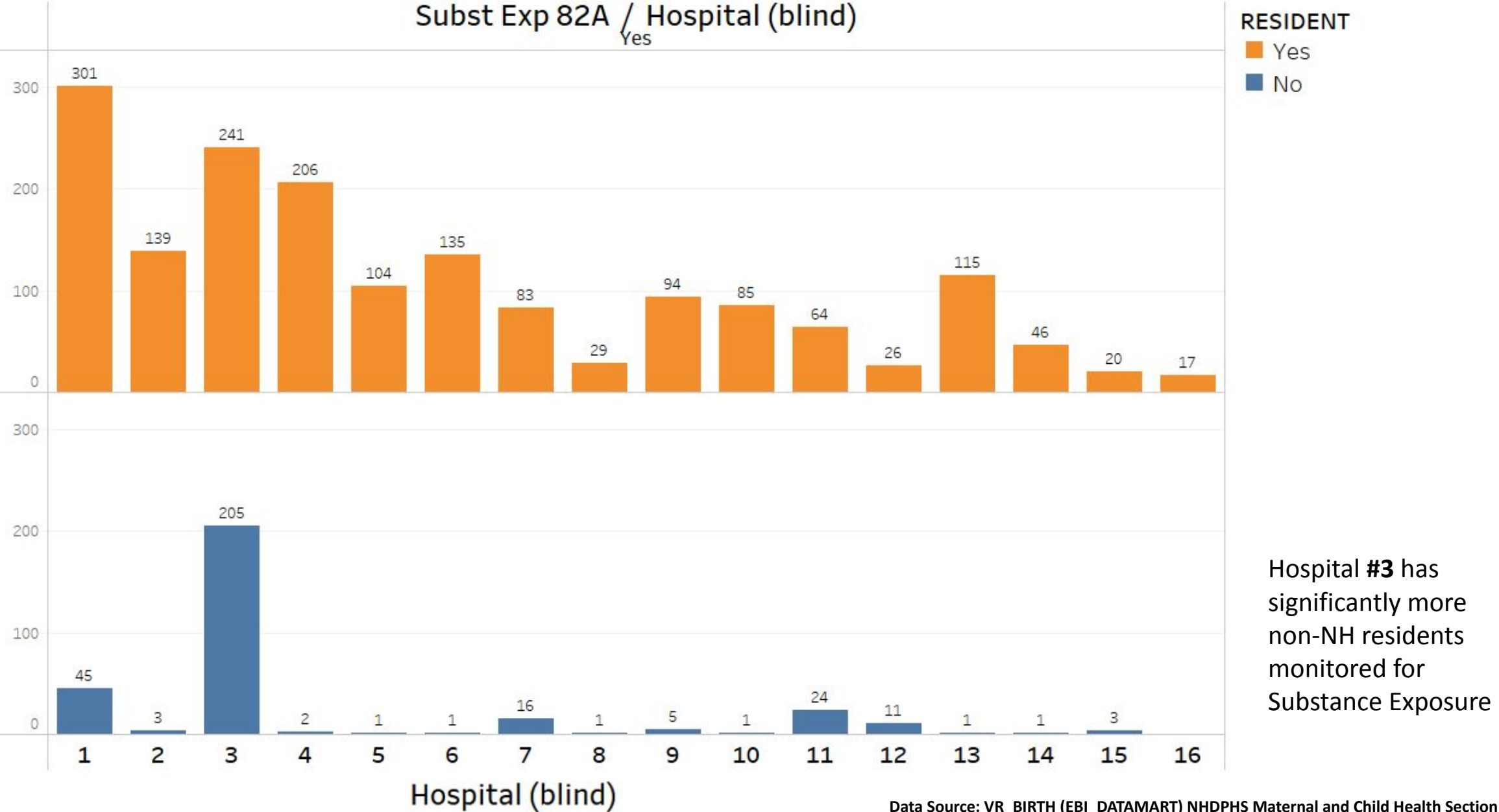
iDOB Start Date
5/1/2020

iDOB End Date
11/29/2022

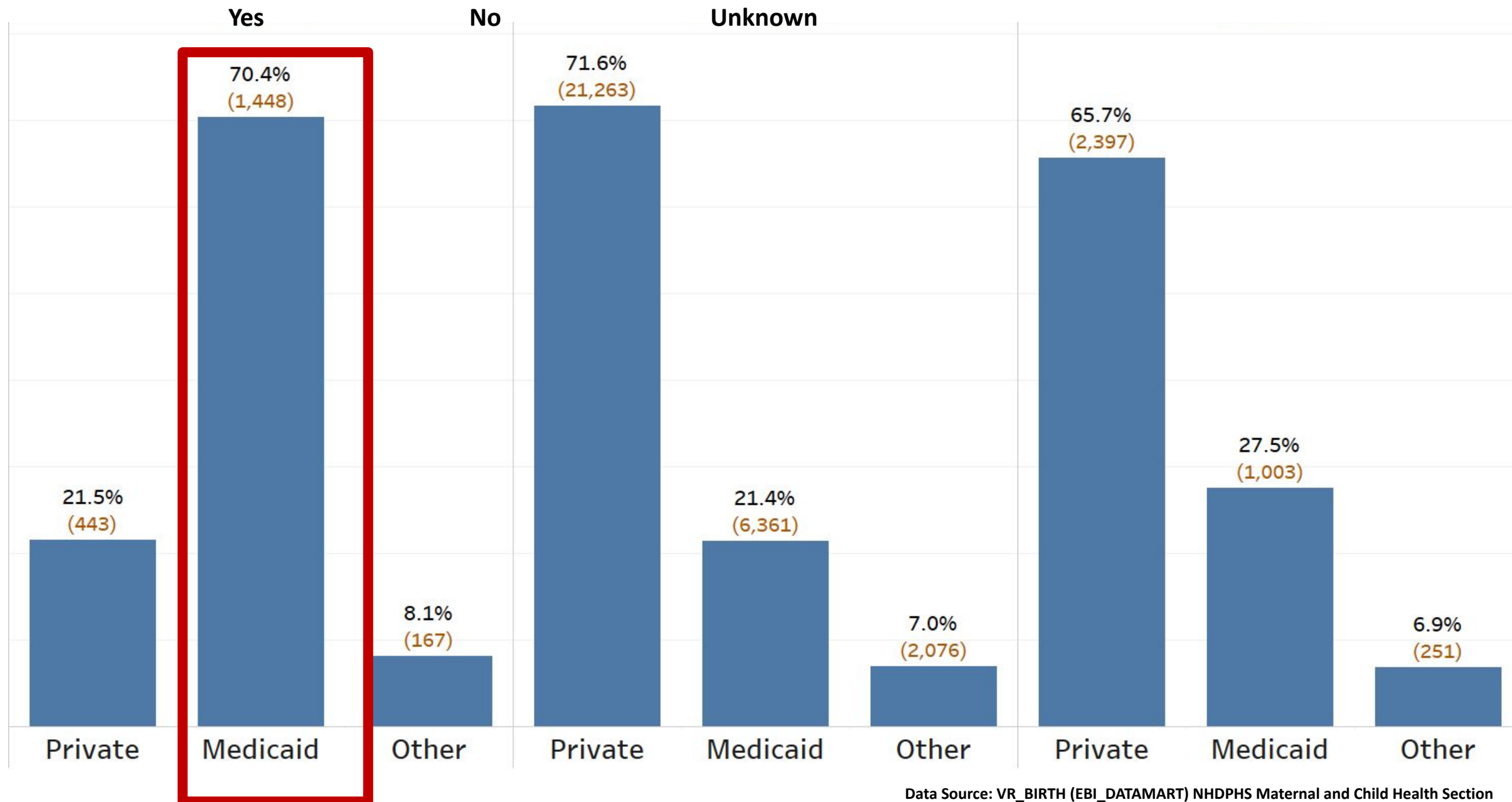
Most NH pregnancy-associated deaths in 2021 were due to overdose.

Data Source: VR_BIRTH (EBI_DATAMART) NHDPHS Maternal and Child Health Section

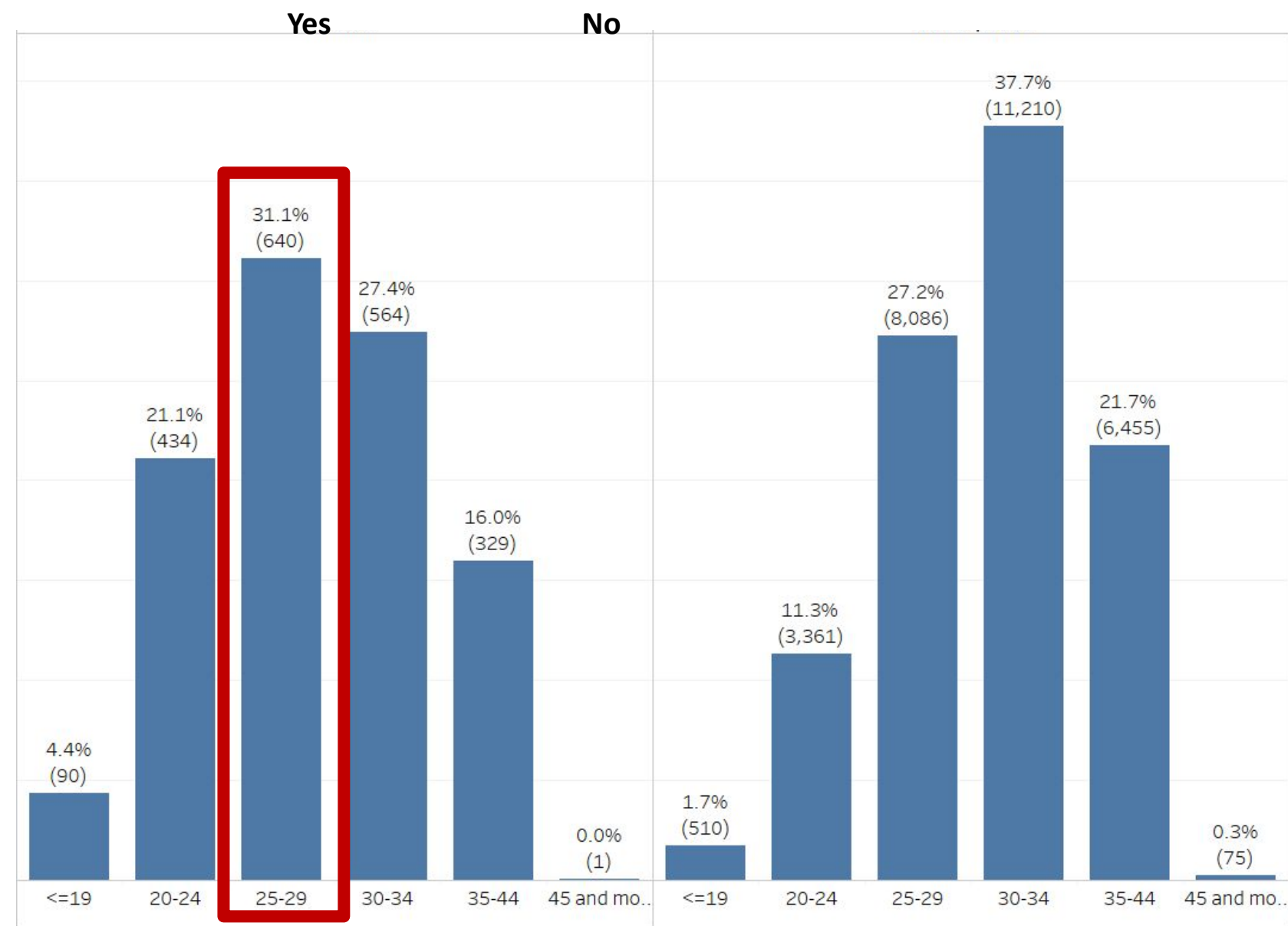
82A Monitored for Substance Exposure by Mother's State of Residence (New Hampshire or Not: 2020-Nov2022) Births Occurring in NH Hospitals)



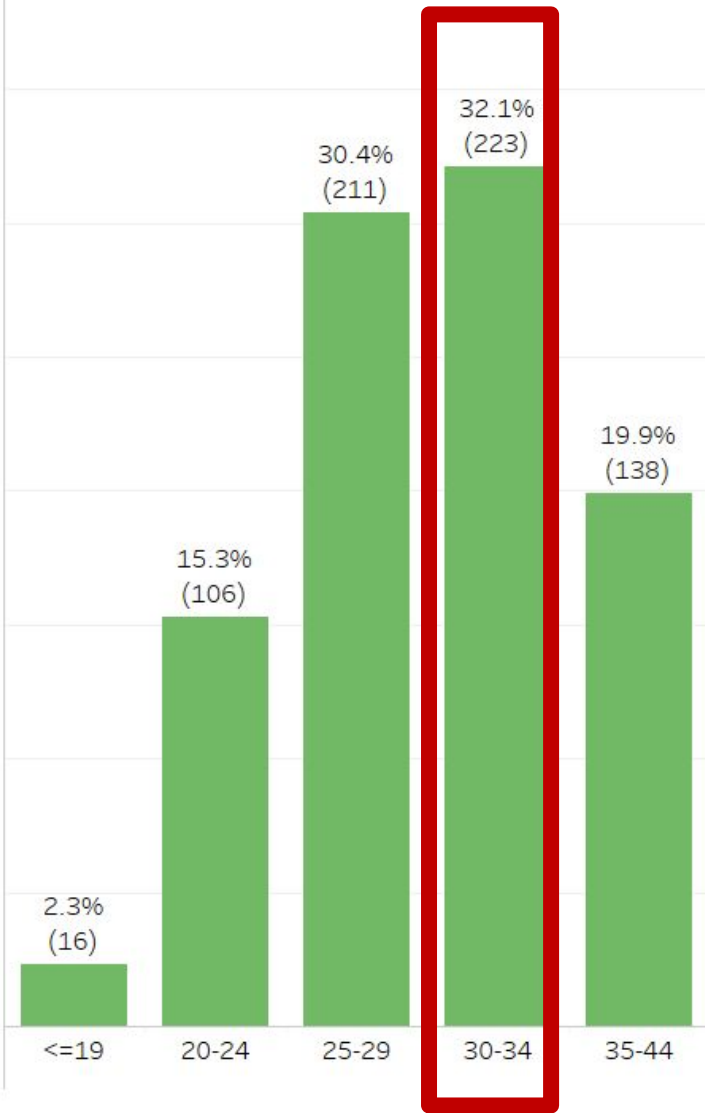
Infants Monitored for Substance Exposure by Payer (2020-Nov 2022 Births)



82A: Infant Monitored for Effect of In Utero Substance Exposure By Mother's Age (2020-Nov 2022)



82.B Infants Affected by In Utero SUD by Mother's Age (2020-Nov2022)



82A: Proportion of Infant Monitored for Effect of In Utero Substance Exposure By Mother's Race (2020-Nov 2022)

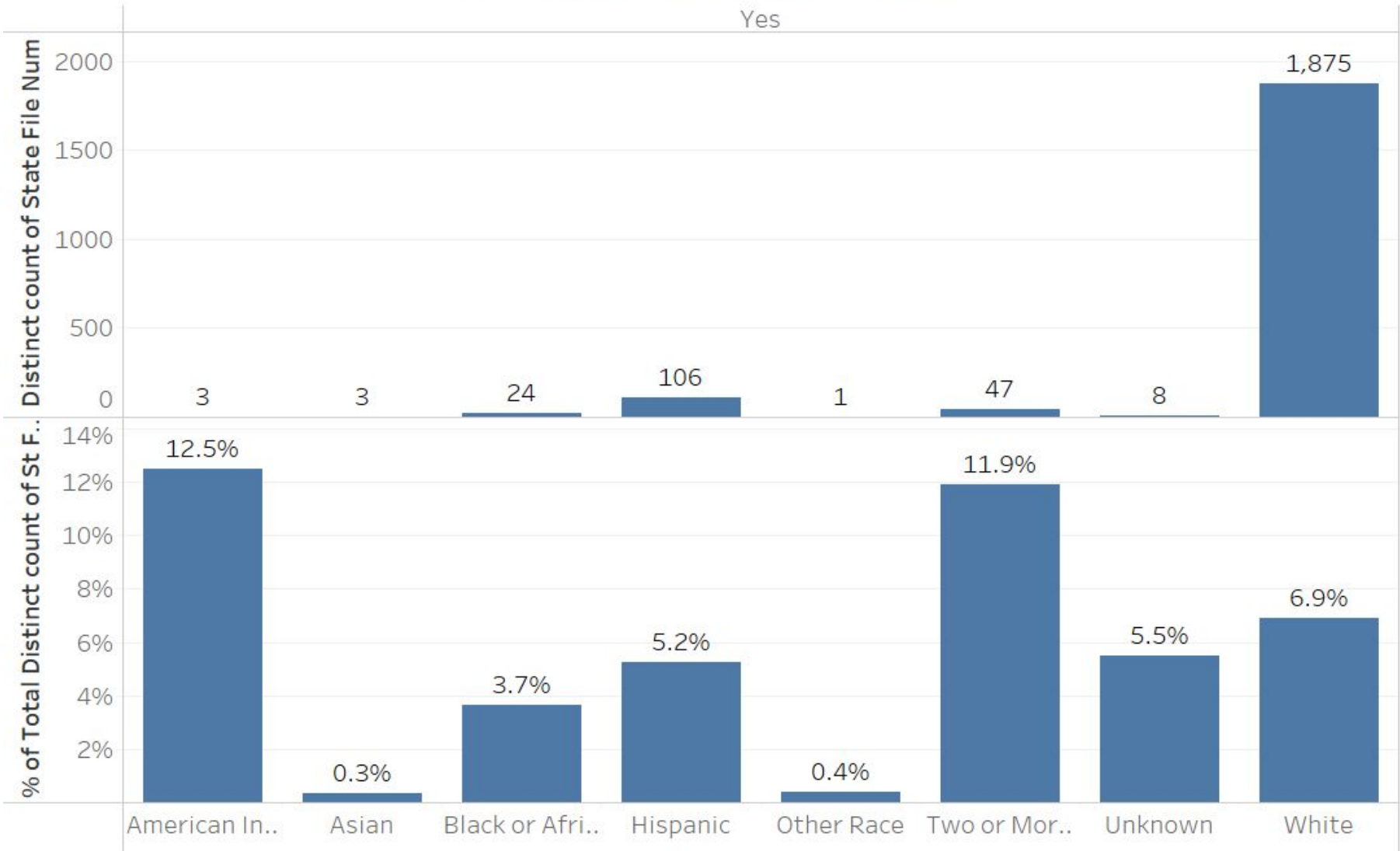
82A: Was the infant monitored for effects of in utero substance exposure?

by Race and Hispanic Origin of the Birthing Person

Infant born 5/1/2020 to 11/29/2022 | Births occurring in NH

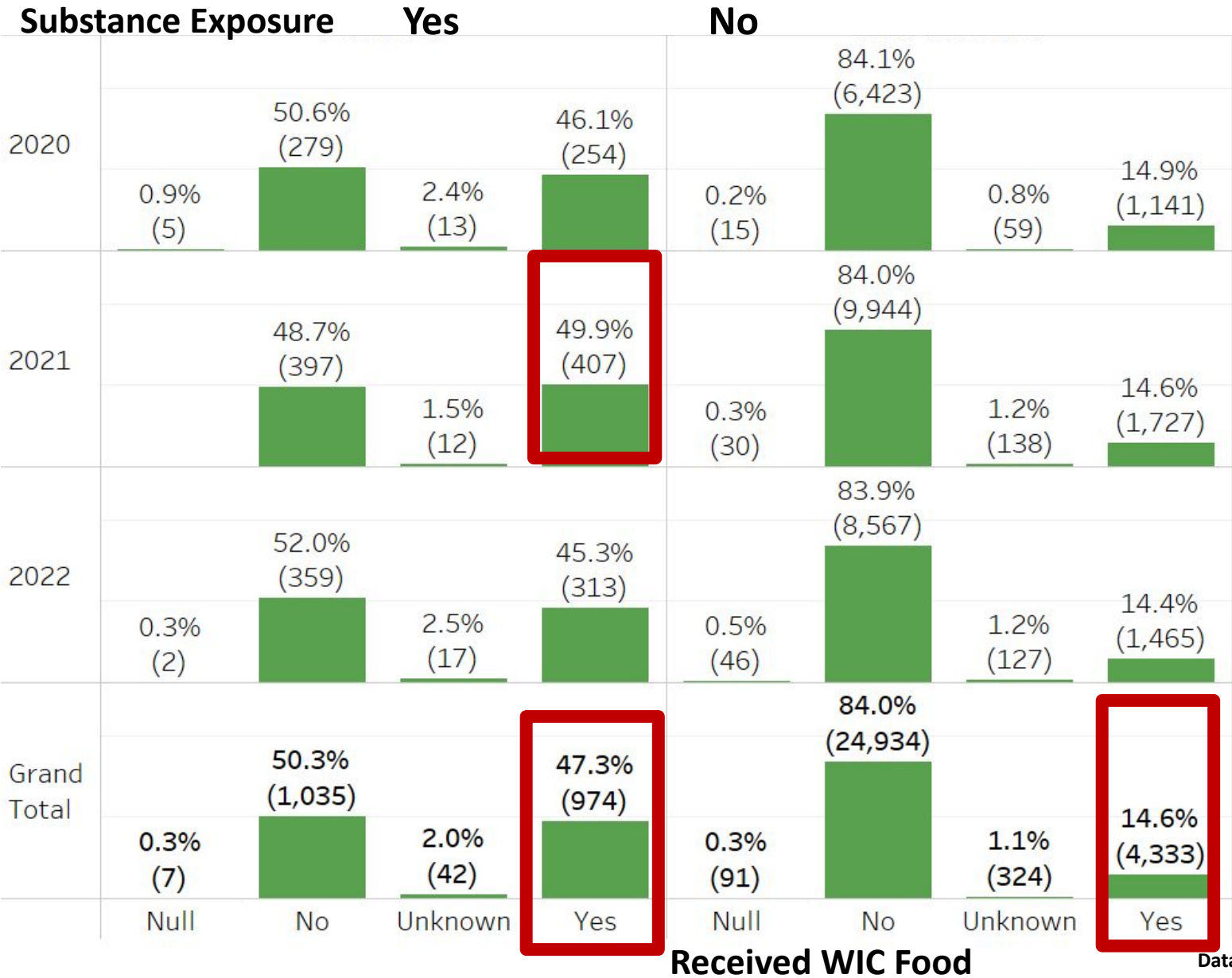
Data refreshed: 11/29/2022 4:32:31 PM

Data source: VR_BIRTH (EBI_DATAMART.VR_BIRTH)+(EBI_DATAMART)



NOTE: Caution interpreting categories with small numbers

82A: Infant Monitored for Effect of In Utero Substance Exposure By Mother Received WIC Food during Pregnancy (2020-Nov 2022)

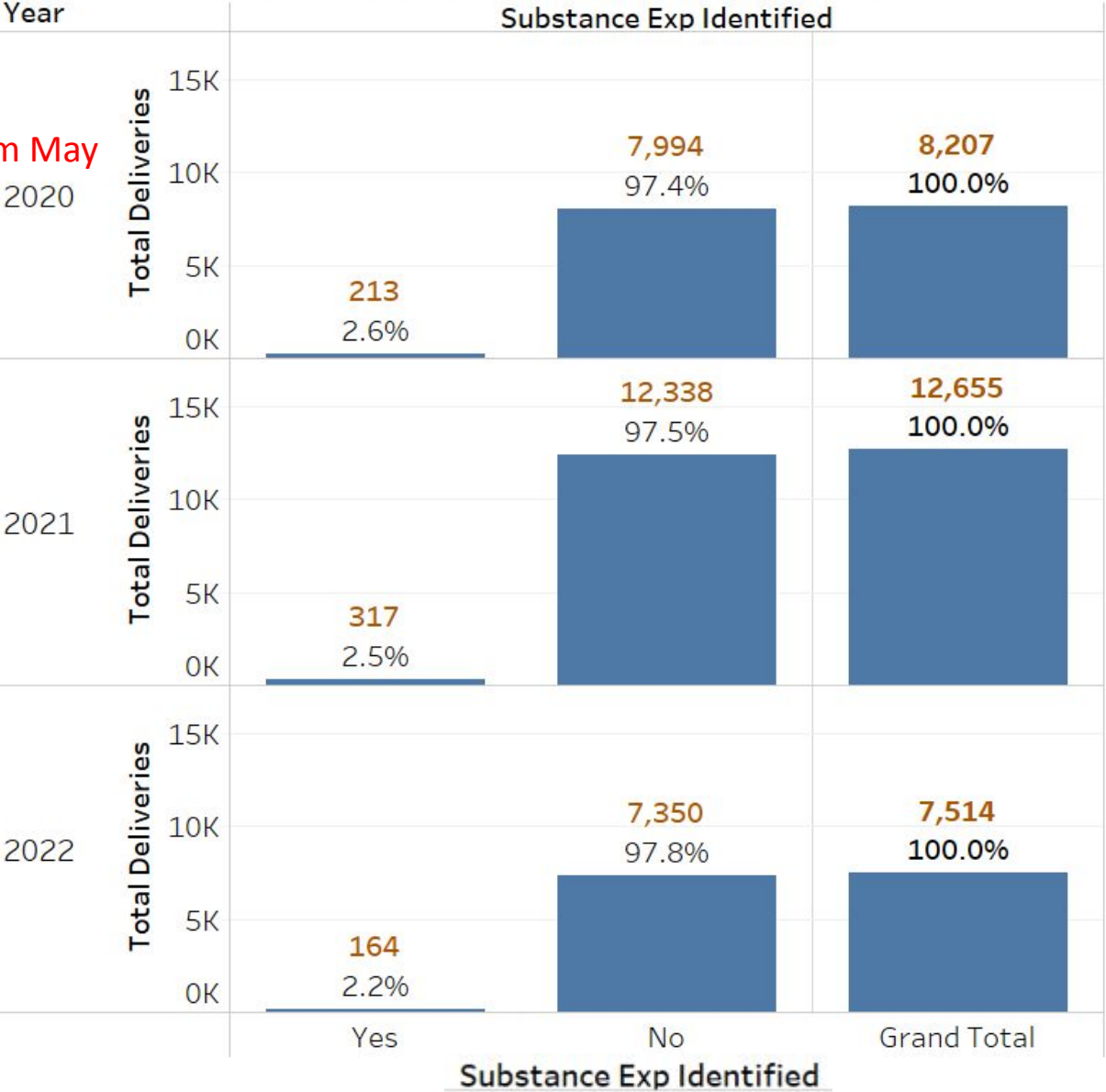


Almost half (47.3%) of those exposed to substance use received WIC food as compared to 14.6% in the non-exposed.

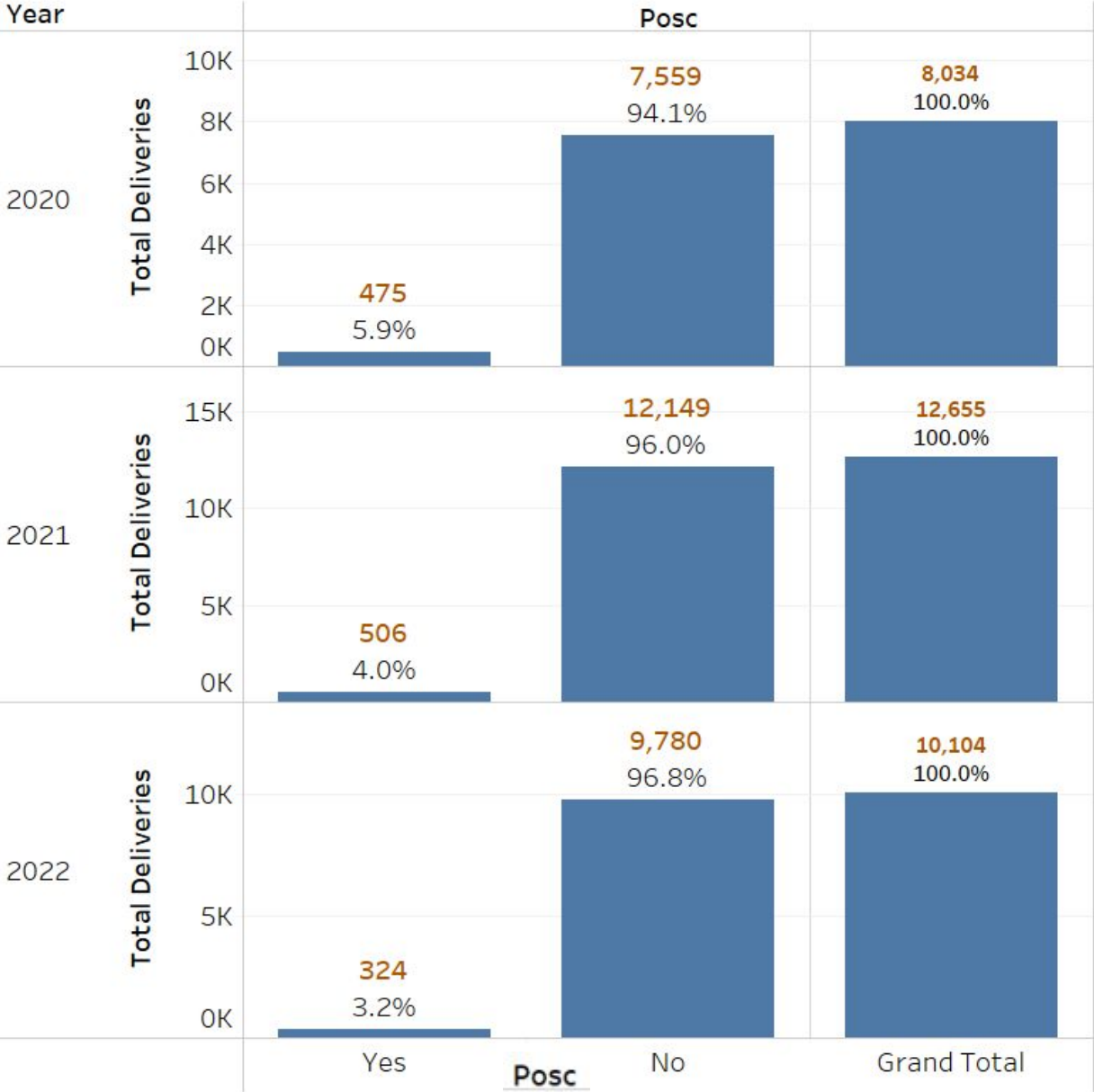
More substance exposed birthing individuals received WIC food in 2021

Unknown fields under substance exposure were excluded

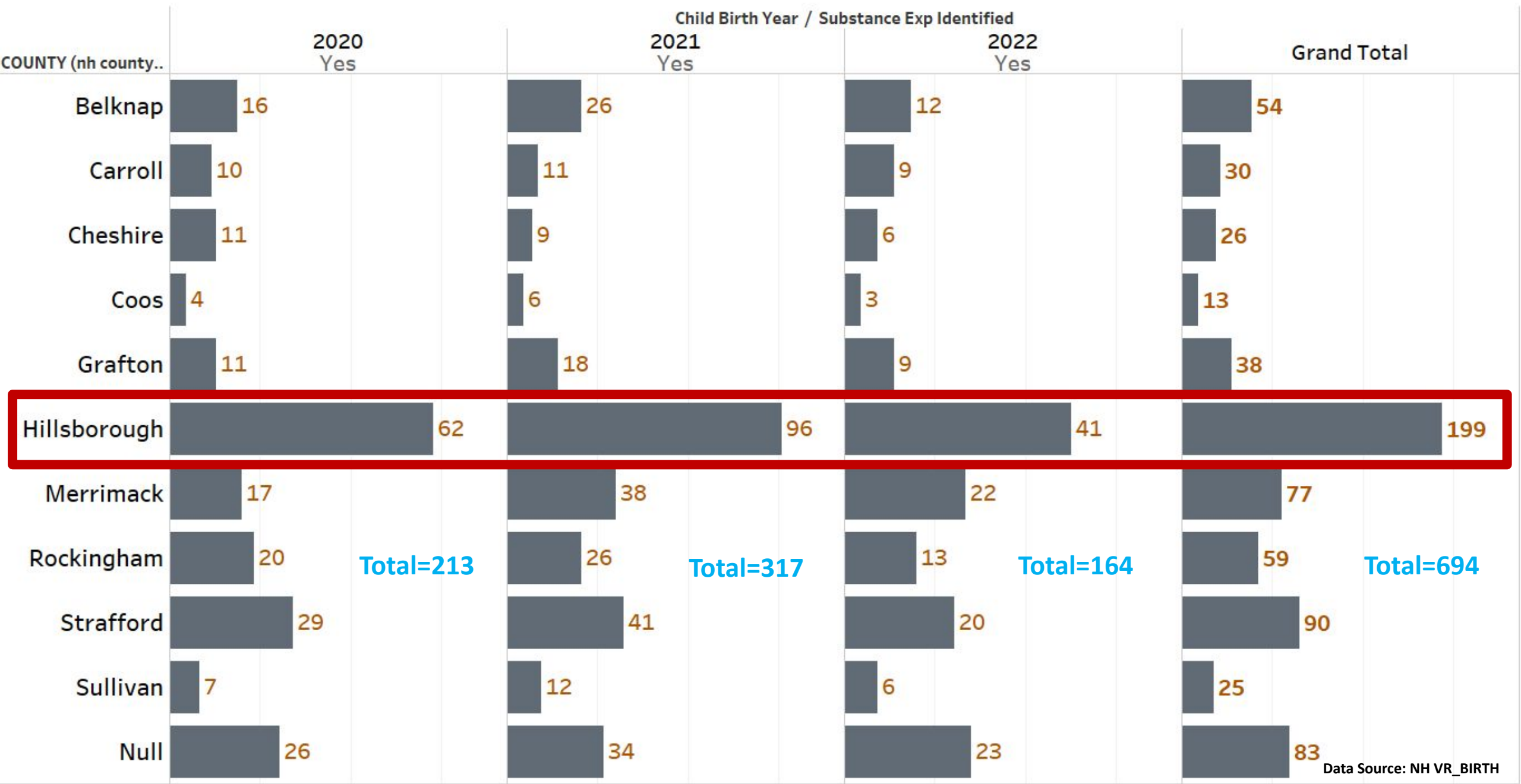
82B. Was the infant identified as being affected by substance misuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder? CAPTA/CARA



83: Was a Plan of Safe/Supportive Care (POSC) created? (Births Occuring in New Hapshire) Date Range (May 1 st 2020-October 31 2021)



Infants Affected by Substance Withdrawal Symptoms by County of Residence: (2020- Nov2022)

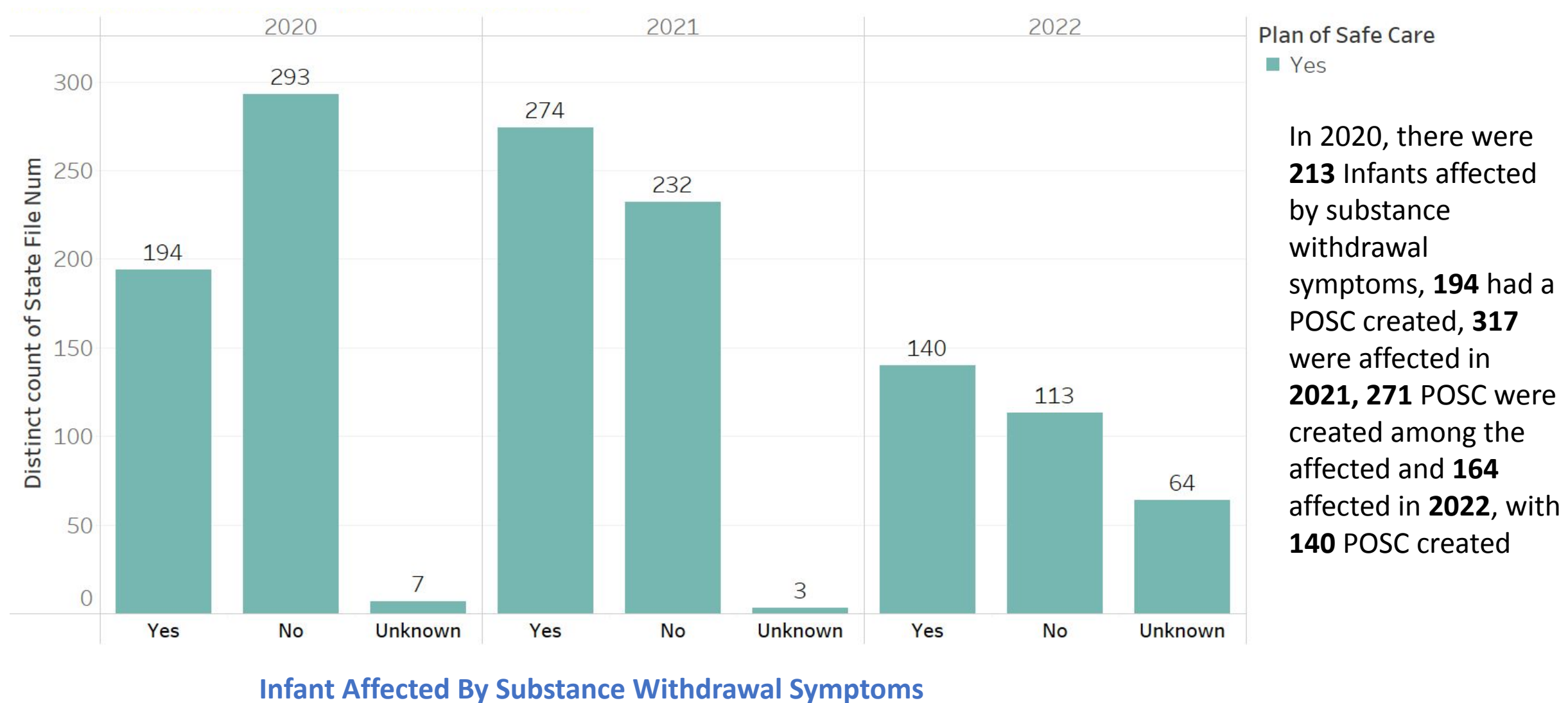


Infants Affected by Substance Withdrawal Symptoms by Plan of Safe Care Created (2020- Nov2022)

Infant affected by SUD	POSC Created	Child Birth Year		
		2020	2021	2022
Unknown	No	(0.3%) 10	(80.0%) 12	(97.1%) 3,284
	Unknown	(99.5%) 3,618		
	Yes	(0.2%) 7	(20.0%) 3	(2.9%) 99
No	No	(96.3%) 7,701	(98.1%) 12,106	(98.5%) 7,237
	Yes	(3.7%) 293	(1.9%) 232	(1.5%) 113
Yes	No	(8.9%) 19	(13.6%) 43	(14.6%) 24
	★ Yes	(91.1%) 194	(86.4%) 274	(85.4%) 140
Grand Total		(100.0%) 11,842	(100.0%) 12,670	(100.0%) 10,897

★ Majority of infants affected by in utero SUD had a plan of safe care created

Infant Affected By Substance Exposure Withdrawal Symptoms by Plan of Safe Care Created (2020-Nov 2022)

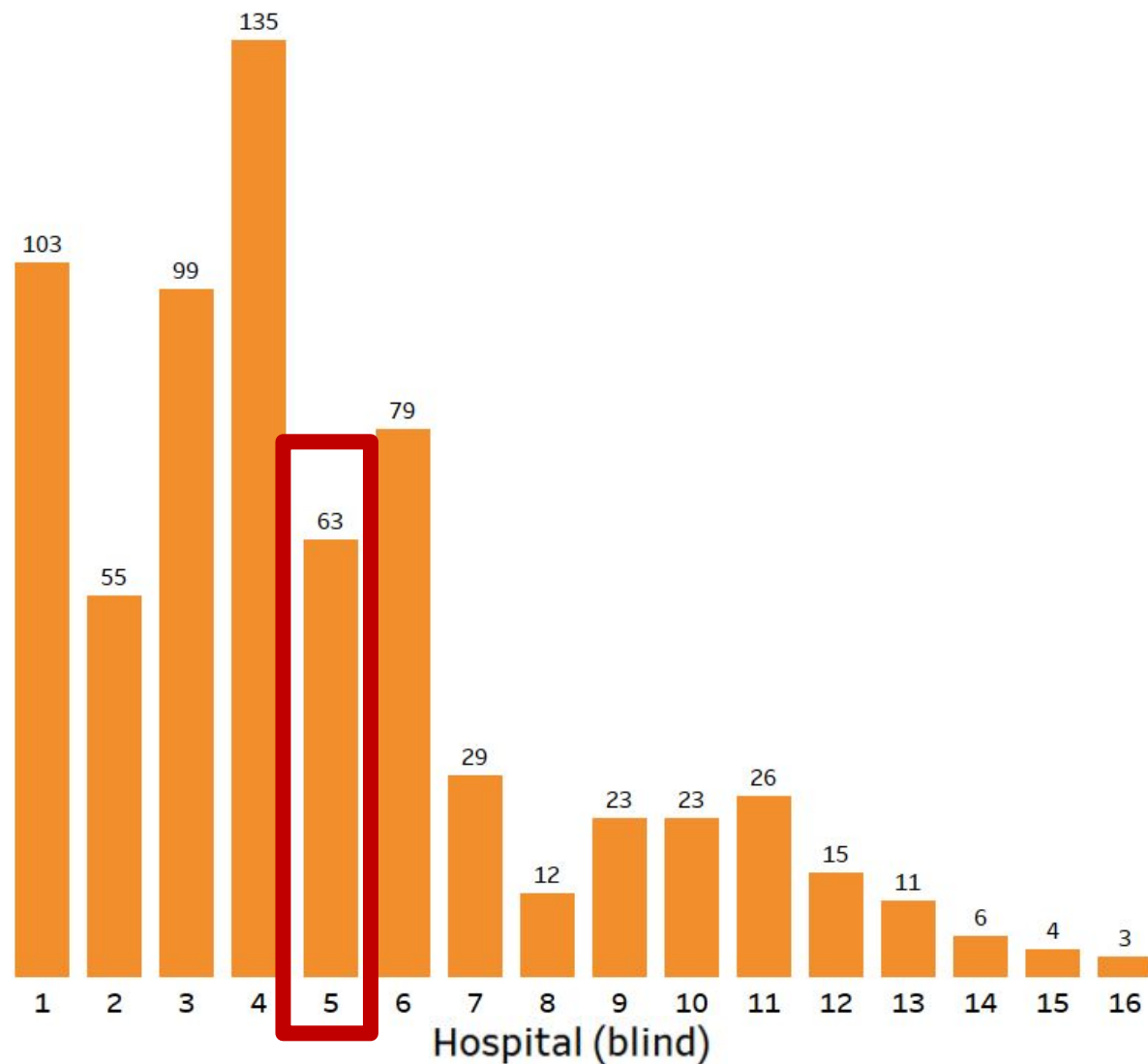


Percentage of postpartum birthing individuals whose infant was identified as being affected by substance misuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder, who had a documented Plan of Safe/Supportive Care (POSC)

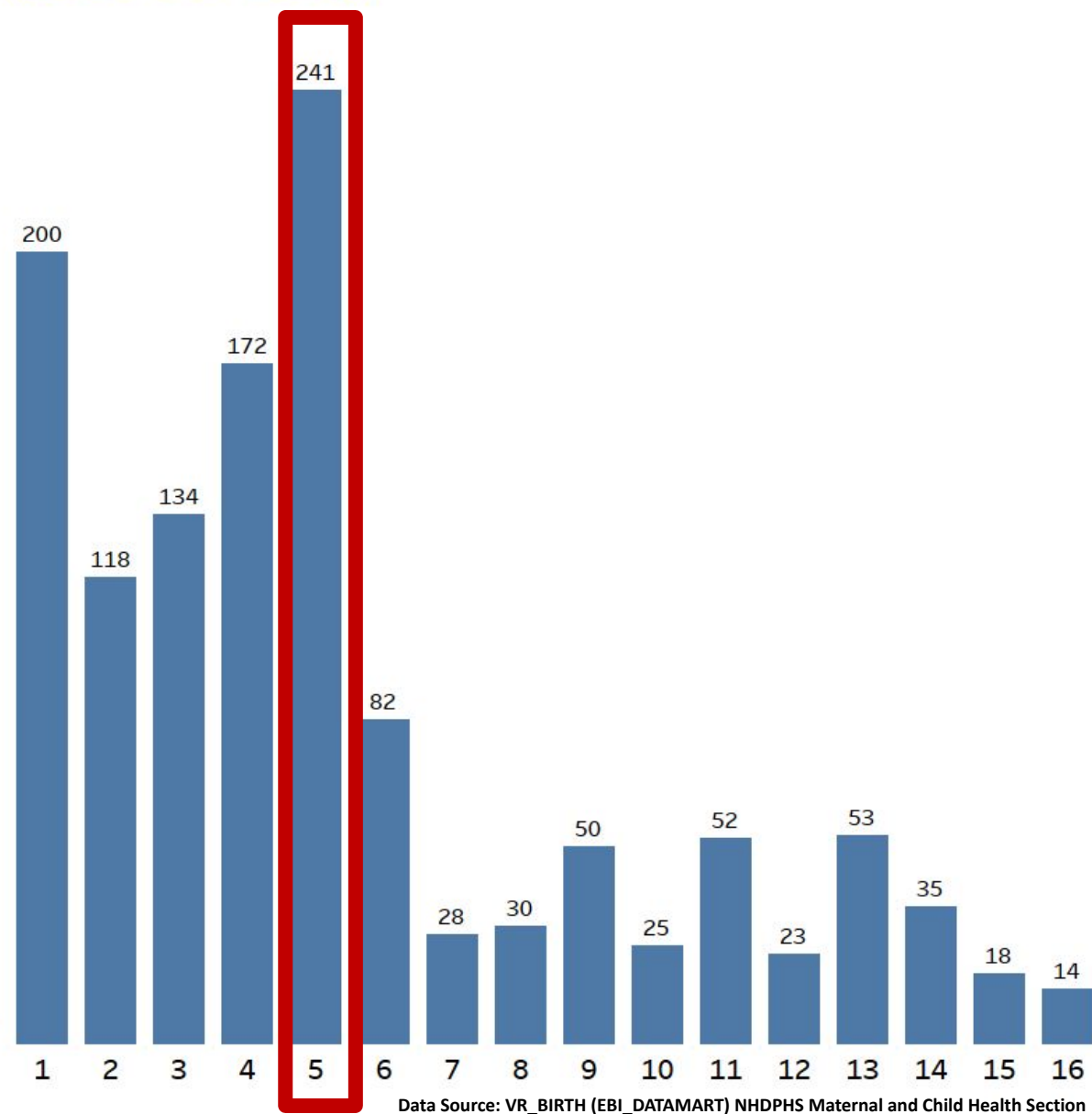
Infants born: 5/1/2020 to 11/29/2022
Data refreshed: 11/29/2022 4:32:31 PM
Data source: VR_BIRTH (EBI_DATAMART.VR_BIRTH)+(EBI_DATAMART)

		83: Was a Plan of Safe/Supportive Care (POSC) created?	
		No	Yes
82B. Was the infant identified as being affected by substance misuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder?	No	26,912 (97.7%)	629 (2.3%)
	Yes	90 (12.8%)	615 (87.2%)

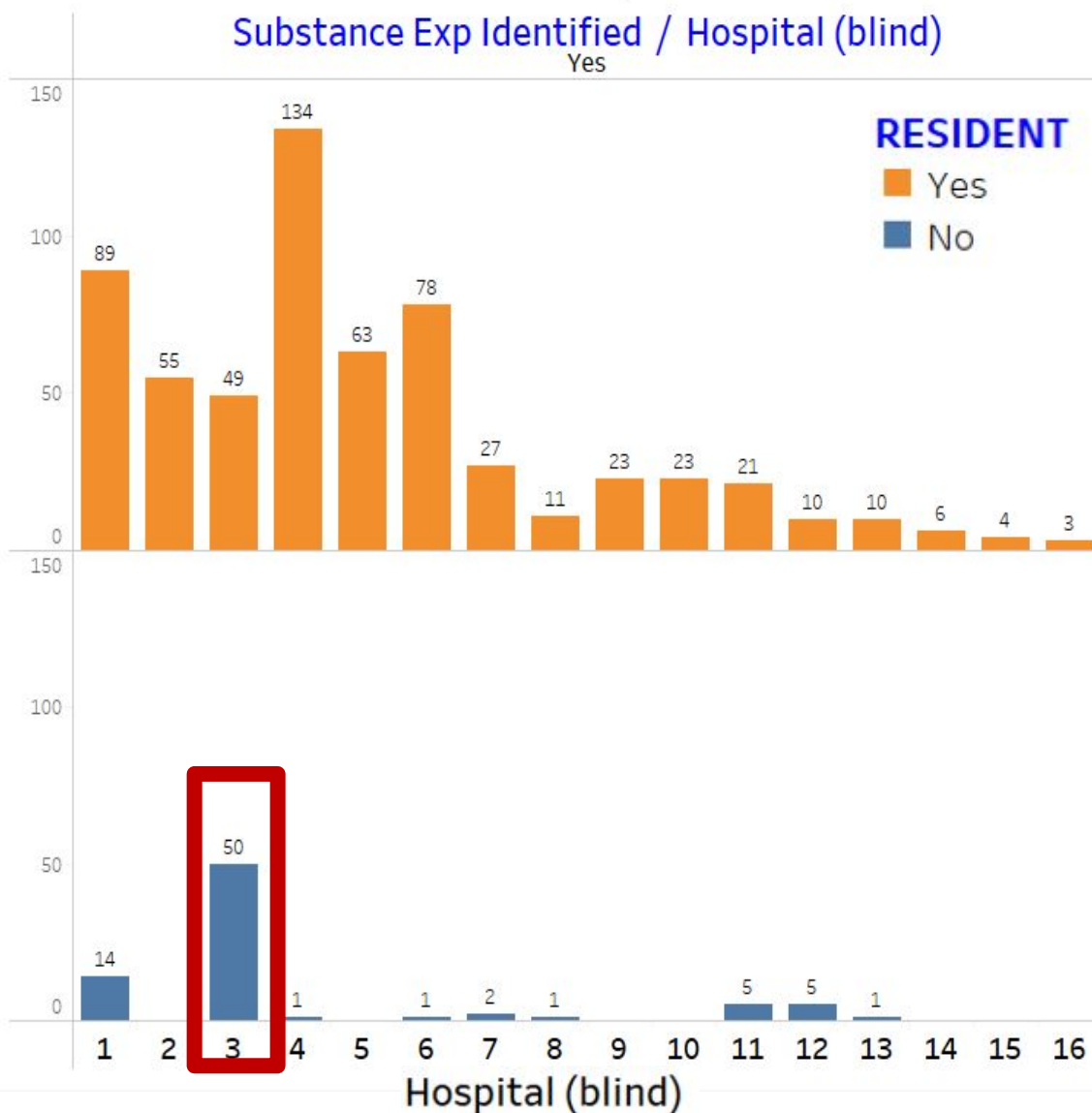
Was the Infant Identified as Being Affected by
Substance Misuse/Withdrawal Symptoms
(CAPTA/CARA) by Hospital# (2020-Nov 2022)



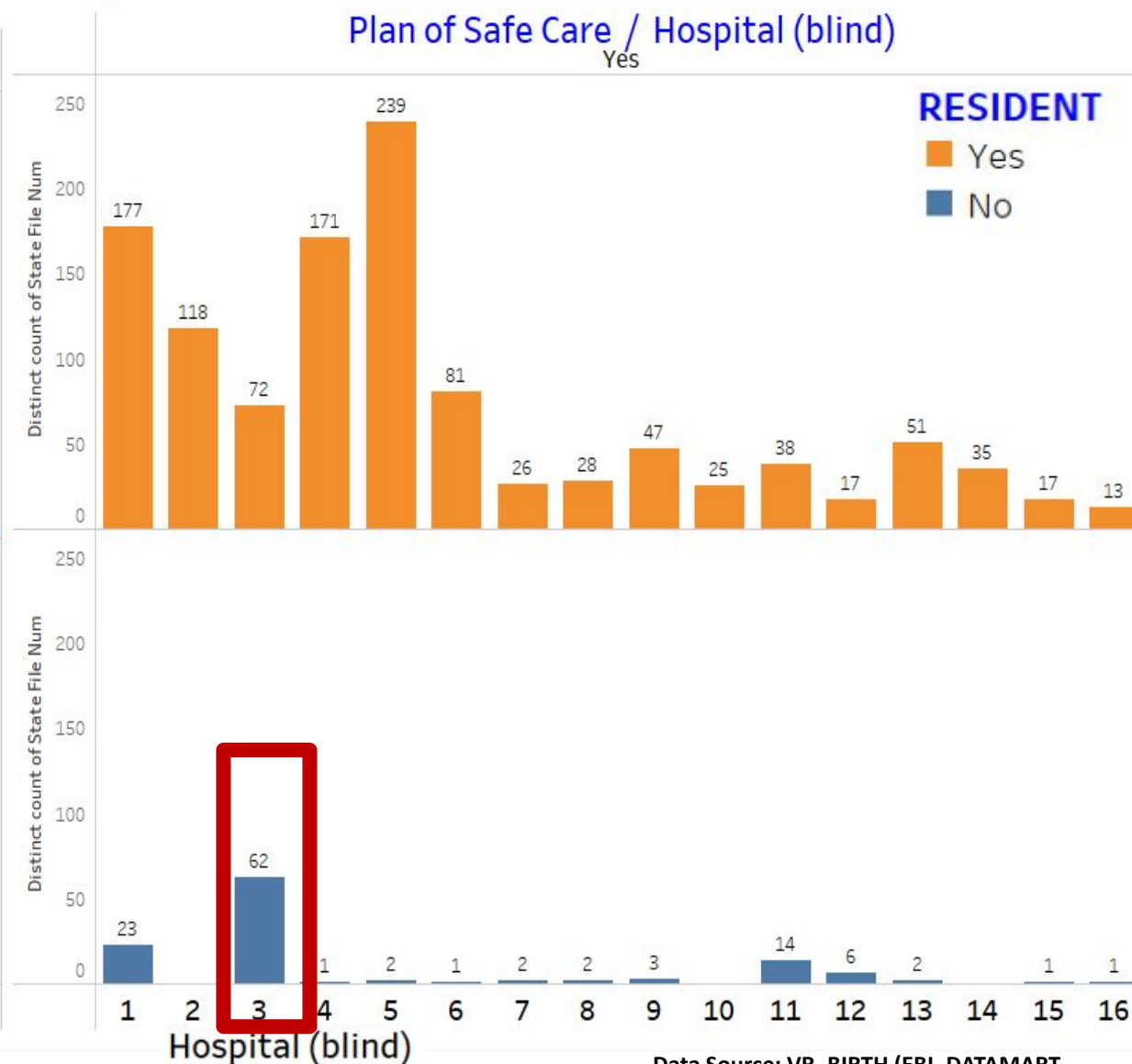
Was Plan of Safe Care Created by Hospital
(2020-Nov 2022)



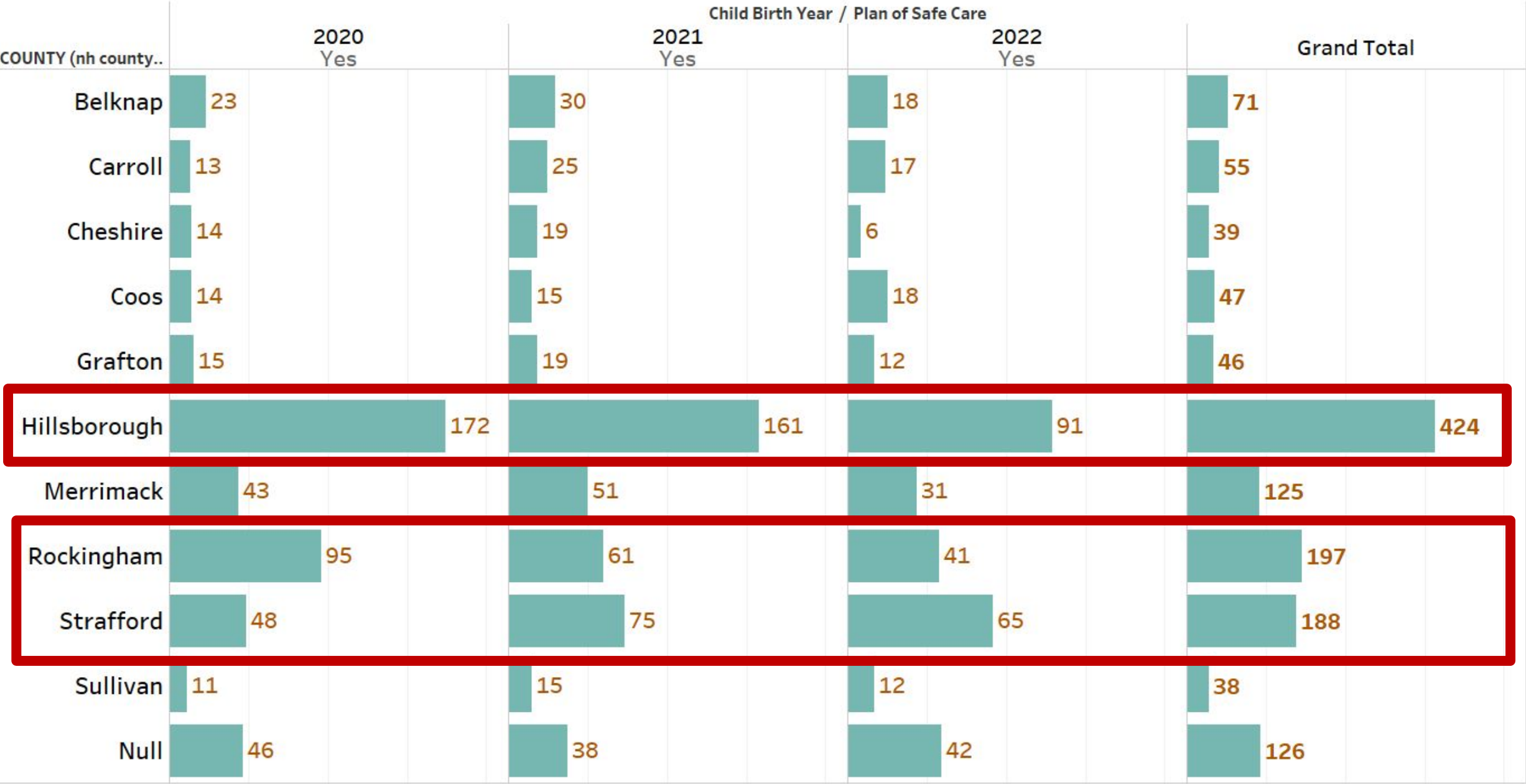
Infant Identified as being affected by SUD Withdrawal Symptoms by Mother's State of Residence (New Hampshire or Not: 2020-Nov2022)



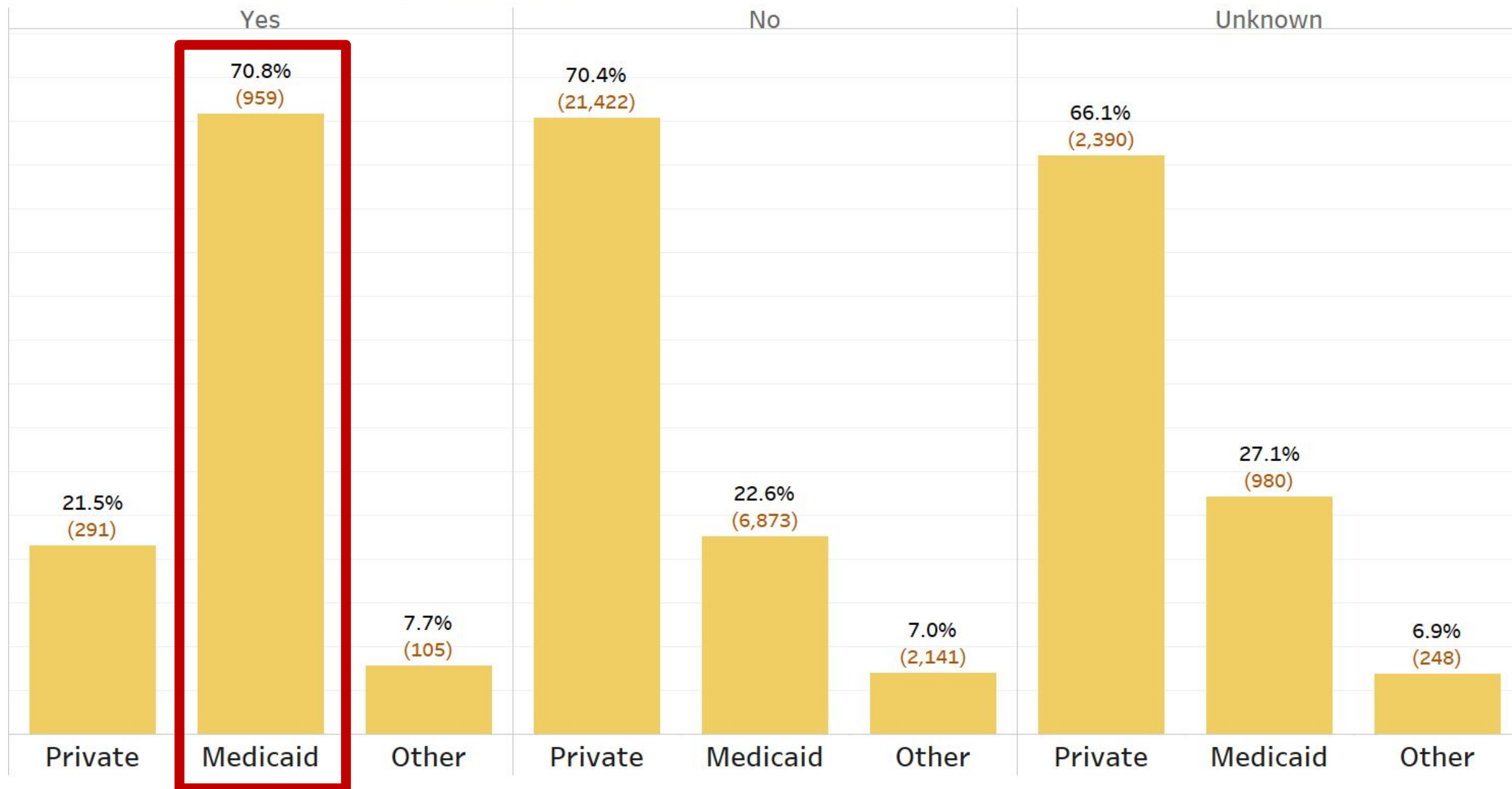
Plan of Safe Care by Mother's State of Residence (New Hampshire or Not: 2020-Nov2022)



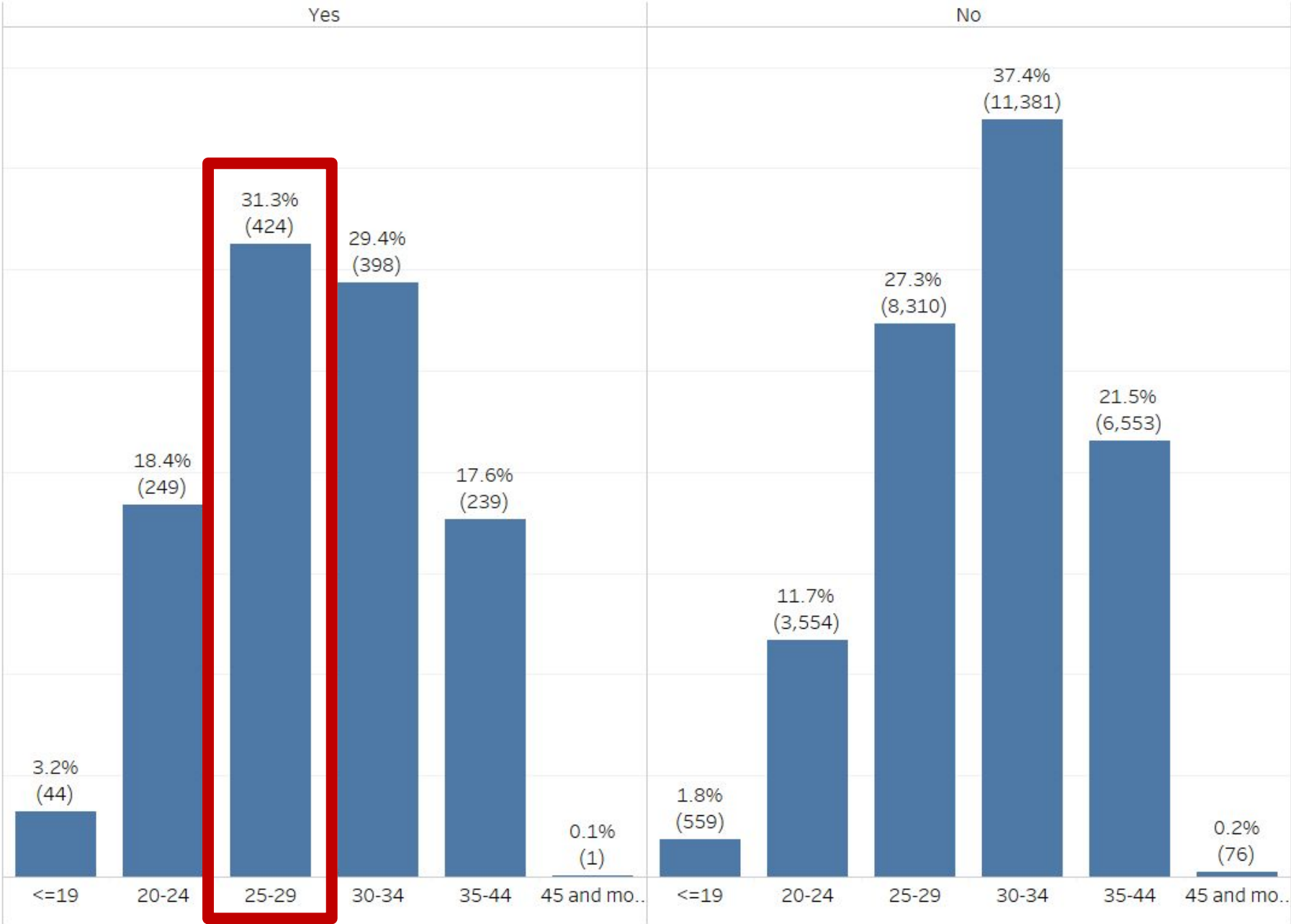
Plan of Safe Care Created by County and Year (2020- Nov 2022)



Plan of Safe Care Created By Payer (2020-Nov2022)



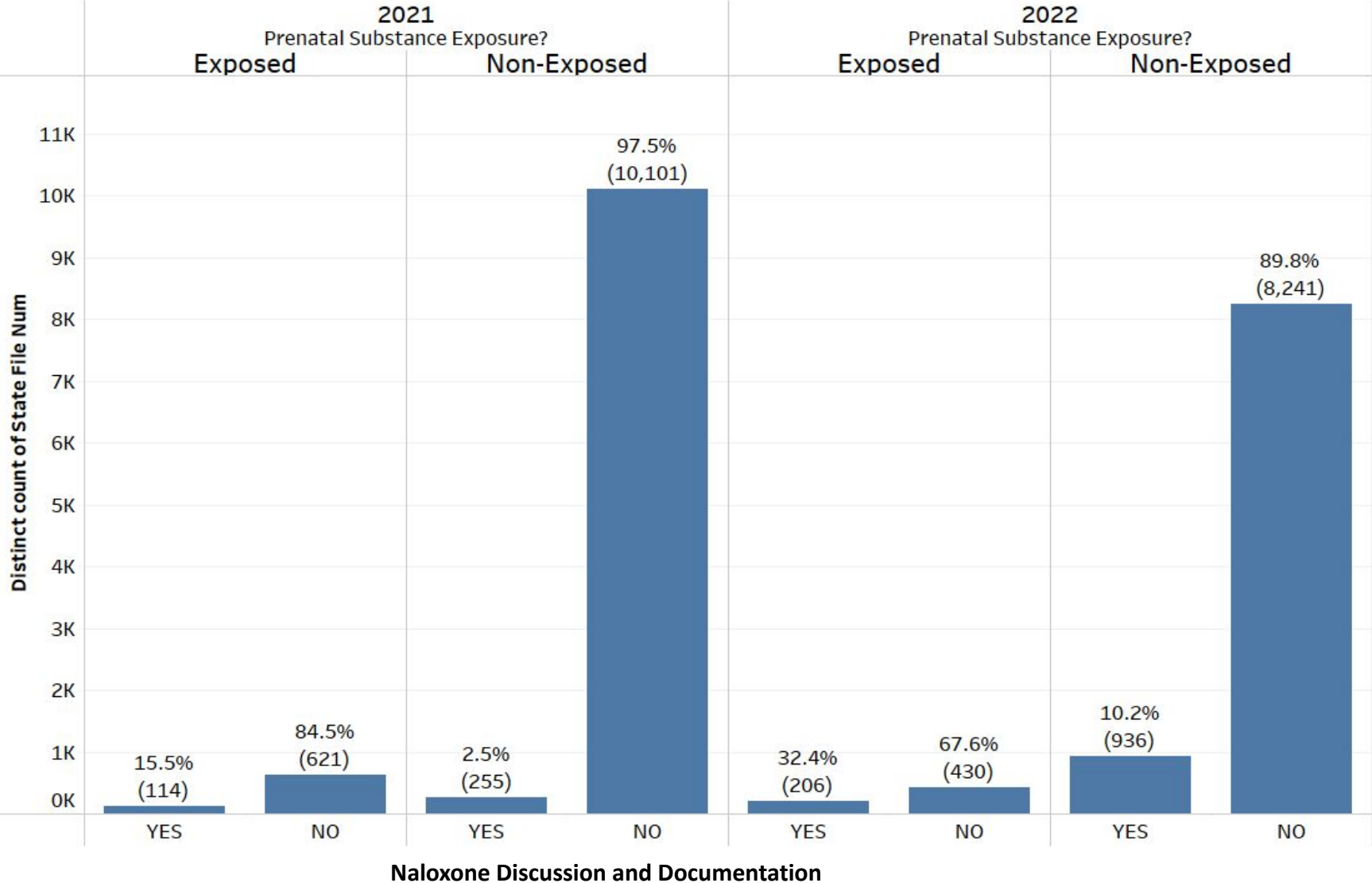
Plan of Safe Care by Mother's Age 2020- Nov 2022



Data Source: VR_BIRTH (EBI_DATAMART)
NHDPHS Maternal and Child Health
Section

Is There a Discussion That Access to Naloxone was Discussed by Substance Exposure

Infants born April 01, 2020 to November 30, 2022
Data refreshed: 11/29/2022 11:16:39 AM
Data source: VR_BIRTH (EBI_DATAMART.VR_BIRTH)+ (EBI_DATAMART)



Combined data 2021-2022

320 birthing people with prenatal substance exposure had a discussion documented. (**23.3%** of exposed)

1,051 birthing people with prenatal substance exposure did not have a discussion documented. (**76.6%** of exposed)

1,191 birthing people with no indication of prenatal substance exposure had a discussion documented (**6.1%** of not exposed)

(Narcan/Naloxone discussion question activated ~2/1/2021)

Summary

Prenatal Substance Exposure

Infants born 5/1/2020 to 11/29/2022

82A1: Was the infant monitored for effects of in utero substance exposure?

Yes	No	Unknown	Total
2,030	28,325	20	30,375
6.7%	93.3%	0.1%	100.0%

82A2: If YES, Type of substance(s)

Substance+ includes 82A3 reclassified if applicable

Cannabis+	1,126
Nicotine	753
Opioids+	709
Opioids (checkbox subgroup of above)	472
Alcohol	62
Stimulants+	234
Benzodiazepines	61
Cocaine	121
Barbiturates	16
Bath salts	4
Kratom	0
Other substance	518

82B. Was the infant identified as being affected by substance misuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder?

CAPTA/CARA

Yes	No	Unknown	Total
694	26,414	3,267	30,375
2.3%	87.0%	10.8%	100.0%

Select Birth Hospital

All

82A3: Type (Other Specify)

METHADONE	56
BUPENORPHINE	51
SUBOXONE	52
SUBUTEX	30
MARIJUANA	13
BUPRENORPHINE	29
FENTANYL	25
ZOLOFT	25
HEROIN	8
UNKNOWN	2
OPIODS	1
OPI OID	1
METHAMPHETAMINES	2
MARIGUANA FENTANYL	1
MARIAJUANA	1
HEROIN-METHADONE-FENTANYL-T..	1
EARLY IN PREGNANCY	1
COCAINE - METHADONE- FENTAL - H..	1
BUPRENORPHINE AND FENTANYL	1
BUPENORPINE	1
XTC, FENTANYL	1

83: Was a Plan of Safe/Supportive Care (POSC) created?

Yes	No	Unknown	Total
1,266	29,089	20	30,375
4.2%	95.8%	0.1%	100.0%

Payer

All

Residence in NH?

☒ In
☒ Out

Occurred in NH

☒ In
☐ Out

iDOB Start Date

5/1/2020

iDOB End Date

11/29/2022

% 82A1 Yes with POSC

50.0%

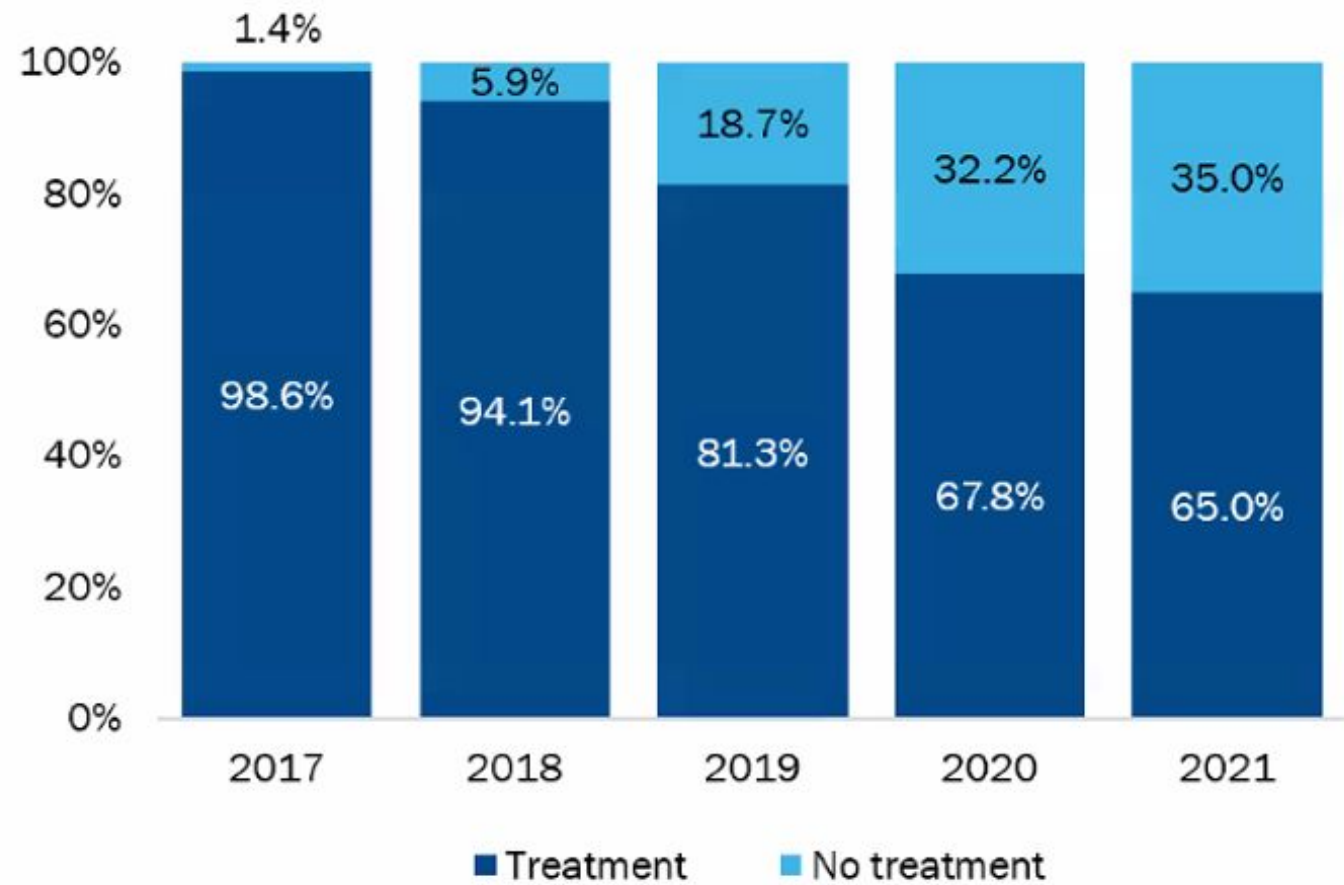
% 82B Yes with POSC

87.3%

Data Source: VR_BIRTH (EBI_DATAMART)

University of Vermont Medical Center Captures Opioids Treatment During Pregnancy

% of pregnant persons using opioids during pregnancy giving birth at UVM Medical Center by treatment status



Can we in the future monitor birthing facilities providing treatment or referrals for treatment using the birth worksheet?

Data source: Vermont presentation at New England Maternal Health Summit
https://content.govdelivery.com/attachments/USOPHSOASH/2022/10/07/file_attachments/292980/Vermont%20DOH%20NEMHS%20Slides_09.12.2022.pdf

Acknowledgements

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Daisy Goodman, CNM, DNP, MPH, CARN-AP

David Laflamme MPH, PhD

Feel free to contact me if you have any questions
regarding this data or you wish to know your
hospital blind #

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