

# Potentially Preventable Emergency Department Use Among Ramsey County Residents, 2010-2014

Public Health Presents

# Learning Objectives

- Identify the reasons why we study emergency department use.
- Identify the rate of potentially preventable emergency department visits made by Ramsey County residents.
- Identify characteristics of potentially preventable emergency department use among Ramsey County residents.
- Describe the public health implication of this study.
- Learn about the next steps in the study (Phase 2: understanding the “Why”).

# Why We Care about Emergency Department Use

- Primary care/urgent care
- Patient safety & outcomes
- Cost
- Medical history
- Coordination of care
- Medical tests

# Emergency Department (ED) Study Phase 1: the “What”

Study questions were generated by the Ramsey County  
Access to Health Services Action Team

Implementing Goal #3 of the  
Ramsey County Community Health Improvement Plan (CHIP)

# Study Questions

- Do Ramsey County residents visit the ED for conditions that could have been treated/prevented by primary care?

## **If so:**

- Which EDs do they visit?
- Where do they live?
- What time of day/day of week do most visits occur?
- What age groups visit most often?
- Do the visits differ by insurance status or payer?
- How have ED visits changed over time?

# The Data

## Minnesota Hospital Association

- VISITS, not individuals
- Hospital
- Payer
- Zip code
- Age
- Diagnosis
- Admission
- Billed charges

# Categorizing the Visits

New York University algorithm (4 categories):

- 1. Non-emergent**

Immediate medical care was not required within 12 hours.

- 2. Emergent/Primary Care Treatable**

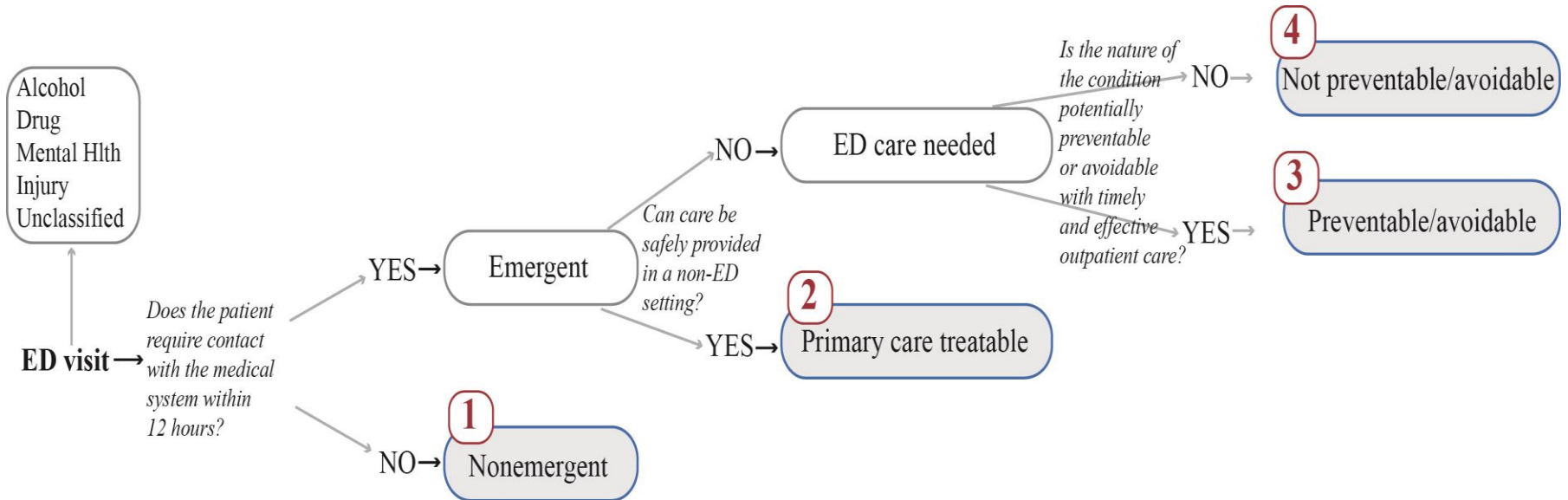
Treatment was required within 12 hours, but care could have been provided effectively and safely in a primary care setting.

## Categorizing the Visits (continued)

- 3. Emergent - ED Care Needed - Preventable/Avoidable**  
Emergency department care was required but the nature of the condition was potentially avoidable.
  
- 4. Emergent - ED Care Needed - Not Preventable/Avoidable**  
Emergency department care was required and ambulatory care treatment could not have prevented the condition.



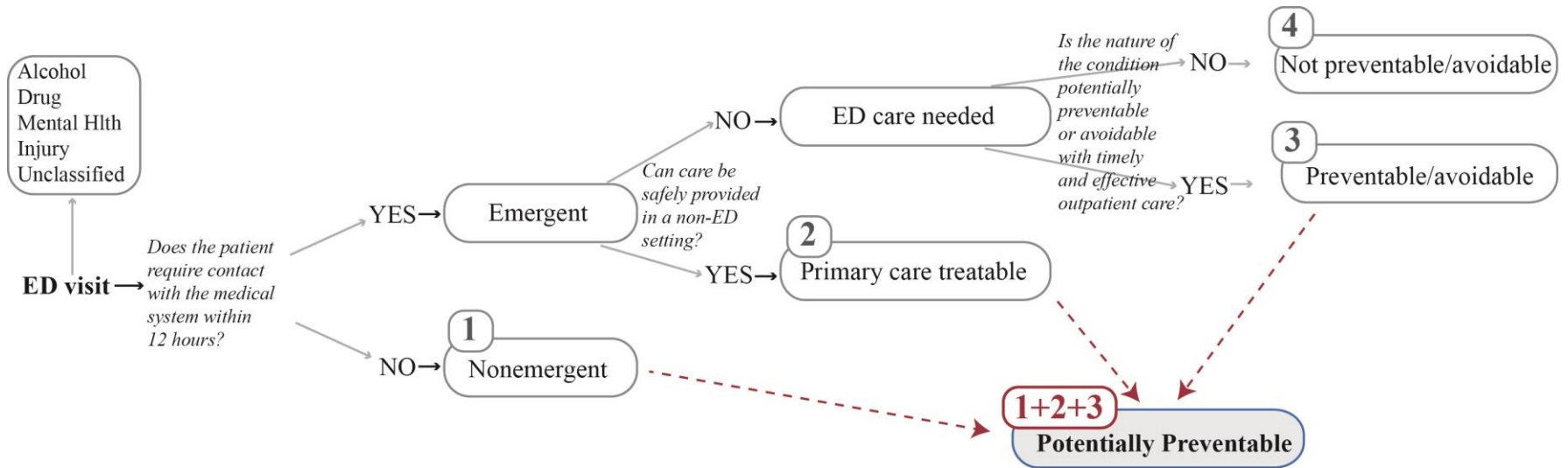
# Categorizing the Visits



# Potentially Preventable Definition

The nature of the condition was potentially preventable if timely and effective ambulatory care had been received during the episode of illness.

# Categorizing the Visits - Our Study

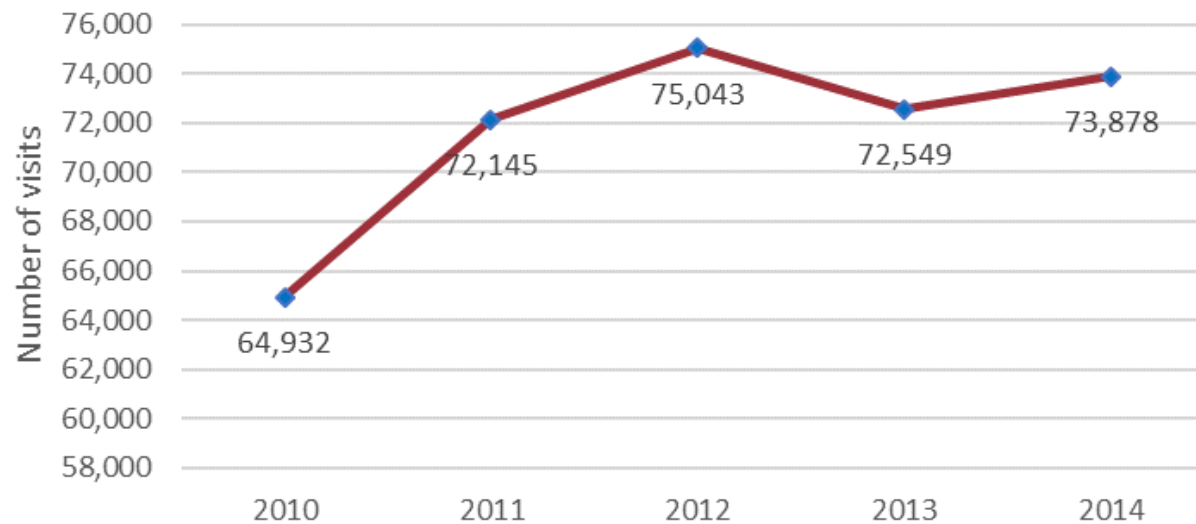


# Results

During 2010-2014,  
77.2% of ED visits made by  
Ramsey County residents were  
potentially preventable.

# Visits by Year

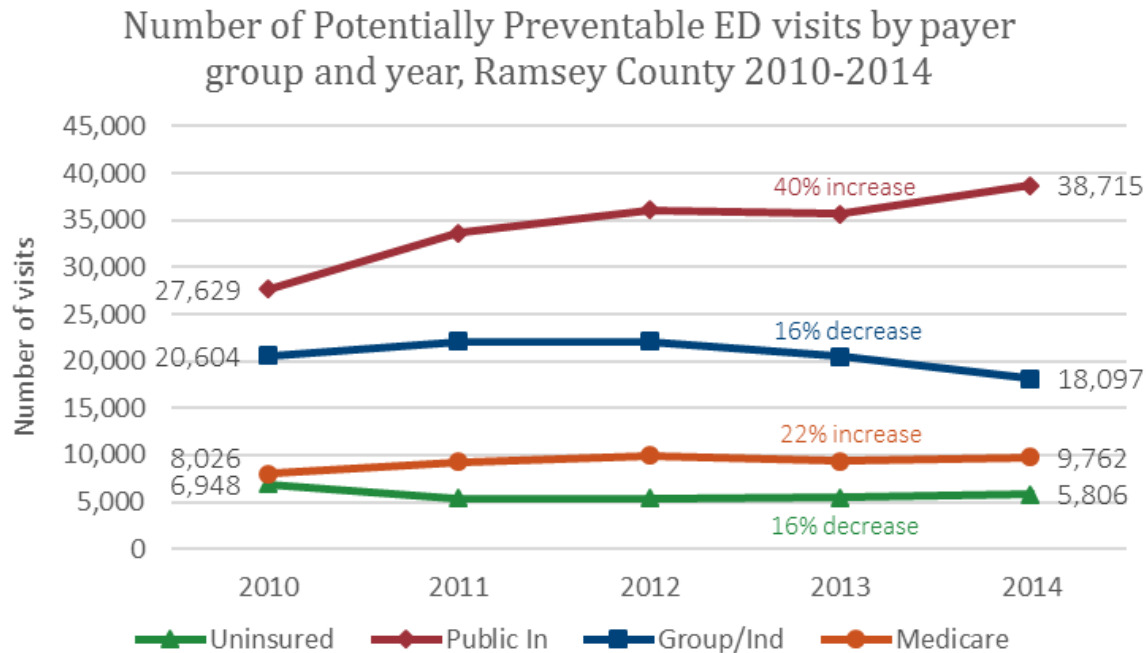
Number of Potentially Preventable ED visits  
by year,  
Ramsey County 2010-2014



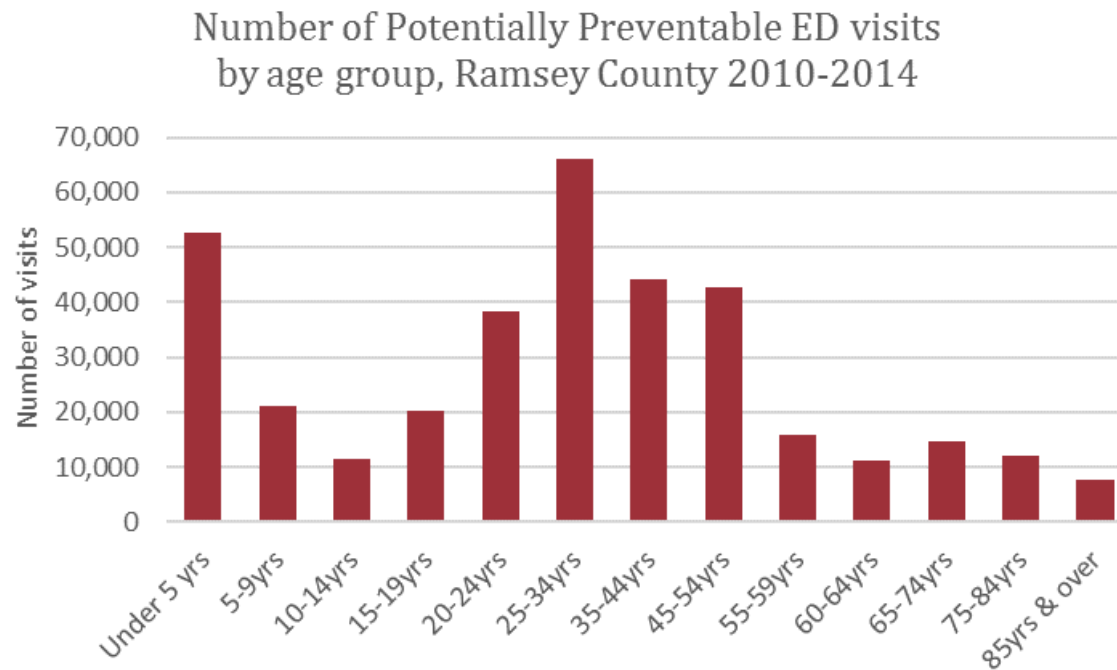
# Visits by Gender

POTENTIALLY PREVENTABLE	<u>Frequency</u>	<u>Percent</u>
Female	216,877	79.2%
Male	56,889	20.8%
Total	464,501	100.00

# Visits by Expected Primary Payer



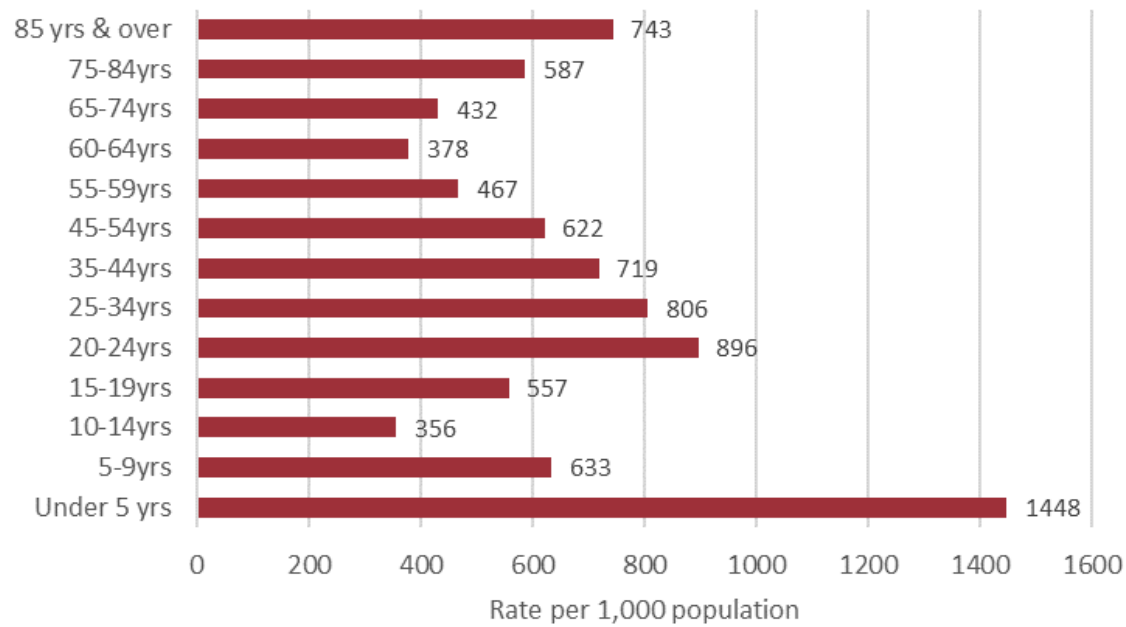
# Visits by Age Group





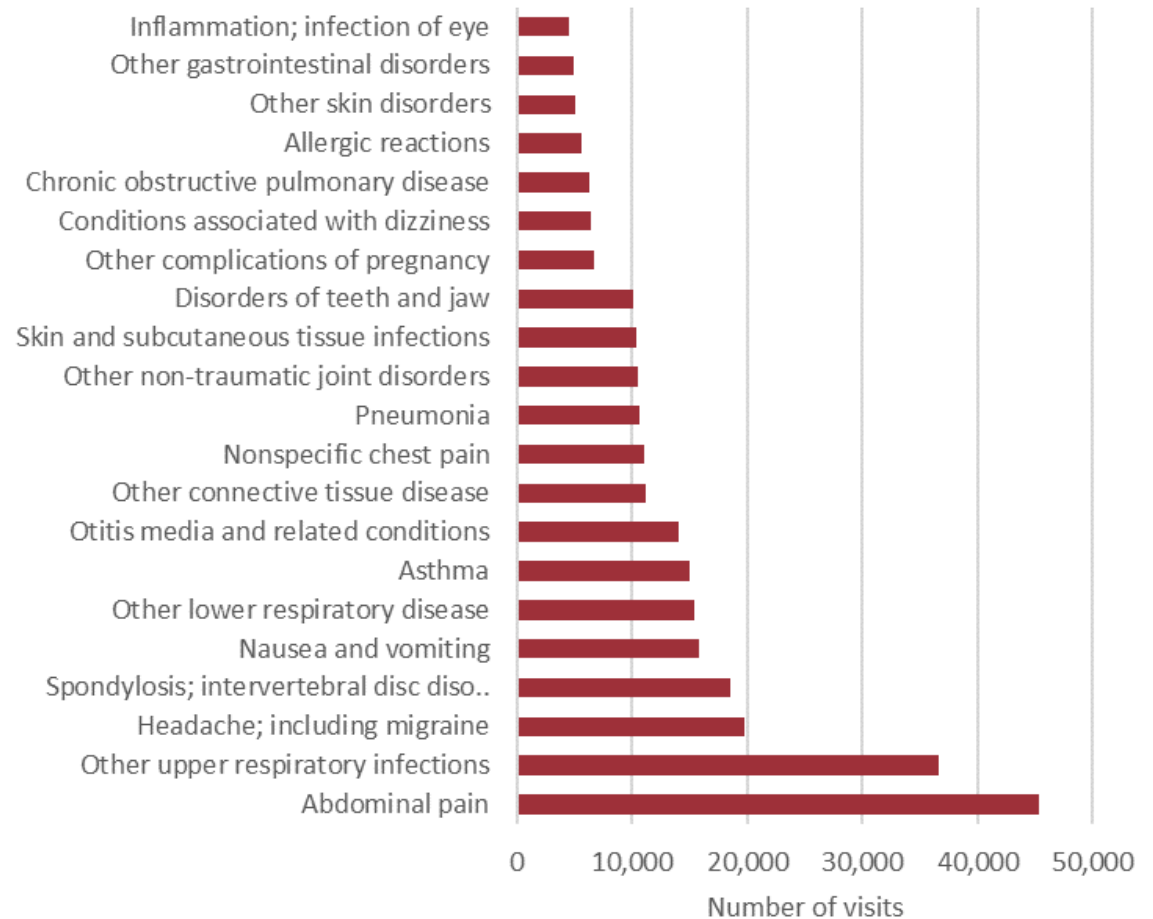
# Age-adjusted Rate

Age-adjusted rate of Potentially Preventable ED visits  
by age group, Ramsey County 2010-2014



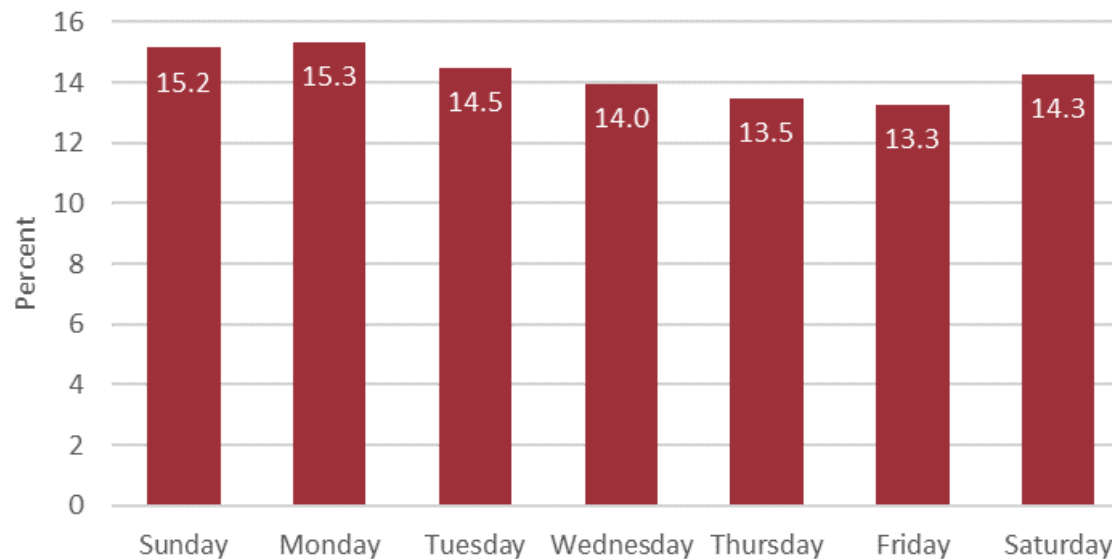
# Visits by Diagnosis

80% of all Potentially Preventable ED visits by  
diagnostic group (AHQR-HCup),  
Ramsey County 2010-2014



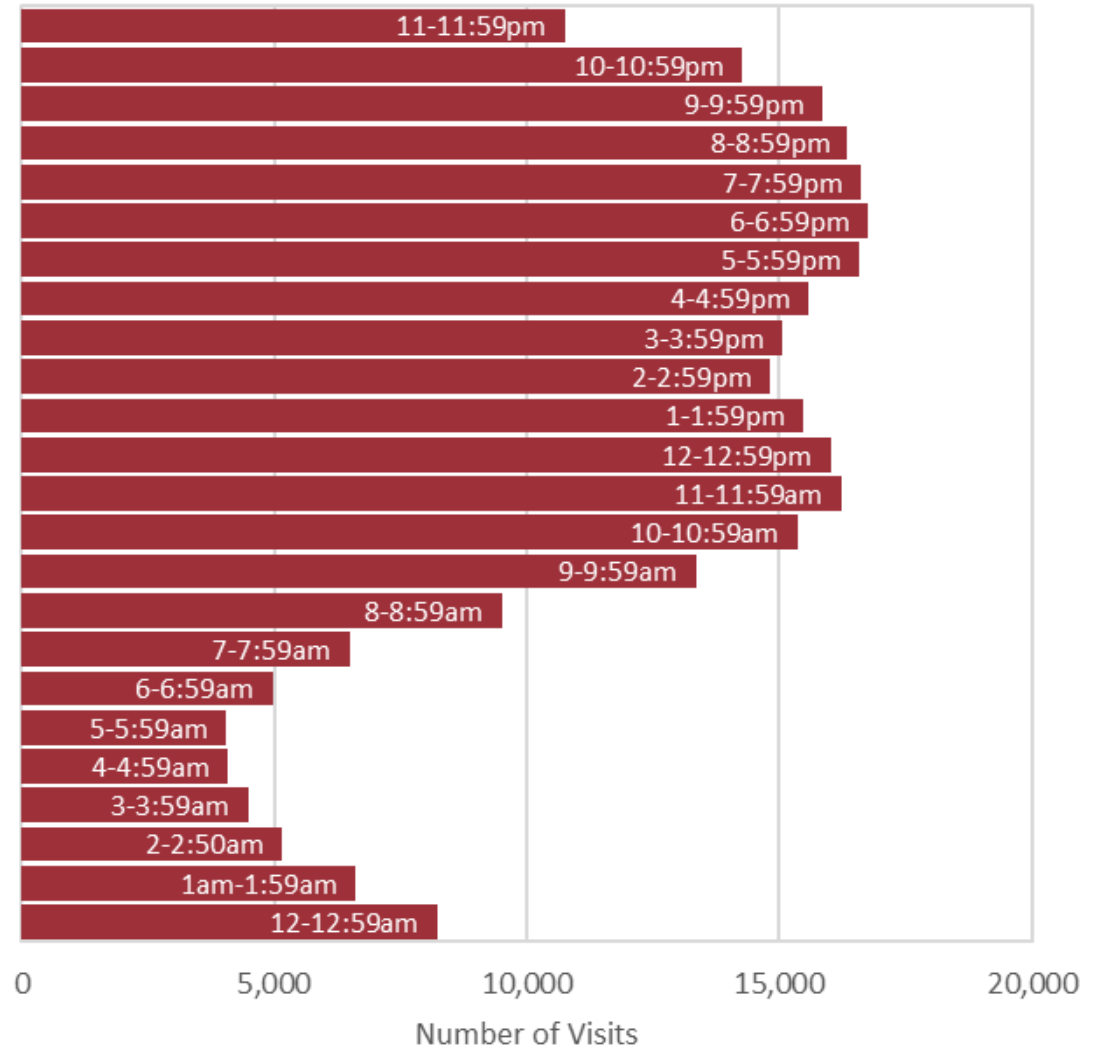
# Visits by Day of Week

Percentage of Potentially Preventable ED visits  
by day of week, Ramsey County 2010-2014



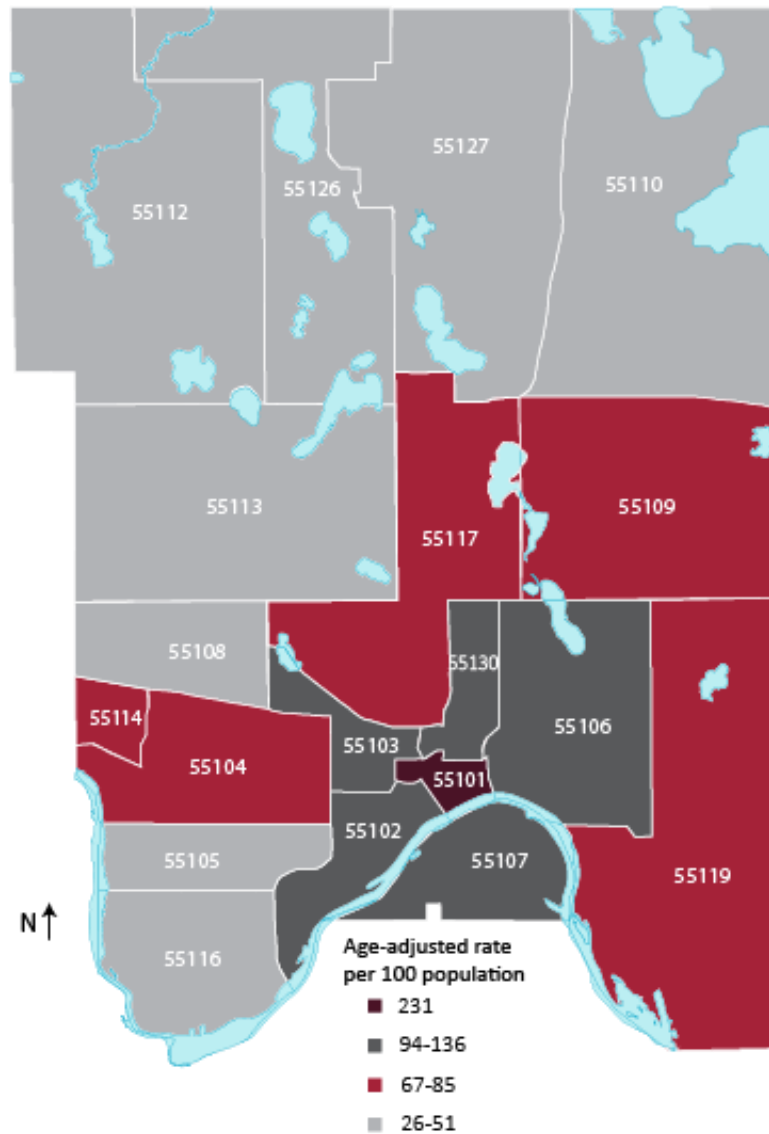
# Visits by Time of Day

Potentially Preventable ED Visits by Time of Day, Ramsey County, 2010-2014



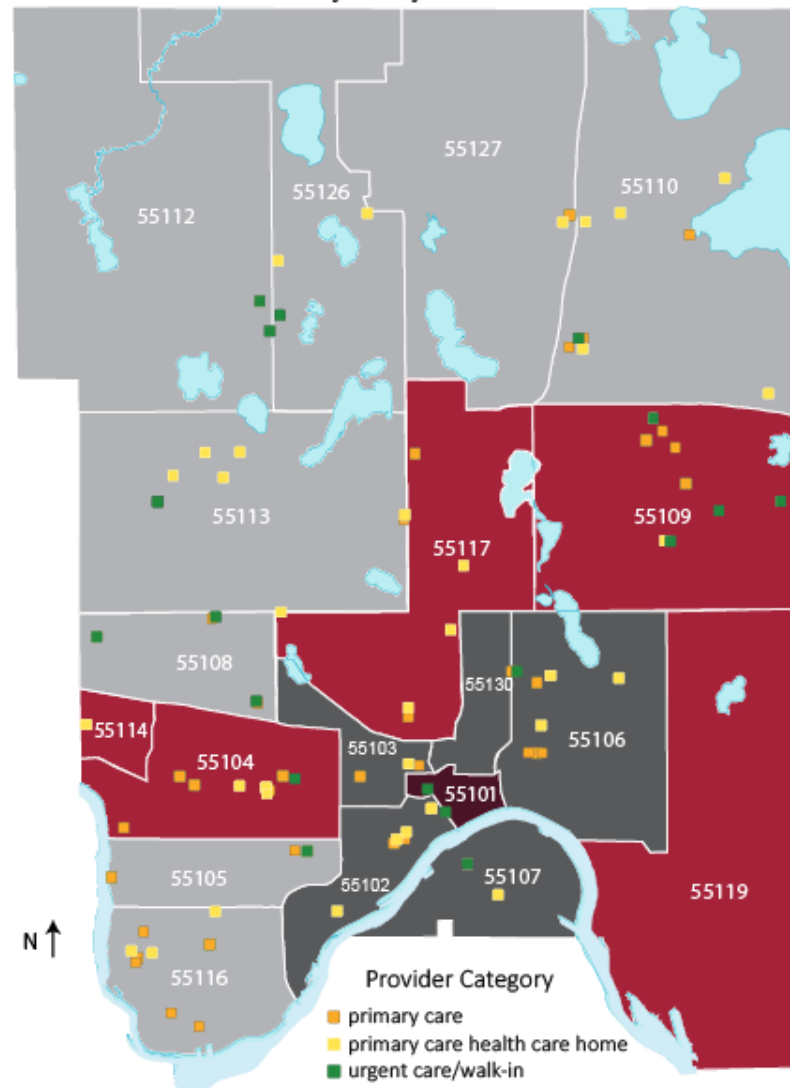
Rate (per 100 population) of Potentially Preventable ED Visits by Zip Code, Ramsey County, 2010-2014

# Visits by ZIP Code



# Visits by ZIP Code With Clinic Locations

Rate of Potentially Preventable ED Visits and Provider Locations,  
 Ramsey County 2010-2014



# Next Steps

Phase 2 study - the “Why”

# Questions

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The full ED study can be found at: [www.ramseycounty.us/EDstudy](http://www.ramseycounty.us/EDstudy)