



Comparision of trends of rural ER utilization and hospitalization rates of those experiencing homelessness in Traverse City between 2018-19 and 2021-22

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Purpose:



- ▶ Compare data of ED utilization and acute hospitalizations of the homeless population in Traverse City, Michigan based on age, gender and principal diagnosis of the time periods of 2018-19 and 2021-22



Methods:



- ▶ Retrospective deidentified chart review from 1/1/21-11/1/22.
- ▶ Evaluated ED utilization and acute hospitalization
- ▶ Compare this data to previous gathered research done in same time frame in 2018-2019
- ▶ Data is organized by gender, age, and principal diagnosis
- ▶ Trends in ED utilization and acute hospitalizations were also evaluated



Homelessness in Traverse city



- ▶ Point in Time (PIT) estimates of unhoused individuals in our Continuum of Care (CoC)
 - ▶ 2018: 235 unhoused people
 - ▶ 2019: 168 unhoused people
 - ▶ 2021: 202 unhoused people
 - ▶ 2022: 164 unhoused people
 - ▶ 24 were minors
 - ▶ 61 were female
 - ▶ 102 were male
 - ▶ 1 was transgender

Homeless Assistance Specialist Map





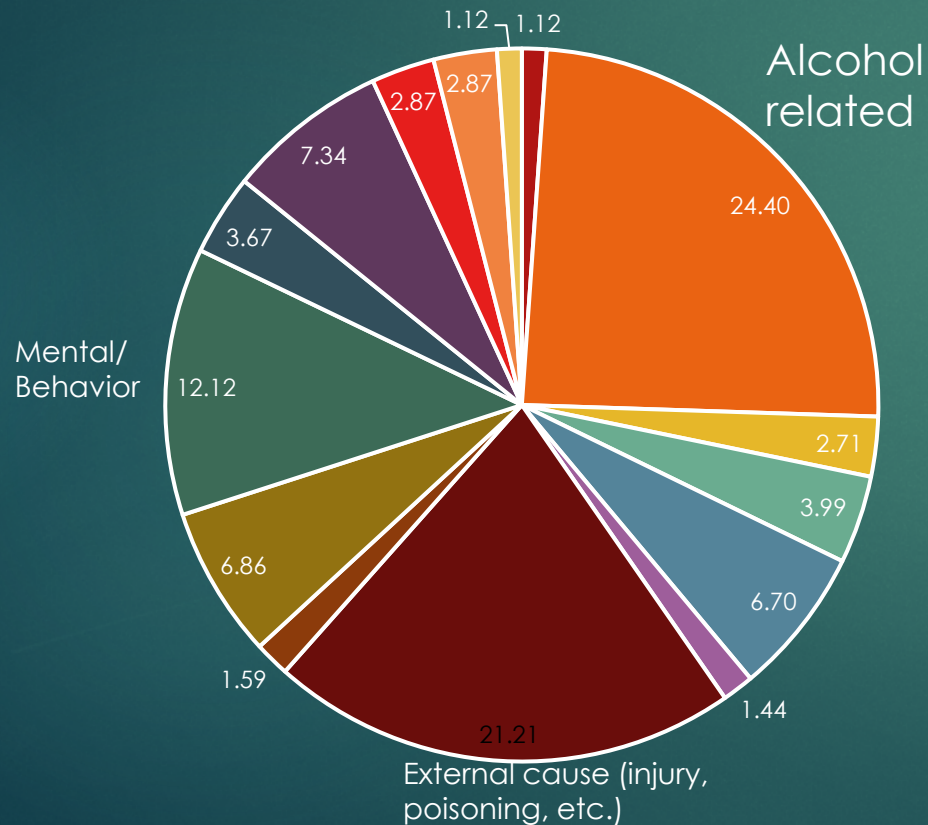
Results:



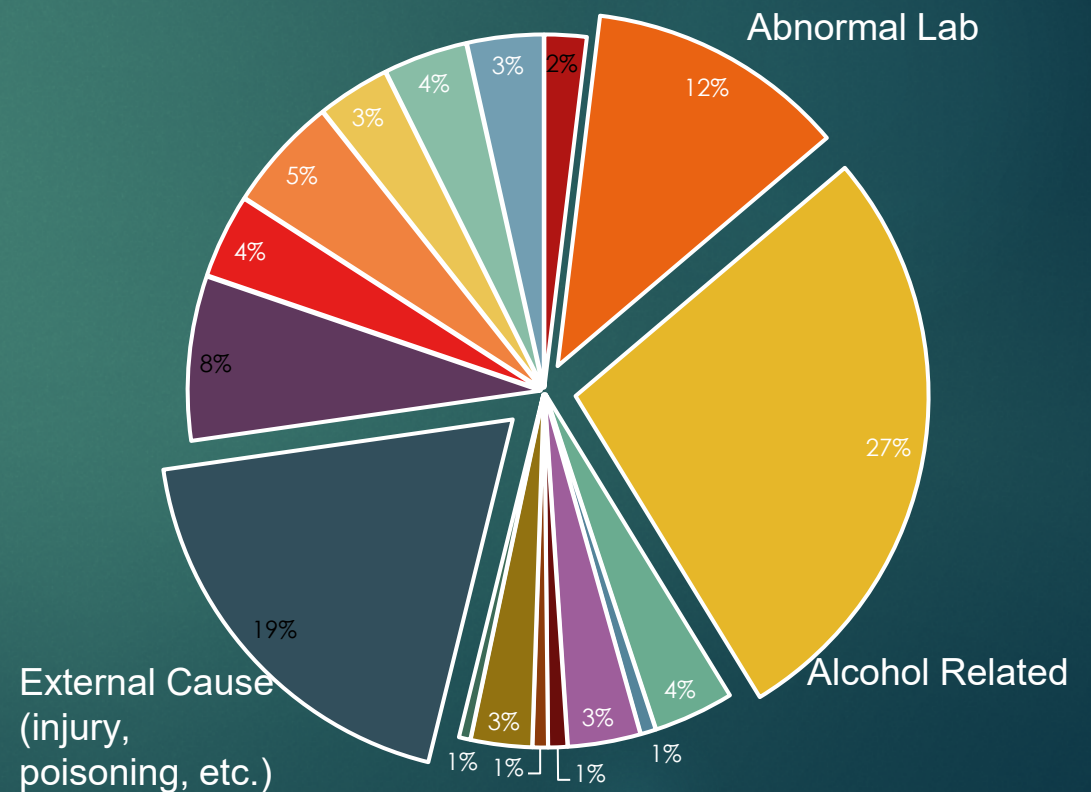
- ▶ ED visits 2021-22: 627 unique encounters
 - ▶ Mean age 46
 - ▶ Female 34%, Male 66%
 - ▶ The most common principal diagnoses
 - ▶ Alcohol related 24.4%
 - ▶ External causes (injury/poisonings, etc.) 21.21%
 - ▶ Mental/behavioral 12.12%.
- ▶ Acute hospitalizations 2021-22: 121 unique encounters
 - ▶ Mean age 51
 - ▶ Female 34.7%, Male 65.3%
 - ▶ The most common principal diagnoses
 - ▶ Alcohol related making up 31.4%
 - ▶ Infectious 14.05%
 - ▶ Endocrine 11.57%.

Results:

Principal diagnosis for ED Use among Homeless Population, Munson Medical Center, Jan 1, 2021 - Nov 1, 2022



Principal diagnosis for ED Use among Homeless Population, Munson Medical Center, Jan 1, 2018 - Oct 31, 2019



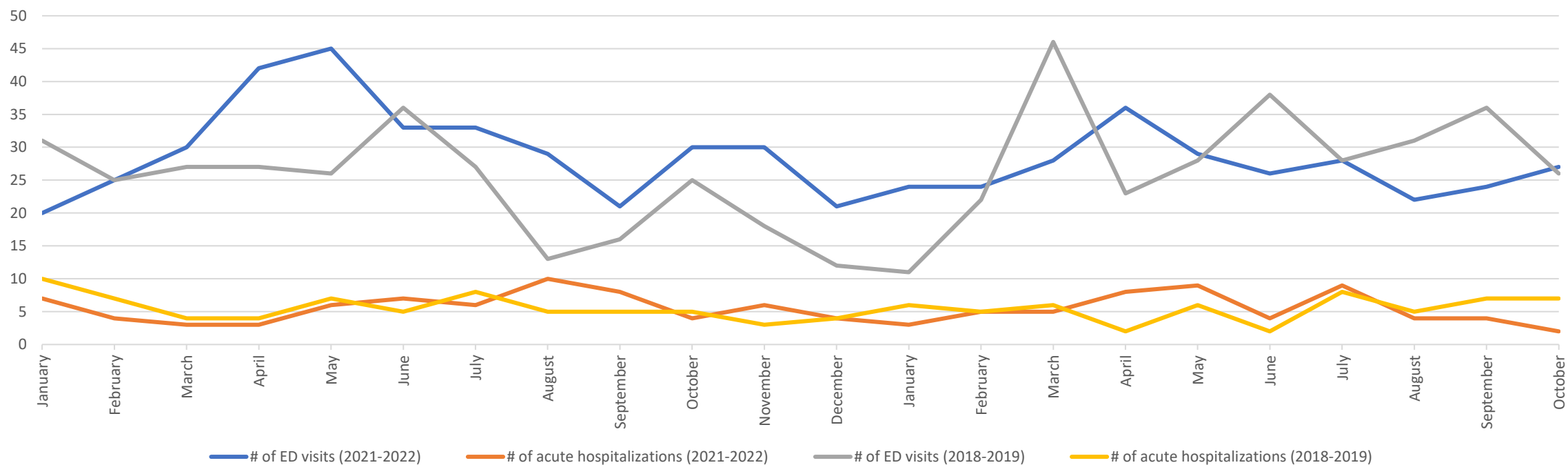
Organ System	Percentage
Alcohol related	31.40
Endocrine	11.57
Infectious	14.05
Cardiovascular	8.26
Neurological	8.26
Respiratory	4.13
Gastrointestinal	4.13
Musculoskeletal	3.31
Genitourinary	3.31
Other	0.83

A pie chart illustrating the distribution of 1500 cases across various organ systems. The chart is divided into 15 segments, each representing a different organ system and its corresponding percentage of the total cases. The segments are color-coded and labeled with their respective percentages.

Organ System	Percentage
Respiratory	13%
Chest Pain	9%
Digestive	10%
Mental/Behavioral	9%
Other 1	1%
Other 2	5%
Other 3	2%
Other 4	2%
Other 5	1%
Other 6	4%
Other 7	7%
Other 8	8%
Other 9	2%
Other 10	7%
Other 11	4%
Other 12	1%
Other 13	9%
Other 14	2%

Results:

Trends in ED Use and Acute Hospitalizations Among Homeless Population Over Time



Summary:

- Compared to data from 1/1/2018 - 10/31/2019, there was a 10% increase in the number of overall visits to the ED
- No change in number of hospitalizations from 2018-2019 to 2021-2022
- Alcohol related visits were the leading cause of ED utilization and acute hospitalizations followed by traumatic injuries, mental health concerns, infectious and endocrine (diabetes complications)
- Large spike in ED utilization in spring months consistent in both data sets, potentially due to Safe Harbor (homeless shelter) closing
- Acute hospitalization trends stayed consistent between 2018-2019 and 2021-2022 data
- COVID 19 likely confounding factor between data in 2018-2019 and 2021-2022
- Although PIT count showed decrease in homeless population from 18-19 to 21-22, speaking with shelters and organizations that assist people experiencing homelessness, they report an increase in homeless population between the two time periods
- May be too early in intervention to see change TC Street medicine has had on ED and acute hospitalization rates

Resources:

- ▶ The Michigan Campaign to End Homelessness. End Homelessness in Michigan 2021 Annual Report. The State Government of Michigan, 17 November 2022
- ▶ Northwest Michigan Coalition to End Homelessness. Retrieved November 17, 2022, from <https://www.endhomelessnessmi.org/>
- ▶ Descriptive analysis of emergency department and acute hospitalization encounters among the homeless population in a rural hospital. Jaclyn Israel, David Klee MD, Kelly Hirko PhD. Michigan State University College of Osteopathic Medicine
- ▶ HUD exchange PIT and HIC data
<https://protect-us.mimecast.com/s/2DZLCER7VyUoRjYWsNpe2f?domain=hudexchange.info/>







Mobile Medical Unit





**Together,
we can end
homelessness.**



**Partnership to
End Homelessness**

Questions?