

MENTAL HEALTH TASK FORCE

Mental Health Patient Flow Analysis Results and Recommendations



KNOX COUNTY
TENNESSEE

HEALTH DEPARTMENT

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Mental Health Patient Flow Analysis
Results and Recommendations

Big Picture:

- Approximately 8,500 patients per year in 2015 and 2016 were seen in Knox County emergency departments (ED) with mental health (MH) issues as their primary diagnosis.
- Two hospitals handled over half of those visits: Physicians Regional (33.8% in 2016) and UT Medical Center (21.3% in 2016). Physicians Regional closed in 2018.
- As of January 2020, Covenant Health and Tennova Healthcare have both applied for Certificates of Need to establish dedicated behavioral health hospitals in Knox County.
- The average amount of time spent from arrival to departure in the EDs for MH patients was 10 hours 18 minutes in 2015, and 11 hours 21 minutes in 2016.
- There were no significant differences in wait times between facilities.
- While acknowledging that access to mental health care resources is a regional issue, this analysis focuses on Knox County.

Main Points:

- The number of inpatient beds in Knox County has decreased from a high of 189 in 2010 to less than 20 in 2019.
- Youth wait, on average, twice as long as adults to be discharged for MH complaints:
 - In 2015 the average wait time for youth was 17 hours 46 minutes, compared to 9 hours 36 minutes for adults.
 - In 2016 it was 23 hours 2 minutes, compared to 9 hours 59 minutes for adults.
- We now routinely send patients to facilities outside Knox County, including facilities other than Blount County-based Peninsula.
- Almost three out of four MH patients in the EDs are discharged to home. This is across payer types.
- In 2016, 330 patients were transferred from the ED at Physicians Regional to the in-hospital psychiatric unit. In 2015, it was 393 patients. This psychiatric unit and ED closed in 2018.
- More than one out of five MH patients in Knox County EDs in 2015 and 2016 gave a residential zip code of 37917 (see map). This zip code lost the psychiatric beds it had in 2018.
- In 2016, the diagnoses with the longest wait times in the ED were:
 - (F23) Acute and transient psychotic disorders (n=177)
 - (F28-29) Other nonorganic or unspecified psychotic disorders (n=278)
 - (F50-59) Behavioral syndromes associated with physiological disturbances and physical factors (n=15)
 - (F22) Persistent delusional disorder (n=88)
 - (F20) Schizophrenia (n=232)
- Substance misuse continues to be a driver for mental health ED visits.

Conclusions

- The majority of patients with primary mental health diagnoses are being discharged to home from the ED. This issue needs further study.
- There is a need for both adult and pediatric psychiatric beds in Knox County.

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- There is a need for an alternative to the traditional emergency departments for mental health services.
- There continues to be a need for psychiatric care in 37917.
- Reducing visits to the ED for non-emergency mental health needs would reduce the overall ED visits.

Recommendations:

- Local Level
 - Short Term
 - Require Crisis Intervention Training for all emergency responders.
 - Expand use of the Behavioral Health Urgent Care Center for referrals from non-law enforcement partners.
 - Long Term
 - Develop a plan for patient hand-off from EDs to existing mental health providers.
 - Identify high frequency users of EDs for mental health emergencies and offer additional case management services to reduce readmissions.
 - Establish/pilot a Multidisciplinary Response Team in Knox County, initially only in high-need areas. (MRTs respond to mental health emergencies called in to emergency services, and include a mental health professional, a police officer, and an EMT.)
 - Establish a centralized outpatient mental health appointment system in Knox County with a required bank of open appointments so patients can get appointments quickly and easily, or ensure same-day access to appointments.
 - Establish a local mental health registry modeled after the state cancer registry.
 - Begin to provide psychiatric care in existing EDs either through in-house/contract staff or telemedicine.
 - Increase outpatient access to mental health services.
 - Geographic locations of current EDs and MH resources do not match the geographic location of most need (zip code 37917). Health systems should partner with local and state government to explore options for bringing emergency mental health services closer to center of need.
- State Level
 - Require mental health providers to maintain an open bank of appointments each day for improved access.
 - Improve insurance coverage for mental health services.

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2015: Disposition by Primary Form of Insurance among MH Patients in Knox County EDs	Uninsured/Self Pay	Private Insurance	Government Insurance (such as Champus but excludes Medicare/Medicaid)	Medicare	Medicaid/TennCare
Discharged to home	76.7% (n=1,498)	70.2% (n=1,549)	62.4% (n=126)	58.8% (n=965)	73.2% (n=1,806)
Transferred to external agency/hospital identified as psychiatric	11.1% (n=217)	11.3% (n=249)	13.9% (n=28)	9.9% (n=162)	12.5% (n=309)
Transferred to psychiatric unit within the same hospital*	0.2% (n=3)	6.3% (n=138)	3.0% (n=6)	11.1% (n=182)	2.6% (n=64)

*Physicians Regional only

2016: Disposition by Primary Form of Insurance among MH Patients in Knox County EDs	Uninsured/Self Pay	Private Insurance	Government Insurance (such as Champus but excludes Medicare/Medicaid)	Medicare	Medicaid/TennCare
Discharged to home	80.0% (n=1,475)	72.1% (n=1,519)	71.9% (n=166)	59.2% (n=856)	73.8% (n=1,977)
Transferred to external agency/hospital identified as psychiatric	8.3% (n=153)	7.5% (n=157)	11.3% (n=26)	6.8% (n=95)	10.9% (n=291)
Transferred to psychiatric unit within the same hospital*	0	5.8% (n=122)	2.2% (n=5)	10.6% (n=148)	2.1% (n=55)

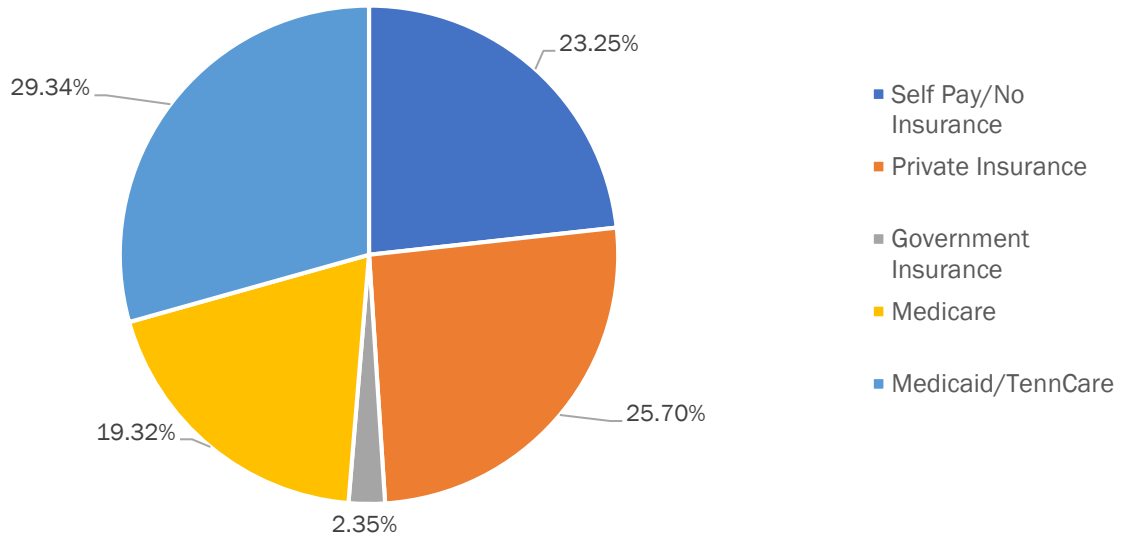
*Physicians Regional only

Primary Form of Insurance by Mean Duration from Arrival to Departure in EDs Among MH Patients in 2015-2016	2015	2016
1. Medicaid/TennCare	11-hour 11 min	13-hour 4 min
2. Medicare	10-hour 34 min	10-hour 49 min
3. Government insurance (excludes Medicare/Medicaid)	10-hour 19 min	10-hour 31 min
4. No insurance/Self pay	10-hour 14 min	10-hour 27 min
5. Private insurance	9-hour 12 min	10-hour 29 min

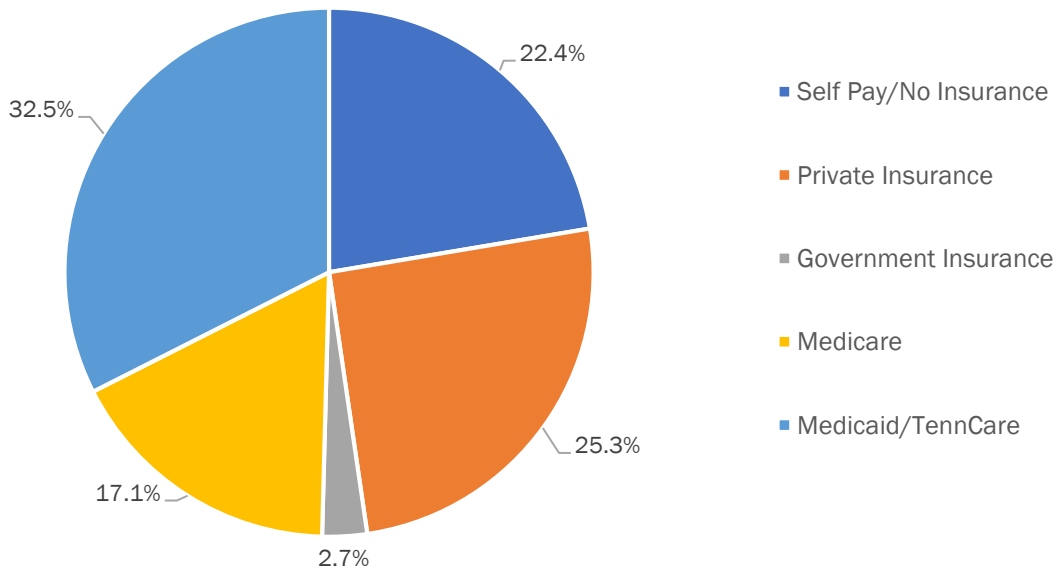
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Primary Form of Insurance in 2015 and 2016 (duplicated records)

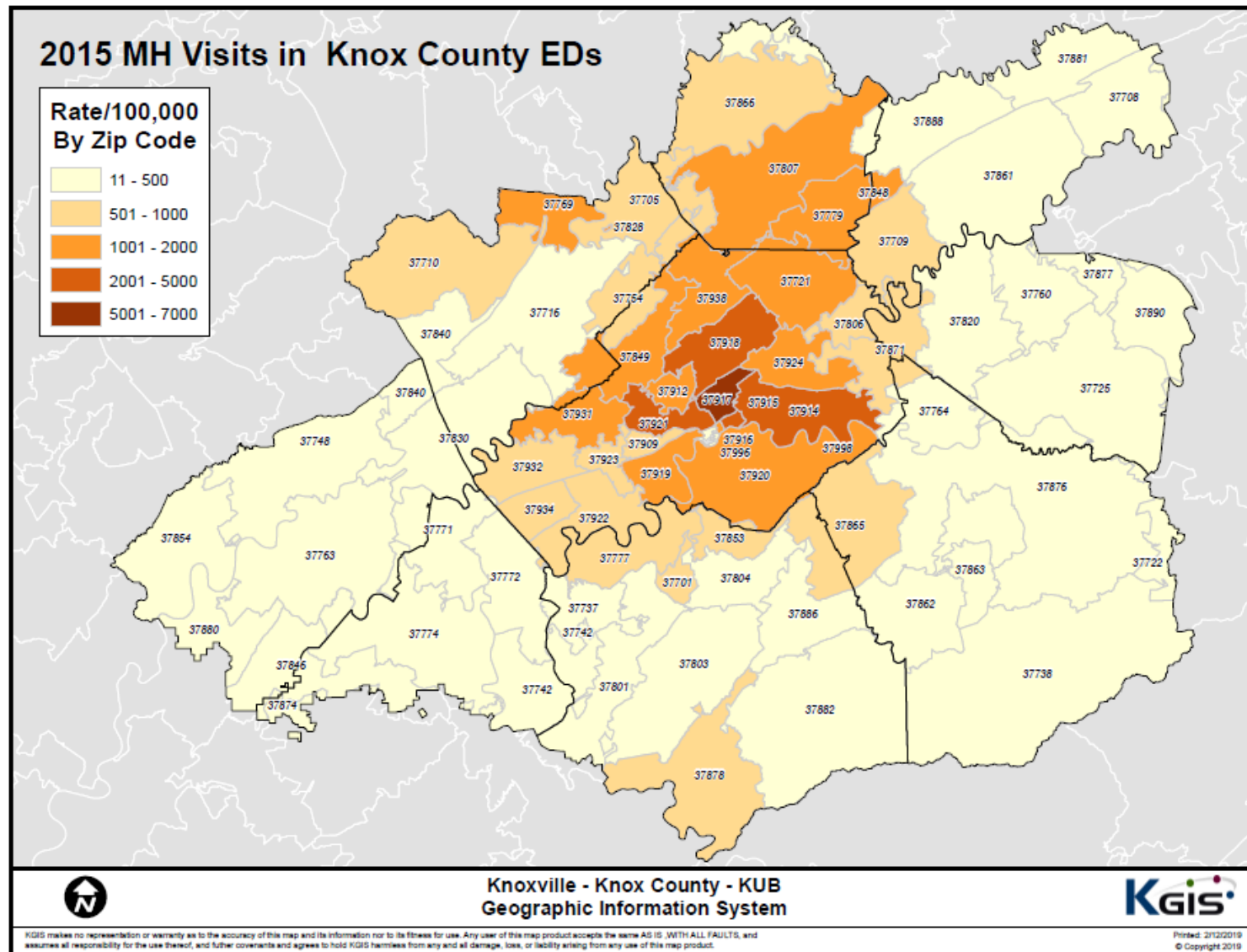
2015



2016



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