

# The relationship between frequent emergency department visits and mental health: a retrospective study for the burden of mental illness among emergency department super users

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# Purpose

- Identify the relationship between the frequency of visits to the Emergency Departments per year and the Mental and Behavioral Health Diagnosis (MBHD)

# Methods

- ◆ Retrospective study
- ◆ De-identified Electronic Administrative Data
  - ◆ Sunrise Emergency Care System
  - ◆ NACRS (National Ambulatory Care Reporting System) – ICD 10 Code
  - ◆ August 2013 – July 2014
  - ◆ All 4 adult ED sites in Calgary (PLC, FMC, RGH, and SHC)
- ◆ Descriptive Statistics and Means
  - ◆ IBM SPSS Statistics 19

# Categories

- ◆ Categories based on the annual number of visits:

**(#visits/12 month period)**

- ◆ Infrequent users **1 visit**
- ◆ Frequent Users (FRU) **2-4 visits**
- ◆ Highly Frequent Users (HFRU) **5-9 visits**
- ◆ Super Users (SU)  **$\geq 10$  visits**

# Design

## August 2013 – July 2014

Foothills Medical Centre: 80234 visits

Rocky General Hospital: 80151 visits

Peter Lougheed Centre: 80771 visits

South Health Campus: 63581 visits



**Total: 304737 visits**  
**(223632 patients)**





# Results

Infrequent  
Users  
(1 visit)  
47.4%

← **304737 visits**

Frequent  
Users  
(2-4 visits)  
40.8%

Highly  
Frequent Users  
(5-9 visits)  
8.5%

Super  
Users  
(≥ 10 visits)  
3.3%

Top ICD-10 Dx  
Abdominal Pain  
(21%)

Top ICD-10 Dx  
Abdominal  
Pain  
(22%)

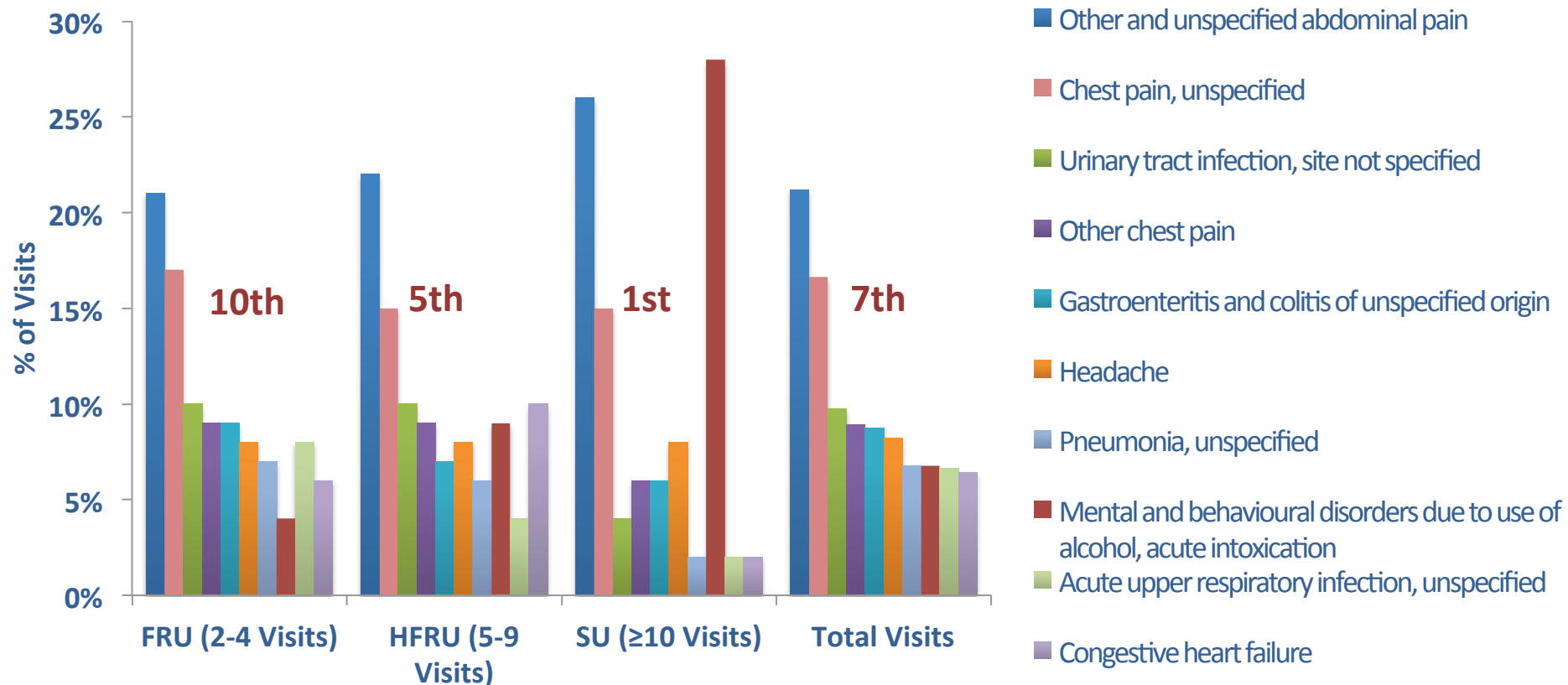
Top ICD-10 Dx  
Mental and  
Behavioral  
Health  
Diagnosis  
(28%)

Mental  
and  
Behavioral  
Health  
Diagnosis  
included:

Psychiatric  
Illnesses  
Substance  
Abuse

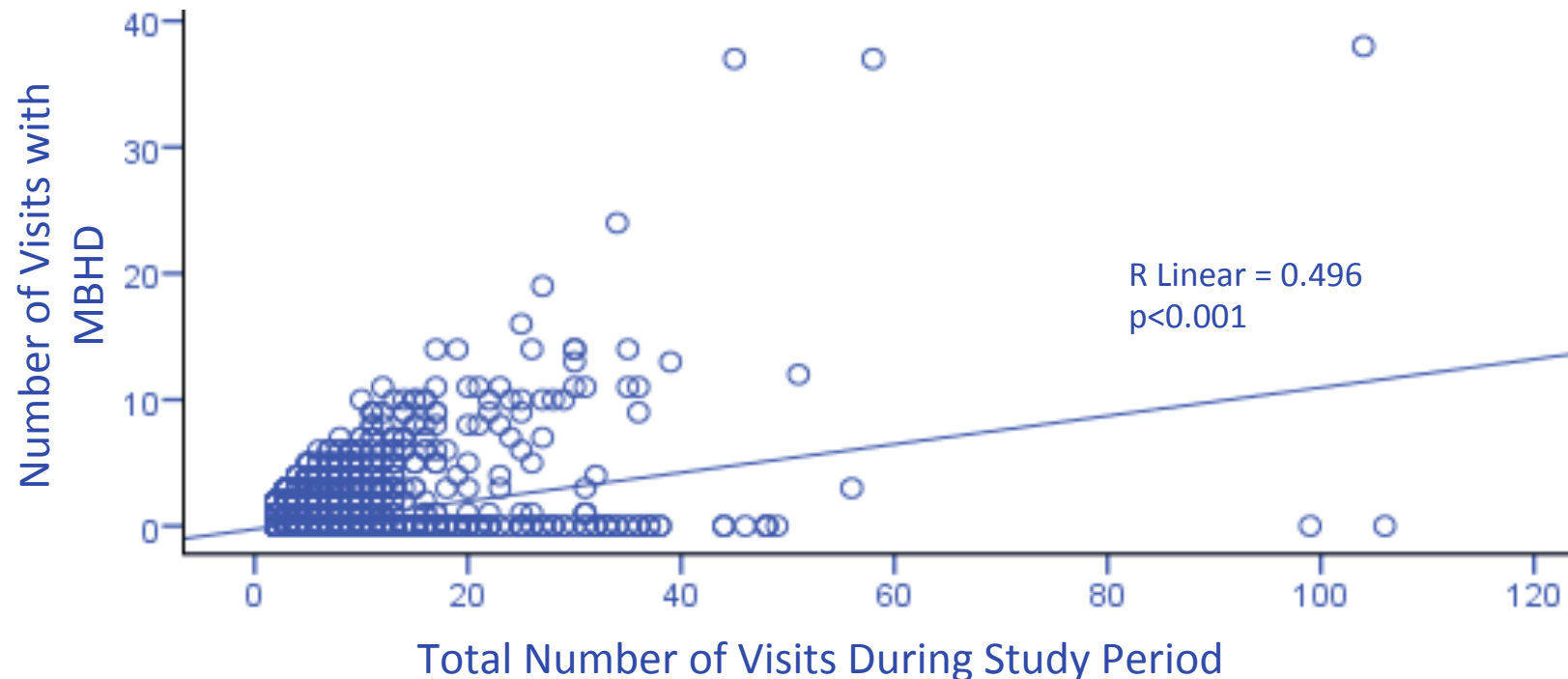
# Results

## Percentage of Visits by ICD 10 Diagnosis in each Category



# Correlation

## Correlation between total number of visits and the visits with Mental and Behavioural Health Diagnosis





# Conclusion

- Just over half of the ED users visit ED more than once per year
- Majority of them visit ED 2-4 times per year
- MBHD is more commonly seen in patients who visit ED more frequently
- Abdominal pain is the most common reason for visiting ED overall, and in the FRU and HFRU
  - High frequency users might benefit from teaching and better follow up of GI complaints.
- MBHD is the most common diagnosis in the SU
  - Interventions to impact super-users require a focus on mental health, addiction, and social issues

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