

# Influenza Surveillance 2003-04

Presented By

Maricopa County Department of Public Health

Division of Epidemiology and Bio-Defense

Preparedness & Response



# Introduction

- Each flu season, MCDPH Epidemiology monitors rates of Influenza-like Illness (ILI) at:
  - Hospital Emergency Departments (10 this year)
  - Cigna Health Care Centers (20)
  - Schools (16)
  - Long-term Care Centers (6)
  - ASU Student Health and Wellness Center
- This year, a much greater effort was made to solicit voluntary reports of lab confirmed influenza cases from area hospitals, clinics, and laboratories
- Other activities include investigation of influenza-related deaths and Pneumonia and Influenza (P&I) mortality surveillance
- Influenza Summary reports are posted weekly at:  
[http://www.maricopa.gov/public\\_health/epi/flu.asp](http://www.maricopa.gov/public_health/epi/flu.asp)

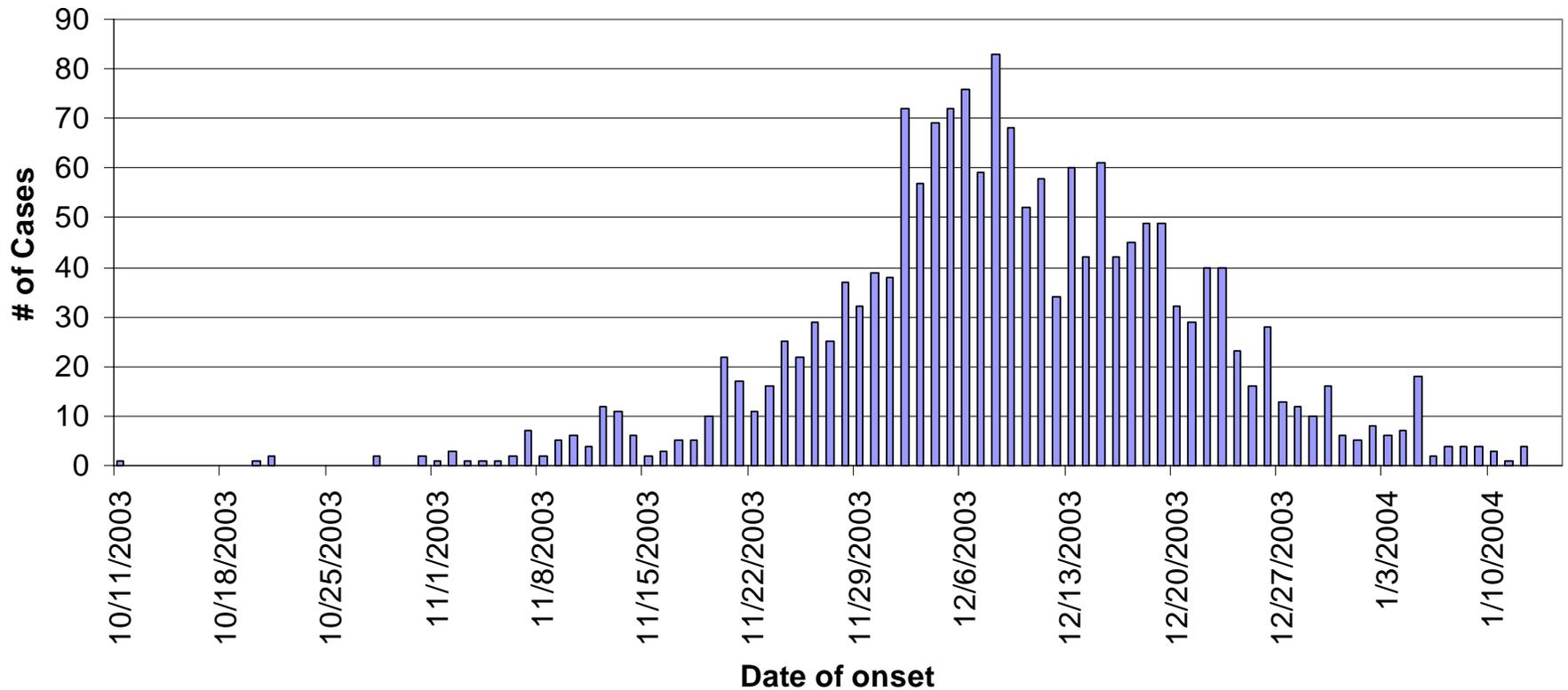
# Lab Confirmed Cases

- Influenza is not a reportable disease in Arizona
- Voluntary reporting this season by:
  - One regional laboratory, Sonora Quest
  - Five hospital laboratory networks
    - Scottsdale Healthcare
    - Paradise Valley Hospital
    - Banner Healthcare (via Sonora Quest)
    - St. Joseph's Hospital (includes Chandler Regional)
    - Phoenix Children's Hospital
  - Other physician's offices from around the county
- 1787 cases reported this year (as of Jan. 15<sup>th</sup>)

# Influenza Cases Reported to MCDPH

(October 2003 to 1/15/04)

N=1787



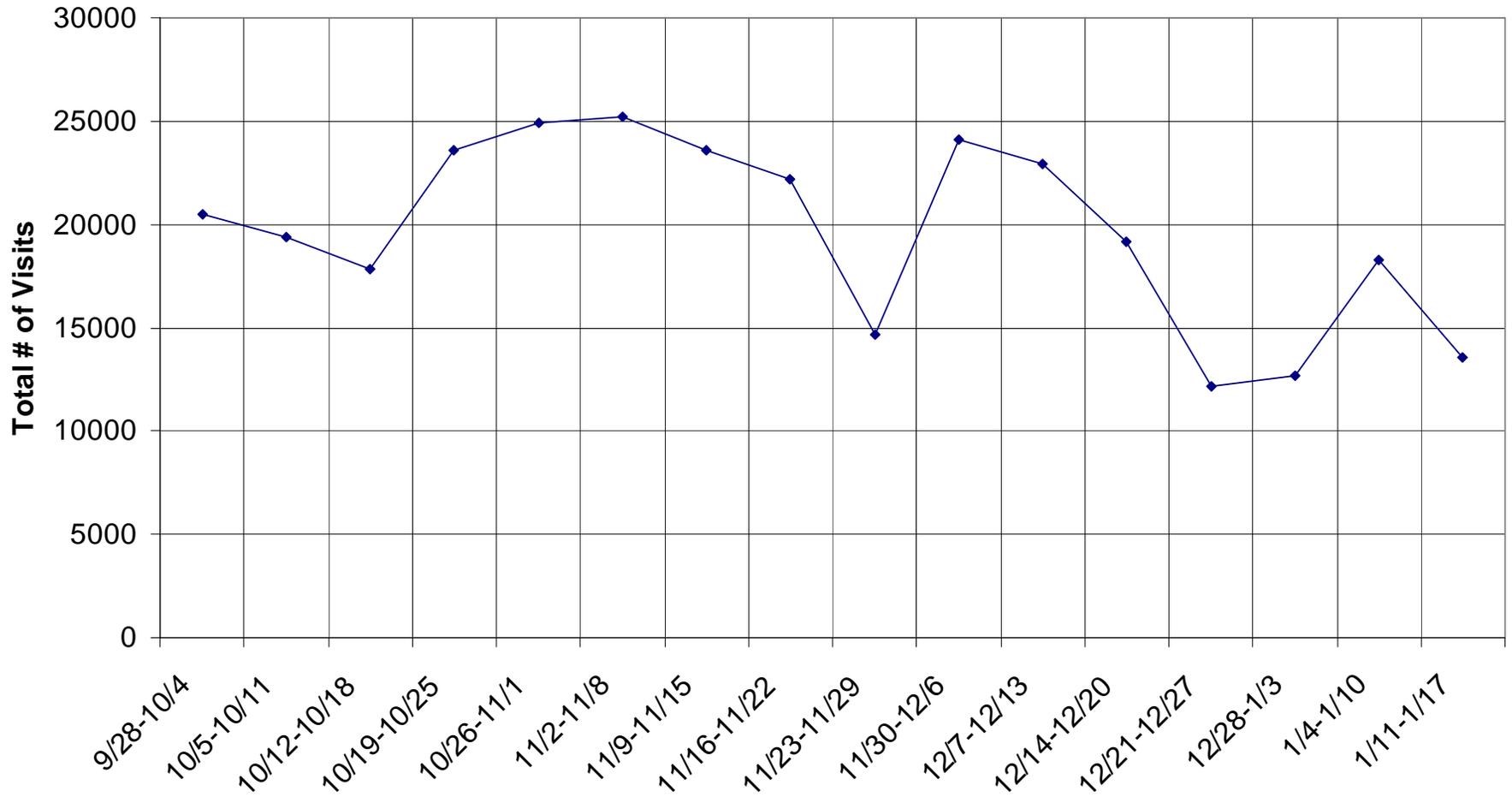
\*If onset missing, by date of diagnosis, date of lab, date of report

Source of report: 1 regional lab, 5 hospital healthcare networks, 5 individual healthcare providers

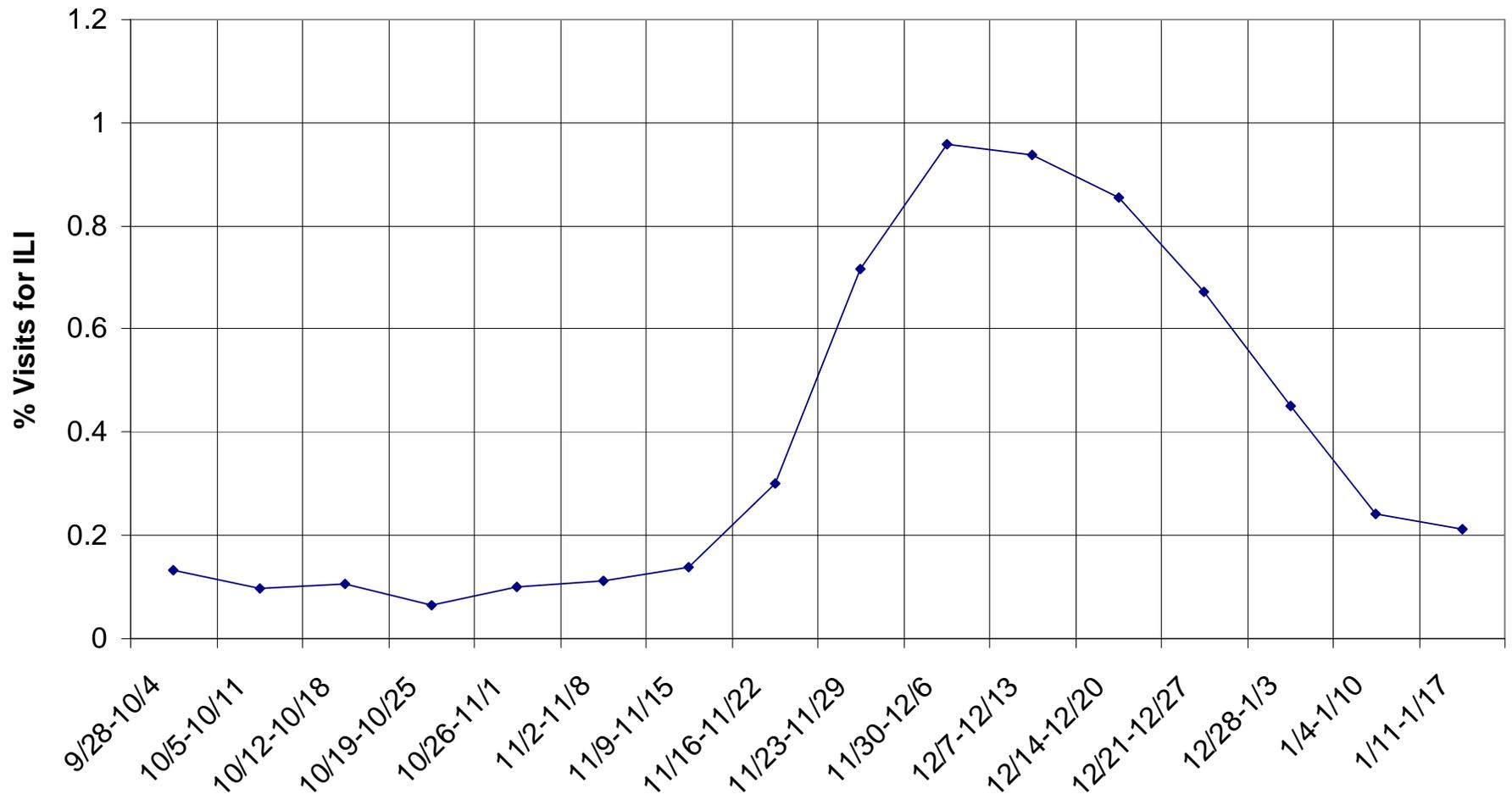
# Cigna HealthCare

- Cigna HealthCare, in conjunction with MCDPH Epidemiology, is a participant in CDC's U.S. Influenza Sentinel Provider Surveillance Network
- On a weekly basis, Cigna reports the total number of patient visits at each of its 20 locations, along with the number of patients with ILI and those patients' ages.
- MCDPH analyzes data and reports to CDC
- Case Definition used for Influenza-like Illness (ILI):
  - Fever plus either cough or sore throat

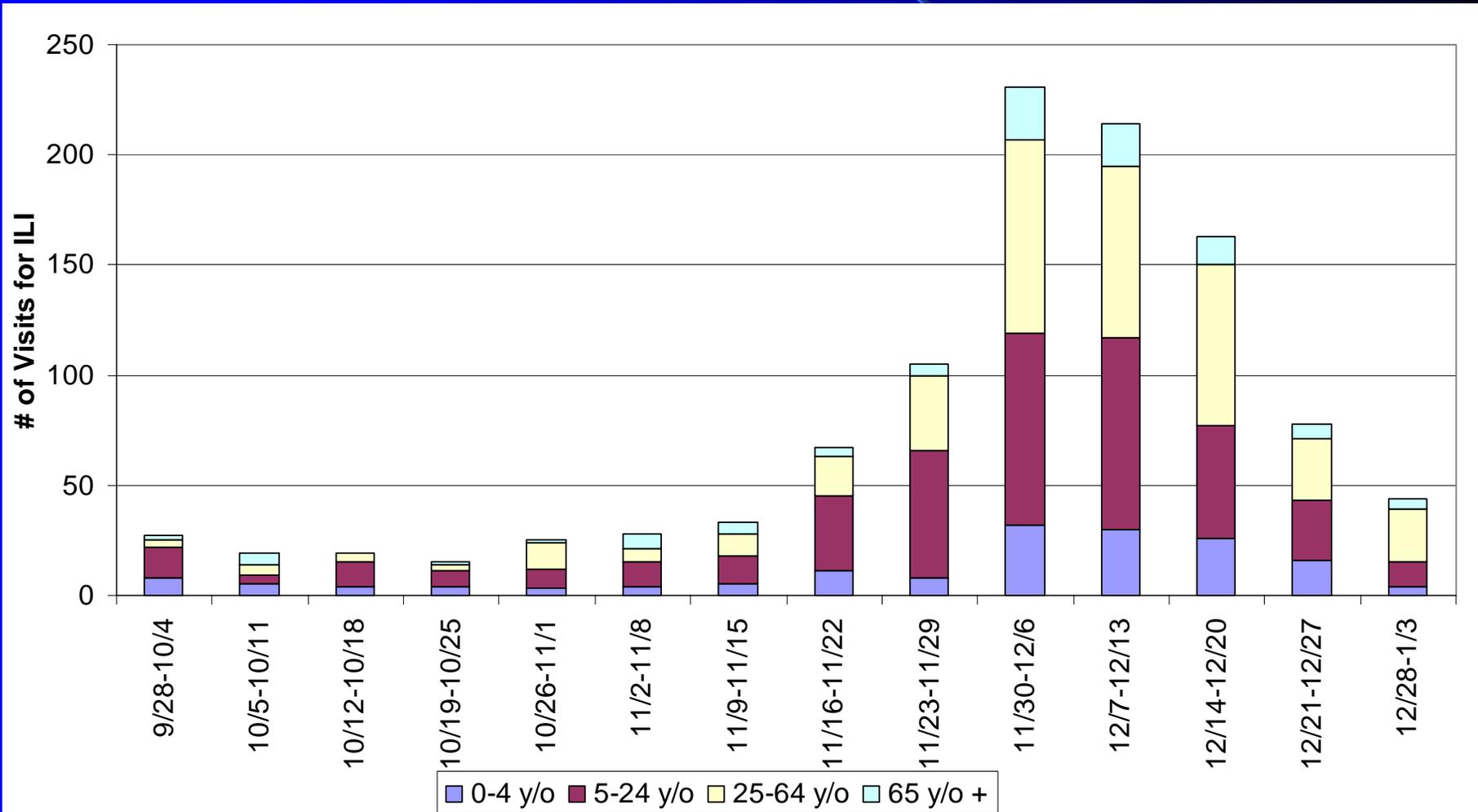
# Total Number of Visits to Cigna Facilities, Maricopa County Summary 2003-04



# Overall Percentage of Visits for Influenza-like Illness at Cigna Facilities, Maricopa County Summary 2003-04



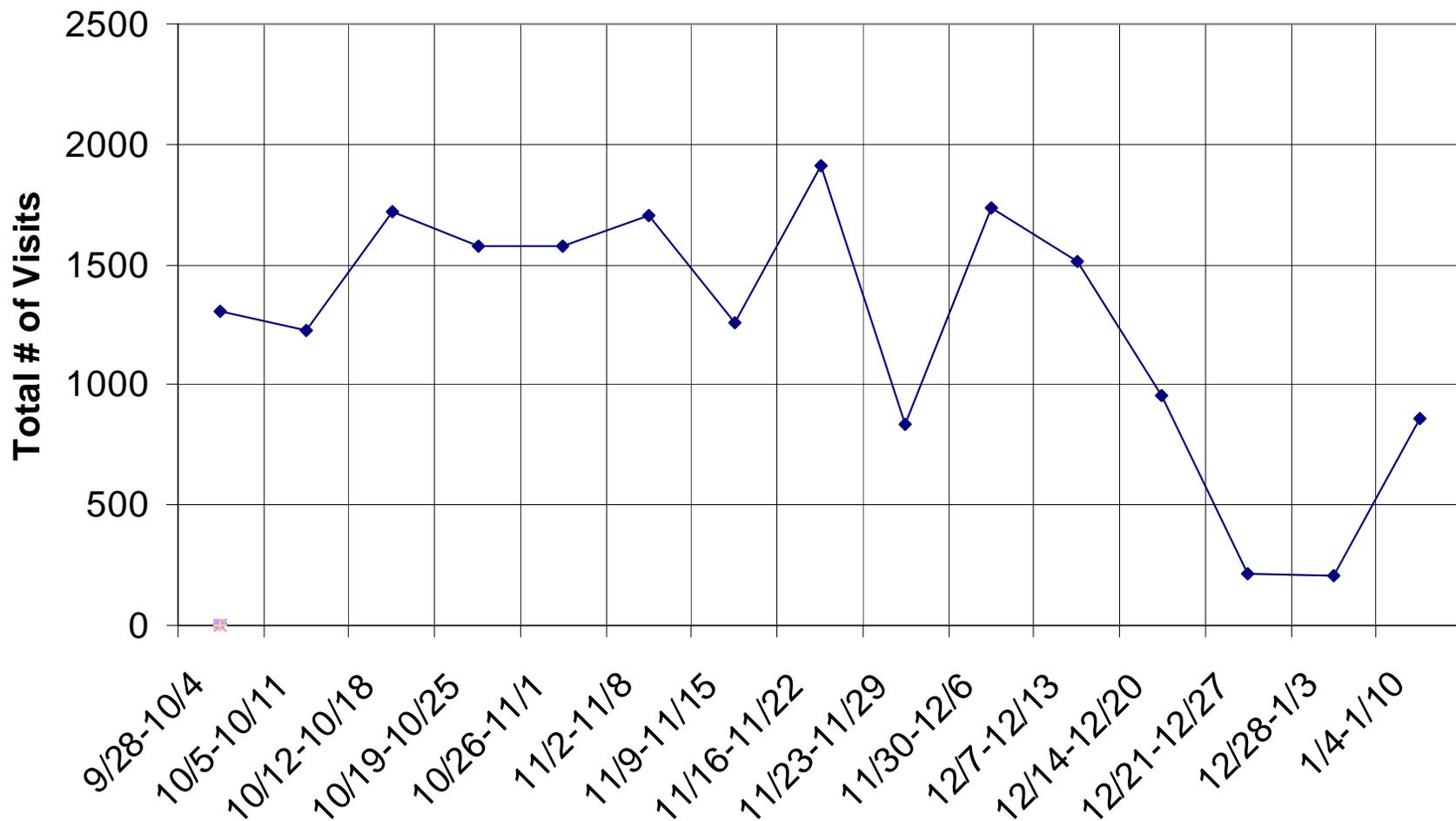
# Number of Visits to Cigna Facilities for Influenza-Like Illness, Maricopa County Summary 2003-04 (by age group)



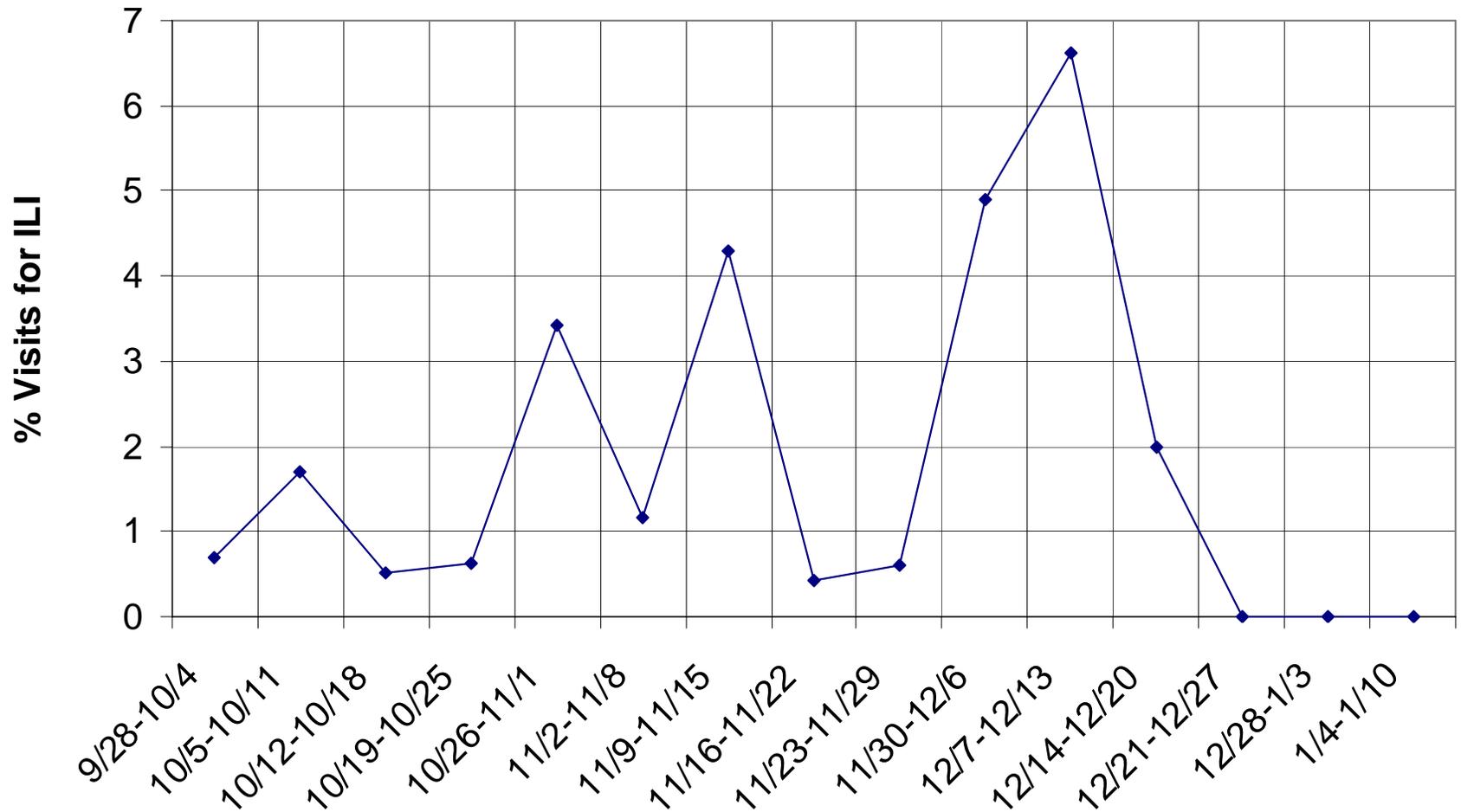
# ASU Student Health

- ASU Student Health and Wellness Center is also a participant in CDC's U.S. Influenza Sentinel Provider Surveillance Network
- On a weekly basis, ASU reports directly to CDC the total number of patient visits to the Student Health Center, along with the number of patients with ILI and those patients' ages.
- MCDPH includes this data in weekly influenza report
- Case Definition used for Influenza-like Illness (ILI):
  - Fever plus either cough or sore throat

# Total Number of Visits to ASU Student Health and Wellness Center, Maricopa County Summary 2003-04



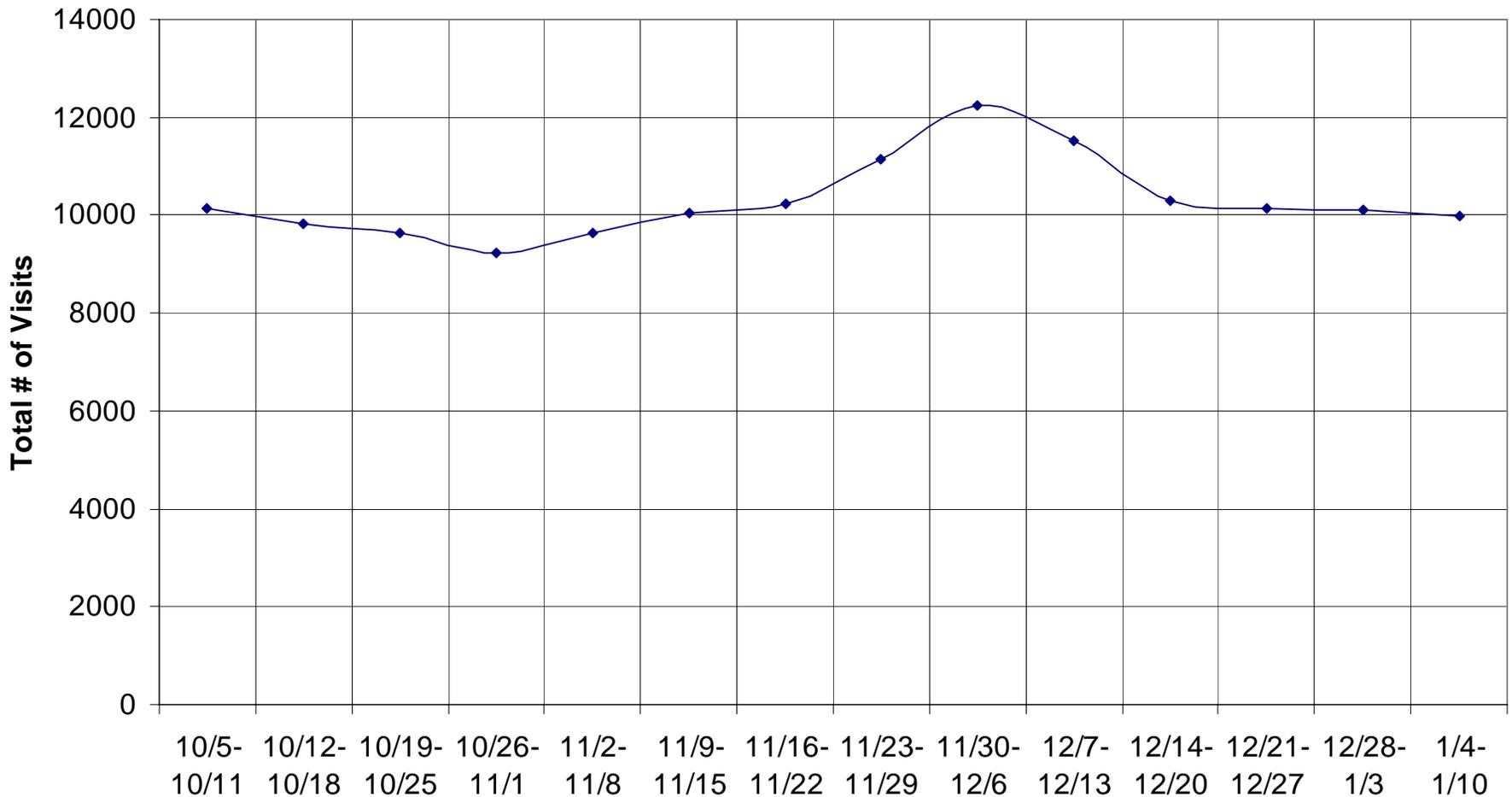
# Overall Percentage of Visits for Influenza-like Illness at ASU Student Health, Maricopa County Summary 2003-04



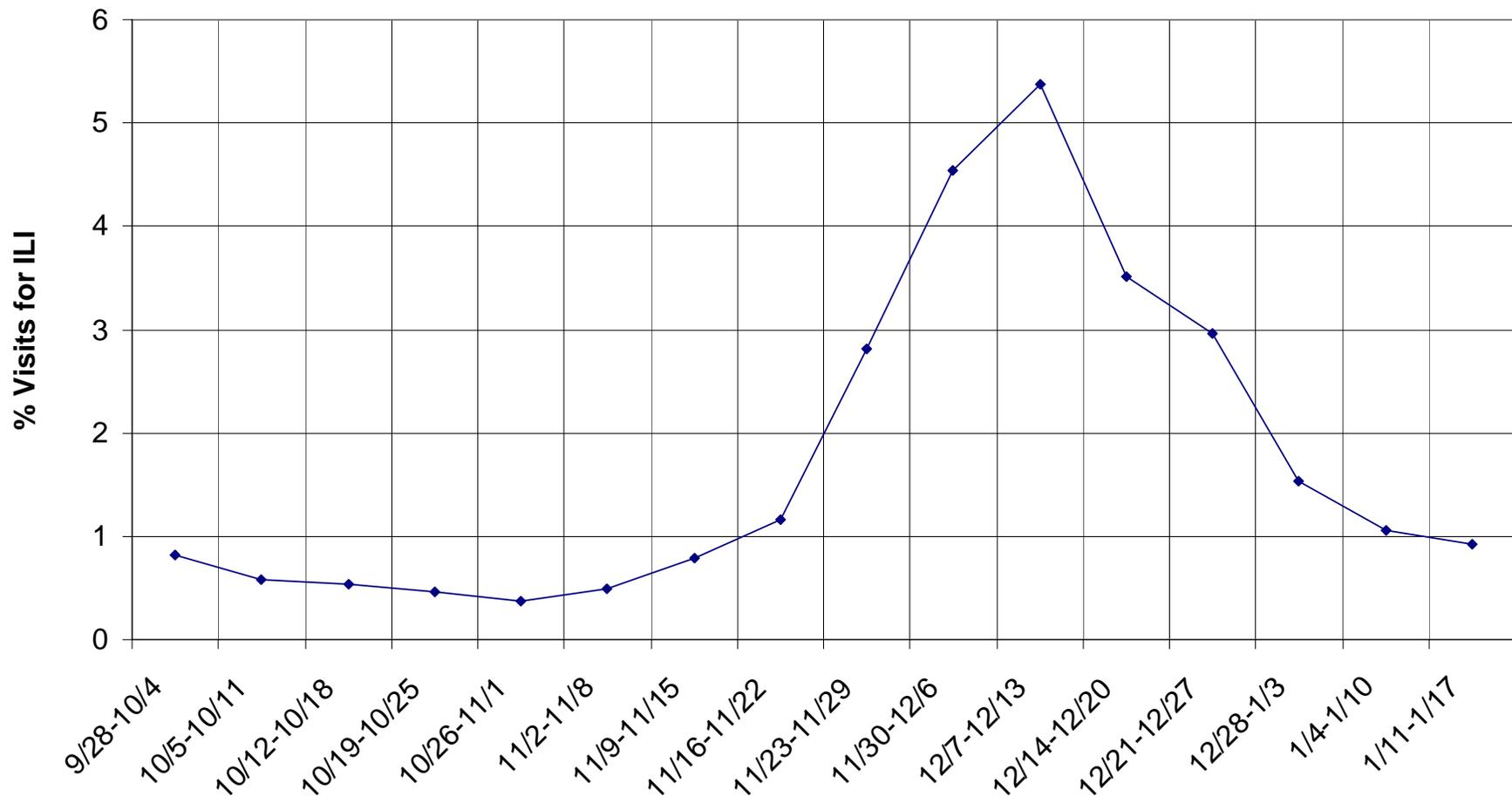
# Emergency Departments

- On a weekly basis, 10 hospital emergency departments report to MCDPH Epidemiology the total number of patients seen and the number of patients seen with ILI
- Case Definition used for Influenza-like Illness (ILI): Fever of at least 102 plus 3 or more of 5 (provided) symptoms of Influenza
- Participating hospitals:
  - Boswell, Del Webb, JCL-DV, JCL-NM, MMC, PCH, PIMC, St. Joe's, SHC Osborn, SHC Shea

# Total Number of Visits to Ten Valley Emergency Departments, Maricopa County Summary 2003-04

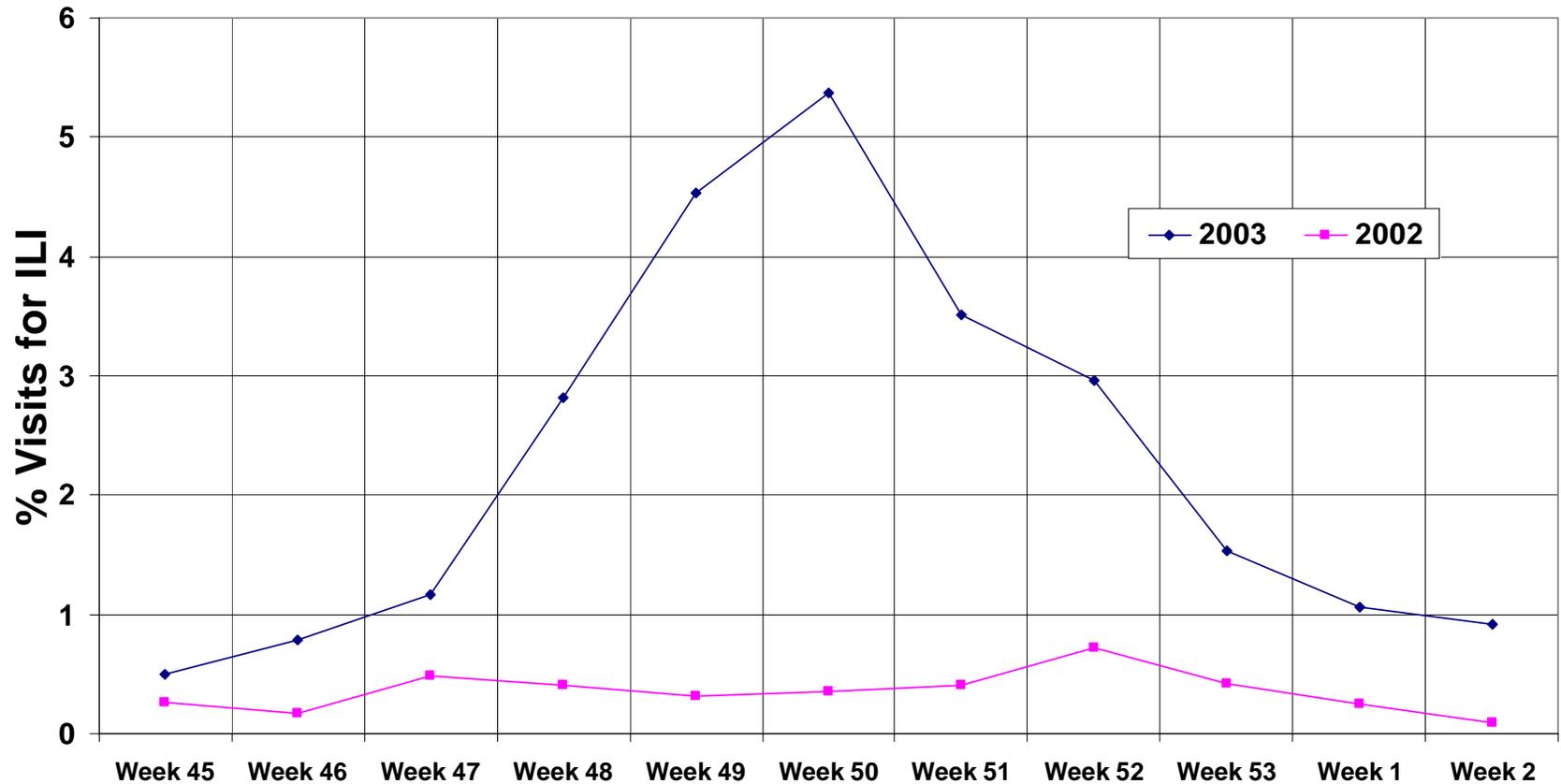


# Overall Percentage of Visits to ER for Influenza-like Illness, Maricopa County Summary 2003-04



# Overall Percentage of Visits to ER for ILI

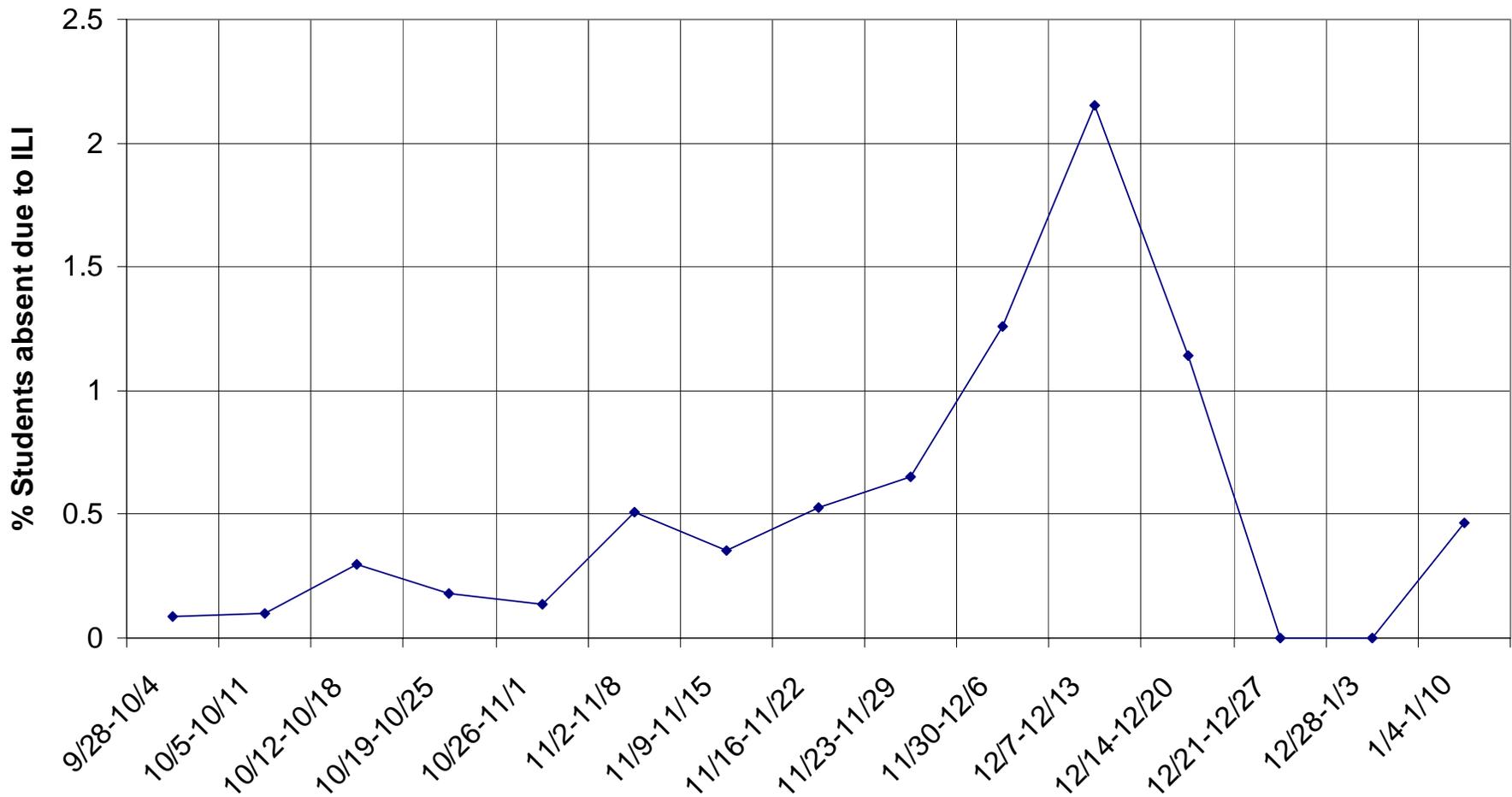
## 2002-3 Season and 2003-04 Season



# Schools - ILI

- On a weekly basis, 8 elementary and middle schools report to MCDPH Epidemiology the average daily attendance for the week and the total number of students absent due to ILI
- Case Definition used for Influenza-like Illness (ILI):  
Fever of at least 102 plus 3 or more of 5 (listed) symptoms of Influenza
- Participating schools:
  - Legend Springs, Park Meadows, Village Meadows (Deer Valley); American, Landmark (Glendale); Madison MS, Richard Simis (Madison); Thew (Tempe)

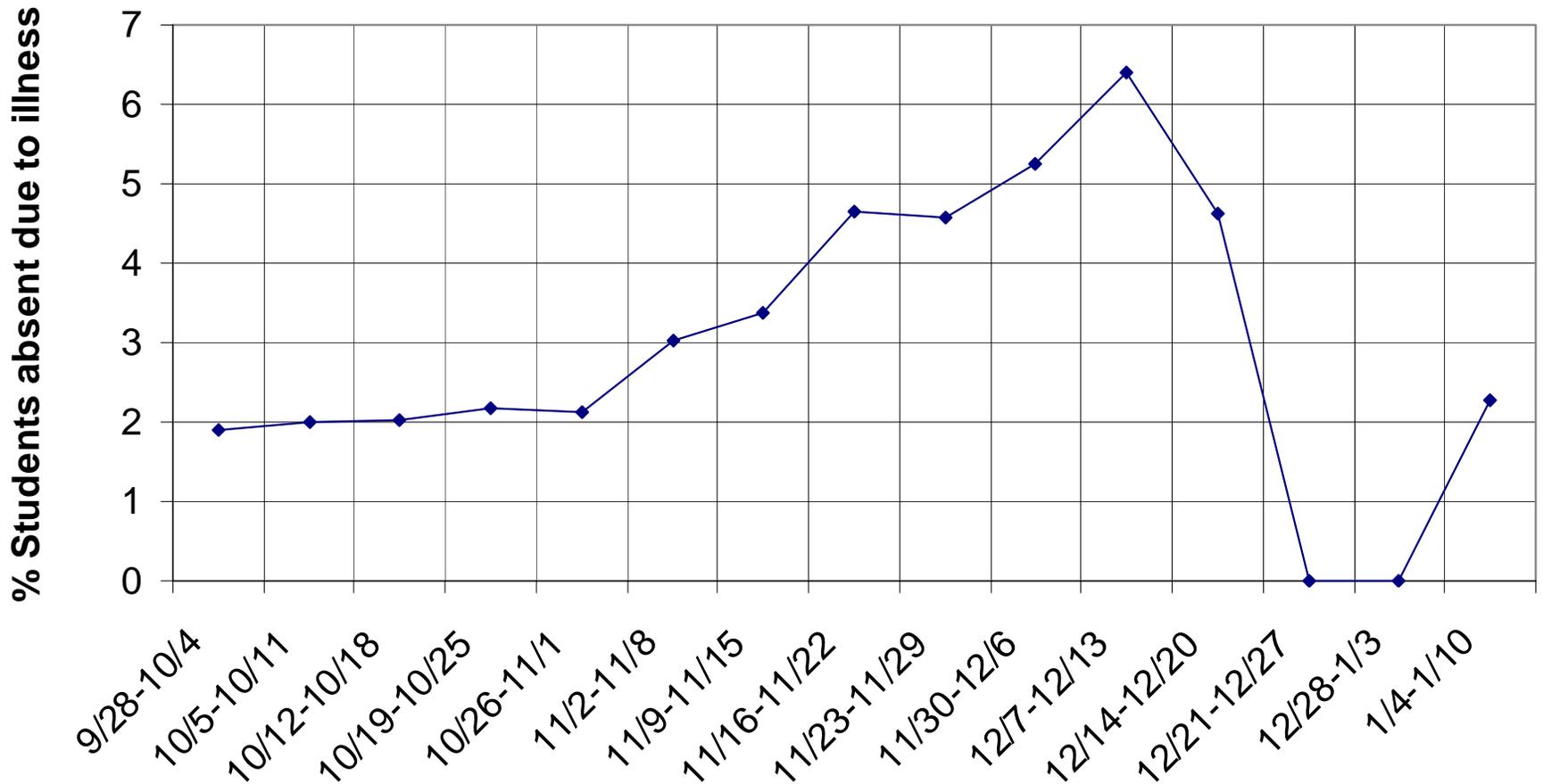
# Average Daily Percentage of Students Absent due to Influenza-like Illness, Maricopa County Summary 2003-04



# Schools – Ill Absences

- On a weekly basis, 6 elementary and middle schools report to MCDPH Epidemiology the average daily attendance for the week and the total number of students absent due to illness
- Participating schools:
  - Burton, Desert Spirit, Issac Imes, W.C. Jack (Glendale); Taylor, Barbara Bush (Mesa)

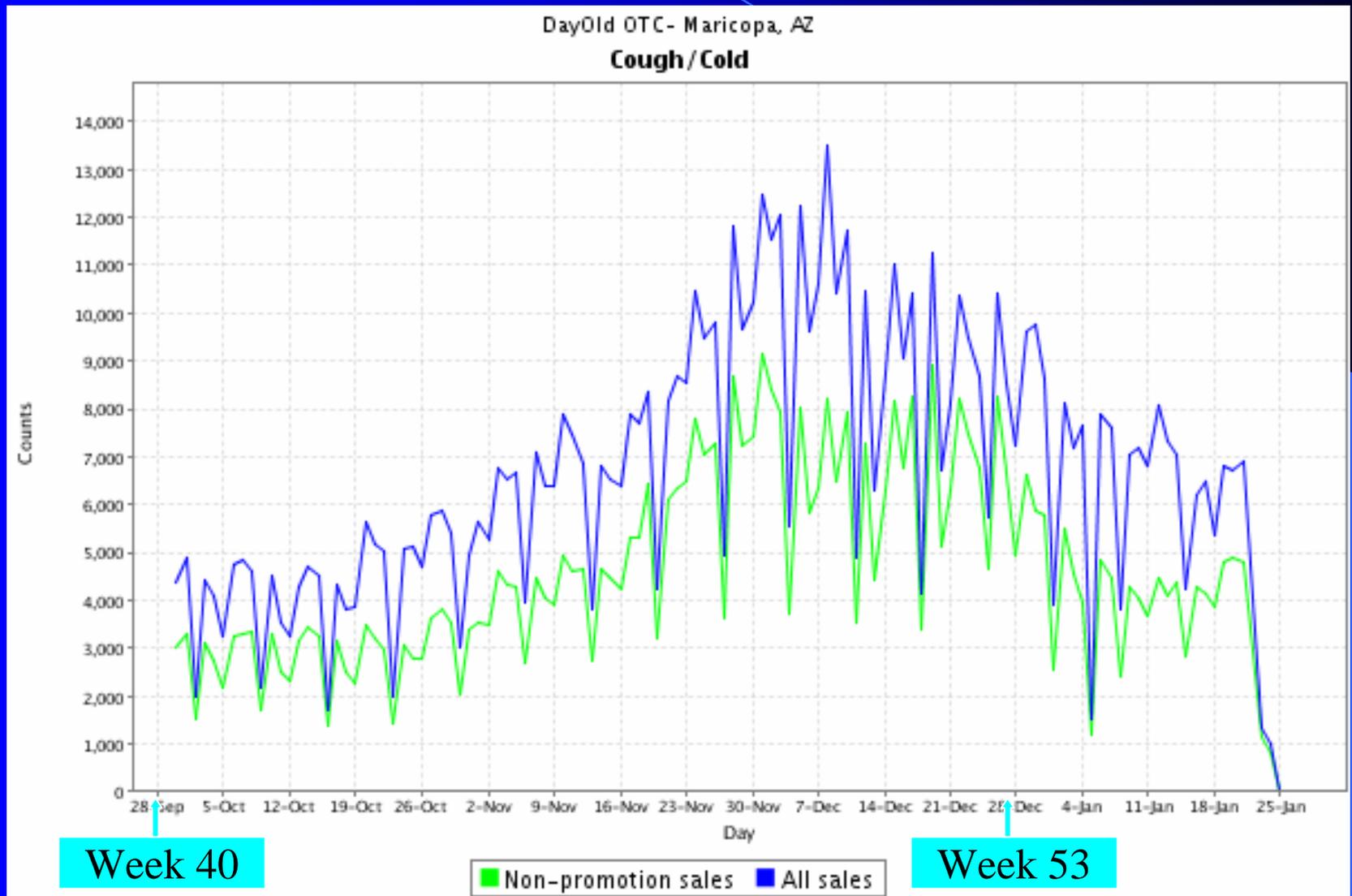
# Average Daily Percentage of Students Absent due to Illness, Maricopa County Summary 2003-04



# Over-the-Counter Drug Sales

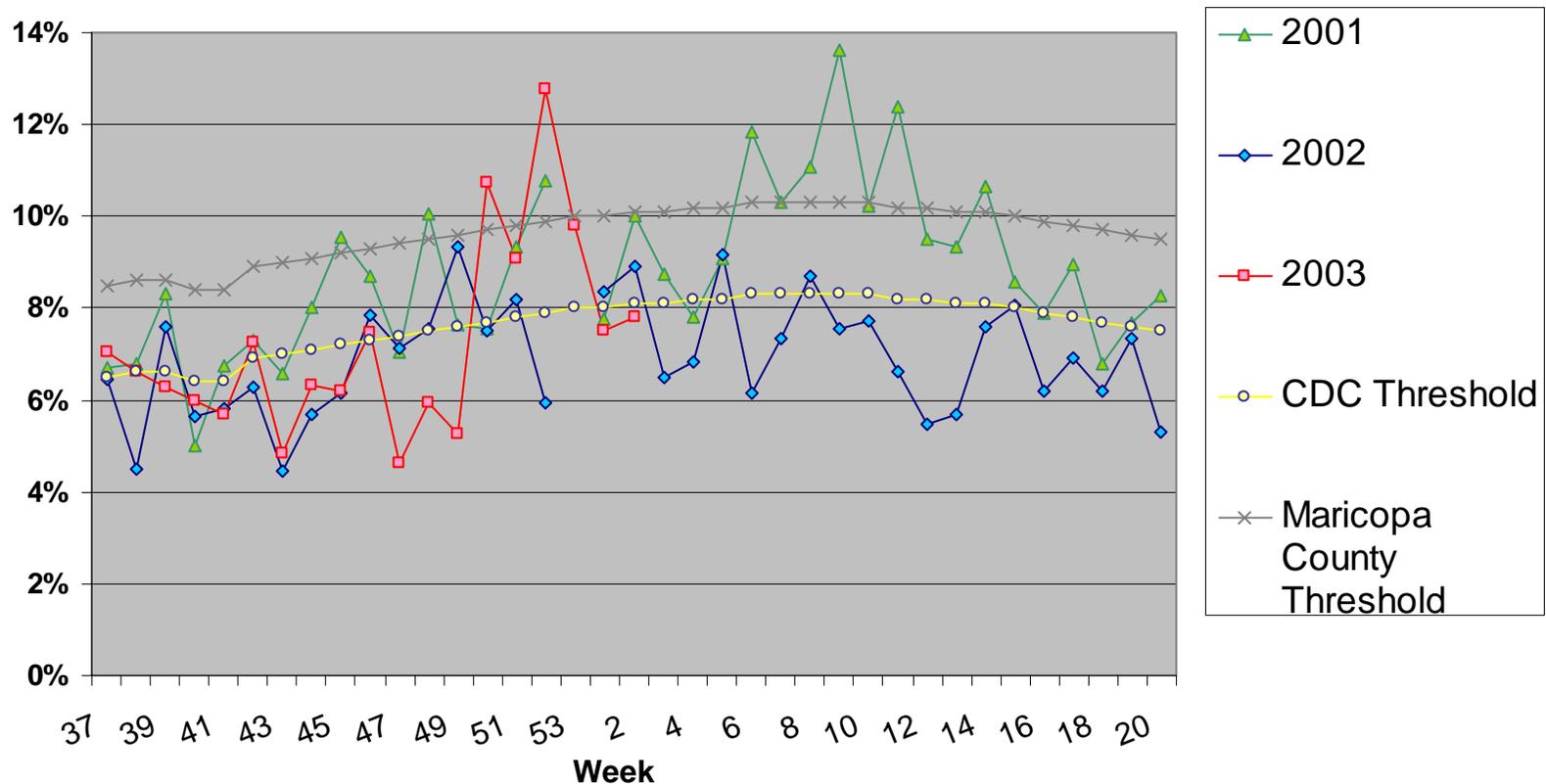
- MCDPH Epidemiology has access to over-the-counter (OTC) drug sales data for Maricopa County through the University of Pittsburgh's Real-time Outbreak Disease Surveillance (RODS) Laboratory
- OTC cough/cold drug sales seems to mirror ILI surveillance data for the season
- OTC cough/cold drug sales perhaps began to increase some weeks before ILI peaked?

# OTC Cough/Cold Drug Sales



# Pneumonia and Influenza Deaths

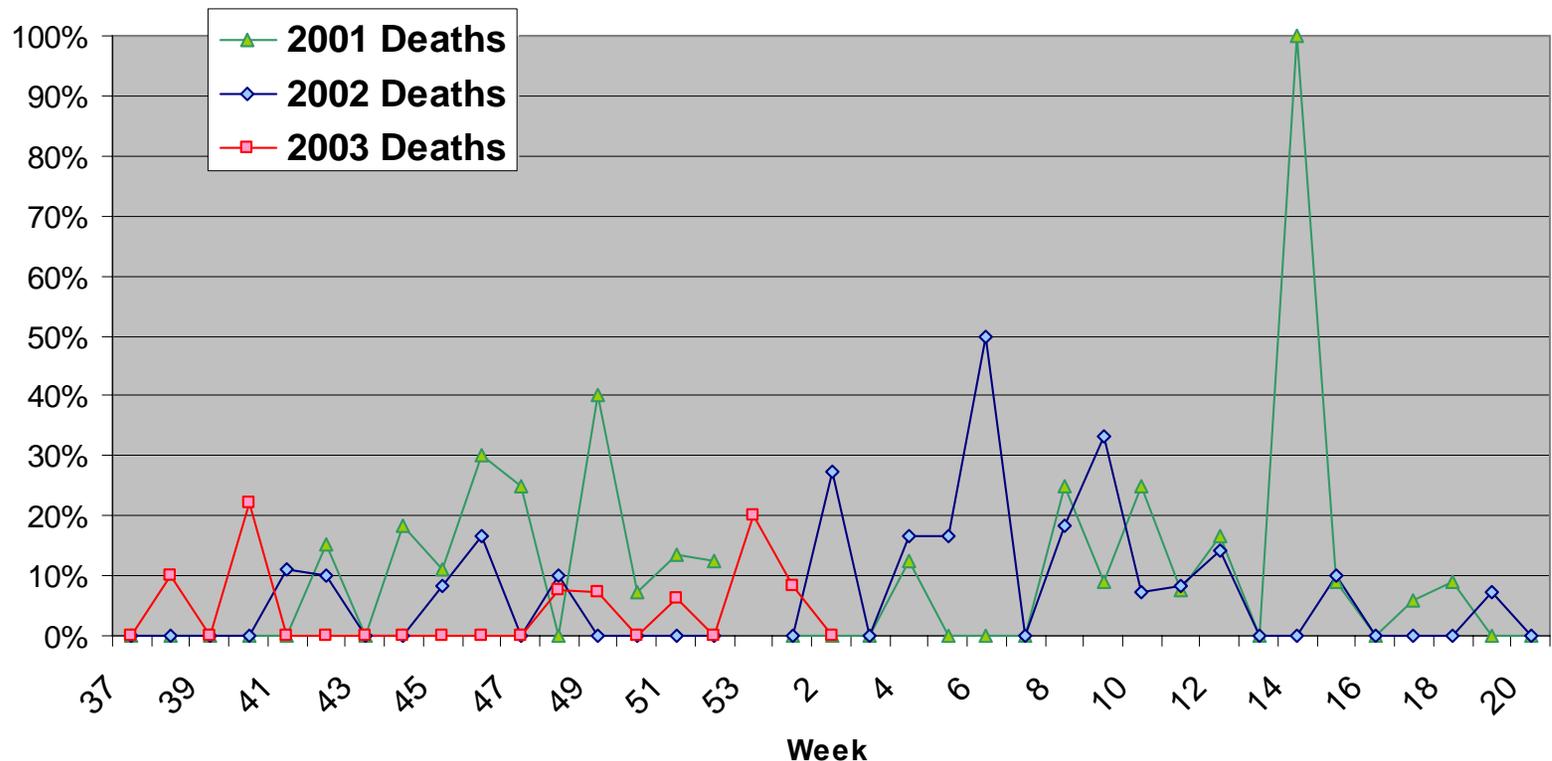
## P & I Related Deaths as a Percent of Total Deaths



Includes deaths mentioning pneumonia and/or influenza anywhere on the death certificate. Influenza and/or pneumonia were involved in these deaths, but were not necessarily the cause of death. 2001, 2002 did not have a Week 53.

# P&I Related Deaths – 0-9 Year Olds

## P & I Related Deaths Among 0-9 Year Olds as a Percent of All 0-9 Year Old Deaths



Includes deaths mentioning pneumonia and/or influenza anywhere on the death certificate. Influenza and/or pneumonia were involved in these deaths, but were not necessarily the cause of death. 2001, 2002 did not have Week 53.

# P&I Deaths - Summary Table (All Ages)

	2001	2002	2003*
Pneumonia Deaths	685	596	676
Influenza Deaths	0	3	16
Pneumonia and Influenza	685	599	692
Total Deaths for Time Period	8491	8673	9380
% Deaths due to PI (all ages)	8.1%	6.9%	7.4%

Includes deaths mentioning pneumonia and/or influenza anywhere on the death certificate, not necessarily the cause of death.

\* 2001 and 2002 numbers includes deaths through Week 2 while 2003-04 Season includes incomplete data for Week 2.

# P&I Deaths - Summary Table (0-9 Year Olds)

Ages 0-9 Years Old	2001	2002	2003*
Pneumonia Deaths	17	9	7
Influenza Deaths	0	0	2
Pneumonia and Influenza	17	9	9
0-9 Yr. Old Deaths for Time Period	183	183	176
% Deaths due to PI (0-9 Yr Olds)	9.3%	4.9%	5.1%

Includes deaths mentioning pneumonia and/or influenza anywhere on the death certificate, not necessarily the cause of death.

\* 2001 and 2002 numbers includes deaths through Week 2 while 2003-04 Season includes incomplete data for Week 2.

# Pediatric Cases Reported

- Total - 22
- Pending – 7
- Confirmed – 5
  - 2 Pinal County
  - 3 Maricopa County
- Ruled Out – 10

Thank You!

Questions?

