

2007 Erratum 1: Psychiatric Disorders, Substance Abuse/Alcohol Intoxication Withdrawal, and Dual Diagnoses

Following the publication of the 2007 NC DETECT Annual Report, it was determined that the analyses for psychiatric disorders, substance abuse/alcohol intoxication withdrawal (SAD/AIW), and dual diagnoses with these conditions were incorrect due to misclassification of some diagnoses codes. Revised diagnosis groups were created with the following ICD-9-CM codes.

Psychiatric Disorders: 290, 293-302, 306-312

SAD/AIW: 291-292, 303-305 (excluding 305.1), 980

Tobacco Use Disorder: 305.1

Table 10. Select Disease Groups Resulting in ED Visits in NC, any one of 11 diagnoses

Diagnoses	ED Visits	
	Percent	Rate/1000 pop.
Chest Pain/Ischemic Heart Disease	11.9	50.5
Psychiatric Disorders	8.1	34.3
Diabetes	7.8	33.1
Asthma	4.4	18.5
Substance Abuse	2.9	12.3
Heart Failure	2.7	11.3
Neoplasms	1.4	5.9
Stroke / TIA	0.8	3.2

Psychiatric Disorders

Psychiatric Disorders as a primary or comorbid diagnosis, accounted for 8.1% of ED visits in North Carolina in 2007, representing a rate of 34.3/1000 population (Table 10), and was recorded as the primary diagnosis in one-quarter of those visits (24.6%). The rates for Psychiatric Disorders are highest among women (43.4 visits/1000 population), the elderly (82.1/1000 population) and among those living in PHRST 6-Asheville (48.4/1000 population).

Tables 22-23. ED visits with a Psychiatric Disorder diagnosis as any of 11 primary or comorbid diagnoses, 2007

	ED Visits		
	Number	Percent	Rate/1000 p-y
Total	310,642	100.0	34.25
<u>Gender</u>			
Female	199,202	64.1	43.38
Male	111,402	35.9	24.88
Missing	38	0.0	---
<u>Age group</u>			
0-1	100	0.0	0.41
2-4	419	0.1	1.15
5-9	1,638	0.5	2.65
10-14	4,895	1.6	8.17
15-18	10,748	3.5	21.58
19-24	22,633	7.3	27.68
25-44	97,015	31.2	37.81
45-64	83,896	27.0	36.84
65 and over	89,258	28.7	82.08
Missing	40	0.0	---
<u>Region of Residence</u>			
PHRST 1 Greenville	29,757	9.6	31.86
PHRST 2 Wilmington	16,285	5.2	23.95
PHRST 3 Fayetteville	41,095	13.2	34.65
PHRST 4 Raleigh	42,126	13.6	25.84
PHRST 5 Greensboro	53,776	17.3	33.93
PHRST 6 Asheville	44,196	14.2	48.43
PHRST 7 Charlotte	71,358	23.0	33.31
No PHRST	12,049	3.9	---

Substance Abuse/Dependence (SAD) and Alcohol Intoxication/Withdrawal (AIW)

The primary or comorbid diagnoses of Substance Abuse or Dependence (SAD) and Alcohol Intoxication or Withdrawal (AIW) represent 2.9% of all 2008 ED visits and a rate of 12.3/1000 population (Table 10). SAD/AIW becomes evident in age group 15-18 and is high in all remaining age groups (Table 20-21). Regional rates range from 9.0/1000 population in PHRST 4-Raleigh, to 14.9/1000 population in PHRST 3- Fayetteville. Males have rates twice as high as females, 16.4 and 8.3 respectively.

Tables 20-21. ED visits with SAD/AIW diagnosis as any of 11 primary or comorbid diagnoses, 2007

	ED Visits		
	Number	Percent	Rate/1000 p-y
Total Substance Abuse	111,442	100.0	12.29
Gender			
Female	37,938	34.0	8.26
Male	73,470	65.9	16.41
Missing	34	0.0	---
Age group			
0-1	35	0.0	0.14
2-4	28	0.0	0.08
5-9	25	0.0	0.04
10-14	357	0.3	0.60
15-18	3,770	3.4	7.57
19-24	11,495	10.3	14.06
25-44	48,003	43.1	18.71
45-64	40,443	36.3	17.76
65 and over	7,262	6.5	6.68
Missing	24	0.0	---
Region of Residence			
PHRST 1 Greenville	10,946	9.8	11.72
PHRST 2 Wilmington	8,128	7.3	11.95
PHRST 3 Fayetteville	17,623	15.8	14.86
PHRST 4 Raleigh	14,714	13.2	9.03
PHRST 5 Greensboro	18,749	16.8	11.83
PHRST 6 Asheville	10,175	9.1	11.15
PHRST 7 Charlotte	26,064	23.4	12.17
No PHRST	5,043	4.5	---

Comparison of Psychiatric Disorders and Substance Abuse/Dependence/Intoxication/Withdrawal

In 2007, 387,671 ED visits (10.1%) reported a primary or co-morbid diagnosis for a psychiatric disorder and/or a SAD/AIW condition. Of these visits, 19.7% (n=77,456) reported a primary diagnosis for psychiatric disorder and 8.6% (n=33,374) reported SAD/AIW as the primary diagnosis. Among the 109,830 ED visits with a primary diagnosis of either a psychiatric disorder or SAD/AIW, 18.5% also reported a co-morbid diagnosis of a psychiatric disorder or SAD/AIW. In this dataset, these diagnoses occur as comorbidities in almost one out of five ED visits where SAD/AIW or psychiatric disorders is the most important/significant ED diagnosis.

Tobacco Use Disorder

ED visits with a primary or comorbid diagnosis of Tobacco Use Disorder totaled 365,302 in 2007 (Table Tobacco). Rates increased starting among the 15-18 year olds (24.2 visits/1000 population), with rates exceeding 65.0 visits/1000 population among 19-44 year olds, and disproportionately higher rates among those living in PHRST 6-Asheville (59.0), PHRST 7-Charlotte (46.1) and PHRST 5-Greensboro (41.6).

Table 1. ED visits with Tobacco Use Disorder diagnosis as any of 11 primary or comorbid diagnosis, 2007

	ED Visits		
	Number	Percent	Rate/1000 p-y
Total Tobacco Use Disorder	365,302	100.0	40.28
<u>Gender</u>			
Female	184,503	50.5	40.18
Male	180,769	49.5	40.37
Missing	30	0.0	---
<u>Age group</u>			
0-1	50	0.0	0.21
2-4	40	0.0	0.11
5-9	68	0.0	0.11
10-14	486	0.1	0.81
15-18	12,070	3.3	24.24
19-24	53,363	14.6	65.27
25-44	169,782	46.5	66.18
45-64	106,036	29.0	46.56
65 and over	23,396	6.4	21.51
Missing	11	0.0	---
<u>Region of Residence</u>			
PHRST 1 Greenville	24,049	6.6	25.75
PHRST 2 Wilmington	16,868	4.6	24.81
PHRST 3 Fayetteville	42,895	11.7	36.17
PHRST 4 Raleigh	44,484	12.2	27.29
PHRST 5 Greensboro	65,899	18.0	41.58
PHRST 6 Asheville	53,835	14.7	59.00
PHRST 7 Charlotte	98,835	27.1	46.14
No PHRST	18,437	5.0	---

2007 Erratum 2: Injuries and Transportation-related Injuries

Following the publication of the 2007 NC DETECT Annual Report, errors were found in the reported tables for injuries and transportation-related injuries. Two problems were identified and corrected: 1) counts for the sub-categories under “Unclassifiable external cause of injury” in Table 8 were incorrect; and 2) Pedestrian-related injuries were misreported in Tables 24-26. Please refer to new tables below.

Note that table numbers used below refer to the same table numbers used in the 2007 report.

Table 8. ED visits with Injury-related diagnosis as any of 11 primary or comorbid diagnoses or with a cause of injury code, 2007

	n	% of injury related visits (N=922,541)	% of ED visits (N=3,853,033)
Injury related visits	992,541	100.0	25.8
Unintentional injuries	729,889	73.5	18.9
Falls	204,001	20.6	5.3
Motor vehicle traffic	116,160	11.7	3.0
Struck against or struck accidentally by objects or persons	84,469	8.5	2.2
Overexertion and strenuous movements	79,232	8.0	2.1
Cutting or piercing instruments or objects	51,670	5.2	1.3
Natural and environmental factors	38,037	3.8	1.0
Poisoning by drugs, medicinal substances, biologicals, other solid and liquid substances, gases, and vapors	11,601	1.2	0.3
Fire and flames, hot substance or object, caustic or corrosive material, and steam	10,386	1.0	0.3
Machinery	3,807	0.4	0.1
Pedal cycle, nontraffic and other	7,092	0.7	0.2
Motor vehicle, nontraffic	10,532	1.1	0.3
Other transportation	3,177	0.3	0.1
Suffocation	633	0.1	0.0
Firearm missile	1,763	0.2	0.0
Drowning or submersion	310	0.0	0.0
Foreign body	15,399	1.6	0.4
Caught accidentally in or between objects	10,861	1.1	0.3
Other and not elsewhere classified	19,825	2.0	0.5
Mechanism unspecified	60,934	6.1	1.6
Intentional Injuries	48,051	4.8	1.2
Assault:	36,581	3.7	0.9
Unarmed fight or brawl, striking by blunt or thrown object	19,150	1.9	0.5
Cutting or piercing with instrument	3,225	0.3	0.1
Firearms	1,282	0.1	0.0

Other and unspecified mechanism	12,924	1.3	0.3
Self-inflicted:	10,710	1.1	0.3
Poisoning by solid or liquid substances, gases and vapors	7,407	0.7	0.2
Cutting and piercing instrument	2,304	0.2	0.1
Suffocation	165	0.0	0.0
Other and unspecified mechanism	834	0.1	0.0
Other causes of violence	760	0.1	0.0
Injuries of undetermined intent	3,850	0.4	0.1
Adverse effects of medical treatment*	65,053	6.6	1.7
Unclassifiable external cause of injury	145,698	14.7	3.8
Only E-code is place of occurrence	21,214	2.1	0.6
Missing E-code	124,484	12.5	3.2

*Excludes accidental drug overdose or wrong drug given (E850.0-858.9), and drug administered with suicidal intent (E980.0-980.5)

Transportation-related Accidents

Motor vehicle crashes account for 11.7% of all injury-related ED visits, or 305 visits per day in NC EDs (Table 8). ED visits related to motor vehicle crashes (either drivers or passengers) accounted for 2.5% of all ED visits in NC in 2007, and occurred at a rate of 10.8 visits/1000 population (Table 24).

Table 24. ED visits with transportation-related accidents reported in any cause of injury field, 2007

Injury Type	ED Visits		
	Number	Percent	Rate/1000 pop
MVC Traffic, Driver/Passenger	97,632	2.5	10.76
MVC non-Traffic, Driver/Passenger	4,945	0.1	0.55
Pedal Cyclist	8,074	0.2	0.89
Pedestrian	3,548	0.1	0.39

The highest rate of ED visits for motor vehicle crashes involving drivers or passengers is for age group 19-24, while those 65 and older have the lowest rate among all those of driving age (Table 24). NC DETECT data does not record the cause of these transportation accidents, however, with the increases in communication technology available to drivers (ie. cell phones, texting), it will be important to continue tracking MVC-related ED visits.

Tables 25-26. ED visits with Traffic MVC, non-traffic MCV, pedal cyclist, and pedestrian accidents reported in any cause of injury field, 2007

	<u>MVC traffic*</u>			<u>MVC non-traffic*</u>			<u>Pedal Cyclist</u>			<u>Pedestrian</u>		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Total	97,632	100.0	10.76	4,945	100.0	0.55	8,074	100.0	0.89	3,548	100.0	0.39
<u>Gender:</u>												
Female	54,729	55.8	11.92	1,474	30.4	0.32	2,120	26.3	0.46	1,377	60.7	0.30
Male	42,890	44.1	9.58	3,470	69.6	0.77	5,954	73.7	1.33	2,169	39.2	0.48
Missing	13	0.0	---	<10	---	---	0	0.0	---	<10	---	---
<u>Age group:</u>												
0-1	1,325	1.4	5.44	38	0.8	0.16	45	0.6	0.18	43	1.2	0.18
2-4	1,831	1.9	5.04	120	2.4	0.33	422	5.2	1.16	132	3.7	0.36
5-9	3,121	3.2	5.06	324	6.6	0.53	1,953	24.2	3.16	189	5.3	0.31
10-14	3,647	3.7	6.09	632	12.8	1.05	1,911	23.7	3.19	235	6.6	0.39
15-18	10,290	10.5	20.66	652	13.2	1.31	673	8.3	1.35	358	10.1	0.72
19-24	17,740	18.2	21.70	807	16.3	0.99	533	6.6	0.65	526	14.8	0.64
25-44	35,385	36.2	13.79	1,681	34.0	0.66	1,379	17.1	0.54	1,160	32.7	0.45
45-64	18,686	19.1	8.21	499	10.1	0.22	1,014	12.6	0.45	694	19.6	0.30
65 and over	5,599	5.7	5.15	191	3.9	0.18	144	1.8	0.13	210	5.9	0.19
Missing	<10	---	---	<10	---	---	0	0.0	---	0	0.0	---
<u>Region of Residence:</u>												
PHRST 1 Greenville	11,000	11.3	11.78	515	10.4	0.55	826	10.2	0.88	387	10.9	0.41
PHRST 2 Wilmington	7,904	8.1	11.62	286	5.8	0.42	560	6.9	0.82	264	7.4	0.39
PHRST 3 Fayetteville	14,977	15.3	12.63	828	16.7	0.70	929	11.5	0.78	547	15.4	0.46
PHRST 4 Raleigh	14,794	15.2	9.07	539	10.9	0.33	1,218	15.1	0.75	429	12.1	0.26
PHRST 5 Greensboro	12,149	12.4	7.67	784	15.9	0.49	1,249	15.5	0.79	493	345.0	0.31
PHRST 6 Asheville	8,451	8.7	9.26	705	14.3	0.77	967	12.0	1.06	345		0.38
PHRST 7 Charlotte	22,977	23.5	10.73	943	19.1	0.44	1,835	22.7	0.86	906	25.5	0.42
No PHRST	5,380	5.5	---	345	7.0	---	490	6.1	---	177	5.0	---

*Drivers and passengers only