

Michigan Cold-Injury, Emergency Department Visits: January 30, 2014

Executive Summary

There were a total of 199 emergency department (ED) visits in Michigan with self-reported cold-related injury complaints January 24-30, 2014, for an average of 28.4 ED visits per day. Females constituted 41.2% of the visits and those aged 40-59y 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. With the exception of Figure 1, 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 30, 2014

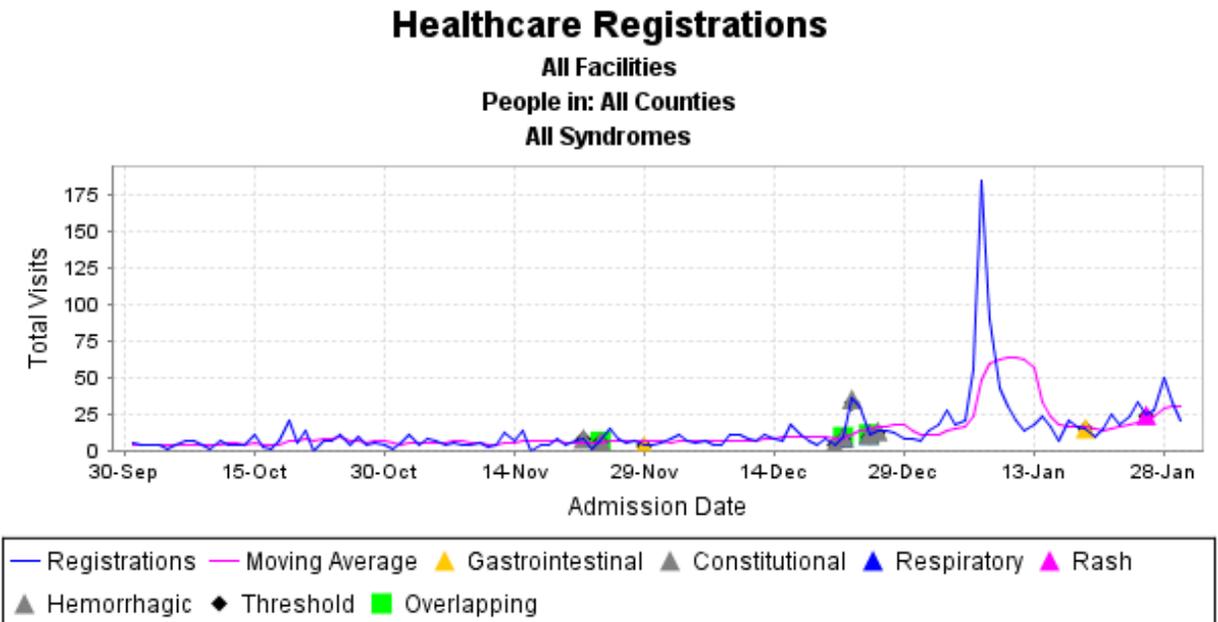


Figure 2a: Statewide Cold-Related ED Visits and National Oceanic and Atmospheric Administration (NOAA) Minimum Daily Temperatures for 6 select cities in Michigan, October 1, 2013 – January 30, 2014

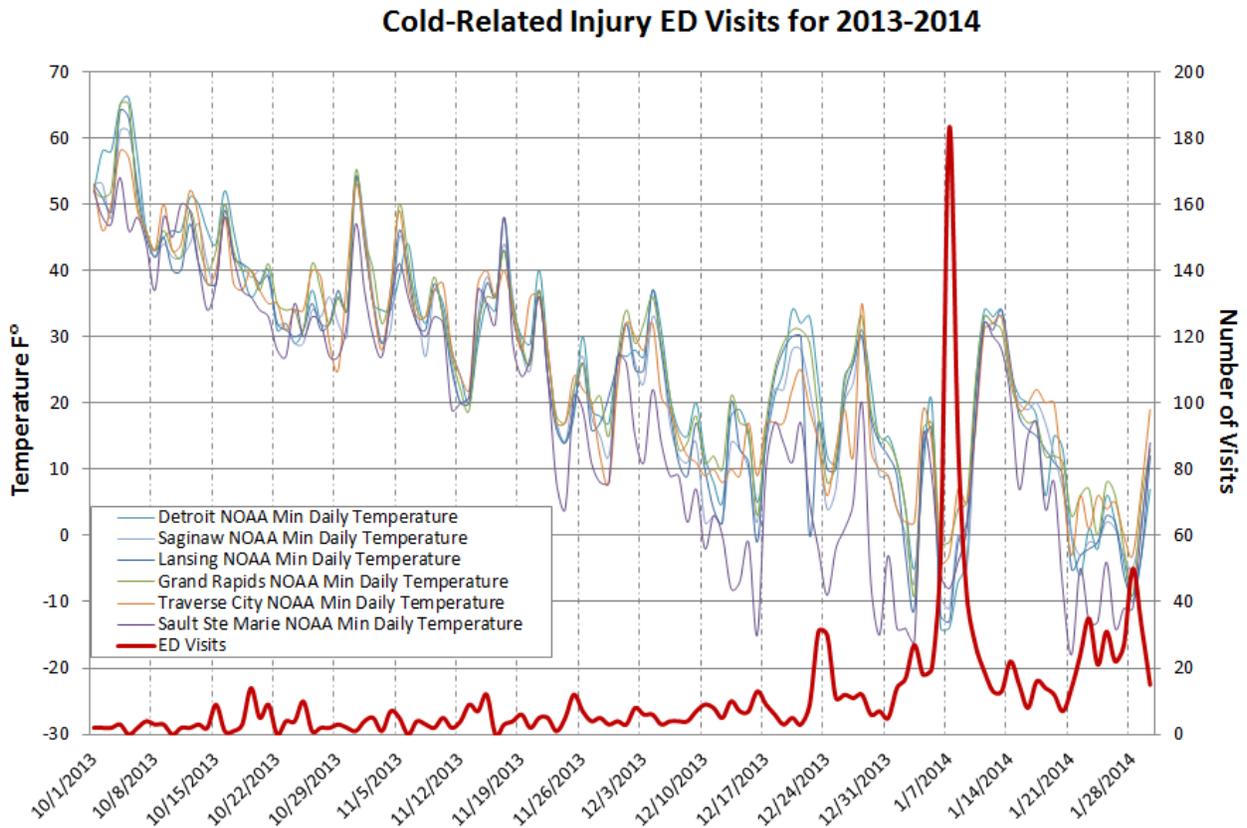
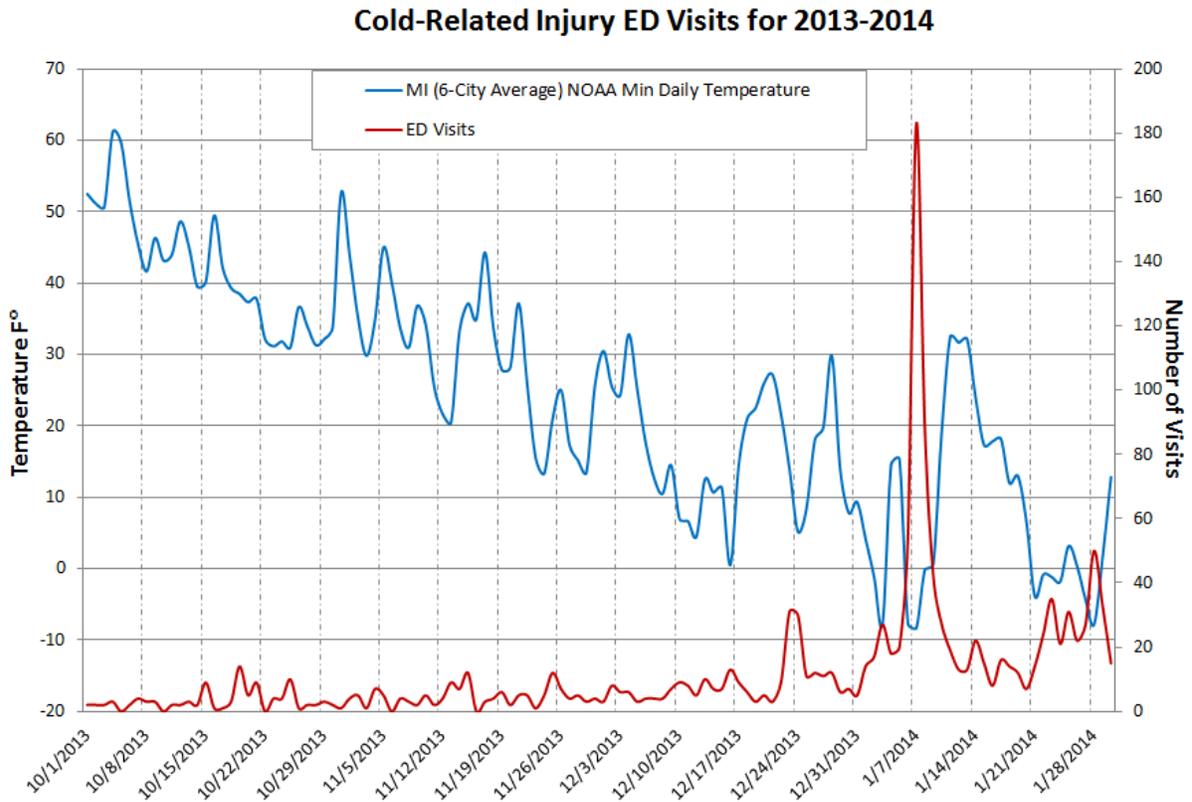


Figure 2b: Statewide Cold-Related ED Visits and National Oceanic and Atmospheric Administration (NOAA) Minimum Daily Temperatures for the 6-city average, October 1, 2013 – January 30, 2014



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

- **Carbon Monoxide/Dioxide:** “carbon”, “co”, “co2”
- **Cold exposure:** “cold”, “elements”, “weather”
- **Frost/Freeze:** “frost”, “freez”, “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 30, 2014

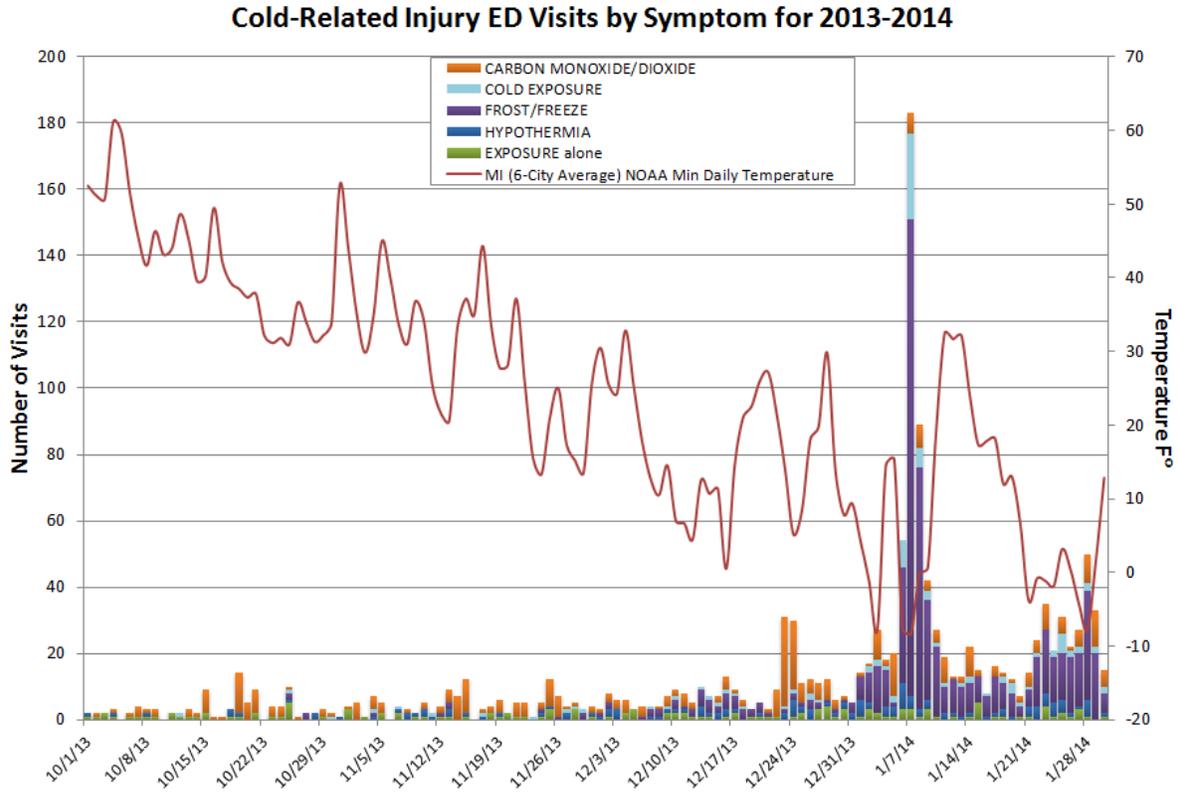


Figure 3b: Statewide Cold-Related ED Visits by Symptom (excluding “Exposure only” and “Carbon Monoxide/Dioxide”), October 1, 2013 – January 30, 2014

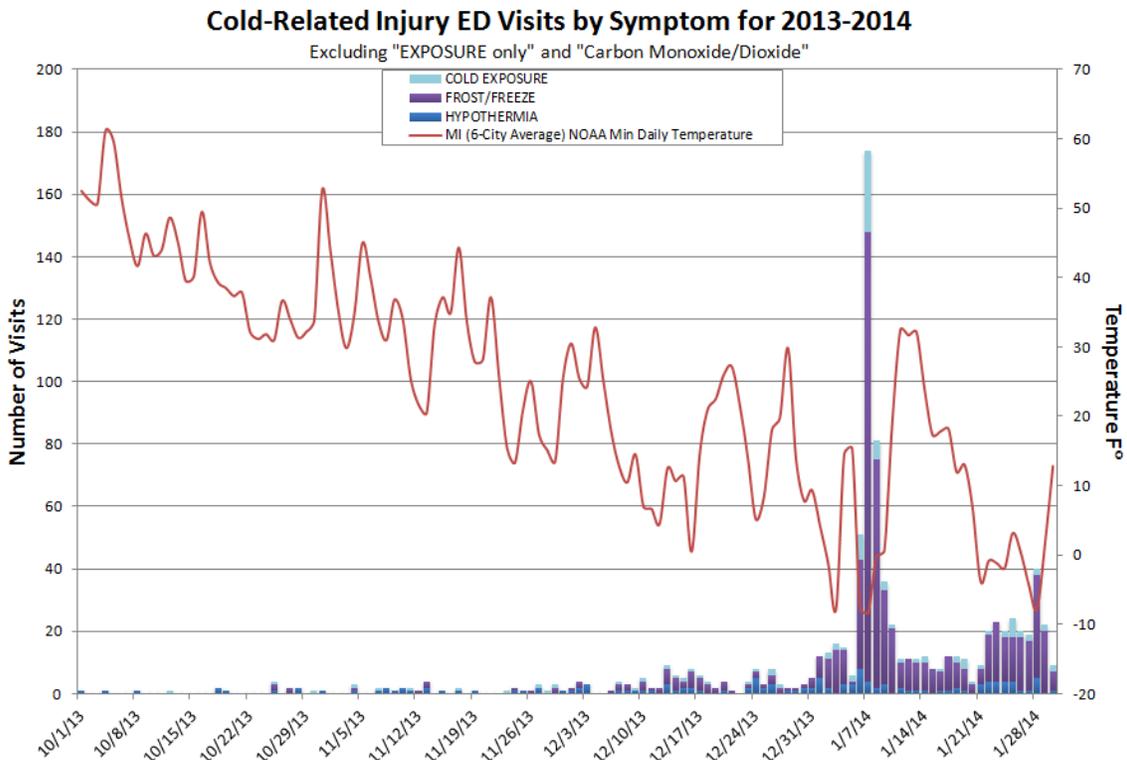


Table 1, Figure 4: Cold-Related ED Visits by Region, January 24-30, 2014

Michigan Total Visits	Visits by Michigan Public Health Preparedness Region							
	1	2S	2N	3	5	6	7	8
199	18	75	35	18	11	26	11	5

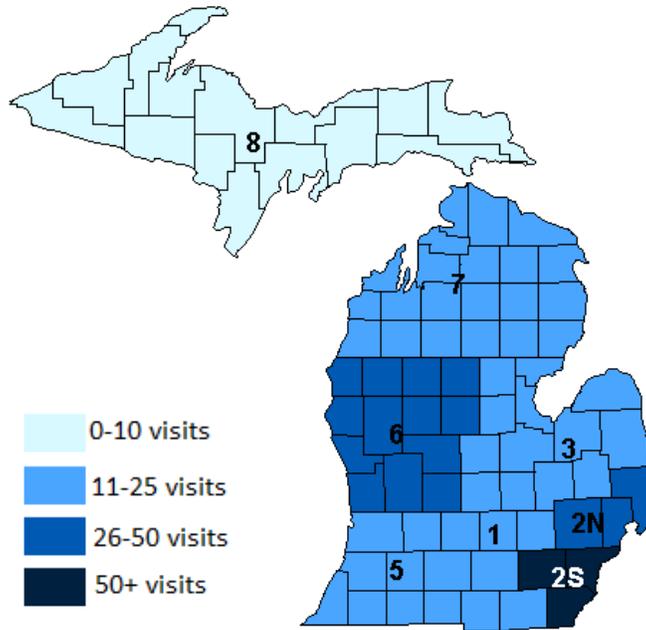


Table 2: Cold-Related ED Visits by Selected Symptoms and Region, January 24-30, 2014

	Michigan Total Visits	Visits by Michigan Public Health Preparedness Region							
		1	2S	2N	3	5	6	7	8
Hypothermia	16	4	1	3	2	2	0	3	1
Cold	18	2	6	2	1	0	7	0	0
Frost/Freeze	120	10	53	24	13	6	8	3	3

Figure 5: Age Distribution of Cold-Related ED Visits, January 24-30, 2014

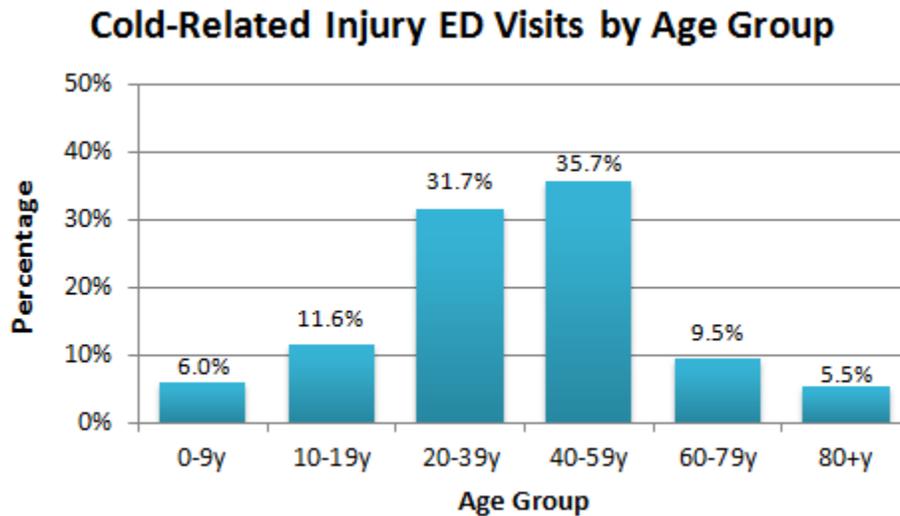
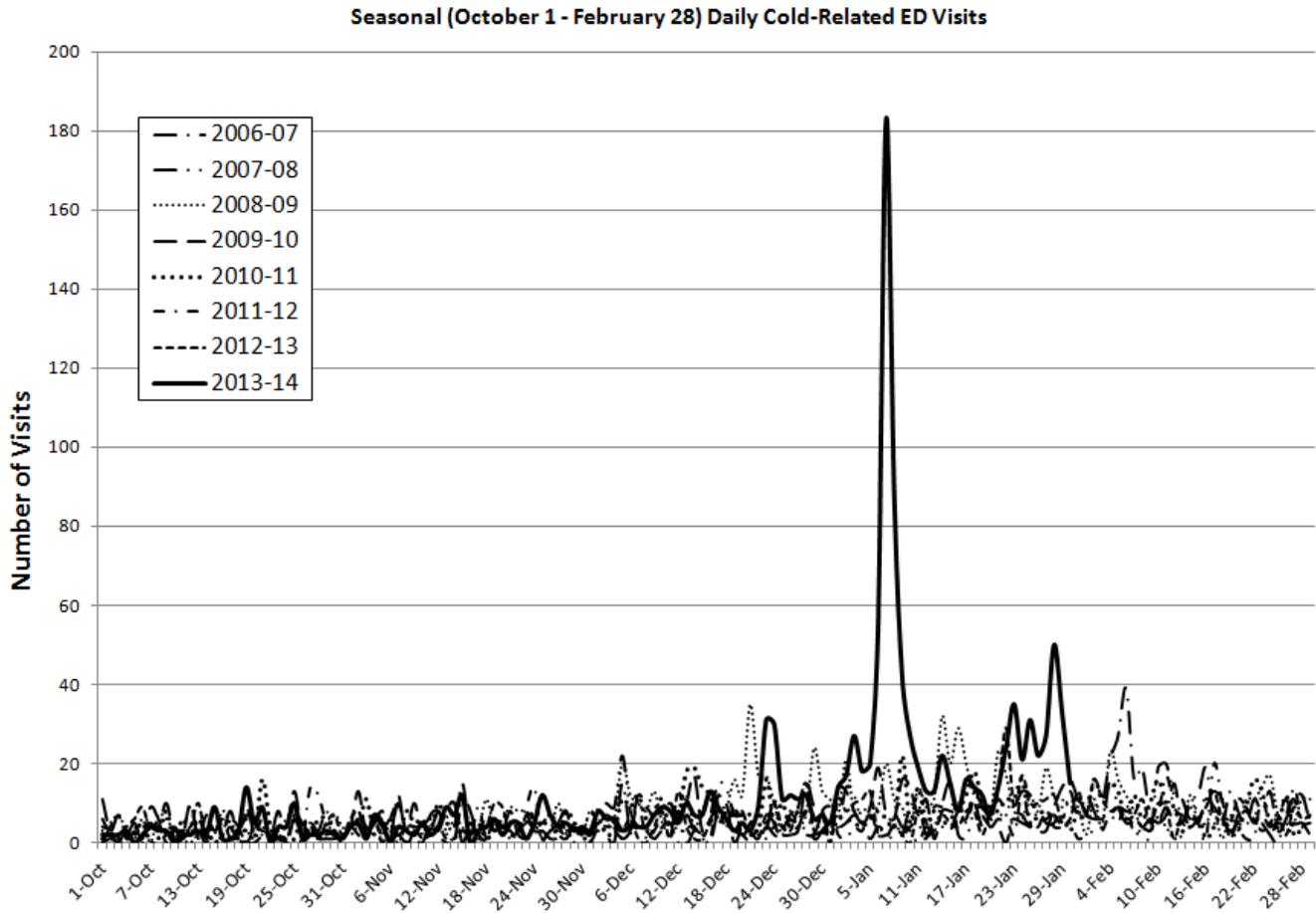


Figure 6: Seasonal (October 1 – February 28) Daily Cold-Related ED Visits, Winter 2006 – Winter 2014 (To Date)



Report prepared by:

Fatema Mamou, MPH – Region 6 Epidemiologist mamouf@michigan.gov

Tiffany Henderson, MPH – Manager, Regional Epidemiology Unit hendersont1@michigan.gov

Jay Fiedler, MS – Manager, Surveillance and Infectious Disease Epidemiology Section