

High frequency Emergency Department (ED) use in Sioux Lookout

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Publications

A 5 year retrospective study of Emergency Department use in Northwest Ontario: a measure of mental health and addictions needs. Matsumoto C, Madden S, O'Driscoll T, Lawrance J, Jakubow A, Loewen K, Kelly L. CJEM 2016;19(5):381-5.

Defining 'high-frequency' emergency department use: does one size fit all? Matsumoto C, O'Driscoll, Lawrence J, Madden S, Kelly L. CFP 2017;63(9):e395-399.

Characterizing high frequency emergency department users in a rural NW Ontario hospital: a five year analysis of volume, frequency and acuity of ED visits. Matsumoto C, O'Driscoll T, Madden S, Blakelock B, Kelly L. CJRM 2018; in press

Disclosure of Affiliations, Financial Support, and Mitigating Bias

Dr. Sharen Madden, Associate Professor NOSM, Sioux Lookout

Affiliations:

- I have no relationships with for-profit organizations
- Member of Sioux Lookout Local Education Group which supports local medical research
- Topic suggested by local hospital for ED audit and program development

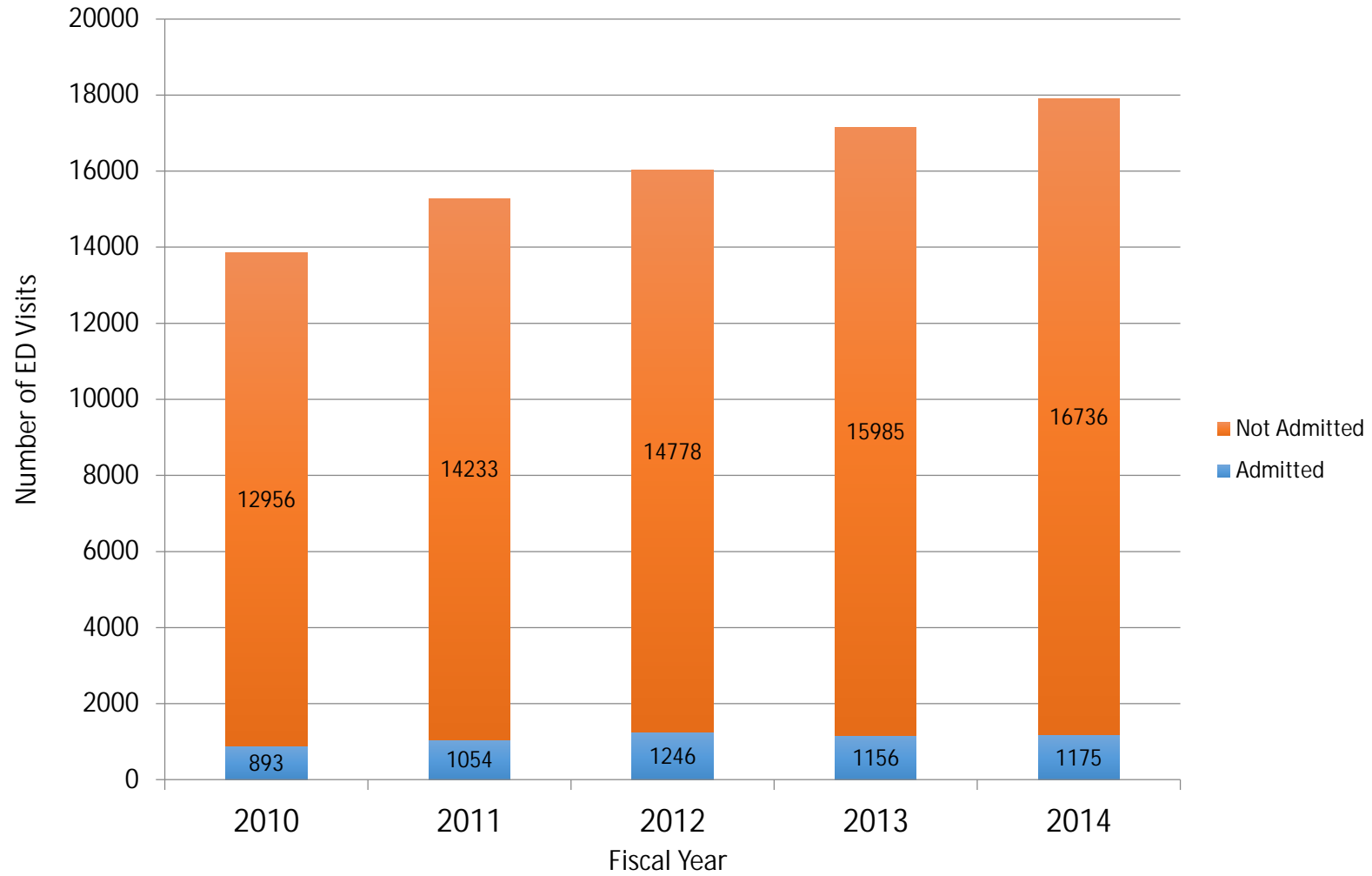
Financial Support:

- This and other local research projects facilitated by SLLEG annual funding of a Research Assistant

Rural EDs have higher per-capita use vs. urban:

Location, yr.	ED visits per 100 population
Ontario, 1977 ⁹ - 2008 ¹⁰	33 - 42 *
Canada, 2008 ¹¹	49
Rural catchment areas	-----
• Elliot Lake ON, 2001 ¹⁴	98
• Huron Country ON, 1998 ¹⁵	89
• Sussex NB, 2009 ¹⁶	84
• Sioux Lookout ON, 2010-2014	55 *
• Exeter ON, 2003 ¹⁷	51

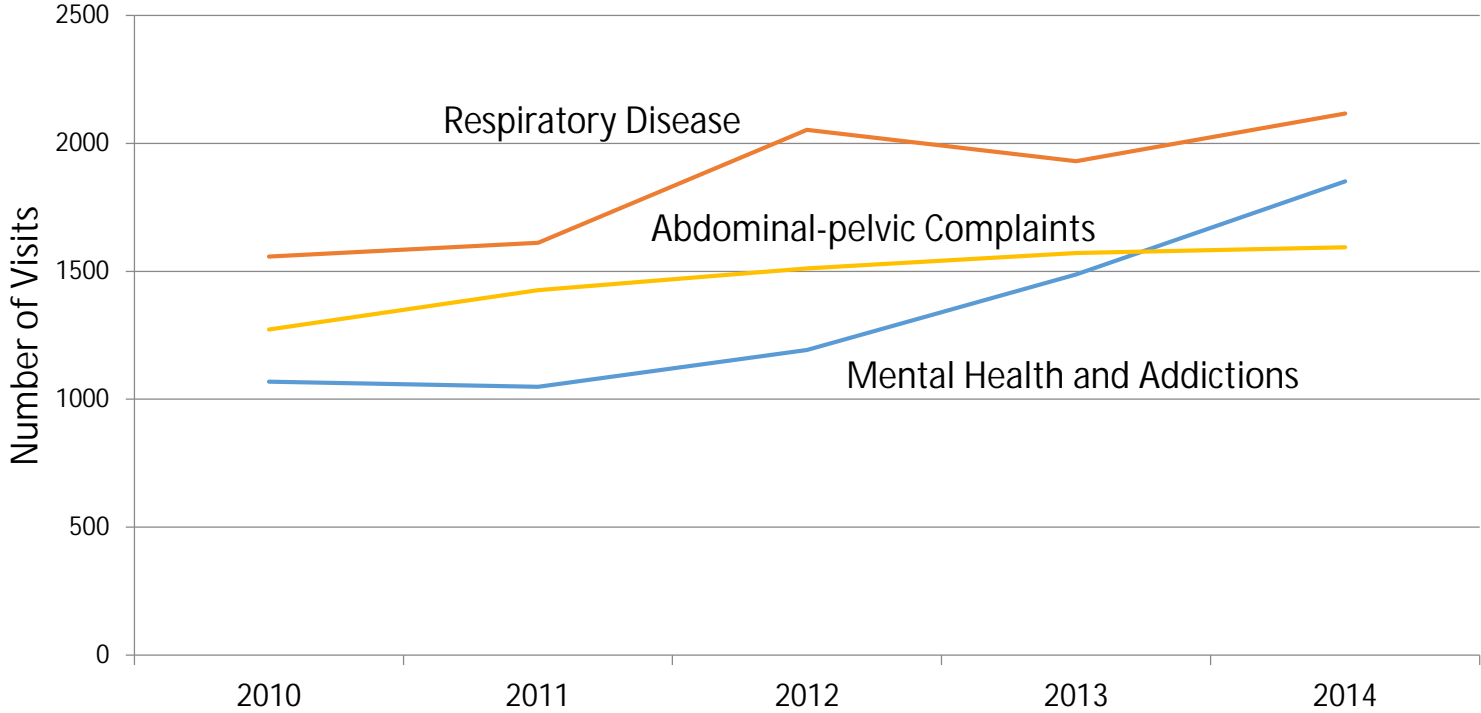
Gradual increase in overall ED use at SLMHC 2010-12014



SLMHC MHA ED presentation in 2012 -11x higher Ontario - 5x higher NW LHIN

Mental Health and Addiction - ED visits/100,000 population	
Ontario, 2012 ³⁴	374
Northwest Local Health Integration Network, 2012 ³⁴	929
Sioux Lookout Meno Ya Win Health Centre, 2014	6,386
Sioux Lookout Meno Ya Win Health Centre, 2012	4,114

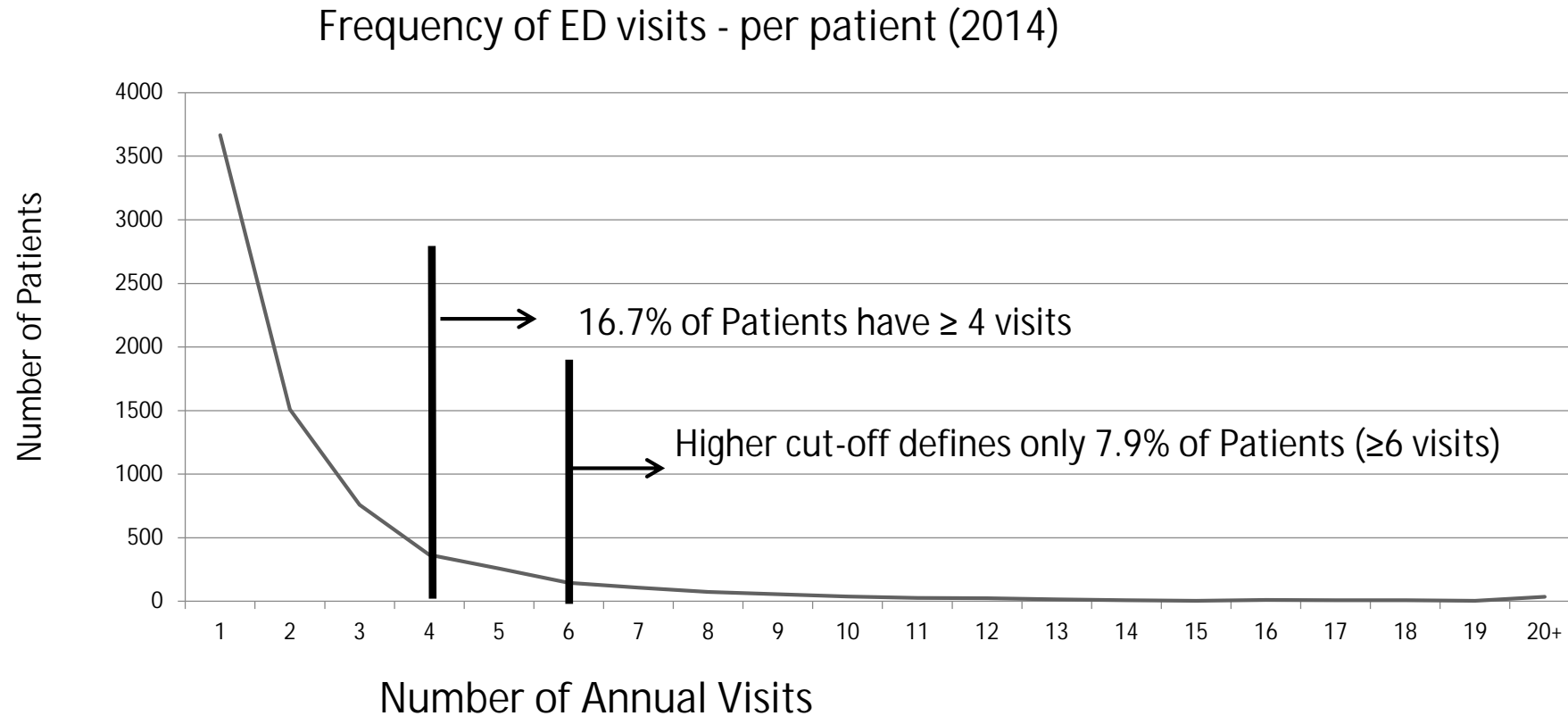
MHA will soon be the commonest reason for ED visits:



3 most frequent ED diagnoses: SLMHC 2010-2014

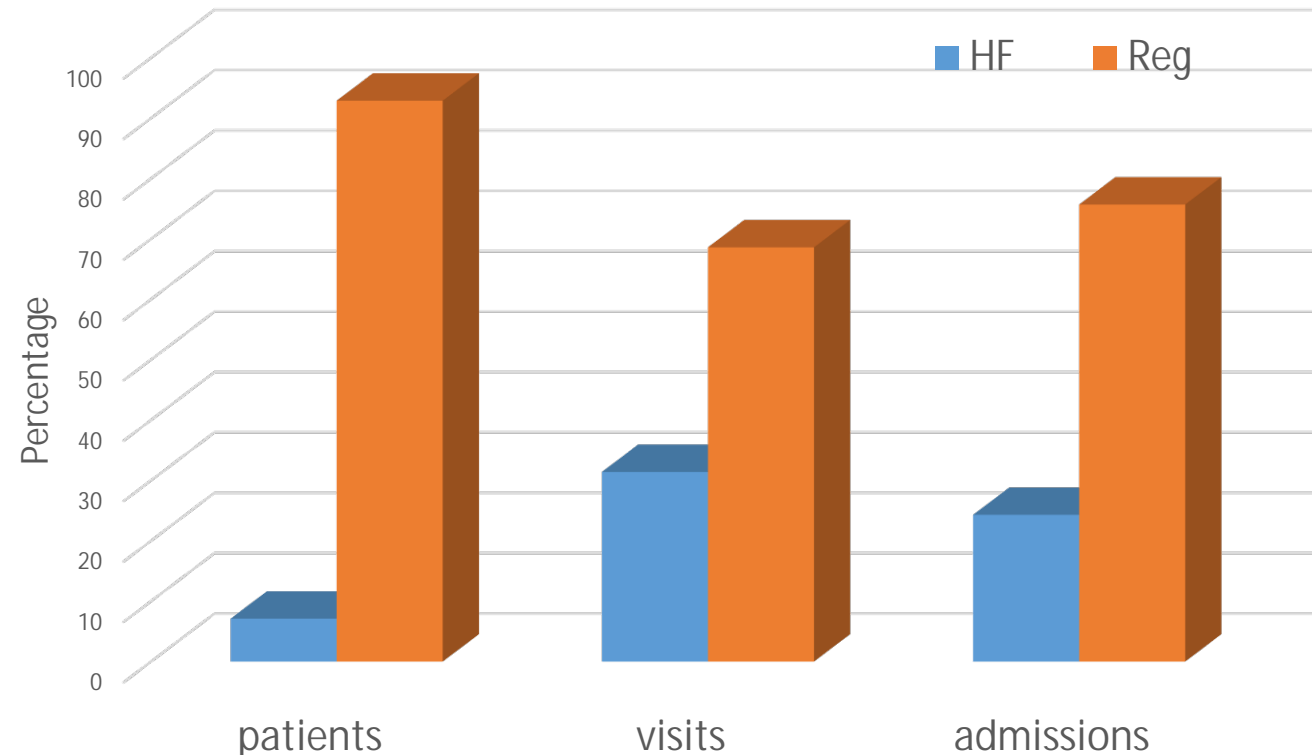
Defining Rural HF ED users

- Identify a reasonable # of patients; using an urban definition ≥ 4 is overly inclusive



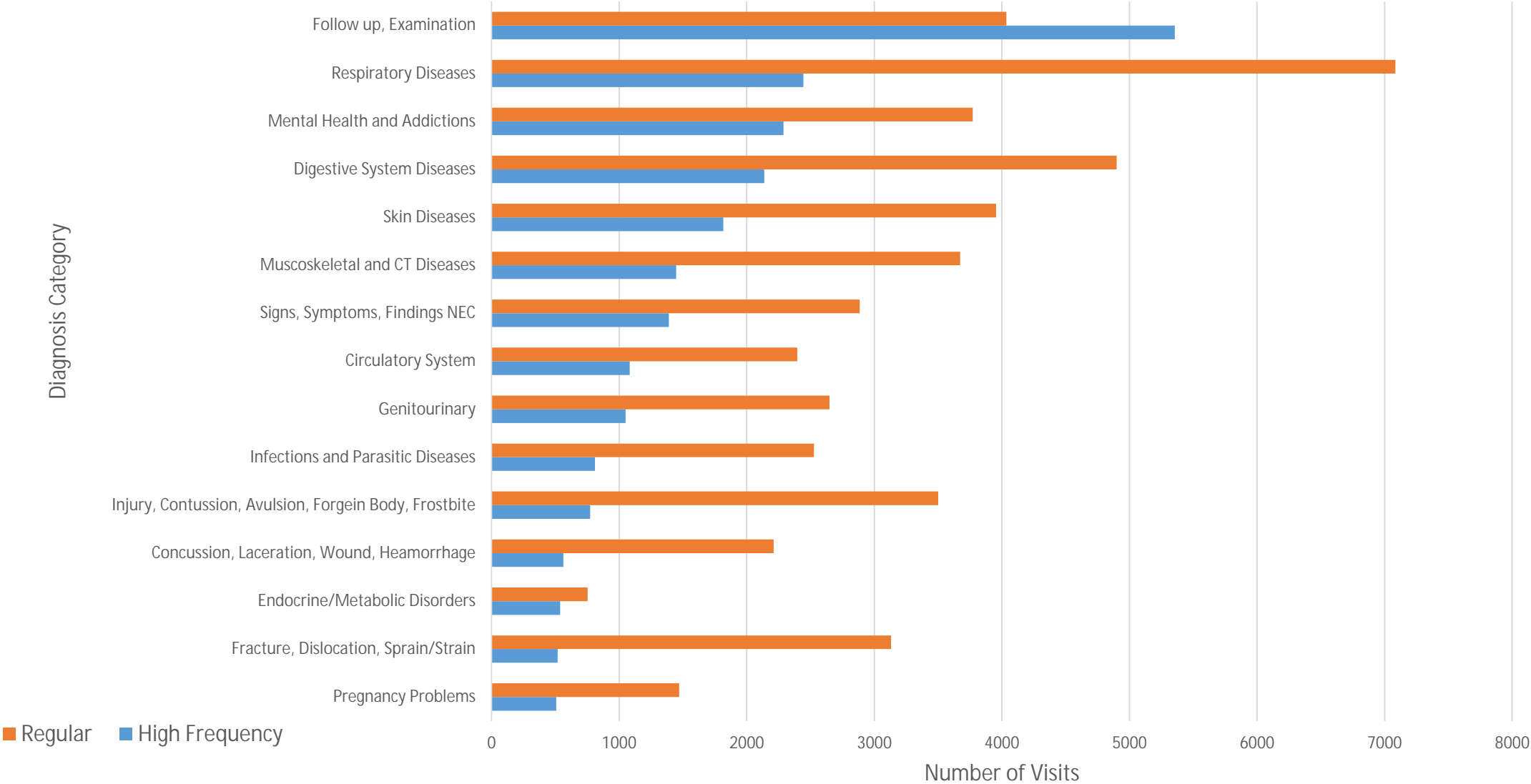
HF and Regular ED users commonly require admission:

HF: 31% of ED visits; 24% of admissions



ED visits & admissions by user category SLMHC, 2010-2014.

Similar reasons for ED visits, 2010-2014



HF: more low acuity presentations; but similar rates of serious & life-threatening acuity

CTAS category	% of HF user visits	% N user visits	P value
I (Life Threatening)	0.2	0.3	0.013
II (Potentially Life Threatening)	4.1	4.7	<0.001
III (Potentially Serious)	27.8	32.7	<0.001
IV (Semi-Urgent)	41	49.1	<0.001
V (Non-Urgent)	<u>25.9</u>	<u>12.5</u>	<0.001

Do HF users access primary care services? YES

	2010		2014	
	High Frequency	Regular	High Frequency	Regular
Average Annual No. Primary Care Visits (SD)	<u>25</u> (29.2)	10 (15.8)	<u>21</u> (26.4)	10 (16.4)

In fact they access primary care services at twice the rate of regular ED users...

In Summary.....

- We have defined 'Rural' HF ED use as ≥ 6 annual ED visits
- 'HF' identifies 8% of ED patients, 31% of visits and 24% of admissions; similar reasons for visits
- Both HF and regular ED users have increasing mental health and addictions needs
- High frequency ED use occurs despite robust primary care attendance

Future research may need to be qualitative:

- What services best meet the needs of HF ED users?
- Are primary care services inadequate for this group of patients? What additional supports are needed?
- Are there other unrecognized needs in this group of patients?

any questions.....

