

POTUS Report

Influenza Week 8 – 5 MAR 2010

- This report is composed of data from multiple CDC surveillance systems:
 - (1) Aggregate Hospitalizations and Deaths Reporting Activity (AHDRA)
 - (2) ILINet sentinel surveillance of outpatient visits for influenza-like-illness
 - (3) Virologic surveillance to identify influenza type and describe resistance patterns
 - (4) Influenza-associated pediatric mortality surveillance
 - (5) Emerging Infections Program (EIP) surveillance of hospitalizations for influenza
- CDC is conducting surveillance for all influenza-associated hospitalizations and deaths; 2009 influenza A (H1N1) cases are no longer being tracked separately.
- Public health surveillance provides an overall picture of influenza activity in the United States. Small changes in values from week to week should be interpreted with caution.
- The influenza activity reported by state and territorial epidemiologists indicates geographic spread of both seasonal influenza and 2009 influenza A (H1N1) viruses and does not measure the severity of influenza activity (slides 11 & 12).
- ILINet syndromic surveillance data do not provide an indication of severity; they show how much influenza is circulating at any given time and provide a basis for interpreting trends in hospitalization and death
- More information on influenza surveillance at CDC see can be found at the FluView website <http://www.cdc.gov/flu/weekly/>.



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Key Points

Influenza Week 8 – 5 MAR 2010

- All but one subtyped influenza A viruses that were reported to CDC this week are 2009 influenza A (H1N1) viruses (one virus is an H3 subtype).
- These 2009 influenza A (H1N1) viruses are similar to the virus chosen for the H1N1 vaccine and remain susceptible to the antiviral drugs oseltamivir and zanamivir with rare exception.
- Of the **60** cases of oseltamivir resistant 2009 influenza A (H1N1) viruses identified by CDC in the United States since April 2009:
 - All retain their sensitivity to the neuraminidase inhibitor zanamivir
 - 48 patients had documented exposure to oseltamivir
 - 8 patients are under investigation to determine exposure to oseltamivir
 - 3 patients had no documented oseltamivir exposure
 - Oseltamivir exposure for 1 patient cannot be determined
- No states are currently reporting widespread influenza activity (slide 12).
- Nationally, outpatient visits for ILI decreased to **1.7%**; this remains below the national baseline. Two of the 10 HHS regions (Regions 4 and 9) reported ILI activity above their region-specific baseline levels.
- As of Week 5, CDC reports lab-confirmed hospitalization and death rates that include only those states that have consistently reported using a lab-confirmed surveillance definition.



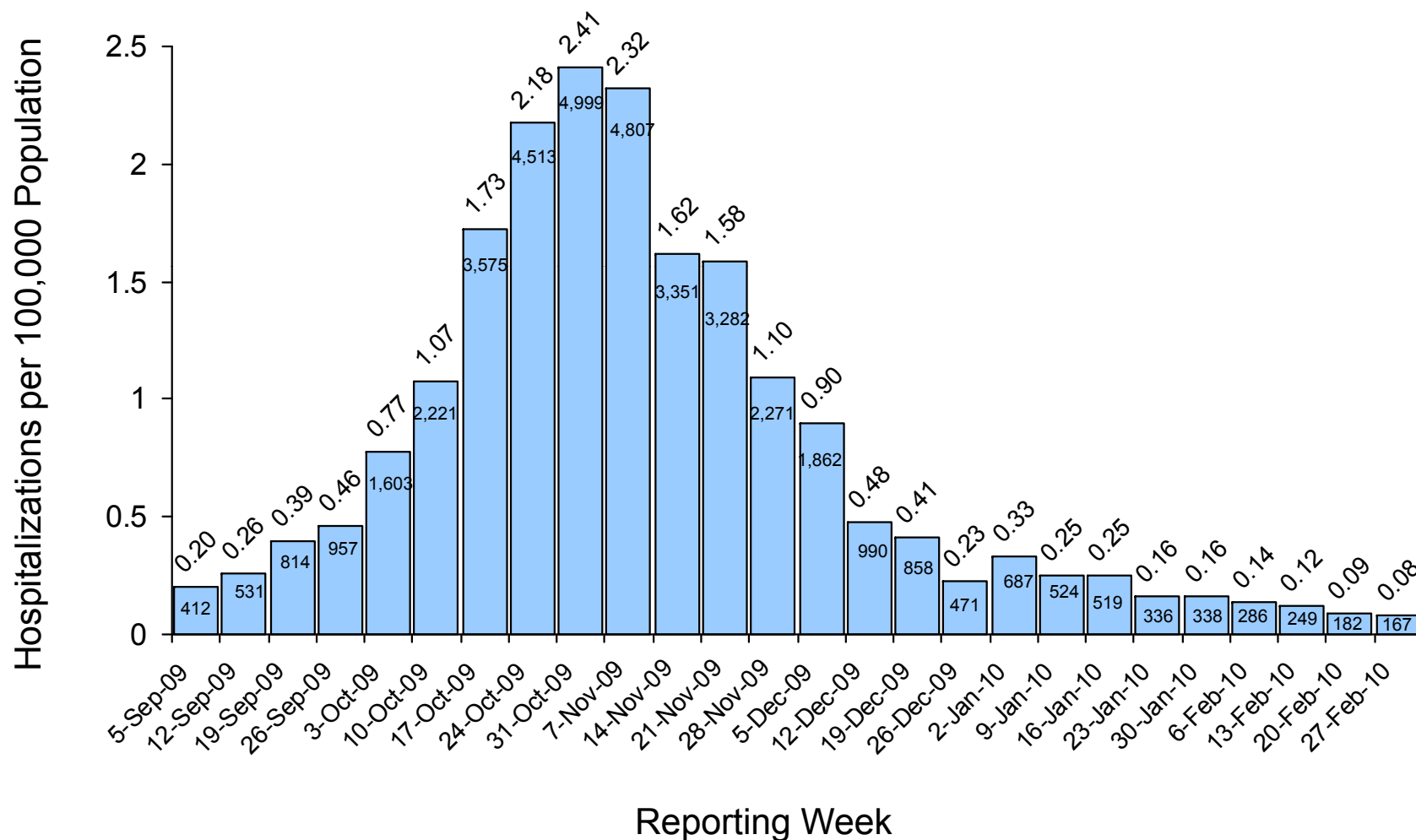
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Lab-Confirmed Influenza-Associated Hospitalization Rate

Aggregate Hospitalizations and Deaths Reporting Activity

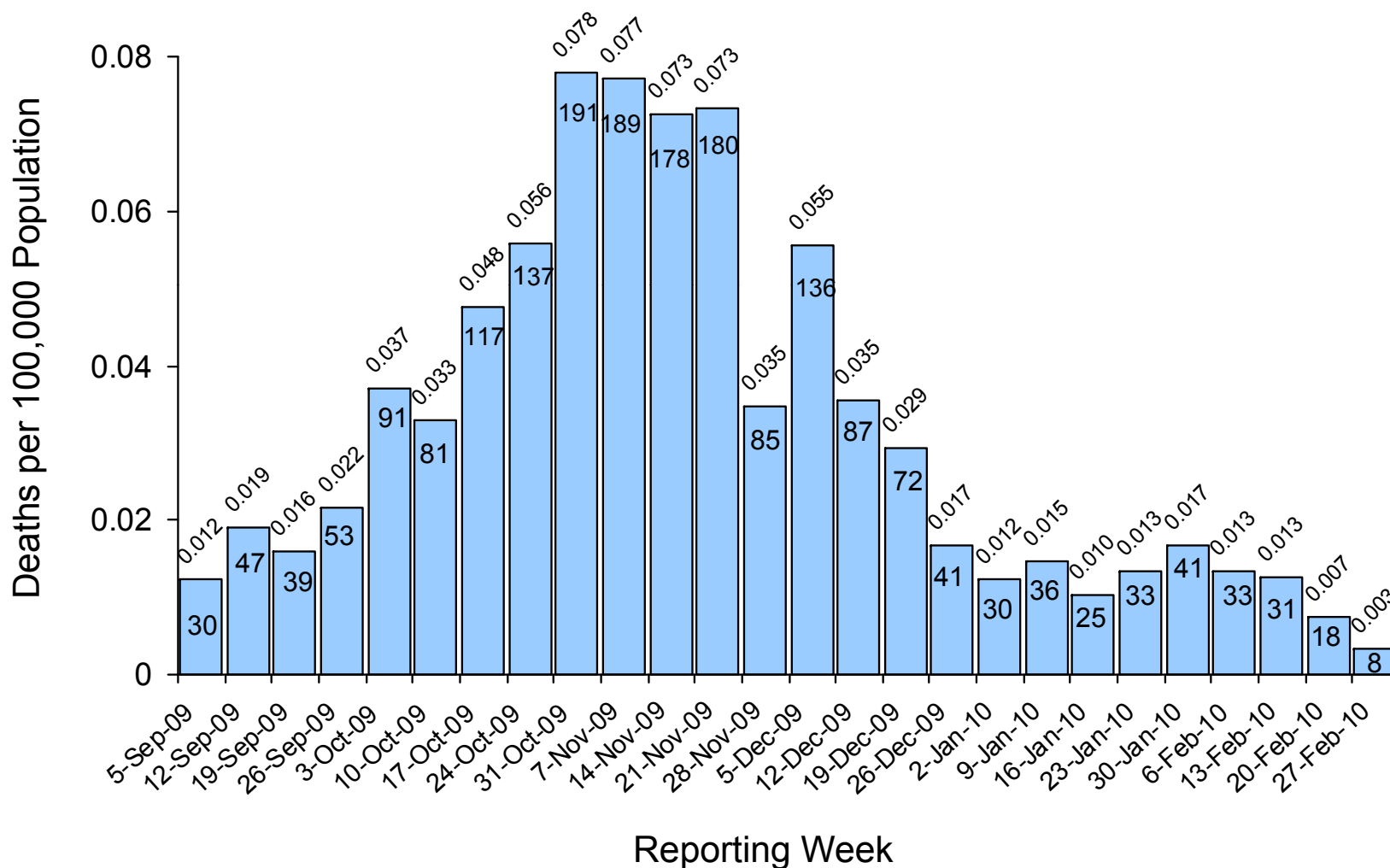
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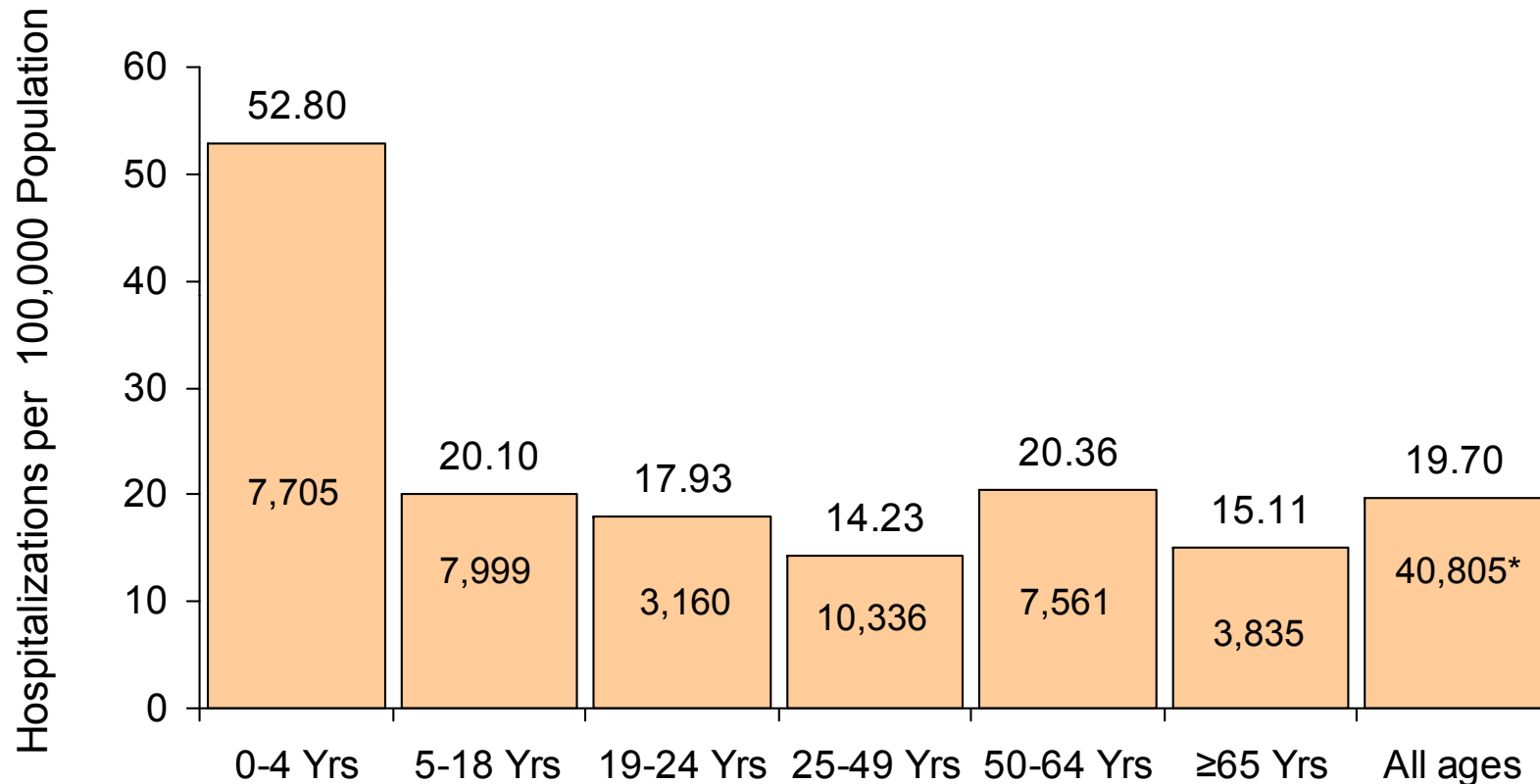
Lab-Confirmed Influenza-Associated Death Rate Aggregate Hospitalizations and Deaths Reporting Activity Influenza Week 8 – 5 MAR 2010



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Cumulative Lab-Confirmed Influenza-Associated Hospitalization Rate
Aggregate Hospitalizations and Deaths Reporting Activity
Aug 30 – Feb 27, 2010 (n=40,805*)
Influenza Week 8 – 5 MAR 2010



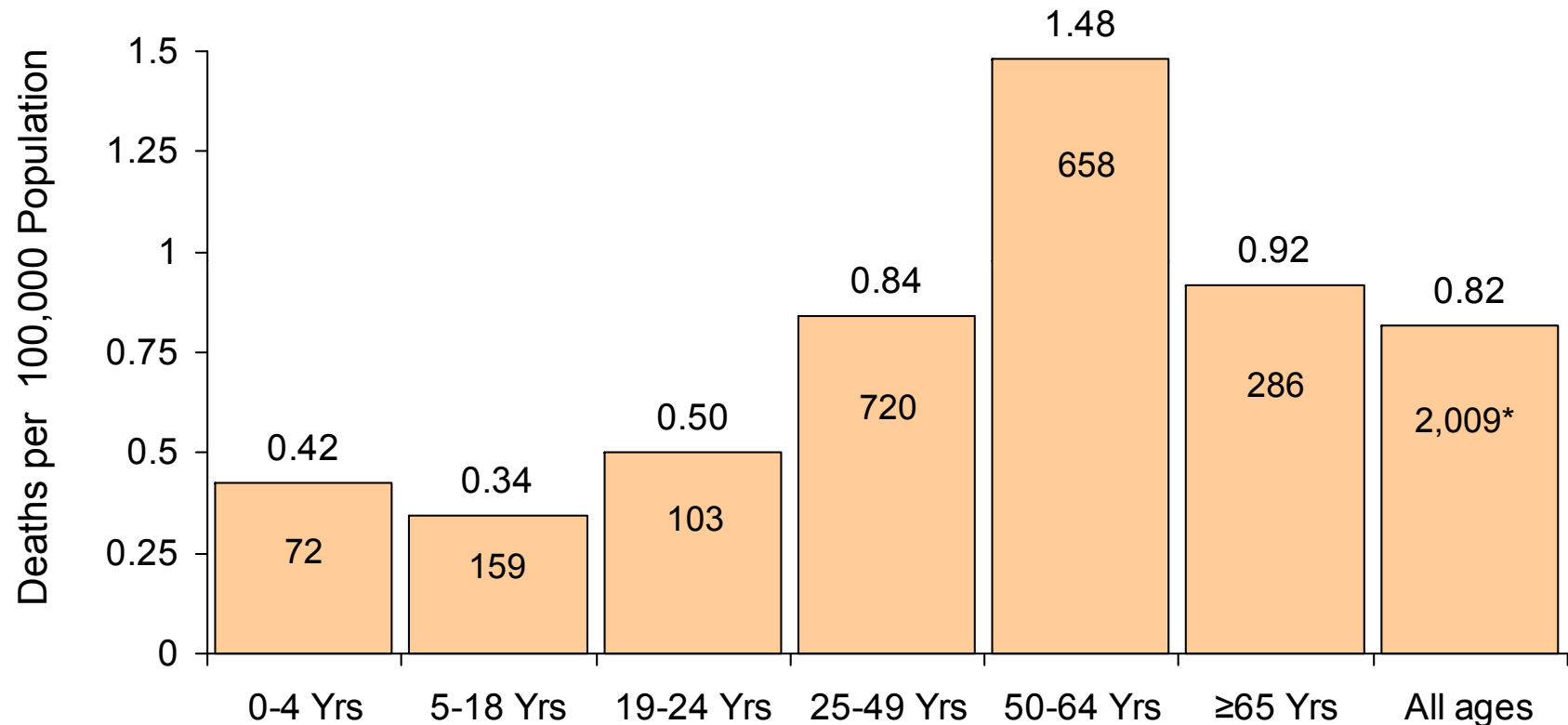
*Hospitalizations with unknown ages included (n=209) in All Age rate. Excludes jurisdictions for which age distribution information not available.
Rate / 100,000 by Single Year Age Groups: Denominator source: 2008 Census Estimates, U.S. Census Bureau at:
<http://www.census.gov/popest/national/asrh/files/NC-EST2007-ALLDATA-R-File24.csv>



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Cumulative Lab-Confirmed Influenza-Associated Death Rate
Aggregate Hospitalizations and Deaths Reporting Activity
Aug 30 – Feb 27, 2010 (n=2,009*)
Influenza Week 8– 5 MAR 2010



*Deaths with unknown ages are included (n=11) in All Ages rate. Excludes jurisdictions for which age distribution information is not available.
Rate / 100,000 by Single Year Age Groups: Denominator source: 2008 Census Estimates, U.S. Census Bureau at:
<http://www.census.gov/popest/national/asrh/files/NC-EST2007-ALLDATA-R-File24.csv>



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Aggregate Hospitalizations and Deaths Reporting Activity

Influenza Week 8 – 5 MAR 2010

Reported Cumulative National Hospitalization and Death Estimates
Based on AHDRA Data

	Total Lab-Confirmed HOSPITALIZATIONS	Total Lab-Confirmed DEATHS
Cases through 2-27-10	40,805	2,009

Data are current as of the reporting deadline – 0900 Wednesday of each week. Reports submitted to CDC after this deadline will be included in next week's report and will correspond to the week that hospitalizations and deaths were identified. State and local health departments may also edit previously entered data. Either of these actions can cause previous cumulative numbers to change. CDC will continue to include information that reflects the most current data available in each POTUS report.

AHDRA identifies hospitalized and fatal cases of **all** influenza, not only 2009 influenza A (H1N1). Lab-confirmed cases represent patients who tested positive for **any type** of influenza.

Please note that current reporting methods recently changed, and that the case counts presented here are cumulative from September 1, 2009 to the present MMWR week.



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National Estimates of Influenza Hospitalizations and Deaths

Influenza Week 8 – 5 MAR 2010

Adjusted Cumulative National Case, Hospitalization, and Death Estimates Based on Emerging Infections Program (EIP) Network and AHDRA Data

	2009 H1N1 Cases*	2009 H1N1 Hospitalizations*	2009 H1N1 Deaths*
Adjusted Estimate [†]	57 million	257,000	11,690

The number of lab-confirmed influenza-associated hospitalizations and deaths reported to AHDRA is likely a substantial underestimate of the true national burden. Persons with influenza may not be included in reported counts for a variety of reasons, including the following: not all ill persons seek medical care and have a specimen collected, not all specimens are sent to a public health laboratory for confirmatory testing, and not all specimens will give positive results because of the timing of collection or the quality of the specimen. To better estimate the prevalence of 2009 (H1N1) influenza A in the United States, CDC will report numbers every month that are based on a multiplier model that adjusts for these sources of under-ascertainment. For more information on how CDC is estimating 2009 H1N1 hospitalizations and deaths, see http://www.cdc.gov/h1n1flu/estimates_2009_h1n1.htm.

*Approximate values; from April 2009 to January 16, 2010

[†]Based on a multiplier of 2.7 to correct for under-reporting (Reed, et al EID, 2009)



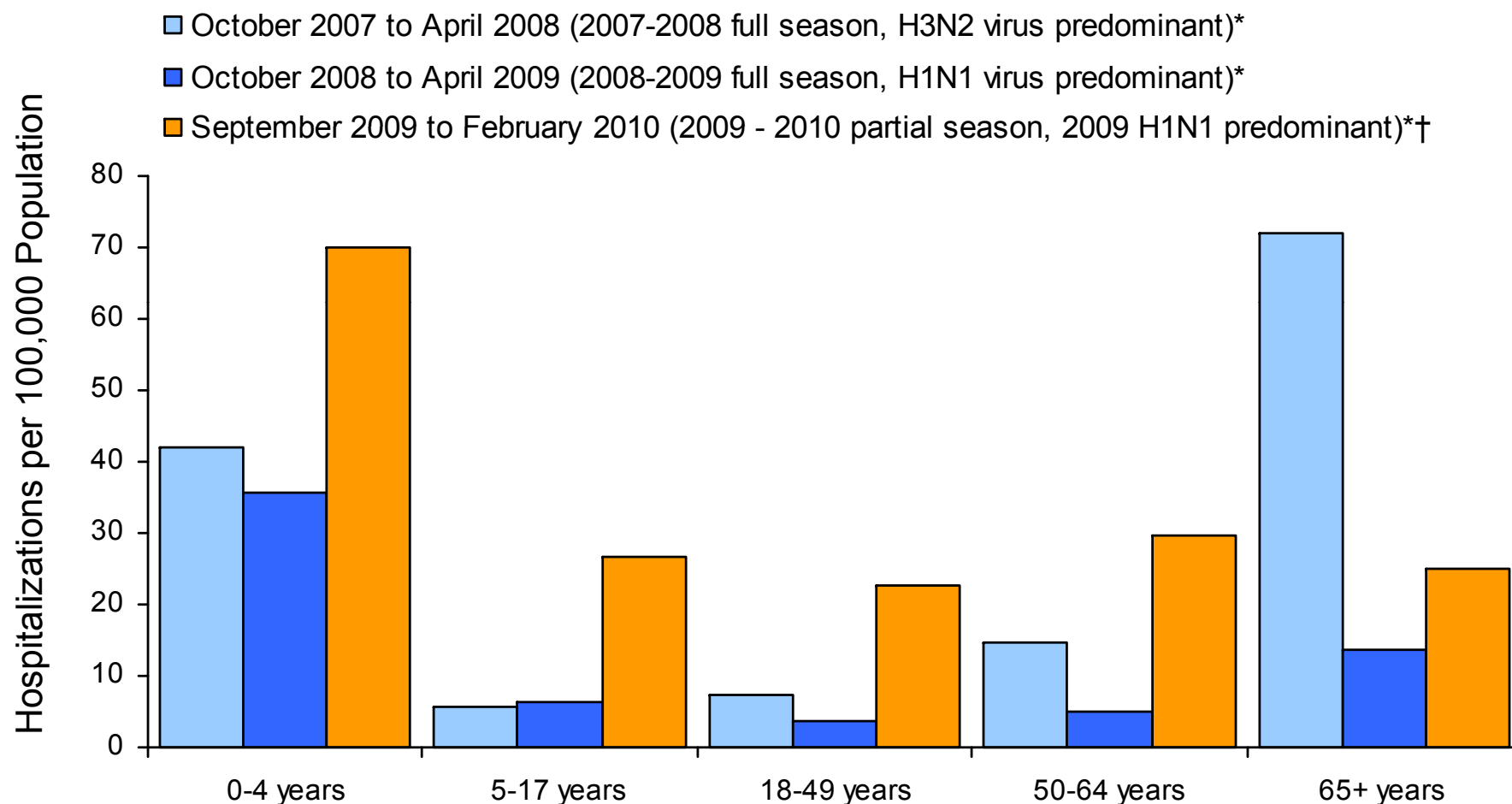
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Cumulative Influenza Hospitalization Rates by Age Group

Emerging Infections Program (EIP) Network

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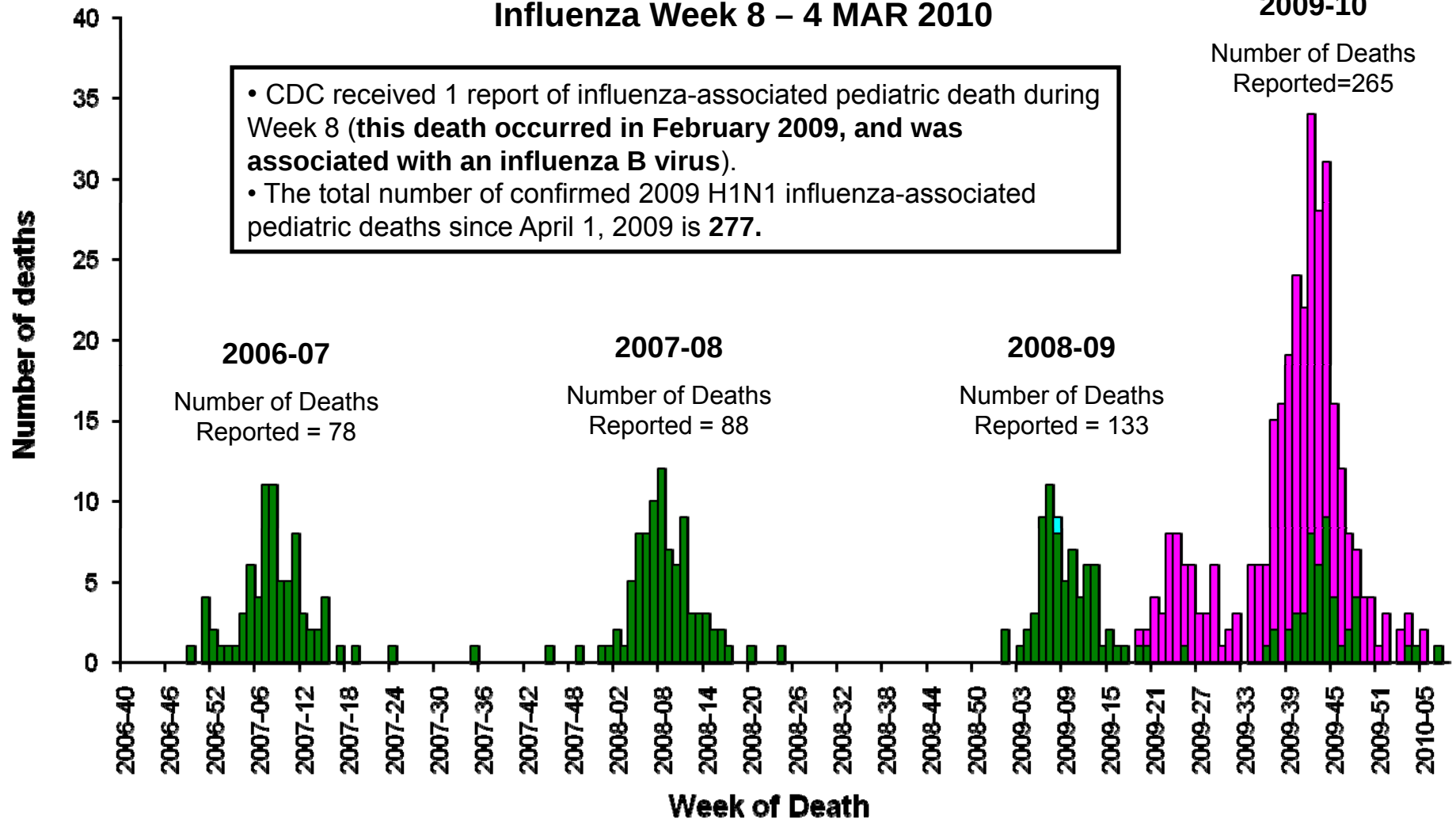
Laboratory-confirmed influenza-associated hospitalizations are monitored using a population-based surveillance network that includes 10 EIP sites* in CA, CO, CT, GA, MD, MN, NM, NY, OR and TN, and 6 new sites† in IA, ID, MI, ND, OK and SD.



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Number of Influenza-Associated Pediatric Deaths by Week of Death 2006-2007 Season to Present Influenza Week 8 – 4 MAR 2010



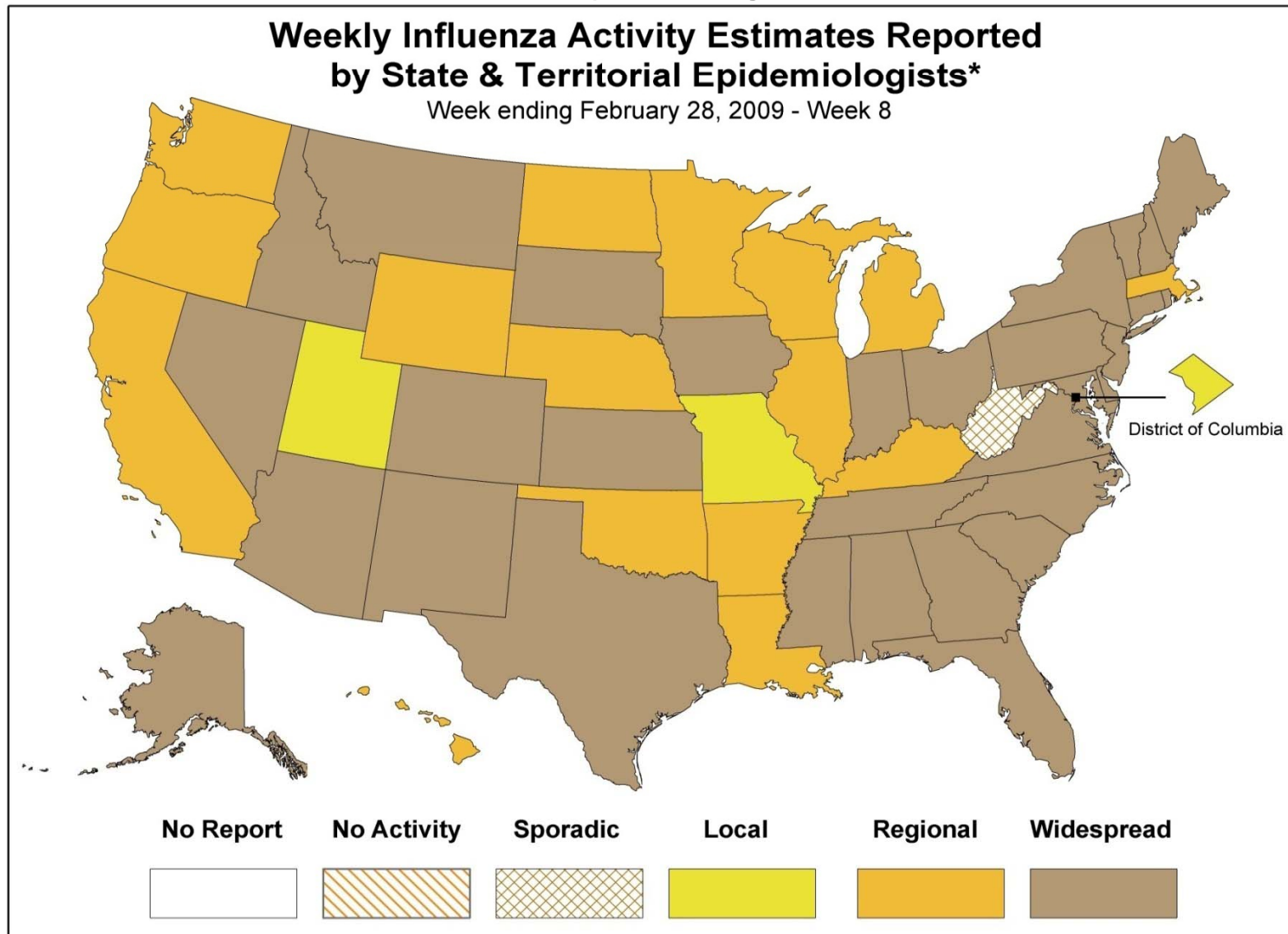
2009 Influenza A (H1N1) Deaths Reported Current Week	Other Influenza Deaths Reported Current Week
2009 Influenza A (H1N1) Deaths Reported Previous Weeks	Other Influenza Deaths Reported Previous Weeks



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Influenza Activity During Week 8 2009



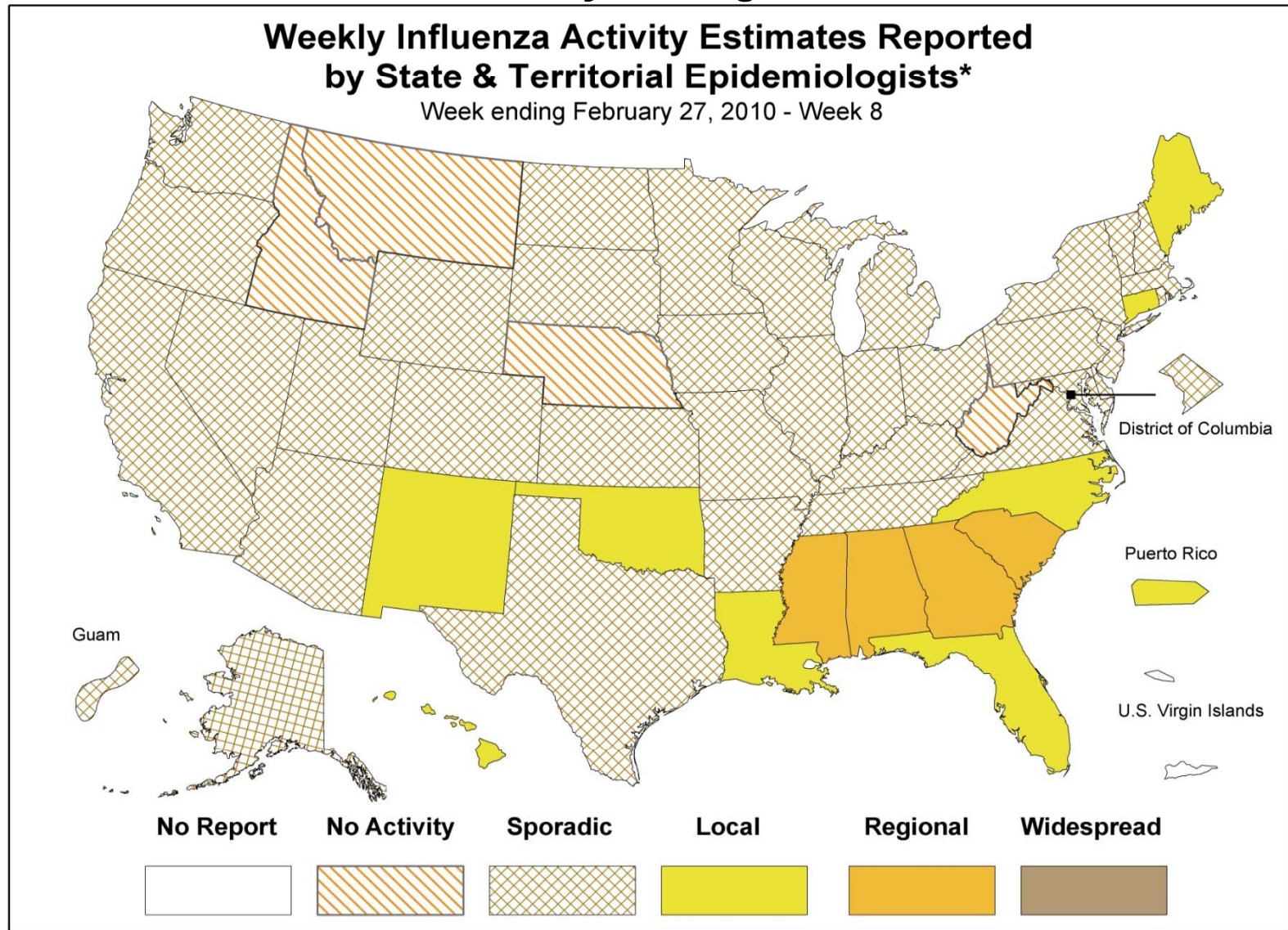
* This map indicates geographic spread & does not measure the severity of influenza activity



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Influenza Activity During Week 8 2010



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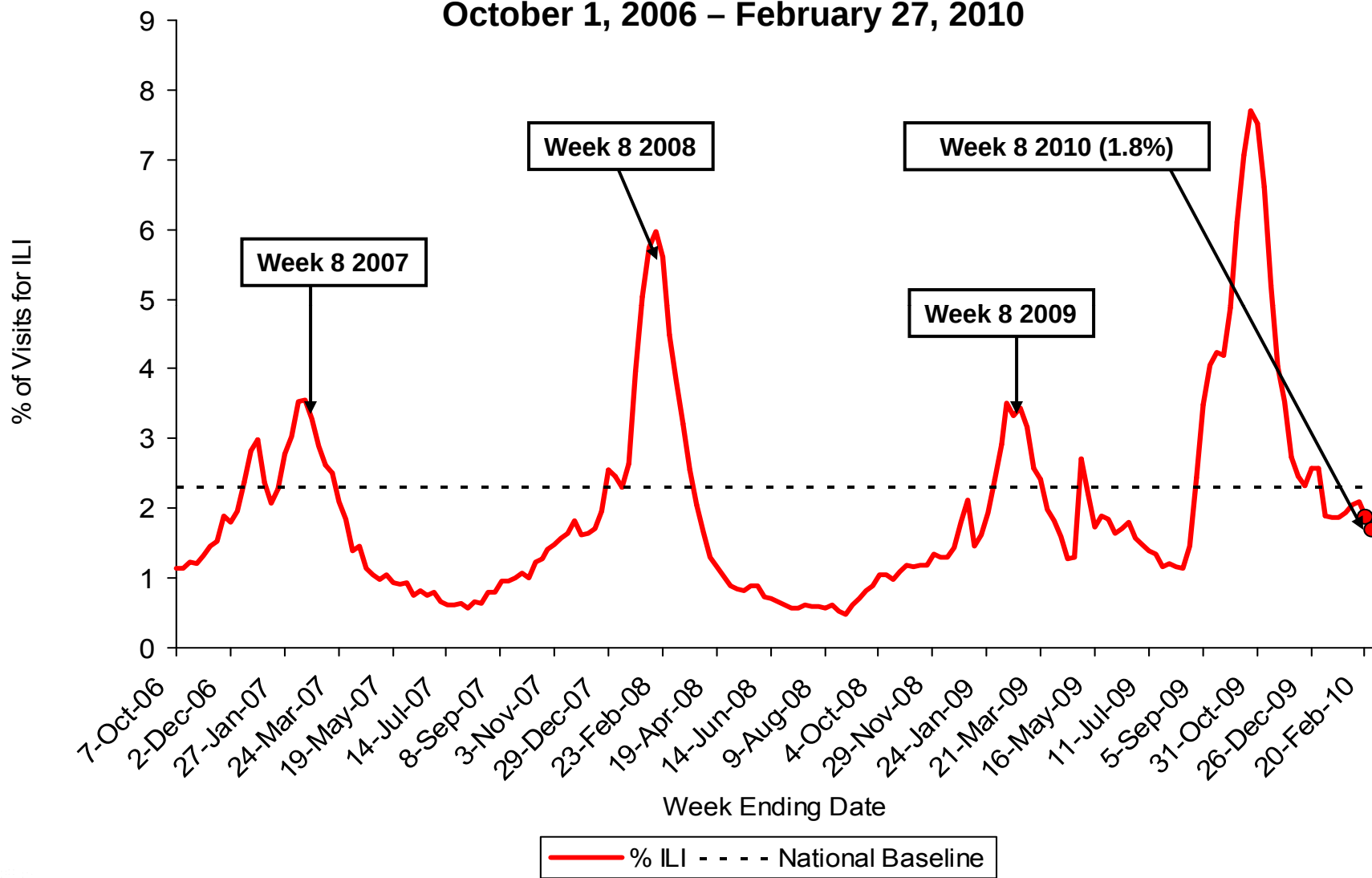


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National Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by ILINet

October 1, 2006 – February 27, 2010

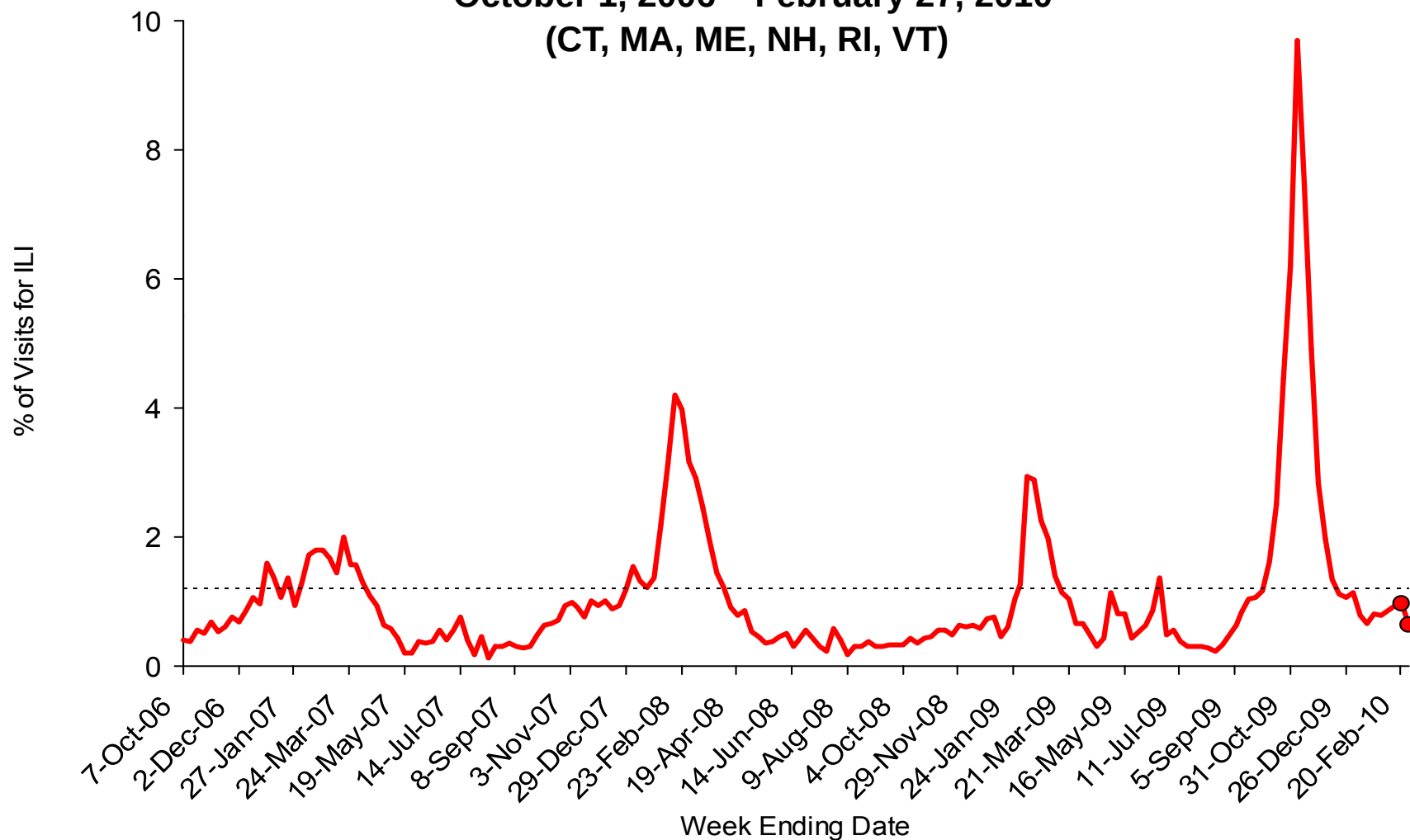


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Region 1 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(CT, MA, ME, NH, RI, VT)



— % ILI Regional Baseline

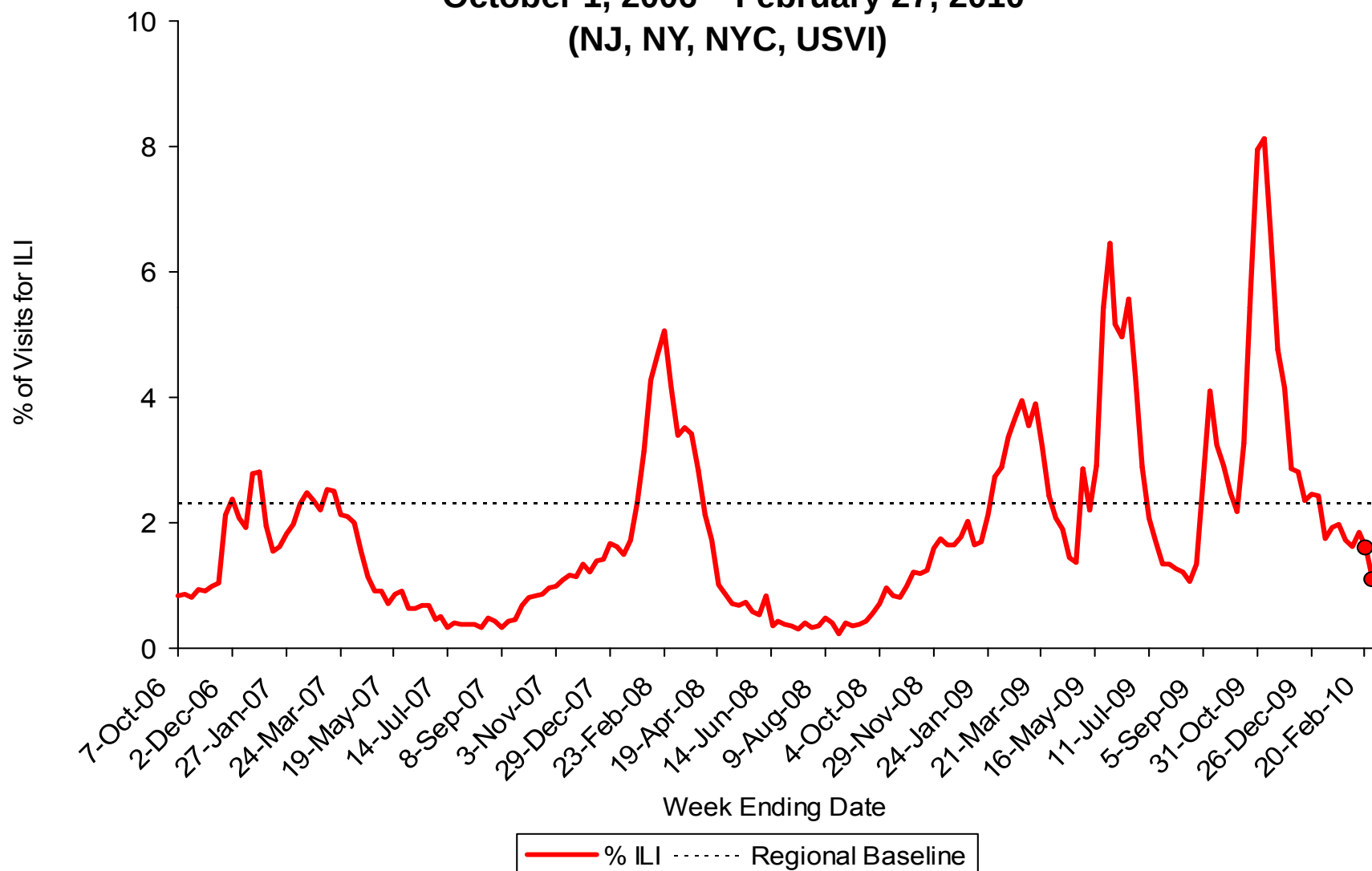


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Region 2 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(NJ, NY, NYC, USVI)

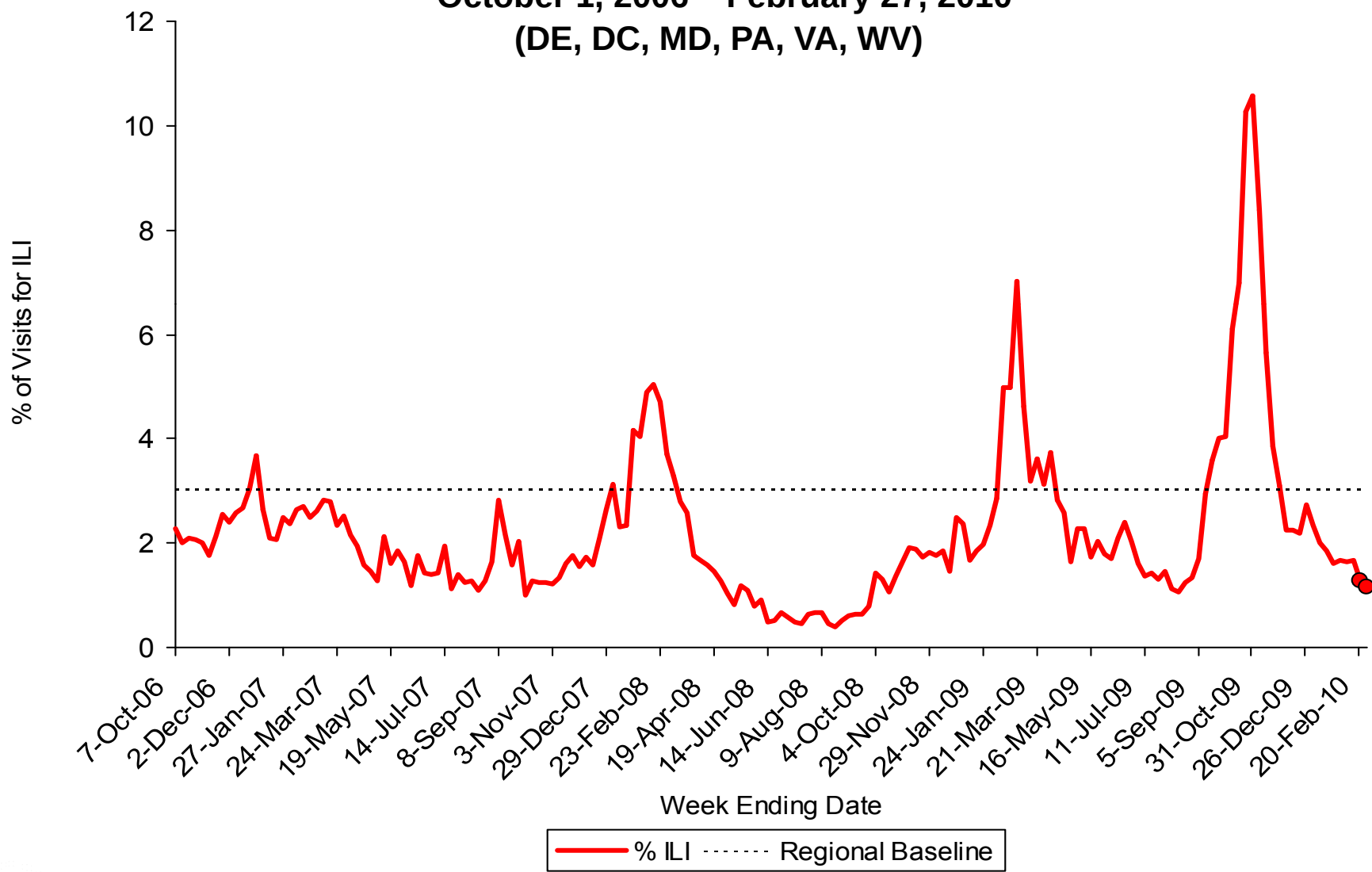


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Region 3 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(DE, DC, MD, PA, VA, WV)

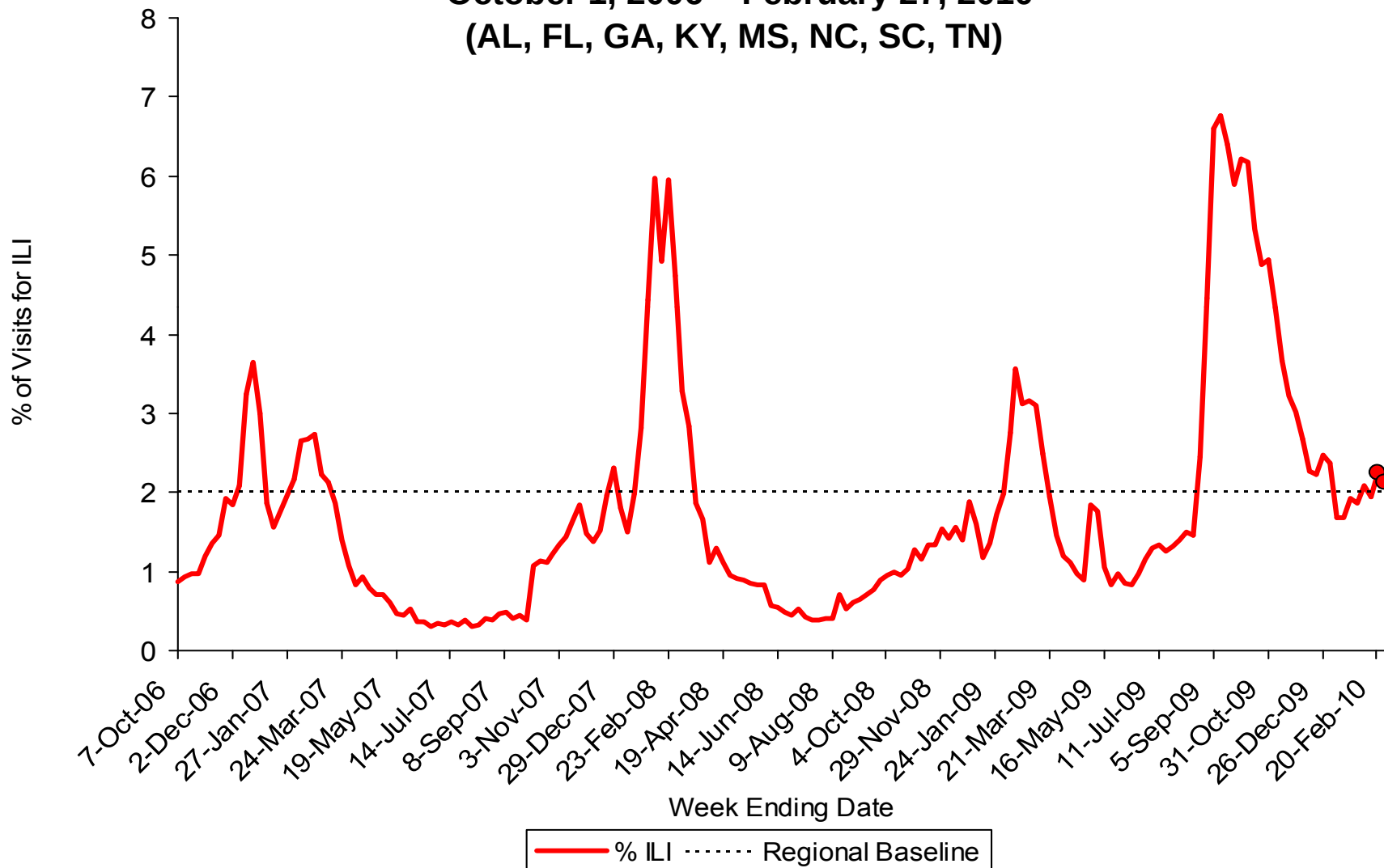


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Region 4 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(AL, FL, GA, KY, MS, NC, SC, TN)

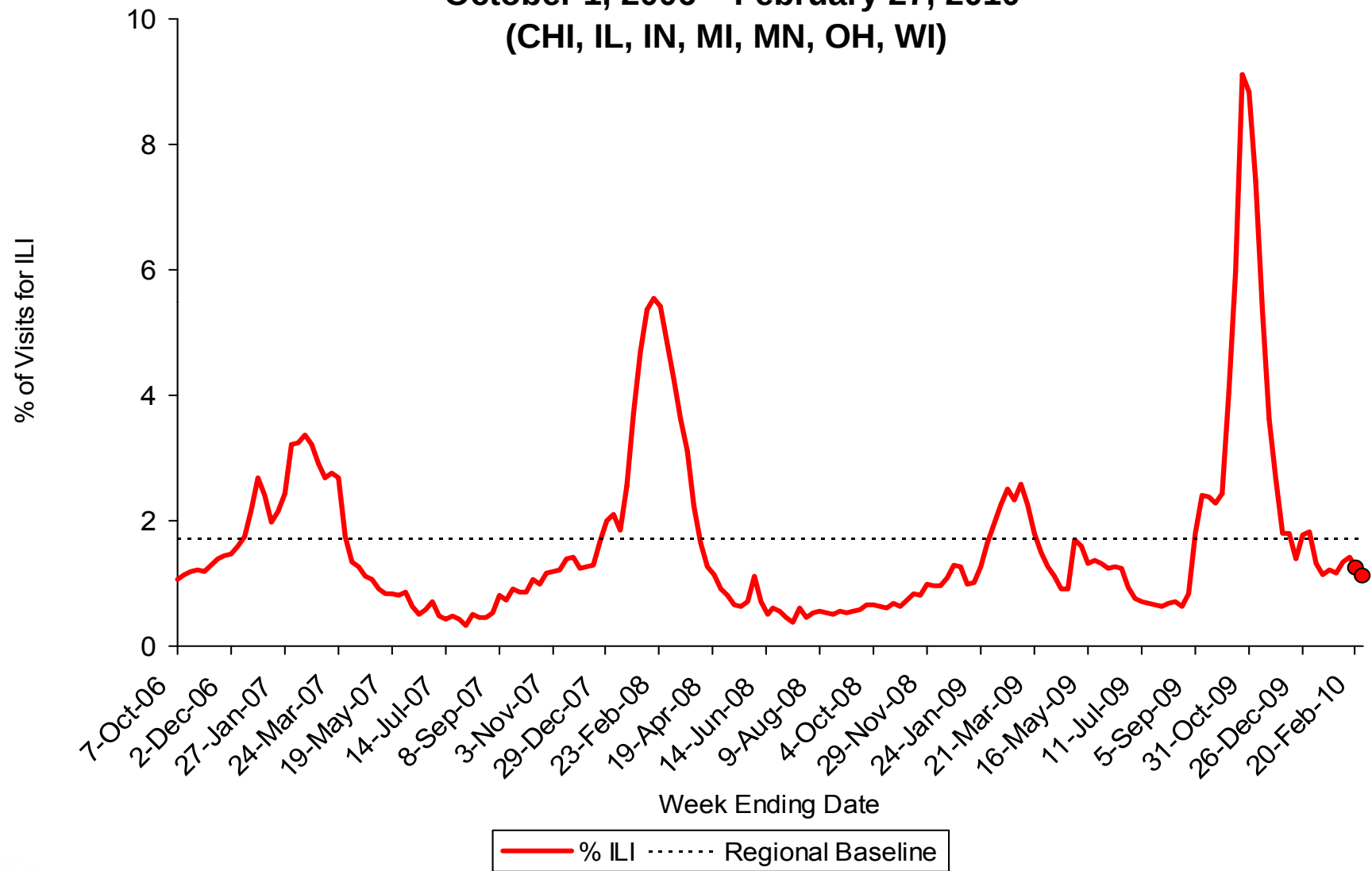


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Region 5 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(CHI, IL, IN, MI, MN, OH, WI)

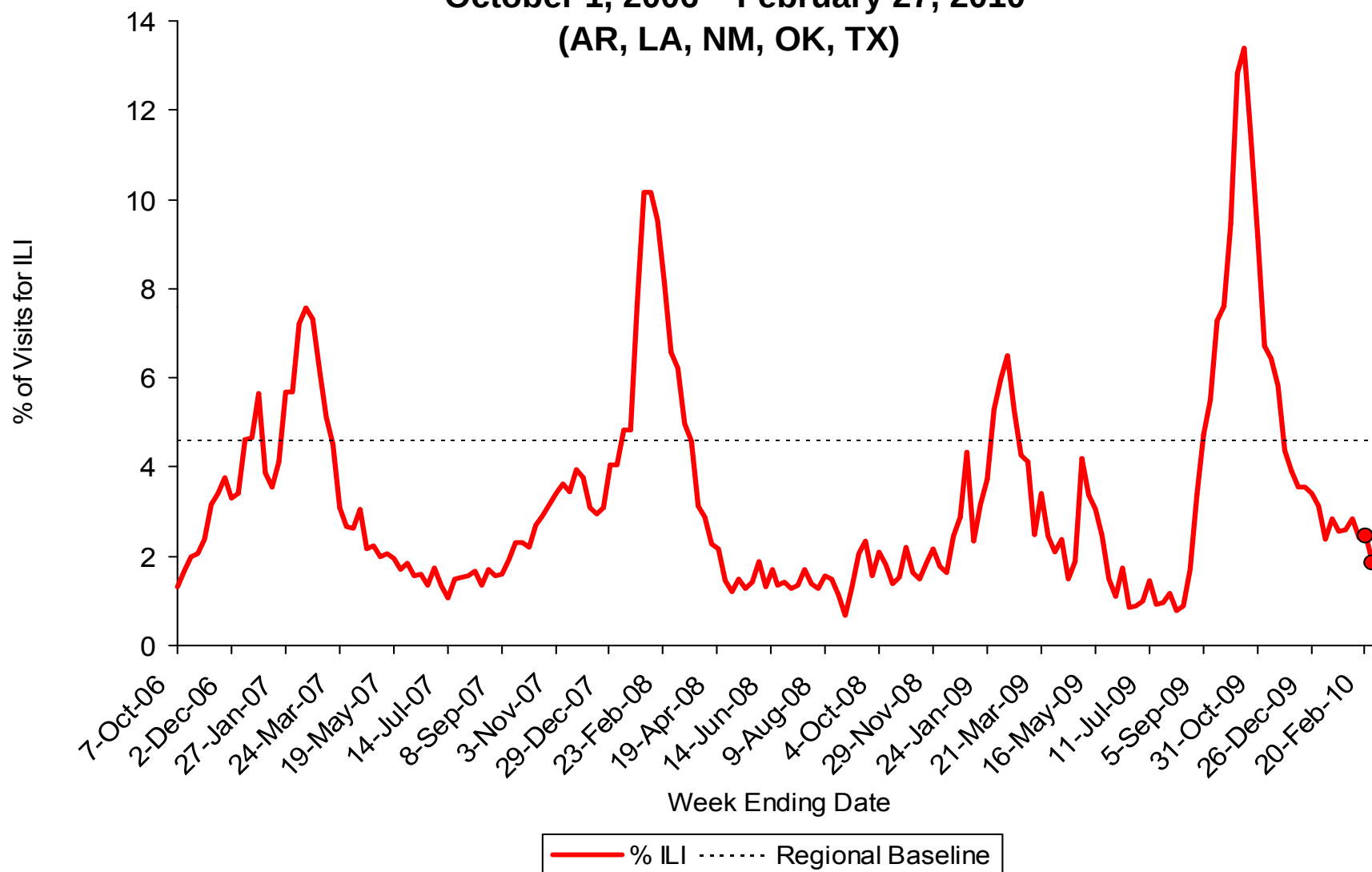


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Region 6 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(AR, LA, NM, OK, TX)

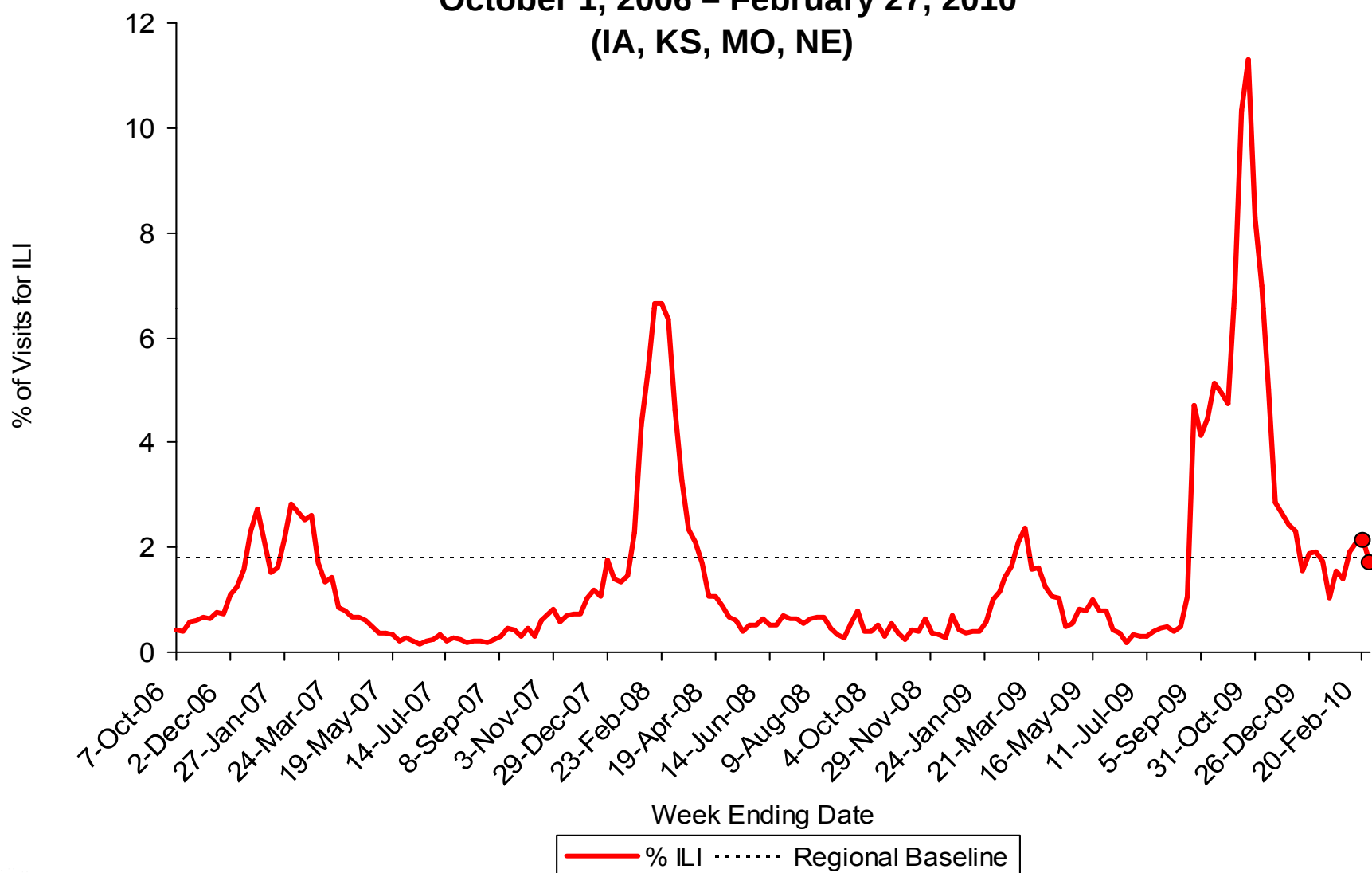


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Region 7 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(IA, KS, MO, NE)

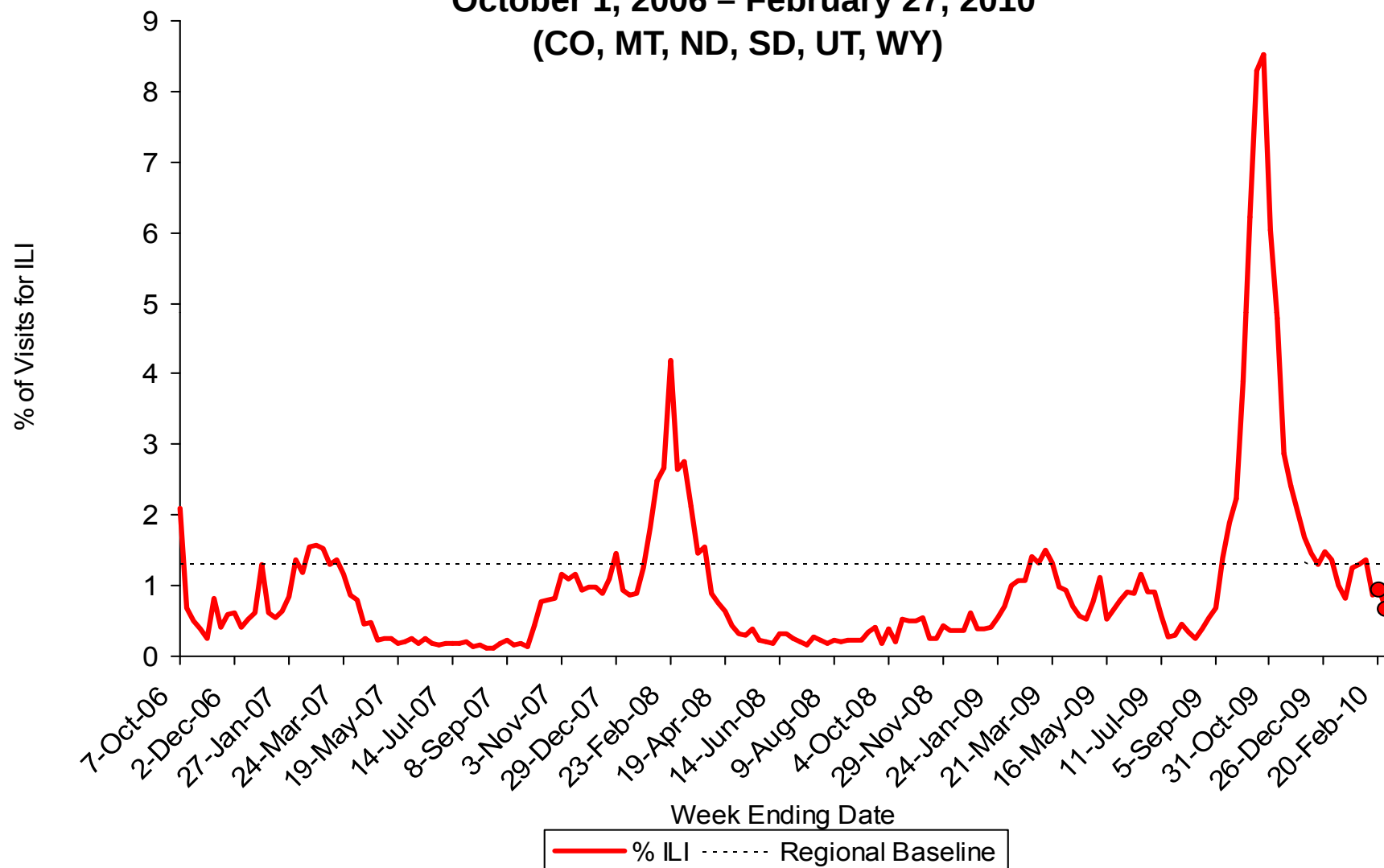


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Region 8 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(CO, MT, ND, SD, UT, WY)

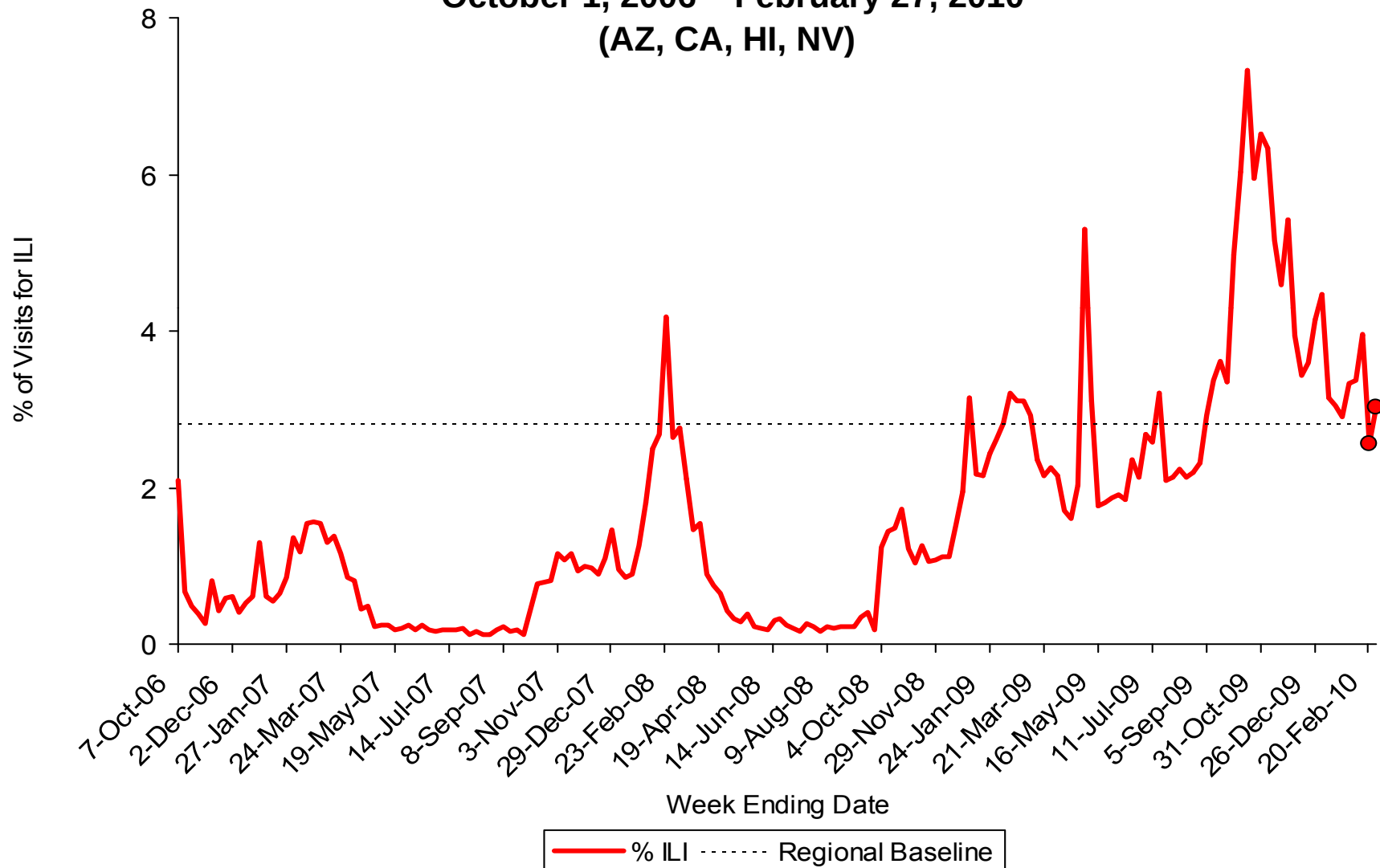


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Region 9 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(AZ, CA, HI, NV)

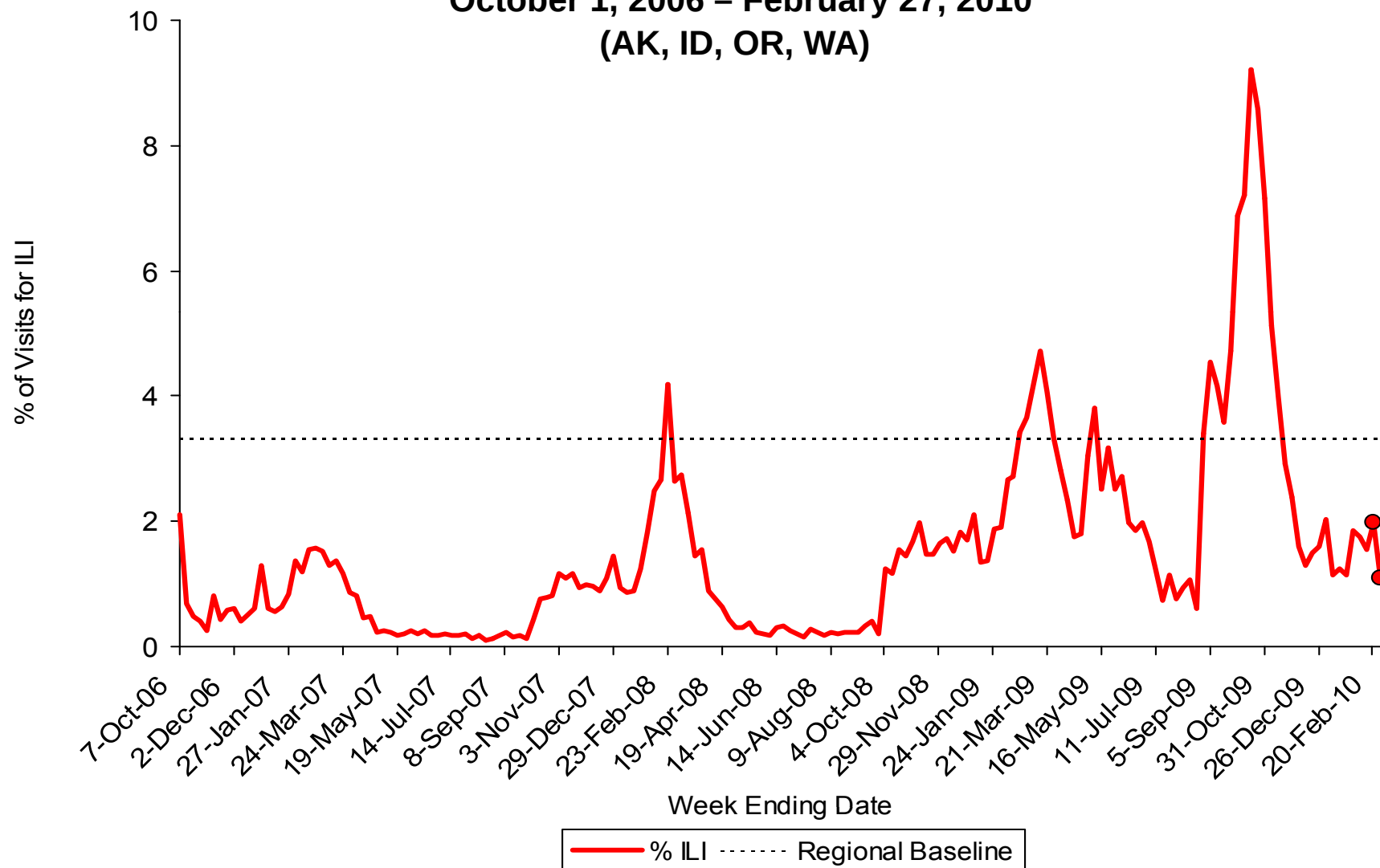


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Region 10 Summary Percentage of Visits for Influenza-like Illness (ILI) Reported by *ILINet*

October 1, 2006 – February 27, 2010
(AK, ID, OR, WA)



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