

Michigan Cold-Injury, Emergency Department Visits: January 7, 2014

Executive Summary

There were a total of 193 emergency department (ED) visits in Michigan with self-reported cold-related injury complaints January 1-7, 2014, for an average of 27.6 ED visits per day. The majority of the visits were made on January 6th and 7th. Females constituted 31.6% of the visits and those aged 20-39y were most affected.

Description of the Data

Cold-related emergency department (ED) visits were identified using the Michigan Syndromic Surveillance System which gathers data from participating hospital emergency departments across the state.

Cold-related injury complaints are defined as daily ED visits with the primary complaints of: “frost”, “freeze”, “exposure”, “elements”, “hypothermia”, or “carbon monoxide” (including word derivatives and misspellings). Terms that were identified in the search, but do not indicate cold-related injuries, such as “needle”, are excluded. Chief complaints were reviewed after being exported to further clean data.

Note: Due to the nature of categorizing ED complaint data, these visits do not represent all potential cases of cold-related injuries. These data may also represent non-cold-related injuries, i.e. “exposure” may not necessarily indicate exposure to cold temperatures. However, the data can be used to describe trends in illness presentations over time.

Figure 1: Daily Counts of Statewide Cold-Related ED Visits, October 1, 2013 – January 7, 2014

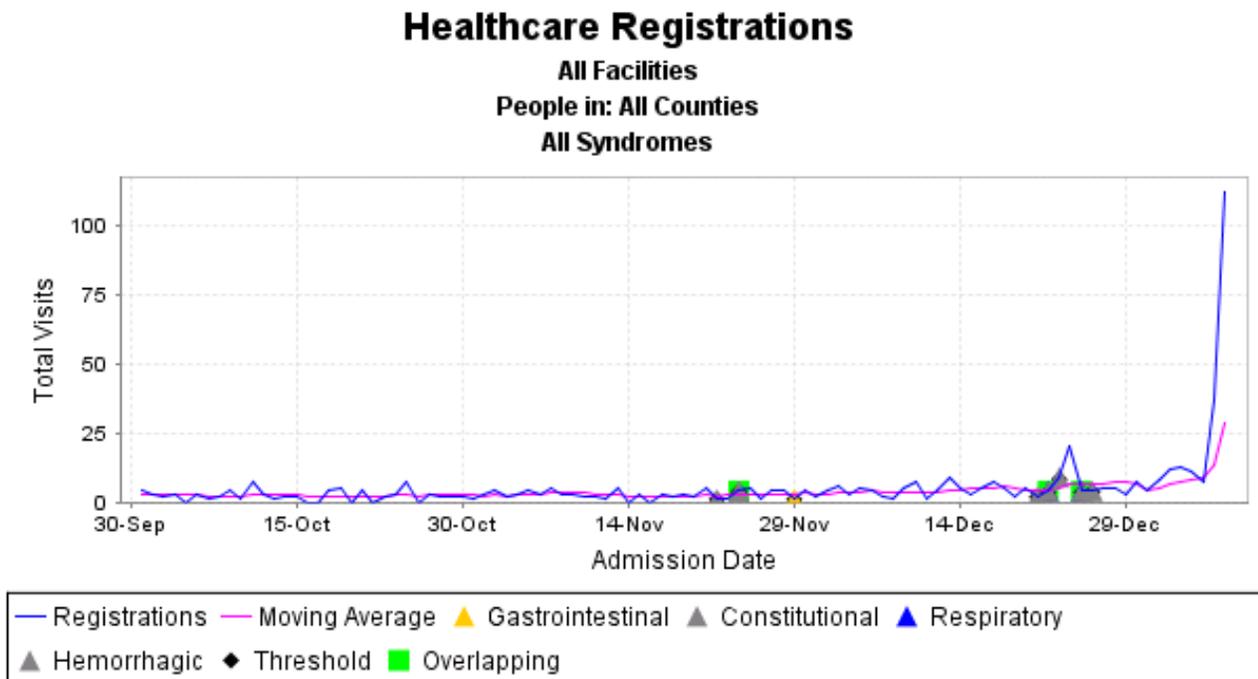


Figure 2a: Statewide Cold-Related ED Visits and National Oceanic and Atmospheric Administration (NOAA) Minimum Daily Temperatures for 6 select cities in Michigan, October 1, 2013 – January 7, 2014

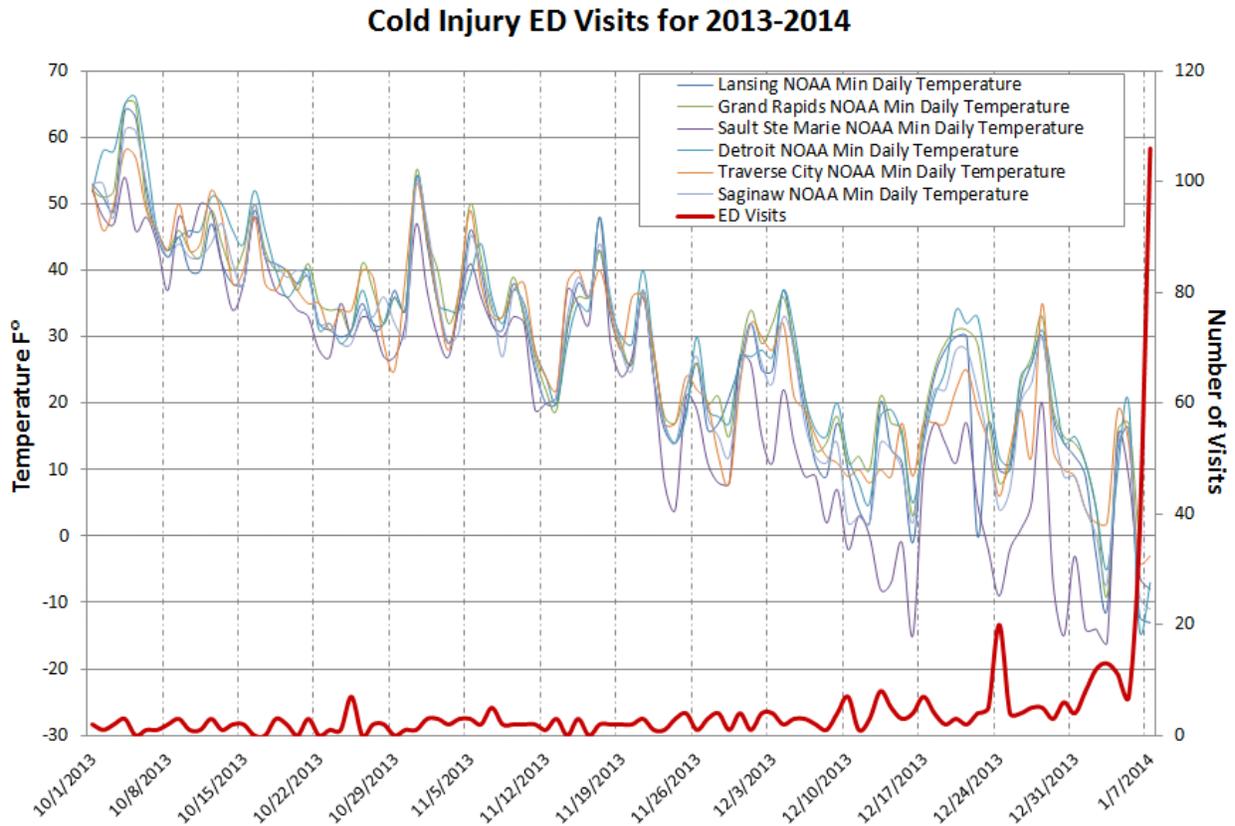
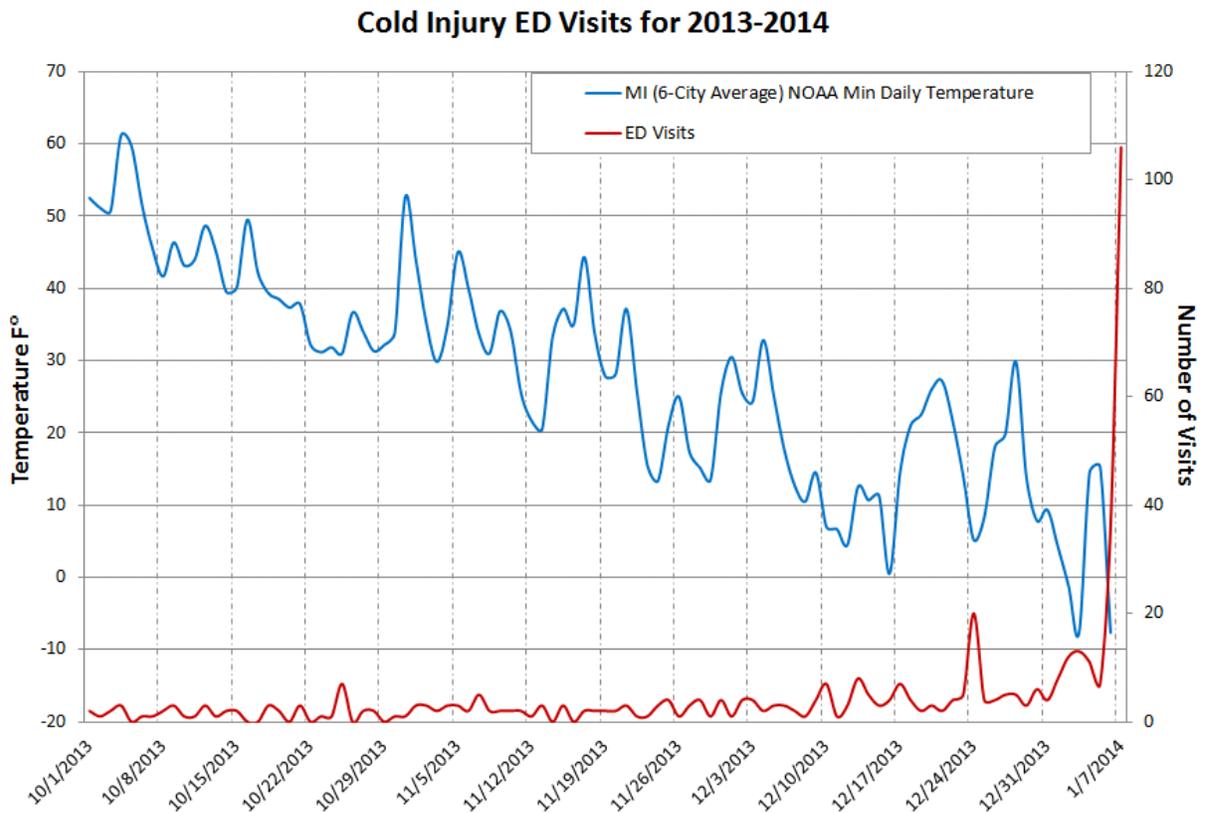


Figure 2b: Statewide Cold-Related ED Visits and National Oceanic and Atmospheric Administration (NOAA) Minimum Daily Temperatures for the 6-city average, October 1, 2013 – January 7, 2014



Cold-related injury complaints were further categorized based on chief complaint.

- **Carbon Monoxide/Dioxide:** “carbon”, “co”, “co2”
- **Cold exposure:** “cold”
- **Frost/Freeze:** “frost”, “free”, “froz”
- **Exposure:** “expo”
- **Hypothermia:** “hypo”
- **Exposure alone:** All of the above except Carbon monoxide/dioxide, cold Exposure, frost/freeze, hypothermia

Figure 3a: Statewide Cold-Related ED Visits by Symptom, October 1, 2013 – January 7, 2014

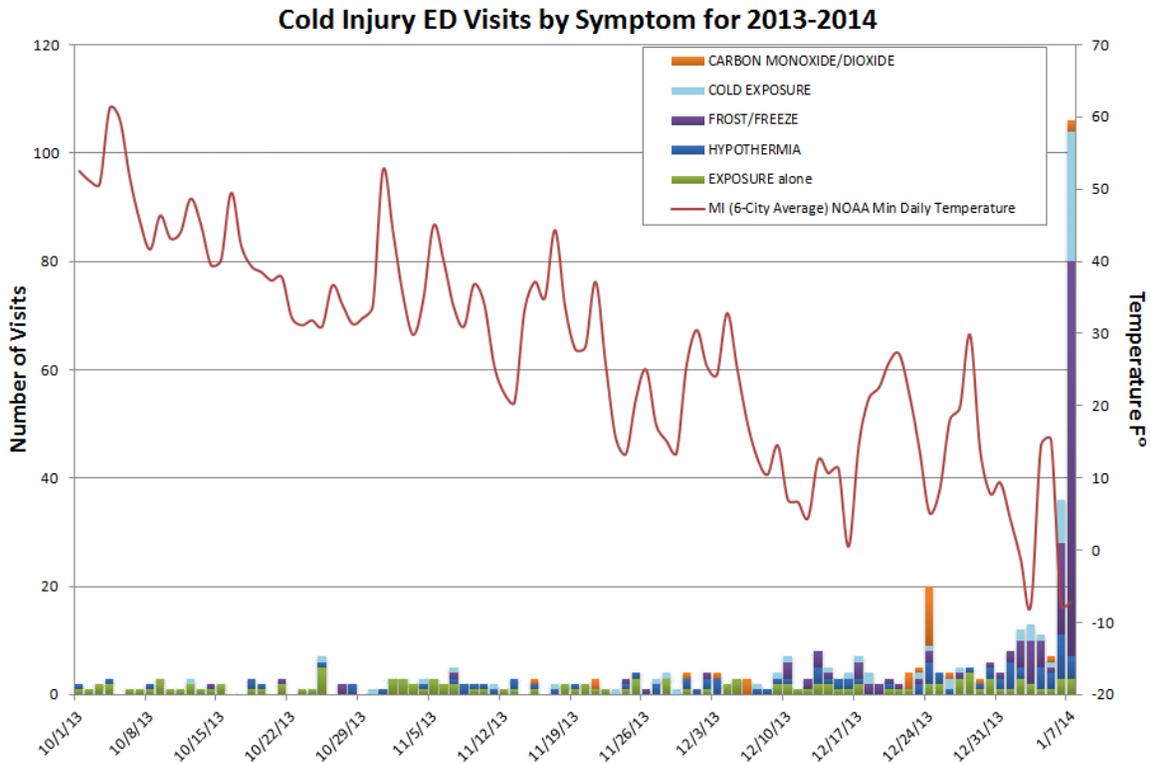


Figure 3b: Statewide Cold-Related ED Visits by Symptom (excluding “Exposure only” and “Carbon Monoxide/Dioxide”), October 1, 2013 – January 7, 2014

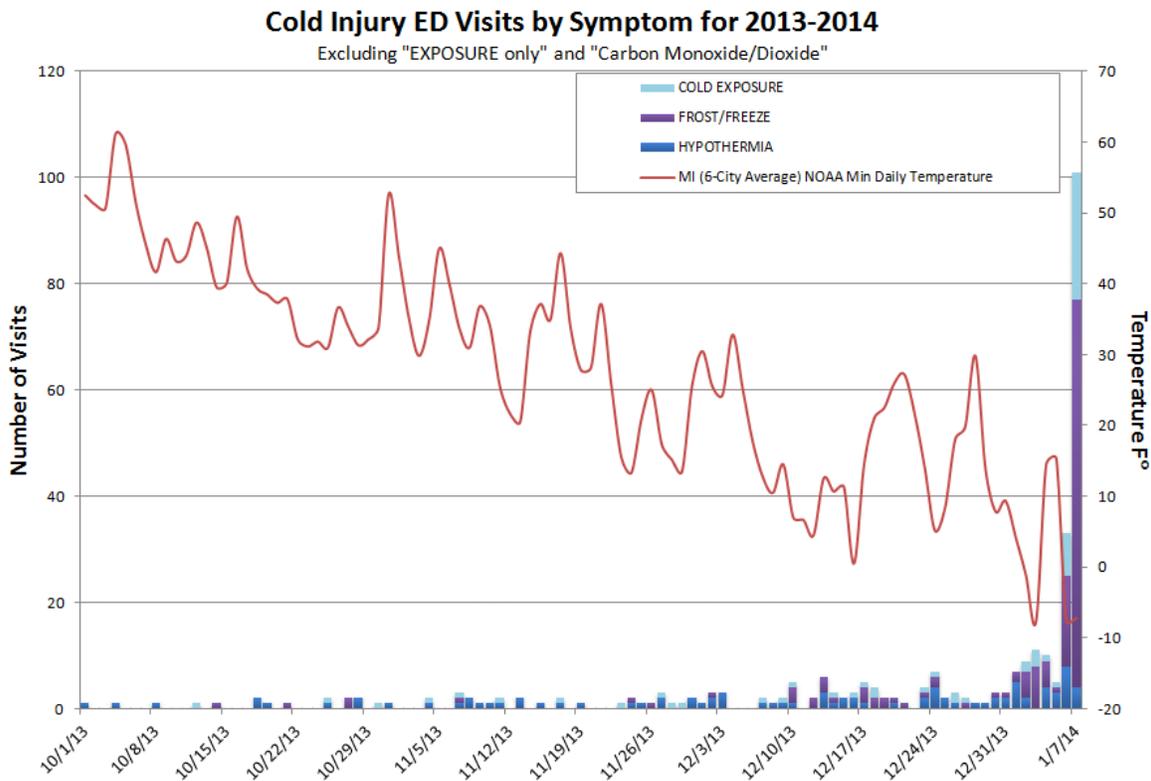


Table 1, Figure 4: Cold-Related ED Visits by Region, January 1-7, 2014

Michigan Total Visits	Visits by Michigan Public Health Preparedness Region							
	1	2S	2N	3	5	6	7	8
193	22	95	23	28	9	14	0	2

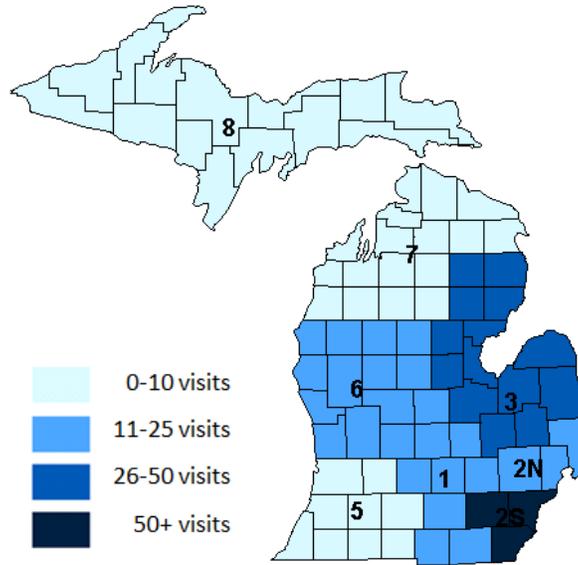
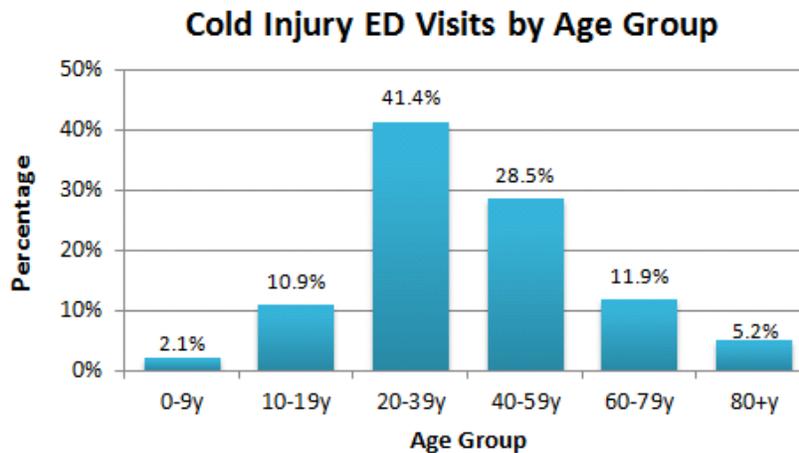


Table 2: Cold-Related ED Visits by Selected Symptoms and Region, January 1-7, 2014

	Michigan Total Visits	Visits by Michigan Public Health Preparedness Region							
		1	2S	2N	3	5	6	7	8
Hypothermia	26	5	3	5	7	1	4	0	1
Cold	39	4	28	2	3	0	2	0	0
Frost/Freeze	111	10	58	14	15	7	6	0	1

Figure 5: Age Distribution of Cold-Related ED Visits, January 1-7, 2014



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