



N.C. Department of Health
and Human Services

NC Emergency Department and Psychiatric Inpatient Utilization

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ED Utilization and Wait Times

Table 55. Emergency department (ED) visits by people of all ages with a primary diagnosis of mental health or substance use disorder, by diagnosis: number and percentage, United States, 2010

[Data are based on reporting by a nationally representative sample of EDs]

Category of primary ¹ diagnosis	Number of ED visits	Percentage of all ED visits	Percentage of ED visits with behavioral health diagnosis
All ED visits—all diagnoses	128,970,364	100.00	...
Any primary behavioral health diagnosis	5,193,584	4.00	100.00
Adjustment disorders	119,474	0.09	2.30
Anxiety disorders	845,707	0.66	16.28
Attention deficit, conduct, and disruptive behavior disorders	84,251	0.07	1.62
Delirium, dementia, and amnesic and other cognitive disorders	214,543	0.17	4.13
Developmental disorders	32,069	0.02	0.62
Disorders usually diagnosed in infancy, childhood, or adolescence	12,644	0.01	0.24
Impulse control disorders, not elsewhere classified	16,964	0.01	0.33
Mood disorders	1,298,832	1.01	25.01
Personality disorders	17,335	0.01	0.33
Schizophrenia and other psychotic disorders	606,715	0.47	11.68
Alcohol-related disorders	1,106,610	0.86	21.31
Substance-related disorders	568,321	0.44	10.94
Suicide and intentional self-inflicted injury	121,205	0.09	2.33
Miscellaneous mental disorders	148,913	0.12	2.87

Nationwide, 4% of ED visits have a primary BH diagnosis

SOURCE: Nationwide Inpatient Sample, 2000–2010, Healthcare Cost and Utilization Project, Agency for Healthcare Research and Quality. Retrieved from <http://hcupnet.ahrq.gov/HCUPnet.jsp?Id=82D60D310EA25092&Form=SelMAJDXPR&GoTo=MAINSEL&JS=Y>



NC Statewide ED Admission Trends

Admissions for Individuals with Primary MH/DD/SA Diagnosis

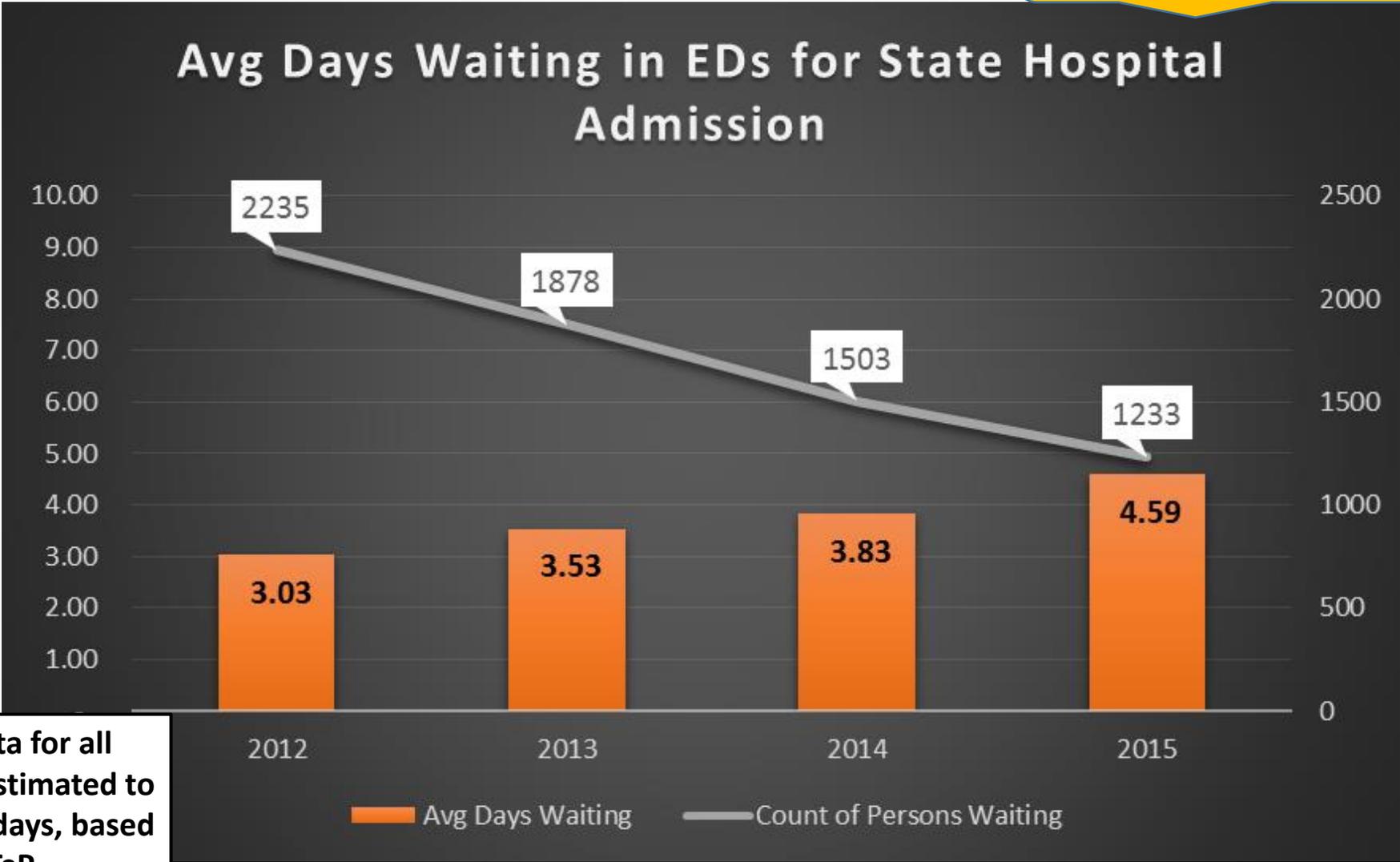
Q1-Q2 Only

	FY09	FY10	FY11	FY12	FY13	FY14	FY15 (part)
Admissions w/Primary MHDDSA Diagnosis	132,214	139,635	151,522	156,661	148,820	139,984	76,926
Total Admissions	3,748,524	3,911,366	4,020,283	4,114,495	4,116,487	3,787,708	2,043,361
% of All ED Admissions with Primary MHDDSA Diagnosis	3.5%	3.6%	3.8%	3.8%	3.6%	3.7%	3.8%

Note: Visits with missing Diagnoses have been excluded.

Source: NC DETECT

Wait Time for State Hospital admission is longer than other dispositions



Wait time data for all dispositions is estimated to be just under 2 days, based on NCSTeP.

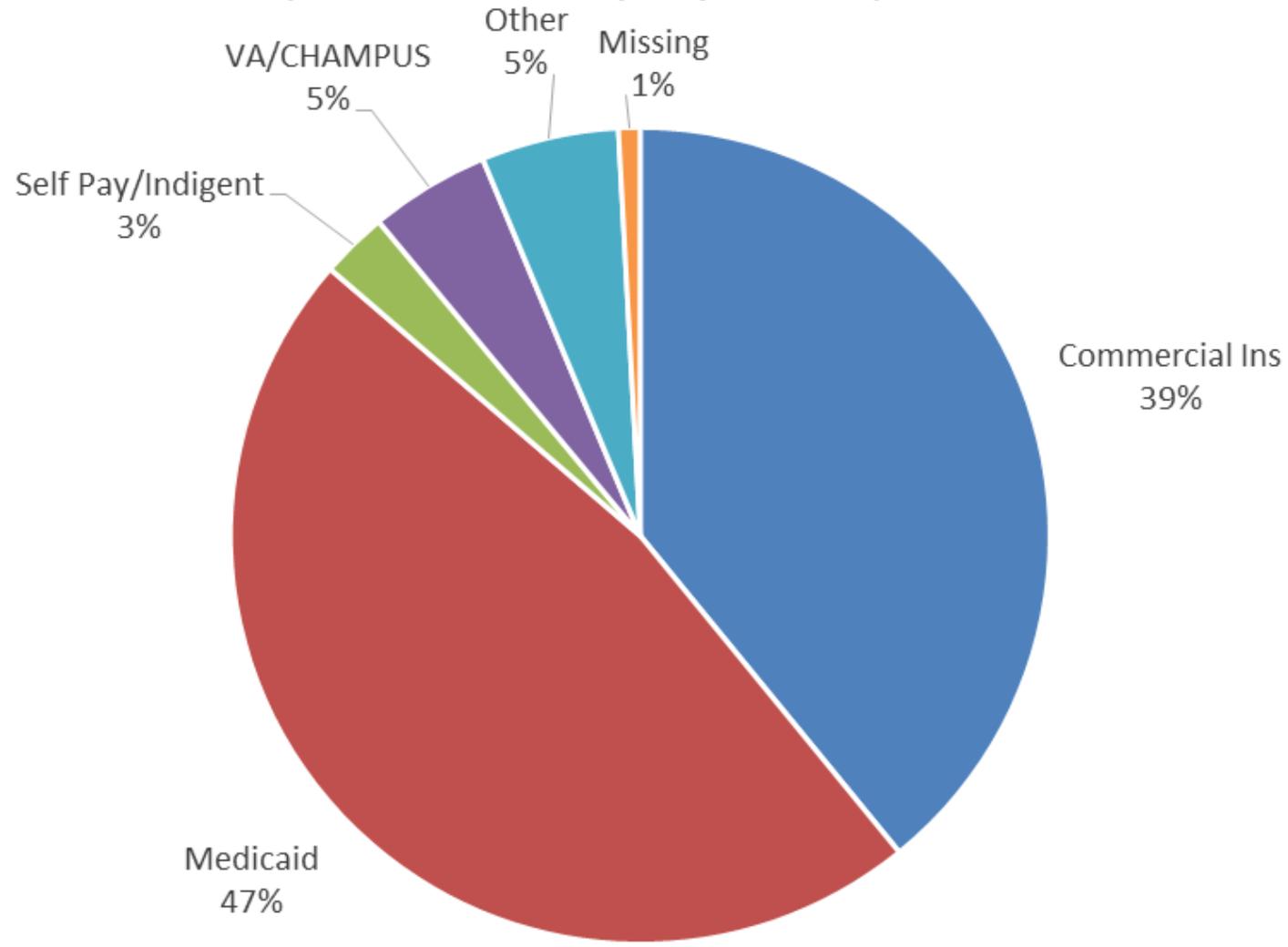
Source: State Hospital Referral Database



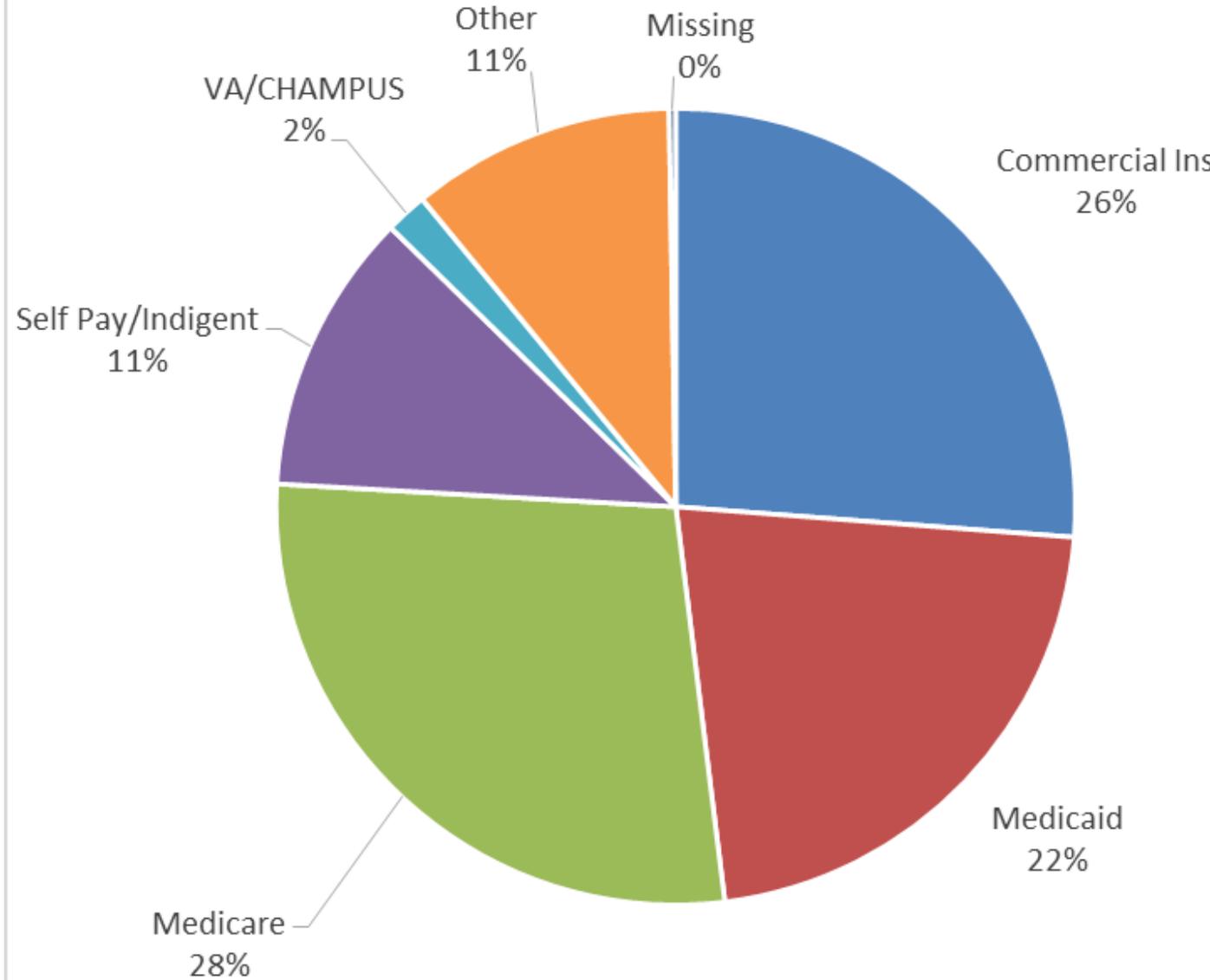
Psychiatric Inpatient Utilization

Source data: 2009-2013 NC Hospital Database unless otherwise specified

Child Inpatient Events by Payer Group, 2009-2013

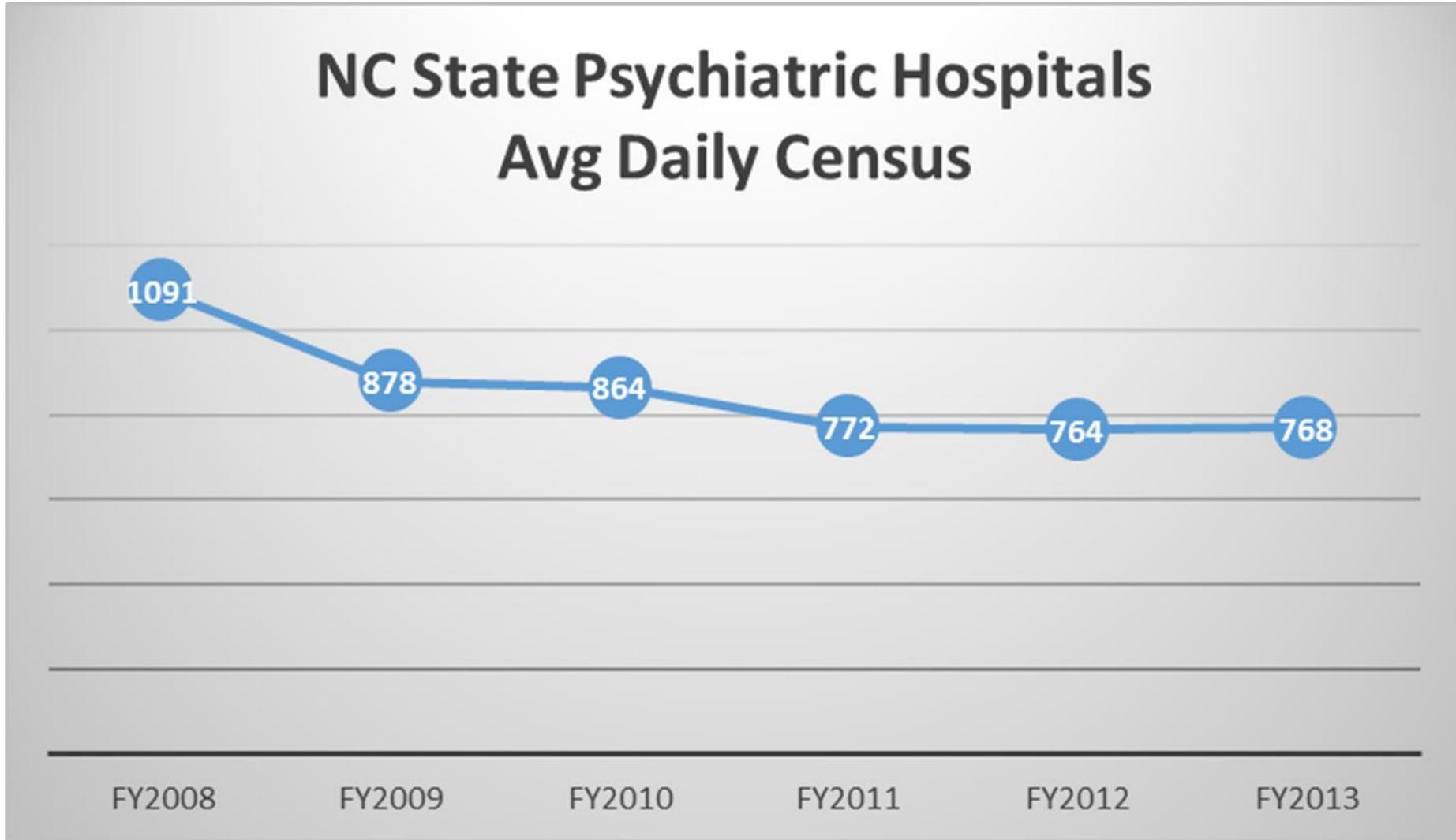


Adult Inpatient Events by Payer Group, 2009-2013



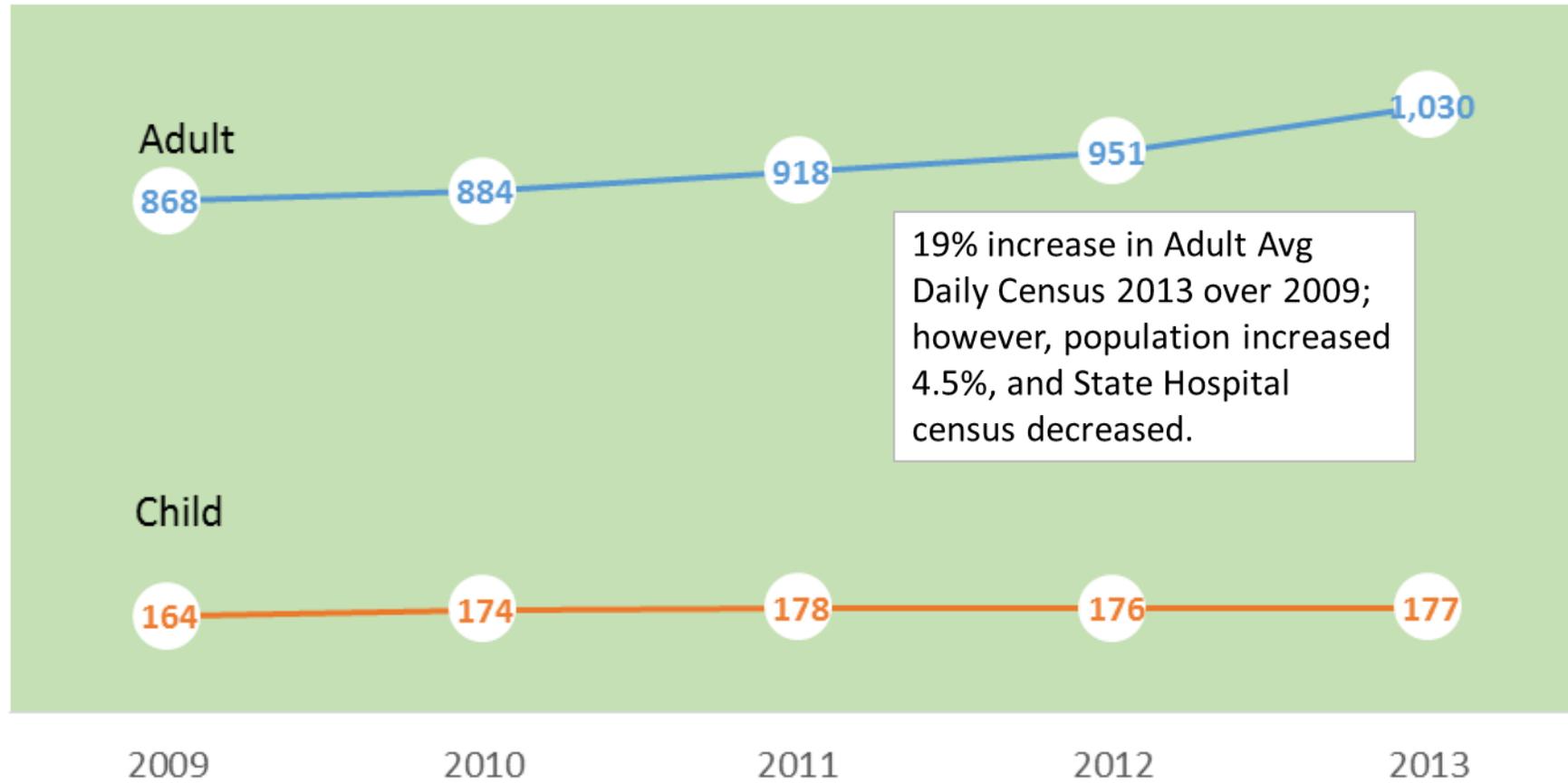
50% or more of community psychiatric inpatient is publicly funded

NC State Psychiatric Hospitals Avg Daily Census



Source: NC Psychiatric Hospital Annual Statistical Report

COMMUNITY PSYCHIATRIC INPATIENT AVG DAILY CENSUS, ADULT & CHILD



Community Psychiatric Inpatient Children

% of Discharges by Distance from Patient County Seat to Hospital

Year	0-50 Miles	50-100 Miles	100-150 Miles	150+ Miles	Total
2009	76%	16%	6%	2%	100%
2010	77%	15%	6%	2%	100%
2011	73%	15%	9%	3%	100%
2012	71%	15%	9%	5%	100%
2013	71%	15%	9%	4%	100%
Total	74%	15%	8%	3%	100%

% travelling 100+ miles has increased from 8% to 13%

Travel distances are estimated based on the patient's county seat to the hospital city

Avg Length of Stay by Distance from Patient County Seat to Hospital

Year	0-50 Miles	50-100 Miles	100-150 Miles	150+ Miles	Avg
2009	7.8	9.0	9.2	9.7	8.1
2010	8.4	8.8	10.0	9.8	8.6
2011	8.6	9.5	9.9	9.9	8.9
2012	8.5	9.5	10.2	10.5	8.9
2013	8.1	8.9	10.3	9.6	8.5
Avg	8.3	9.2	10.0	10.0	8.6

Those travelling longer distances have longer LOS

**Community Psychiatric Inpatient
Adult**

% of Discharges by Distance from Patient County Seat to Hospital

Year	0-50 Miles	50-100 Miles	100-150 Miles	150+ Miles	Total
2009	91%	7%	2%	1%	100%
2010	90%	8%	2%	1%	100%
2011	89%	8%	2%	1%	100%
2012	88%	8%	3%	1%	100%
2013	87%	8%	3%	2%	100%
Total	89%	8%	3%	1%	100%

Adults are less likely to travel as far for treatment

Avg Length of Stay by Distance from Patient County Seat to Hospital

Year	0-50 Miles	50-100 Miles	100-150 Miles	150+ Miles	Avg
2009	6.5	8.1	7.4	8.5	6.6
2010	6.5	7.9	8.1	7.5	6.6
2011	6.6	8.2	8.5	9.1	6.8
2012	6.7	8.0	8.2	9.9	6.9
2013	6.8	8.4	8.4	9.9	7.0
Avg	6.6	8.1	8.2	9.3	6.8

But those that travel the farthest have a 2.7 day longer stay

Community Psychiatric Inpatient Children

Count of Admissions and Distance Travelled by Diagnostic Category

	Anxiety Disorder	Conduct Disorder	Mood Disorder	Personality Disorder	Psychotic Disorder	Substance Use Disorder	Other	Total
Count of Admissions	1,362	558	27,448	2,371	2,436	623	2,077	36,875
% of Total Admissions	4%	2%	74%	6%	7%	2%	6%	100%
Avg LOS (days)	6.5	8.9	8.3	10.5	10.9	5.7	9.9	8.6

Distance from Patient County Seat to Hospital	Anxiety Disorder	Conduct Disorder	Mood Disorder	Personality Disorder	Psychotic Disorder	Substance Use Disorder	Other	Total
0-50 Miles	80%	79%	74%	60%	79%	83%	75%	74%
50-100 Miles	14%	14%	15%	21%	13%	8%	15%	15%
100-150 Miles	5%	6%	8%	15%	6%	7%	8%	8%
150+ Miles	2%	2%	3%	3%	2%	1%	3%	3%
% of Admissions	100%	100%	100%	100%	100%	100%	100%	100%

Community Psychiatric Inpatient Adults

Count of Admissions and Distance Travelled by Diagnostic Category

	Anxiety Disorder	Conduct Disorder	Mood Disorder	Personality Disorder	Psychotic Disorder	Substance Use Disorder	Other	Total
Count of Admissions	7,869	618	143,920	1,036	50,391	57,117	9,185	270,136
% of Total Admissions	3%	0%	53%	0%	19%	21%	3%	100%
Avg LOS (days)	3.9	8.1	6.4	6.0	9.8	4.6	7.8	6.6

Distance from Patient County Seat to Hospital	Anxiety Disorder	Conduct Disorder	Mood Disorder	Personality Disorder	Psychotic Disorder	Substance Use Disorder	Other	Total
0-50 Miles	89%	83%	88%	89%	87%	93%	89%	89%
50-100 Miles	8%	11%	8%	7%	9%	5%	7%	8%
100-150 Miles	2%	4%	3%	3%	3%	2%	2%	3%
150+ Miles	1%	2%	1%	0%	1%	1%	1%	1%
% of Admissions	100%	100%	100%	100%	100%	100%	100%	100%



Discussion and Implications

- NC's use of EDs by persons with a primary MH/IDD/SUD disorder is slightly less than the nation's average, but EDs are not an ideal location for crisis services for those who are medically stable.
- The average wait time for State Hospital admission in EDs is currently about 4 ½ days.
 - The wait time for individuals admitted to community inpatient has historically been much less.
 - The overall wait time (for all dispositions) is estimated to average less than 2 days, with a median of approximately 1 day.
 - There is not a comprehensive source for this data on an ongoing basis.
- At least half of community psychiatric inpatient care is funded with public dollars.



Discussion and Implications, cont.

- The avg. daily census in Community Psychiatric Hospitals has gone up from 2009 to 2013, while State Hospitals has gone down, with what is likely an overall total net reduction given the increase in population.
- The percent of children travelling over 100 miles for community psychiatric care has increased from 2009-2013, and those travelling longer distances tend to have a higher avg. LOS.
 - However, it appears that children with Personality disorders are more likely to travel farther for care, and tend to have a longer LOS regardless of distance travelled.
- Not as many adults have to travel 100+ miles for inpatient care, but the LOS is longer the farther the individual travelled for care.
 - For adults, distance travelled showed little relationship to diagnostic category.



Recommendations

- Explore whether the planned bed registry can be utilized to track length of wait in referring facility
- Thoughts from the group?