

V17.4 Special Report: Substance Use Disorder (SUD) Analysis

INTRODUCTION

This Special Report is the third report we have issued on the complications and outcomes of substance use during pregnancy that are documented at the time of delivery. In December 2011 we created our first report on Neonatal Abstinence Syndrome and updated that Report in September, 2015. Both of these reports were created using ICD-9 codes, a much more limited diagnosis and procedure code set. The introduction of ICD-10 codes in October 2015 allowed for greater specificity of substance use on the maternal side and impact on the neonatal side.

Substance Use Disorder (SUD) is and has been a critical concern for the perinatal community. In previous analyses, underreporting and identification, especially on the maternal side, has always been an issue. We encourage you to review your hospital's report carefully and let us know if there are cases lists or additional information we can provide that will help profile your SUD mothers and substance use exposed newborns more completely.

Codes used in this Report are included in [Appendix A](#).

BACKGROUND

Substance Use Disorder (SUD) is a growing concern nationwide. SUD is particularly challenging during pregnancy. It is estimated that 5% of women use illicit drugs during pregnancy and 49%-94% of infants exposed to opioids in utero experience neonatal abstinence syndrome (NAS).^{1,2} The use of substances during pregnancy often is accompanied by comorbidities such as poverty, depression, domestic violence and other mental disorders.³ Women face several pregnancy risks while using substances including pregnancy loss and premature births.⁴ NAS affects the central and autonomic nervous system often causing irritability and seizures. NAS also impacts the gastrointestinal system leading to vomiting and diarrhea.⁵ NAS incidence has quintupled over the last decade, leading to a cost of \$720 million dollars annually.^{6,7}

An analysis of 375,851 singleton deliveries in Massachusetts from 2003-2007 helped to expand knowledge about the impact of SUD and SUD treatment during the perinatal period. Results indicated that 5% of these deliveries occurred in mothers with SUD, but only 66% of them received treatment of this problem prior to delivery. The women in the study identified with SUD were poorer, less educated, had more health problems, used less prenatal care, and had worse obstetric outcomes in adjusted analysis.⁸ SUD was associated with higher risk of prematurity and low birth weight. Women receiving SUD treatment had lower odds of prematurity and low birth weight.

Pregnant women are often unwilling to disclose their habits of substance abuse out of fear for legal repercussions, shame, and biased, negative responses from health care providers. The importance of providing staff with education and sensitivity training helps to provide patients with a balance of control and support and create a non-judgmental attitude by staff to help build a trusting relationship with women who have substance abuse problems.⁹ The problem of underreporting needs serious attention and may be improved when women feel SUD will be addressed in an unbiased and caring manner. The importance of a comprehensive assessment on initial and continuing prenatal interventions is critical in detecting potential SUD in pregnancy. Identification of risk factors should expand to include family discord which reflects broader family relationships and looks at problems less severe than violence such as divorce and custody conflicts.¹⁰ A comprehensive review of literature dated between 1992 and 2015 was undertaken to compare prenatal exposure to alcohol and drugs of abuse assessed by self-reported questionnaire of consumption versus biomarkers of exposure.¹¹ Thirteen studies were included in the analysis. Results revealed that self-report may underestimate prenatal exposure to substances of abuse.

NPIC DESCRIPTION OF TABLES AND GRAPHS

The tables in this special report provide data for the period 01/01/17 – 12/31/17. Data for your hospital are compared to the averages for your peer subgroup and the NPIC Database.

Table 1: Overview

Section A displays the total number of deliveries and average length of stay (ALOS) for those deliveries.

Section A1 displays the total number of deliveries without Substance Use Disorder (SUD) coding, the percent of deliveries they represent and their ALOS.

Section A2 displays the total number of deliveries with Substance Use Disorder (SUD) coding, the percent of deliveries they represent and their ALOS. It also displays the distribution of deliveries by type of coded substance use which may add to more than 100% where there are cases with more than one code.

Section B displays the total number of inborns and their ALOS.

Section B1 displays the total number of inborns without Substance Use Exposure (SUE) coding, their percent of total inborns and ALOS. It also displays rates for eight outcome metrics of interest to those looking at inborns with SUE.

Section B2 displays the total number of inborns with SUE coding, their percent of total inborns and ALOS. It also displays the rates of eight outcome metrics of interest to those looking at inborns with SUE.

Section B3 displays a subset of inborn cases coded with SUE who are specifically coded with Neonatal Abstinence Syndrome (NAS), the percent of total inborns with SUE they represent and their ALOS. It then displays the same eight outcome metrics of interest.

Table 2: Linked Mother/Baby Analysis

NPIC has one of the largest linked mother/baby data sets in the country. Looking at maternal complications and co-morbidities and their impact on the baby is a very helpful way to look at the dyad in the birth experience. When we have examined SUD/NAS cases in the past we have noticed that often an infant will be identified at birth with SUE/NAS but when we link back to the mother, the mother's record is not coded with any substance use. Likewise there may be instances when the mother is coded but the infant is not.

This linked analysis attempts to look at the disconnect in identification of substance use/exposure between the mother and infant.

Section C displays the number of deliveries with SUD coding with a link to an inborn; it then displays the number of inborns with SUE that link to a delivery with SUD coding and the percent of total linked deliveries with SUD these substance exposed inborns represent. The NPIC Database Average rate (49.2%) indicates that more than 50% of inborns coded with SUE do not link to a mother with substance use coding on their record.

Graph 1: Comparative Rates of Substance Use Disorder/ Exposure Coding among Deliveries and Inborns displays the rate of maternal coding of SUD (dark blue column) compared to inborn SUE coding (light blue column) for your hospital and each of the peer subgroup hospitals. The graph also displays the average rate for each for the subgroup and identifies the overall average rates for the NPIC Database

Graphs 2 – 4 display your hospital's data for the period 10/1/15 through 12/31/17 compared to the NPIC Trend Database. The Trend Database includes all NPIC member hospitals who have submitted data for the last five years. The graphs display yearly data points and the table below each graph shows the quarterly rates for the time period. The test of significance is calculated using the nine quarterly data points and the graph legend indicates if each of the rates is stable over time or trending upward or downward.

Graph 2: Deliveries with Substance Use Disorder (SUD) Coding 2015(Q4) – 2017(Q4) displays trend rates of delivered cases coded with SUD.

Graph 3: Inborns with Substance Use Exposure (SUE) Coding 2015(Q4) – 2017(Q4) displays trend rates of inborn cases coded with SUE.

Graph 4: Inborns with Neonatal Abstinence Syndrome (NAS) Coding 2015(Q4) – 2017(Q4) displays trend rates of inborn cases coded with Neonatal Abstinence Syndrome (NAS).

Questions regarding this Special Report should be directed to mervices@npic.org. If you would like specific case lists for any of the metrics, please contact your Hospital Liaison/Data Coordinator.

REFERENCES

- ¹ Substance Abuse and Mental Health Services Administration. (2012). *Results from the 2011 National Survey on drug Use and Health, Summary of national findings*. NSDUH Series H-44, HHS Publication No. (SMA) 12-4713). Rockville, MD: Author
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- ⁴ Olds, S., London, M., Ladewig, P & Davidson, M. *Chapter 19: Pregnancy at Risk in Maternal-Newborn Nursing & Women's Health Care*, 7th ed. Prentice Hall: New Jersey.
- ⁵ Johnson, B. (2017, July-August). Neonatal Abstinence Syndrome. *Pediatric Nursing*, 43,(4), 206-207
- ⁶ Atwood, E.C, Sollender, G Hsu, E., Arsnow, C, Flanagan, V., Celenza, J.... Holmes, A.V. ((2016). A qualitative study of family experience with hospitalization for neonatal abstinence syndrome. *Hospital Pediatrics*, 6(10), 626-632. Doi: 1542/hpeds.2016-0024
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- ⁸ Kotelchuck, M., Cheng, E., Belanoff, C., Babakhanlou-Chase, H., Derrington, T....Bernstein, J. (2017, April). The Prevalence and Impact of Substance Use Disorder and Treatment on Maternal Obstetric Experience and Birth Outcomes among Singleton Deliveries in Massachusetts. *Maternal & Child Health Journal*, 21(4), 893-902. Doi: 10.1007/s10995-016-2190-y
- ⁹ Nordenfors, M. & Hojer, I. (2017, May-June) Mothers with substance and alcohol abuse- support through pregnancy and early infancy. *Social Work in Health Care*, 56(%), 381-399. Doi: 10.1080/0098139.2017.1299072
- ¹⁰ Denton, W., Adinoff, B., Lewis, D, Walker, R., & Winhusen, T. (2014). Family Discord in Association with Increased Substance Use for Pregnant Substance Users. *Substance Use & Misuse*, 49(3), 326-332. Doi: 10.3109/10826084.2013.840002
- ¹¹ Chiandetti, A., Hernandez, G., Mercadel-Hally, M., Alvarez, A., Nararro,-Tapia, E., Bastons, A. & Garcia. ((2017). Prevalence of prenatal exposure to substances of abuse: questionnaire versus biomarkers. *Reproductive health*, 14, 1-12. Doi: 10.1186/s12978-017-0385-3

V17.4 Special Report: Substance Use Disorder (SUD) Analysis

Table 1: Overview

NPIC ID: SA1

Date Range of Hospital Data: 1/1/2017 - 12/31/2017 Subgroup: AR - Academic Regional	Hospital SA1		Subgroup Average	Database Average
A. Total Deliveries	2,609		4,110	3,509
ALOS	2.7		3.1	2.8
A1. Deliveries WITHOUT Substance Use Disorder coding	2,536		4,026	3,440
Percent of Total Deliveries	97.2%		97.8%	97.6%
ALOS	2.7		3.1	2.8
A2. Deliveries WITH Substance Use Disorder coding	73		85	69
Percent of Total Deliveries	2.8%		2.2%	2.4%
ALOS	3.1		3.8	3.3
Distribution of Deliveries with SUD coding:				
	#	%	%	%
Opioid Use	17	23.3%	30.2%	31.5%
Cocaine use	2	2.7%	7.7%	10.6%
Alcohol use	5	6.9%	8.4%	6.6%
Other substance use	48	65.8%	61.8%	60.7%
Type of substance use not coded	6	8.2%	6.6%	5.2%
B. Total Inborns	2,661		4,208	3,552
ALOS	5.9		5.2	4.0
B1. Inborns WITHOUT Substance Use Exposure coding	2,610		4,146	3,490
Percent of Total Inborns	98.1%		98.5%	97.9%
ALOS	5.6		5.0	3.8
Outcomes for Inborns without Substance Use Exposure coding:				
	#	%	%	%
Birthweight < 2500 grams	398	15.3%	12.4%	9.6%
Gestational age < 37 weeks	459	17.6%	14.1%	10.5%
Admitted to Special Care *	807	30.9%	18.5%	12.7%
Transferred to another hospital (within 28 days)	18	0.7%	0.8%	1.1%
Died	22	0.8%	0.7%	0.4%
Discharge to home/home health	2,566	98.3%	98.1%	98.3%
Coded with Intrauterine Growth Restriction	19	0.7%	0.6%	0.4%
Coded with Feeding Problems	131	5.0%	5.2%	4.4%

* Special care discharges are those having NICU and/or NINT days or charges > 0.

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Table 1: Overview (continued)

NPIC ID: SA1

Date Range of Hospital Data: 1/1/2017 - 12/31/2017 Subgroup: AR - Academic Regional	Hospital SA1		Subgroup Average	Database Average
B2. Inborns WITH Substance Use Exposure coding	51		62	62
Percent of Total Inborns	1.9%		1.5%	2.1%
ALOS	20.9		17.8	13.3
Outcomes for Inborns with Substance Use Exposure coding:	#	%	%	%
Birthweight < 2500 grams	21	41.2%	36.7%	26.5%
Gestational age < 37 weeks	22	43.1%	32.3%	25.6%
Admitted to Special Care *	43	84.3%	66.4%	53.9%
Transferred to another hospital (within 28 days)	1	2.0%	2.3%	6.2%
Died	1	2.0%	0.3%	0.3%
Discharge to home/home health	48	94.1%	96.1%	91.5%
Coded with Intrauterine Growth Restriction	1	2.0%	1.6%	0.9%
Coded with Feeding Problems	11	21.6%	22.9%	14.0%
B3. Inborns WITH Neonatal Abstinence Syndrome (NAS) ¹	21		30	25
Percent of Total Inborns with Substance Use Exposure coding	41.2%		51.4%	45.4%
ALOS	31.6		21.4	18.3
Outcomes for Inborns with NAS:	#	%	%	%
Birthweight < 2500 grams	6	28.6%	37.1%	24.8%
Gestational age < 37 weeks	9	42.9%	28.4%	24.4%
Admitted to Special Care *	20	95.2%	86.5%	77.8%
Transferred to another hospital (within 28 days)	1	4.8%	2.6%	7.4%
Died	0	0.0%	0.0%	0.2%
Discharge to home/home health	19	90.5%	95.6%	90.6%
Coded with Intrauterine Growth Restriction	0	0.0%	2.4%	1.1%
Coded with Feeding Problems	2	9.5%	26.1%	20.0%

* Special care discharges are those having NICU and/or NINT days or charges > 0.

¹ "B3. Inborns with NAS" is a subset of "B2. Inborns with Substance Use Exposure coding"

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Table 2: Linked Mother/Baby Analysis

NPIC ID: SA1

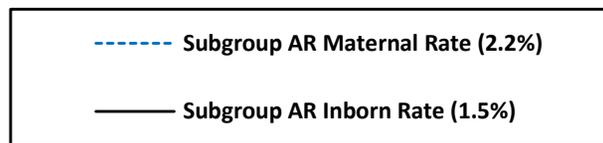
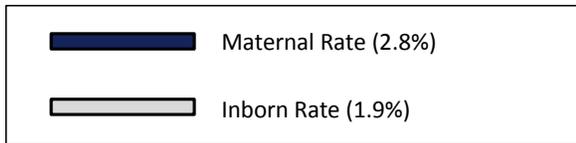
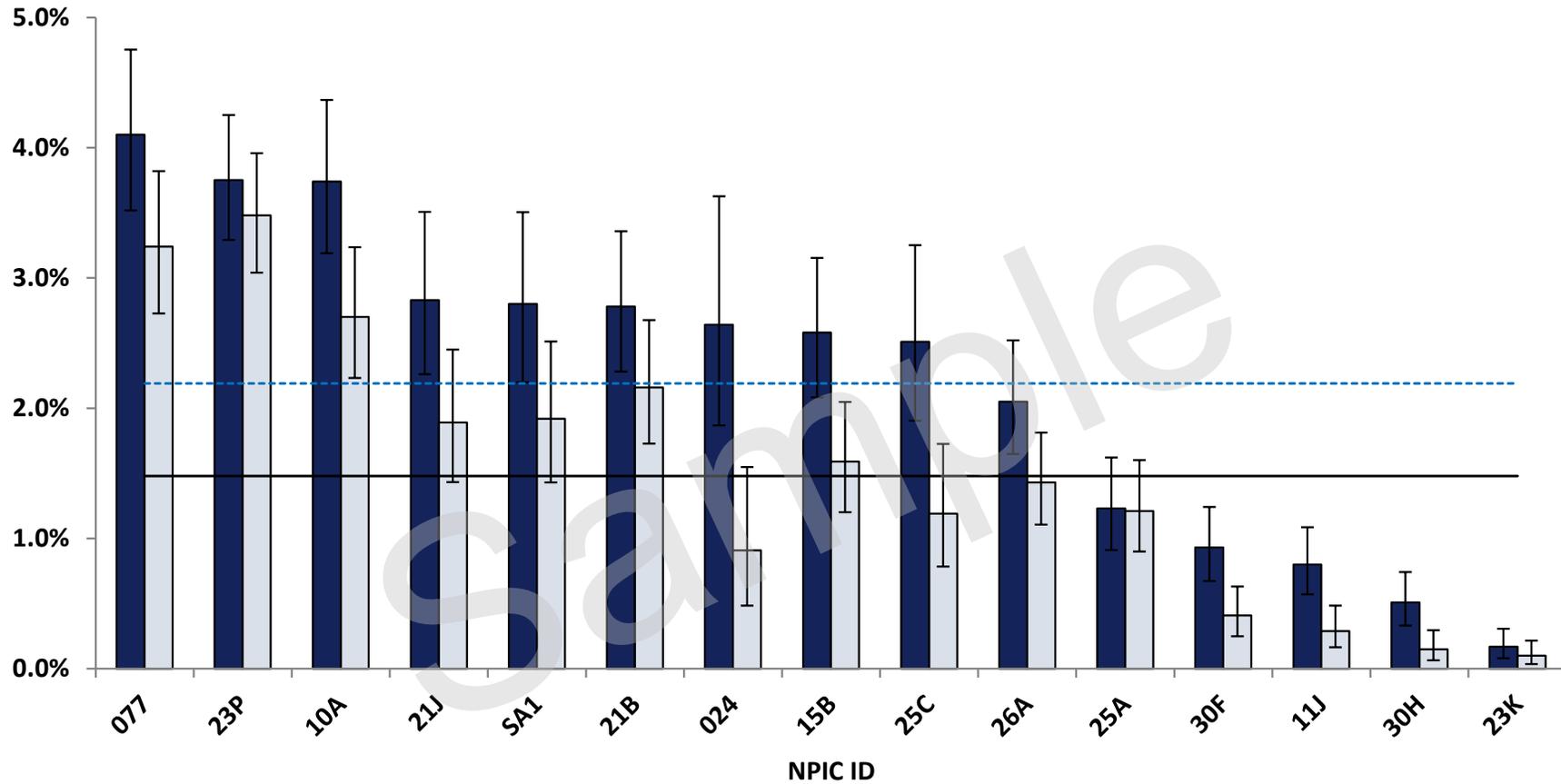
Date Range of Hospital Data: 1/1/2017 - 12/31/2017 Subgroup: AR - Academic Regional	Hospital SA1	Subgroup Average	Database Average
C. Linked SUD/SUE Analysis Deliveries with SUD coding with a link to an inborn	68	78	65
Inborns with substance use exposure (SUE) coding with a link to a delivery with SUD coding	21	34	32
Total linked inborns with SUE coding as a percent of total linked deliveries with SUD coding	30.9%	43.6%	49.2%

Sample

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Graph 1: Comparative Rates of Substance Use Disorder/Exposure Coding among Deliveries and Inborns

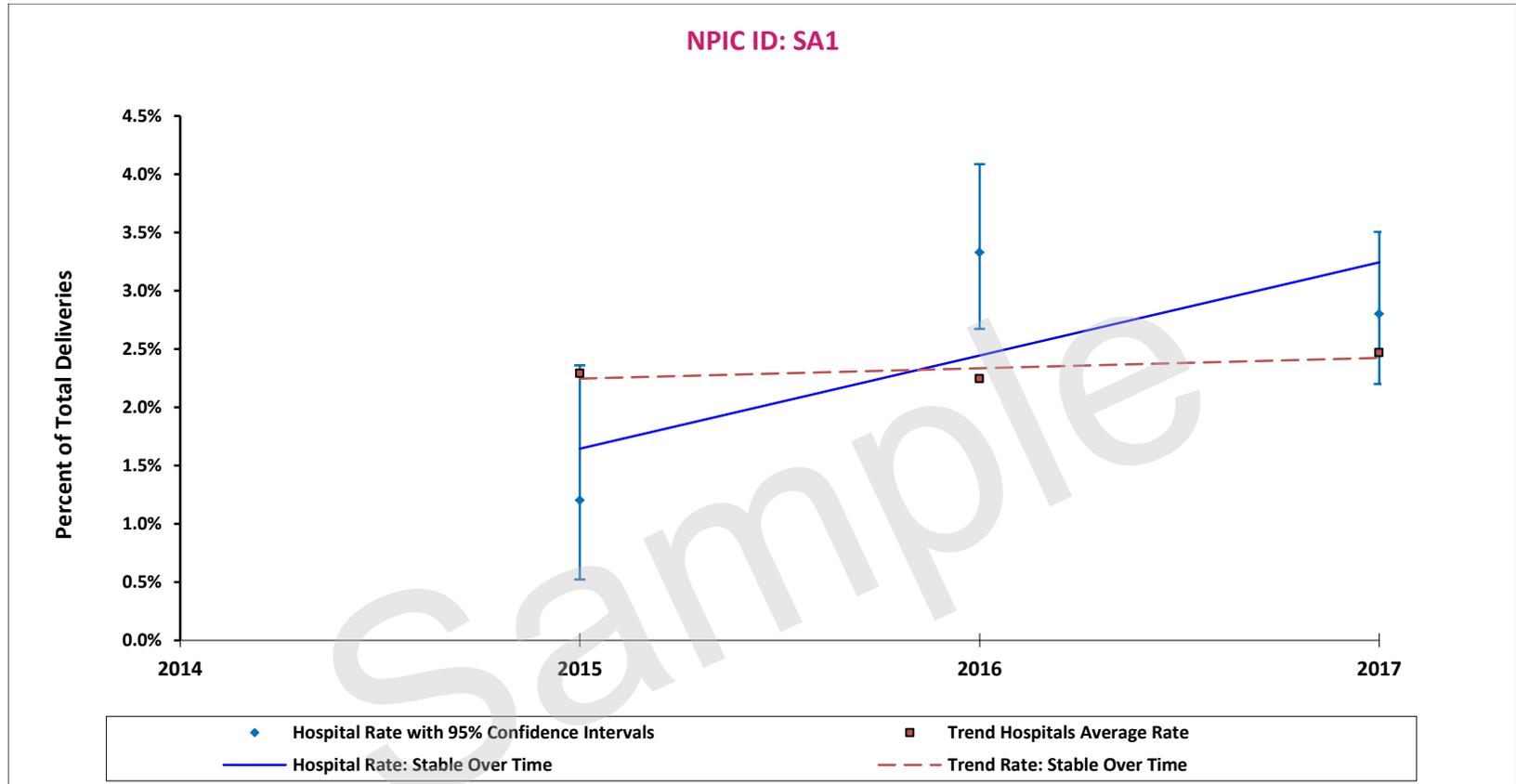
NPIC ID: SA1



Not displayed on graph:

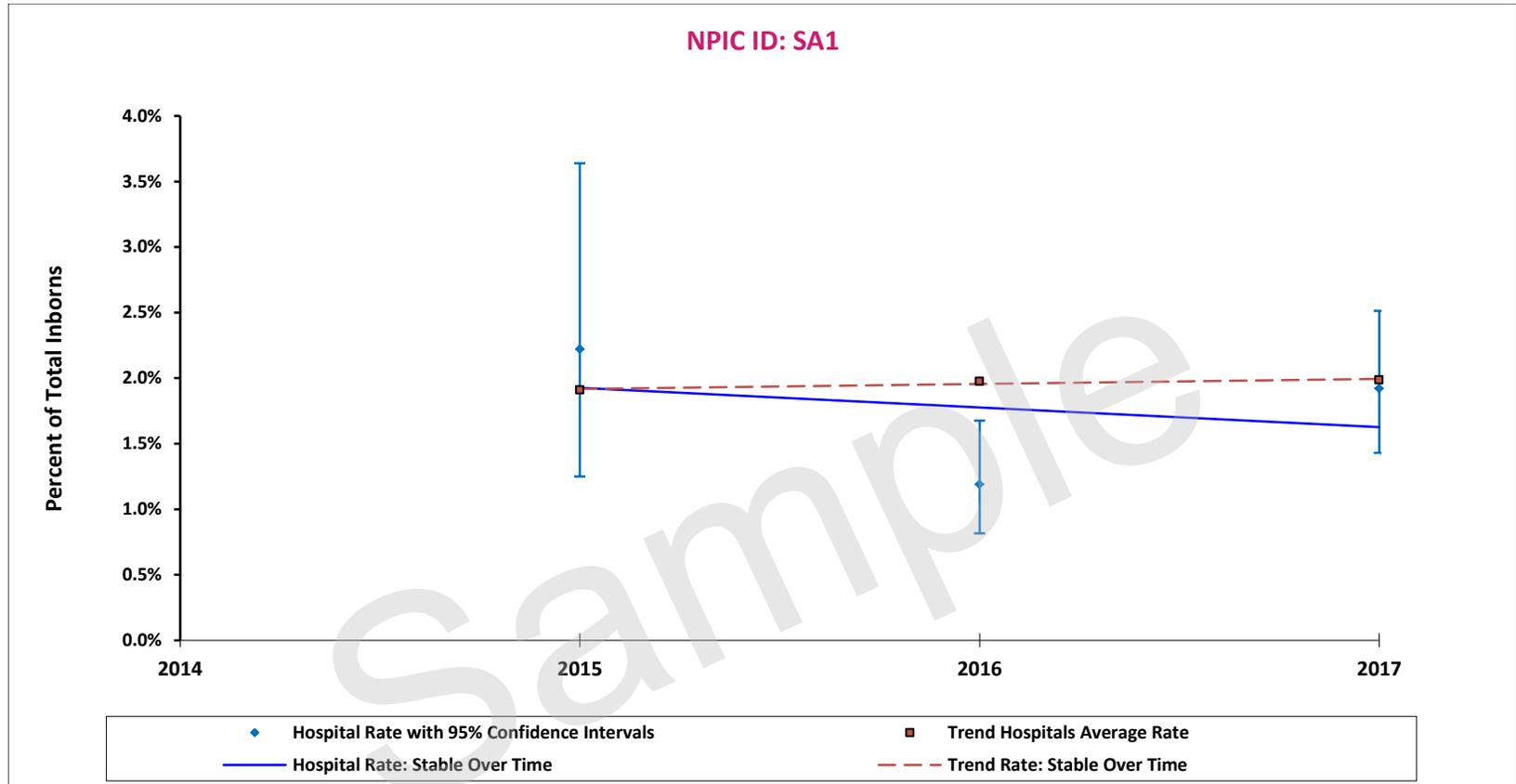
NPIC Database Maternal Rate: 2.4%
NPIC Database Inborn Rate: 2.1%

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 Graph 2: Deliveries with Substance Use Disorder (SUD) Coding
 2015 (Q4) - 2017 (Q4) with Trendlines



	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4
Trend Rate	2.3%	2.2%	2.2%	2.2%	2.5%	2.6%	2.4%	2.4%	2.4%
Hospital Rate	1.2%	1.5%	3.9%	2.9%	4.8%	2.2%	2.3%	3.2%	3.5%
Hospital Numerator	8	9	25	20	33	14	15	23	21
Hospital Denominator	664	612	639	682	683	638	650	723	598

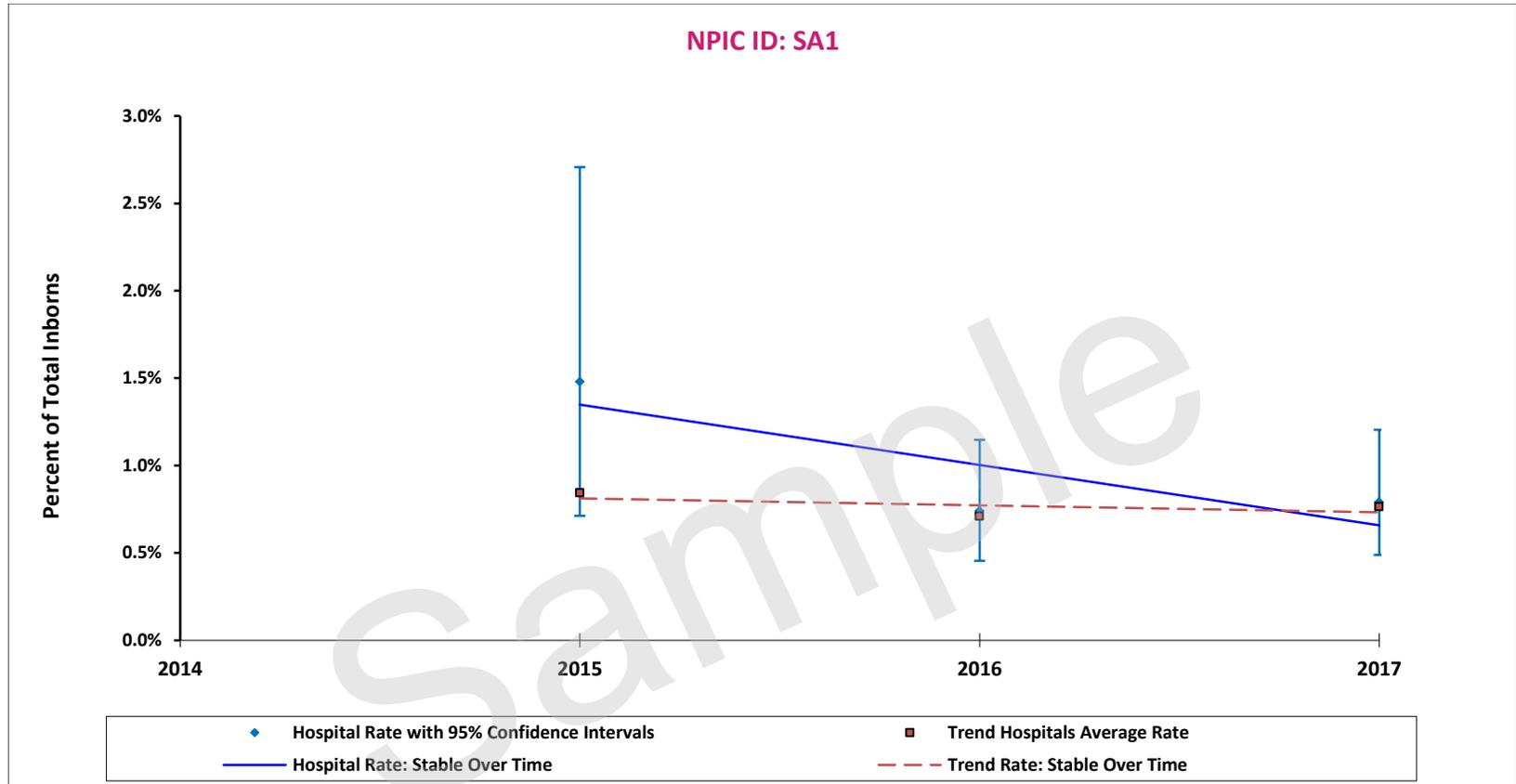
V17.4 Special Report: Substance Use Disorder (SUD) Analysis
 Graph 3: Inborns with Substance Use Exposure (SUE) Coding*
 2015 (Q4) - 2017 (Q4) with Trendlines



	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4
Trend Rate	1.9%	1.9%	2.0%	2.0%	2.0%	2.2%	1.9%	2.0%	1.9%
Hospital Rate	2.2%	1.3%	0.8%	1.4%	1.3%	1.4%	0.9%	2.4%	2.9%
Hospital Numerator	15	8	5	10	9	9	6	18	18
Hospital Denominator	675	625	665	700	698	648	659	737	617

* Includes Neonatal Abstinence Syndrome (NAS)

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Graph 4: Inborns with Neonatal Abstinence Syndrome (NAS) Coding
2015 (Q4) - 2017 (Q4) with Trendlines



	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4
Trend Rate	0.8%	0.7%	0.7%	0.7%	0.7%	0.9%	0.6%	0.8%	0.8%
Hospital Rate	1.5%	0.6%	0.5%	1.0%	0.9%	0.6%	0.3%	1.4%	0.8%
Hospital Numerator	10	4	3	7	6	4	2	10	5
Hospital Denominator	675	625	665	700	698	648	659	737	617

APPENDIX: A

SUBSTANCE USE DISORDER (SUD)

Opioid use

F11.10	Opioid abuse, uncomplicated
F11.12	Opioid abuse with intoxication
F11.120	Opioid abuse with intoxication, uncomplicated
F11.121	Opioid abuse with intoxication delirium
F11.122	Opioid abuse with intoxication with perceptual disturbance
F11.129	Opioid abuse with intoxication, unspecified
F11.14	Opioid abuse with opioid-induced mood disorder
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified
F11.181	Opioid abuse with opioid-induced sexual dysfunction
F11.182	Opioid abuse with opioid-induced sleep disorder
F11.188	Opioid abuse with other opioid-induced disorder
F11.19	Opioid abuse with unspecified opioid-induced disorder
F11.20	Opioid dependence, uncomplicated
F11.220	Opioid dependence with intoxication, uncomplicated
F11.221	Opioid dependence with intoxication delirium
F11.222	Opioid dependence with intoxication with perceptual disturbance
F11.229	Opioid dependence with intoxication, unspecified
F11.23	Opioid dependence with withdrawal
F11.24	Opioid dependence with opioid-induced mood disorder
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified
F11.281	Opioid dependence with opioid-induced sexual dysfunction
F11.282	Opioid dependence with opioid-induced sleep disorder
F11.288	Opioid dependence with other opioid-induced disorder
F11.29	Opioid dependence with unspecified opioid-induced disorder
F11.90	Opioid use, unspecified, uncomplicated
F11.920	Opioid use, unspecified with intoxication, uncomplicated
F11.921	Opioid use, unspecified with intoxication delirium
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance
F11.929	Opioid use, unspecified with intoxication, unspecified
F11.93	Opioid use, unspecified with withdrawal
F11.94	Opioid use, unspecified with opioid-induced mood disorder

APPENDIX: A

SUBSTANCE USE DISORDER (SUD)

Opioid use (*continued*)

F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction
F11.982	Opioid use, unspecified with opioid-induced sleep disorder
F11.988	Opioid use, unspecified with other opioid-induced disorder
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder

Cocaine use

F14.10	Cocaine abuse, uncomplicated
F14.120	Cocaine abuse with intoxication, uncomplicated
F14.121	Cocaine abuse with intoxication with delirium
F14.122	Cocaine abuse with intoxication with perceptual disturbance
F14.129	Cocaine abuse with intoxication, unspecified
F14.14	Cocaine abuse with cocaine-induced mood disorder
F14.150	Cocaine abuse with cocaine-induced psychotic disorder with delusions
F14.151	Cocaine abuse with cocaine-induced psychotic disorder with hallucinations
F14.159	Cocaine abuse with cocaine-induced psychotic disorder, unspecified
F14.180	Cocaine abuse with cocaine-induced anxiety disorder
F14.181	Cocaine abuse with cocaine-induced sexual dysfunction
F14.182	Cocaine abuse with cocaine-induced sleep disorder
F14.188	Cocaine abuse with other cocaine-induced disorder
F14.19	Cocaine abuse with unspecified cocaine-induced disorder
F14.20	Cocaine dependence, uncomplicated
F14.220	Cocaine dependence with intoxication, uncomplicated
F14.221	Cocaine dependence with intoxication delirium
F14.222	Cocaine dependence with intoxication with perceptual disturbance
F14.229	Cocaine dependence with intoxication, unspecified
F14.23	Cocaine dependence with withdrawal
F14.24	Cocaine dependence with cocaine-induced mood disorder
F14.250	Cocaine dependence with cocaine-induced psychotic disorder with delusions
F14.251	Cocaine dependence with cocaine-induced psychotic disorder with hallucinations
F14.259	Cocaine dependence with cocaine-induced psychotic disorder, unspecified
F14.280	Cocaine dependence with cocaine-induced anxiety disorder
F14.281	Cocaine dependence with cocaine-induced sexual dysfunction

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F14.282 Cocaine dependence with cocaine-induced sleep disorder

SUBSTANCE USE DISORDER (SUD)

Cocaine use (*continued*)

F14.288 Cocaine dependence with other cocaine-induced disorder
F14.29 Cocaine dependence with unspecified cocaine-induced disorder
F14.90 Cocaine use, unspecified, uncomplicated
F14.920 Cocaine use, unspecified with intoxication, uncomplicated
F14.921 Cocaine use, unspecified with intoxication delirium
F14.922 Cocaine use, unspecified with intoxication with perceptual disturbance
F14.929 Cocaine use, unspecified with intoxication, unspecified
F14.94 Cocaine use, unspecified with cocaine-induced mood disorder
F14.950 Cocaine use, unspecified with cocaine-induced psychotic disorder with delusions
F14.951 Cocaine use, unspecified with cocaine-induced psychotic disorder with hallucinations
F14.959 Cocaine use, unspecified with cocaine-induced psychotic disorder, unspecified
F14.980 Cocaine use, unspecified with cocaine-induced anxiety disorder
F14.981 Cocaine use, unspecified with cocaine-induced sexual dysfunction
F14.982 Cocaine use, unspecified with cocaine-induced sleep disorder
F14.988 Cocaine use, unspecified with other cocaine-induced disorder
F14.99 Cocaine use, unspecified with unspecified cocaine-induced disorder

Alcohol use

O99.310 Alcohol use complicating pregnancy, unspecified trimester
O99.311 Alcohol use complicating pregnancy, first trimester
O99.312 Alcohol use complicating pregnancy, second trimester
O99.313 Alcohol use complicating pregnancy, third trimester
O99.314 Alcohol use complicating childbirth
O99.315 Alcohol use complicating the puerperium
F10.10 Alcohol abuse, uncomplicated
F10.120 Alcohol abuse with intoxication, uncomplicated
F10.121 Alcohol abuse with intoxication delirium
F10.129 Alcohol abuse with intoxication, unspecified
F10.14 Alcohol abuse with alcohol-induced mood disorder
F10.150 Alcohol abuse with alcohol-induced psychotic disorder with delusions
F10.151 Alcohol abuse with alcohol-induced psychotic disorder with hallucinations
F10.159 Alcohol abuse with alcohol-induced psychotic disorder, unspecified
F10.180 Alcohol abuse with alcohol-induced anxiety disorder
F10.181 Alcohol abuse with alcohol-induced sexual dysfunction

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- F10.182 Alcohol abuse with alcohol-induced sleep disorder
- F10.188 Alcohol abuse with other alcohol-induced disorder

SUBSTANCE USE DISORDER (SUD)

Alcohol use (*continued*)

- F10.19 Alcohol abuse with unspecified alcohol-induced disorder
- F10.20 Alcohol dependence, uncomplicated
- F10.220 Alcohol dependence with intoxication, uncomplicated
- F10.229 Alcohol dependence with intoxication, unspecified
- F10.920 Alcohol use, unspecified with intoxication, uncomplicated
- F10.921 Alcohol use, unspecified with intoxication delirium
- F10.929 Alcohol use, unspecified with intoxication, unspecified
- F10.94 Alcohol use, unspecified with alcohol-induced mood disorder
- F10.950 Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions
- F10.951 Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations
- F10.959 Alcohol use, unsp w alcohol-induced psychotic disorder, unspecified
- F10.96 Alcohol use, unspecified w alcoh-induce persist amnestic disorder
- F10.97 Alcohol use, unspecified with alcohol-induced persisting dementia
- F10.980 Alcohol use, unspecified with alcohol-induced anxiety disorder
- F10.981 Alcohol use, unspecified with alcohol-induced sexual dysfunction
- F10.982 Alcohol use, unspecified with alcohol-induced sleep disorder
- F10.988 Alcohol use, unspecified with other alcohol-induced disorder
- F10.99 Alcohol use, unspecified with unspecified alcohol-induced disorder

Other substance use

- F12.10 Cannabis abuse, uncomplicated
- F12.120 Cannabis abuse with intoxication, uncomplicated
- F12.121 Cannabis abuse with intoxication delirium
- F12.122 Cannabis abuse with intoxication with perceptual disturbance
- F12.129 Cannabis abuse with intoxication, unspecified
- F12.150 Cannabis abuse with psychotic disorder with delusions
- F12.151 Cannabis abuse with psychotic disorder with hallucinations
- F12.159 Cannabis abuse with psychotic disorder, unspecified
- F12.180 Cannabis abuse with cannabis-induced anxiety disorder
- F12.188 Cannabis abuse with other cannabis-induced disorder
- F12.19 Cannabis abuse with unspecified cannabis-induced disorder
- F12.20 Cannabis dependence, uncomplicated
- F12.220 Cannabis dependence with intoxication, uncomplicated

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- F12.221 Cannabis dependence with intoxication delirium
- F12.222 Cannabis dependence with intoxication with perceptual disturbance
- F12.229 Cannabis dependence with intoxication, unspecified
- F12.250 Cannabis dependence with psychotic disorder with delusions

SUBSTANCE USE DISORDER (SUD)

Other substance use (*continued*)

- F12.251 Cannabis dependence with psychotic disorder with hallucinations
- F12.259 Cannabis dependence with psychotic disorder, unspecified
- F12.280 Cannabis dependence with cannabis-induced anxiety disorder
- F12.288 Cannabis dependence with other cannabis-induced disorder
- F12.29 Cannabis dependence with unspecified cannabis-induced disorder
- F12.90 Cannabis use, unspecified, uncomplicated
- F12.920 Cannabis use, unspecified with intoxication, uncomplicated
- F12.921 Cannabis use, unspecified with intoxication delirium
- F12.922 Cannabis use, unspecified with intoxication with perceptual disturbance
- F12.929 Cannabis use, unspecified with intoxication, unspecified
- F12.950 Cannabis use, unspecified with psychotic disorder with delusions
- F12.951 Cannabis use, unspecified w psychotic disorder with hallucinations
- F12.959 Cannabis use, unspecified with psychotic disorder, unspecified
- F12.980 Cannabis use, unspecified with anxiety disorder
- F12.988 Cannabis use, unspecified with other cannabis-induced disorder
- F12.99 Cannabis use, unspecified with unspecified cannabis-induced disorder
- F13.10 Sedative, hypnotic or anxiolytic abuse, uncomplicated
- F13.120 Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated
- F13.121 Sedative, hypnotic or anxiolytic abuse with intoxication delirium
- F13.129 Sedative, hypnotic or anxiolytic abuse with intoxication, unspecified
- F13.20 Sedative, hypnotic or anxiolytic dependence, uncomplicated
- F13.220 Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated
- F13.221 Sedative, hypnotic or anxiolytic dependence with intoxication delirium
- F13.229 Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified
- F13.230 Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated
- F13.231 Sedative, hypnotic or anxiolytic dependence with withdrawal delirium
- F13.232 Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance
- F13.239 Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified
- F13.24 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder
- F13.250 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions
- F13.251 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations

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- F13.259 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified
- F13.26 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder
- F13.27 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia
- F13.280 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder

SUBSTANCE USE DISORDER (SUD)

Other substance use (*continued*)

- F13.281 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction
- F13.282 Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder
- F13.288 Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder
- F13.29 Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder
- F13.90 Sedative, hypnotic, or anxiolytic use, unspecified, uncomplicated
- F13.920 Sedative, hypnotic or anxiolytic use, unspecified with intoxication, uncomplicated
- F13.921 Sedative, hypnotic or anxiolytic use, unspecified with intoxication delirium
- F13.929 Sedative, hypnotic or anxiolytic use, unspecified with intoxication, unspecified
- F13.930 Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, uncomplicated
- F13.931 Sedative, hypnotic or anxiolytic use, unspecified with withdrawal delirium
- F13.932 Sedative, hypnotic or anxiolytic use, unspecified with withdrawal with perceptual disturbances
- F13.939 Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, unspecified
- F13.94 Sedative, hypnotic or anxiolytic use, unspecified with mood disorder
- F13.950 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions
- F13.951 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations
- F13.959 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified
- F13.96 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder
- F13.97 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting dementia
- F13.980 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced anxiety disorder
- F13.981 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sexual dysfunction
- F13.982 Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sleep disorder
- F13.988 Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorder
- F13.99 Sedative, hypnotic or anxiolytic use, unspecified with unspecified sedative, hypnotic or anxiolytic-induced disorder
- F15.10 Other stimulant abuse, uncomplicated
- F15.120 Other stimulant abuse with intoxication, uncomplicated
- F15.121 Other stimulant abuse with intoxication delirium
- F15.122 Other stimulant abuse with intoxication with perceptual disturbance
- F15.129 Other stimulant abuse with intoxication, unspecified
- F15.14 Other stimulant abuse with stimulant-induced mood disorder
- F15.150 Other stimulant abuse with stimulant-induced psychotic disorder with delusions
- F15.151 Other stimulant abuse with stimulant-induced psychotic disorder with hallucinations

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- F15.159 Other stimulant abuse with stimulant-induced psychotic disorder, unspecified
- F15.180 Other stimulant abuse with stimulant-induced anxiety disorder
- F15.181 Other stimulant abuse with stimulant-induced sexual dysfunction
- F15.182 Other stimulant abuse with stimulant-induced sleep disorder

SUBSTANCE USE DISORDER (SUD)

Other substance use (*continued*)

- F15.188 Other stimulant abuse with other stimulant-induced disorder
- F15.19 Other stimulant abuse with unsp stimulant-induced disorder
- F15.20 Other stimulant dependence, uncomplicated
- F15.220 Other stimulant dependence with intoxication, uncomplicated
- F15.221 Other stimulant dependence with intoxication delirium
- F15.222 Other stimulant dependence with intoxication with perceptual disturbance
- F15.229 Other stimulant dependence with intoxication, unspecified
- F15.23 Other stimulant dependence with withdrawal
- F15.24 Other stimulant dependence with stimulant-induced mood disorder
- F15.250 Other stimulant dependence with stimulant-induced psychotic disorder with delusions
- F15.251 Other stimulant dependence with stimulant-induced psychotic disorder with hallucinations
- F15.259 Other stimulant dependence with stimulant-induced psychotic disorder, unspecified
- F15.280 Other stimulant dependence with stimulant-induced anxiety disorder
- F15.281 Other stimulant dependence with stimulant-induced sexual dysfunction
- F15.282 Other stimulant dependence with stimulant-induced sleep disorder
- F15.288 Other stimulant dependence with other stimulant-induced disorder
- F15.29 Other stimulant dependence with unspecified stimulant-induced disorder
- F15.90 Other stimulant use, unspecified, uncomplicated
- F15.920 Other stimulant use, unspecified with intoxication, uncomplicated
- F15.921 Other stimulant use, unspecified with intoxication delirium
- F15.922 Other stimulant use, unspecified with intoxication with perceptual disturbance
- F15.929 Other stimulant use, unspecified with intoxication, unspecified
- F15.93 Other stimulant use, unspecified with withdrawal
- F15.94 Other stimulant use, unspecified with stimulant-induced mood disorder
- F15.950 Other stimulant use, unspecified with stimulant-induced psychotic disorder with delusions
- F15.951 Other stimulant use, unspecified with stimulant-induced psychotic disorder with hallucinations
- F15.959 Other stimulant use, unspecified with stimulant-induced psychotic disorder, unspecified
- F15.980 Other stimulant use, unspecified with stimulant-induced anxiety disorder
- F15.981 Other stimulant use, unspecified with stimulant-induced sexual dysfunction
- F15.982 Other stimulant use, unspecified with stimulant-induced sleep disorder
- F15.988 Other stimulant use, unspecified with other stimulant-induced disorder

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F15.99	Other stimulant use, unspecified with unspecified stimulant-induced disorder
F16.10	Hallucinogen abuse, uncomplicated
F16.120	Hallucinogen abuse with intoxication, uncomplicated
F16.20	Hallucinogen dependence, uncomplicated

SUBSTANCE USE DISORDER (SUD)

Other substance use (*continued*)

F16.220	Hallucinogen dependence with intoxication, uncomplicated
F16.221	Hallucinogen dependence with intoxication with delirium
F16.229	Hallucinogen dependence with intoxication, unspecified
F16.24	Hallucinogen dependence with hallucinogen-induced mood disorder
F16.250	Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions
F16.251	Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations
F16.259	Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified
F16.280	Hallucinogen dependence with hallucinogen-induced anxiety disorder
F16.283	Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks)
F16.288	Hallucinogen dependence with other hallucinogen-induced disorder
F16.29	Hallucinogen dependence with unspecified hallucinogen-induced disorder
F16.90	Hallucinogen use, unspecified, uncomplicated
F18.10	Inhalant abuse, uncomplicated
F18.120	Inhalant abuse with intoxication, uncomplicated
F18.20	Inhalant dependence, uncomplicated
F18.220	Inhalant dependence with intoxication, uncomplicated
F18.221	Inhalant dependence with intoxication delirium
F18.229	Inhalant dependence with intoxication, unspecified
F18.24	Inhalant dependence with inhalant-induced mood disorder
F18.250	Inhalant dependence with inhalant-induced psychotic disorder with delusions
F18.251	Inhalant dependence with inhalant-induced psychotic disorder with hallucinations
F18.259	Inhalant dependence with inhalant-induced psychotic disorder, unspecified
F18.27	Inhalant dependence with inhalant-induced dementia
F18.280	Inhalant dependence with inhalant-induced anxiety disorder
F18.288	Inhalant dependence with other inhalant-induced disorder
F18.29	Inhalant dependence with unspecified inhalant-induced disorder
F18.90	Inhalant use, unspecified, uncomplicated
F19.10	Other psychoactive substance abuse, uncomplicated
F19.120	Other psychoactive substance abuse with intoxication, uncomplicated
F19.121	Other psychoactive substance abuse with intoxication delirium
F19.122	Other psychoactive substance abuse with intoxication with perceptual disturbances

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- F19.129 Other psychoactive substance abuse with intoxication, unspecified
- F19.14 Other psychoactive substance abuse with psychoactive substance-induced mood disorder
- F19.150 Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with delusions
- F19.151 Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with hallucinations

SUBSTANCE USE DISORDER (SUD)

Other substance use (*continued*)

- F19.159 Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder, unspecified
- F19.16 Other psychoactive substance abuse with psychoactive substance-induced persisting amnesic disorder
- F19.17 Other psychoactive substance abuse with psychoactive substance-induced persisting dementia
- F19.180 Other psychoactive substance abuse with psychoactive substance-induced anxiety disorder
- F19.181 Other psychoactive substance abuse with psychoactive substance-induced sexual dysfunction
- F19.182 Other psychoactive substance abuse with psychoactive substance-induced sleep disorder
- F19.188 Other psychoactive substance abuse with other psychoactive substance-induced disorder
- F19.20 Other psychoactive substance dependence, uncomplicated
- F19.220 Other psychoactive substance dependence with intoxication, uncomplicated
- F19.221 Other psychoactive substance dependence with intoxication delirium
- F19.222 Other psychoactive substance dependence with intoxication with perceptual disturbance
- F19.229 Other psychoactive substance dependence with intoxication, unspecified
- F19.230 Other psychoactive substance dependence with withdrawal, uncomplicated
- F19.231 Other psychoactive substance dependence with withdrawal delirium
- F19.232 Other psychoactive substance dependence with withdrawal with perceptual disturbance
- F19.239 Other psychoactive substance dependence with withdrawal, unspecified
- F19.24 Other psychoactive substance dependence with psychoactive substance-induced mood disorder
- F19.250 Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions
- F19.251 Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations
- F19.259 Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified
- F19.26 Other psychoactive substance dependence with psychoactive substance-induced persisting amnesic disorder
- F19.27 Other psychoactive substance dependence with psychoactive substance-induced persisting dementia
- F19.280 Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder
- F19.281 Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction
- F19.282 Other psychoactive substance dependence with psychoactive substance-induced sleep disorder
- F19.288 Other psychoactive substance dependence with other psychoactive substance-induced disorder
- F19.29 Other psychoactive substance dependence with unspecified psychoactive substance-induced disorder
- F19.90 Other psychoactive substance use, unspecified, uncomplicated
- F19.920 Other psychoactive substance use, unspecified with intoxication, uncomplicated
- F19.921 Other psychoactive substance use, unspecified with intoxication with delirium
- F19.922 Other psychoactive substance use, unspecified with intoxication with perceptual disturbance

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- F19.929 Other psychoactive substance use, unspecified with intoxication, unspecified
- F19.930 Other psychoactive substance use, unspecified with withdrawal, uncomplicated
- F19.931 Other psychoactive substance use, unspecified with withdrawal delirium
- F19.932 Other psychoactive substance use, unspecified with withdrawal with perceptual disturbance

SUBSTANCE USE DISORDER (SUD)

Other substance use (*continued*)

- F19.939 Other psychoactive substance use, unspecified with withdrawal, unspecified
- F19.94 Other psychoactive substance use, unspecified with psychoactive substance-induced mood disorder
- F19.950 Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with delusions
- F19.951 Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with hallucinations
- F19.959 Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder, unspecified
- F19.96 Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnesic disorder
- F19.97 Other psychoactive substance use, unspecified with psychoactive substance-induced persisting dementia
- F19.980 Other psychoactive substance use, unspecified with psychoactive substance-induced anxiety disorder
- F19.981 Other psychoactive substance use, unspecified with psychoactive substance-induced sexual dysfunction
- F19.982 Other psychoactive substance use, unspecified with psychoactive substance-induced sleep disorder
- F19.988 Other psychoactive substance use, unspecified with other psychoactive substance-induced disorder
- F19.99 Other psychoactive substance use, unspecified with unspecified psychoactive substance-induced disorder

Type of substance use not coded

- O99.320 Drug use complicating pregnancy, unspecified trimester
- O99.321 Drug use complicating pregnancy, first trimester
- O99.322 Drug use complicating pregnancy, second trimester
- O99.323 Drug use complicating pregnancy, third trimester
- O99.324 Drug use complicating childbirth
- O99.325 Drug use complicating the puerperium

SUBSTANCE USE EXPOSURE (SUE)

Fetal Alcohol Syndrome

- Q86.0 Fetal alcohol syndrome (dysmorphic)

Newborn Affected by Maternal use

- P04.3 Newborn affected by maternal use of alcohol
- P04.4 Newborn affected by maternal use of drugs of addiction
- P04.41 Newborn affected by maternal use of cocaine
- P04.49 Newborn affected by maternal use of other drugs of addiction
- P04.8 Newborn affected by other maternal noxious substances
- P04.9 Newborn affected by maternal noxious substance, unspecified

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Neonatal Abstinence Syndrome (NAS)

- P96.1 Neonatal withdrawal symptoms from maternal use of drugs of addiction
- P96.2 Withdrawal symptoms from therapeutic use of drugs in newborn

SUBSTANCE USE EXPOSURE (SUE)

Outcomes

Intrauterine Growth Restriction

- P05.9 Newborn affected by slow intrauterine growth, unspecified

Feeding Problems

- P92.1 Regurgitation and rumination of newborn
- P92.2 Slow feeding of newborn
- P92.3 Underfeeding of newborn
- P92.5 Neonatal difficulty in feeding at breast
- P92.6 Failure to thrive in newborn
- P92.8 Other feeding problems of newborn
- P92.9 Feeding problem of newborn, unspecified

Sample