

Pharmacy-based Childhood Immunizations during a Public Health Emergency



IMPACT ON NEW YORK STATE INFLUENZA VACCINE COVERAGE

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Purpose

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- Describe the impact of pharmacists immunizing children against influenza during the 2012-2013 season
 - Review immunization of children by pharmacists in New York State (NYS)
- Identify trends that warrant further study

Introduction – History of Pharmacy Immunization

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- 1993, Health and Human Services requested information on potential role of pharmacists as pediatric immunizers
- States allowing pharmacists to immunize
 - 1995: 9 states
 - 1999: 30 states
 - 2008: 50 states
- 1996 American Pharmacists Association (APhA) began a training program

Current

- Trained pharmacists can immunize in all 50 states
- State specific laws determine pharmacist scope of practice
- Multiple formal programs exist for training pharmacists to immunize
- Little published data on children immunized in pharmacies

Pharmacy Immunization Laws by State

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- 8 States restrict which vaccines can be administered:
 - NYS: Influenza, Pneumococcal and Zoster vaccines
- Standing orders: policy varies
 - NYS: this depends on the vaccine.
- Age restrictions : 21 States have no age restrictions
 - NYS: 18 years old and older
- Training requirements
 - NYS: Must be certified by the State Education Department as having completed training

RX Vaccinations

Advantages

- Accessible
- Extended hours
- Weekdays and Weekends
- Potential increase coverage: creating new immunization opportunities

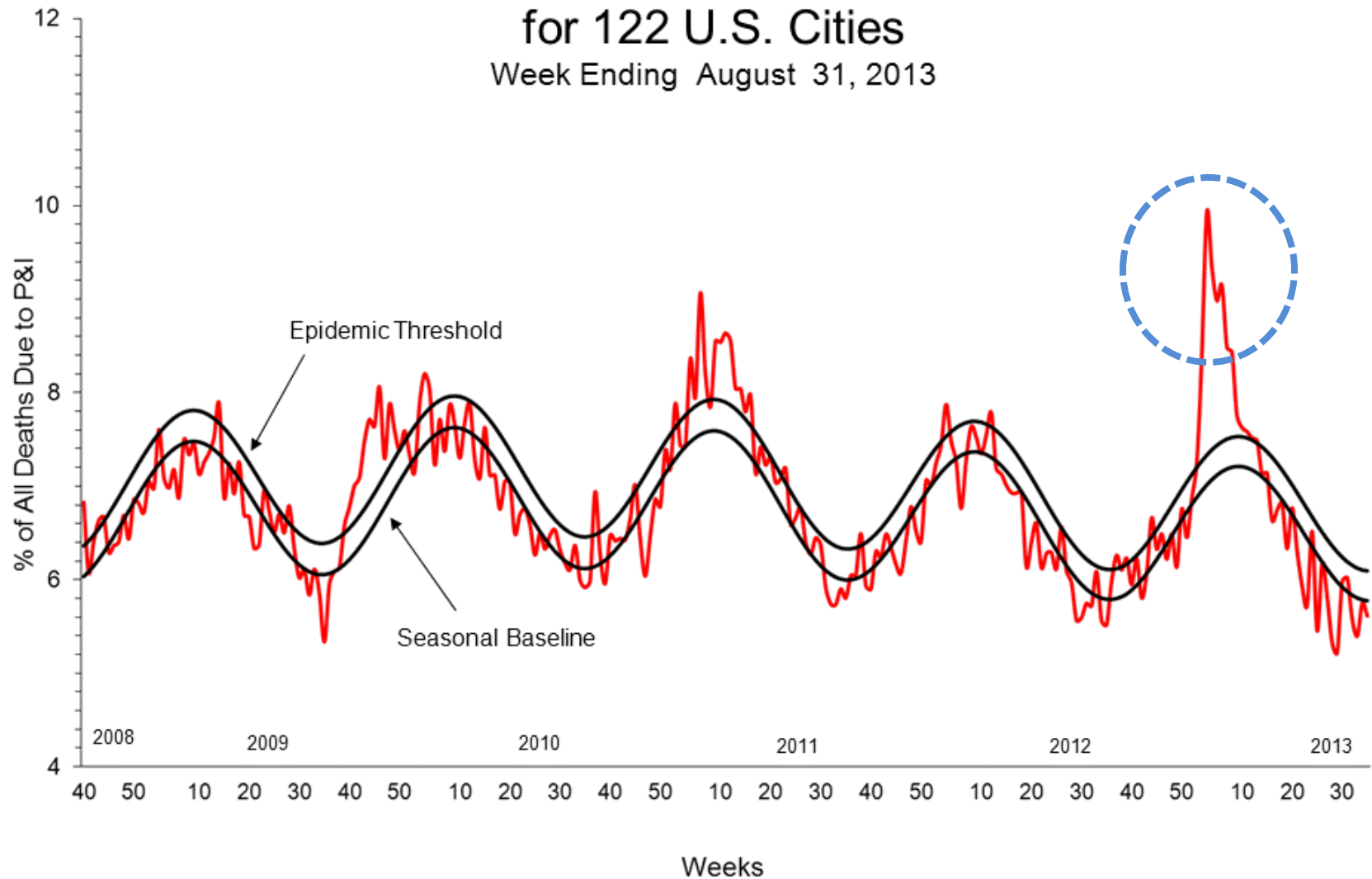
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Disadvantages

- Care not received in medical home
- Concern for potential patient safety issues
- Patient privacy
- Patients reluctant to access immunizations from non-physician providers

Pneumonia and Influenza Mortality for 122 U.S. Cities

Week Ending August 31, 2013



NYS Influenza 2012-2013 Season

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- Increased disease and mortality, December 2012 and January 2013
- Governor Cuomo issued executive order, January 12, 2013
 - Pharmacists allowed to administer influenza vaccine to children six months and older
 - Immunization under standing orders authorized
 - In effect for 90 days: expired on April 11, 2013

Methods

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- NYSIIS
- Data for NYS exclude New York City
- Providers required to report doses administered
 - children 18 years and younger
 - New York State Immunization Information System (NYSIIS)
- Written NYSIIS consent: patients nineteen years and older
 - Limited utility of data on adult immunizations
 - Changed to verbal consent

Methods (continued)

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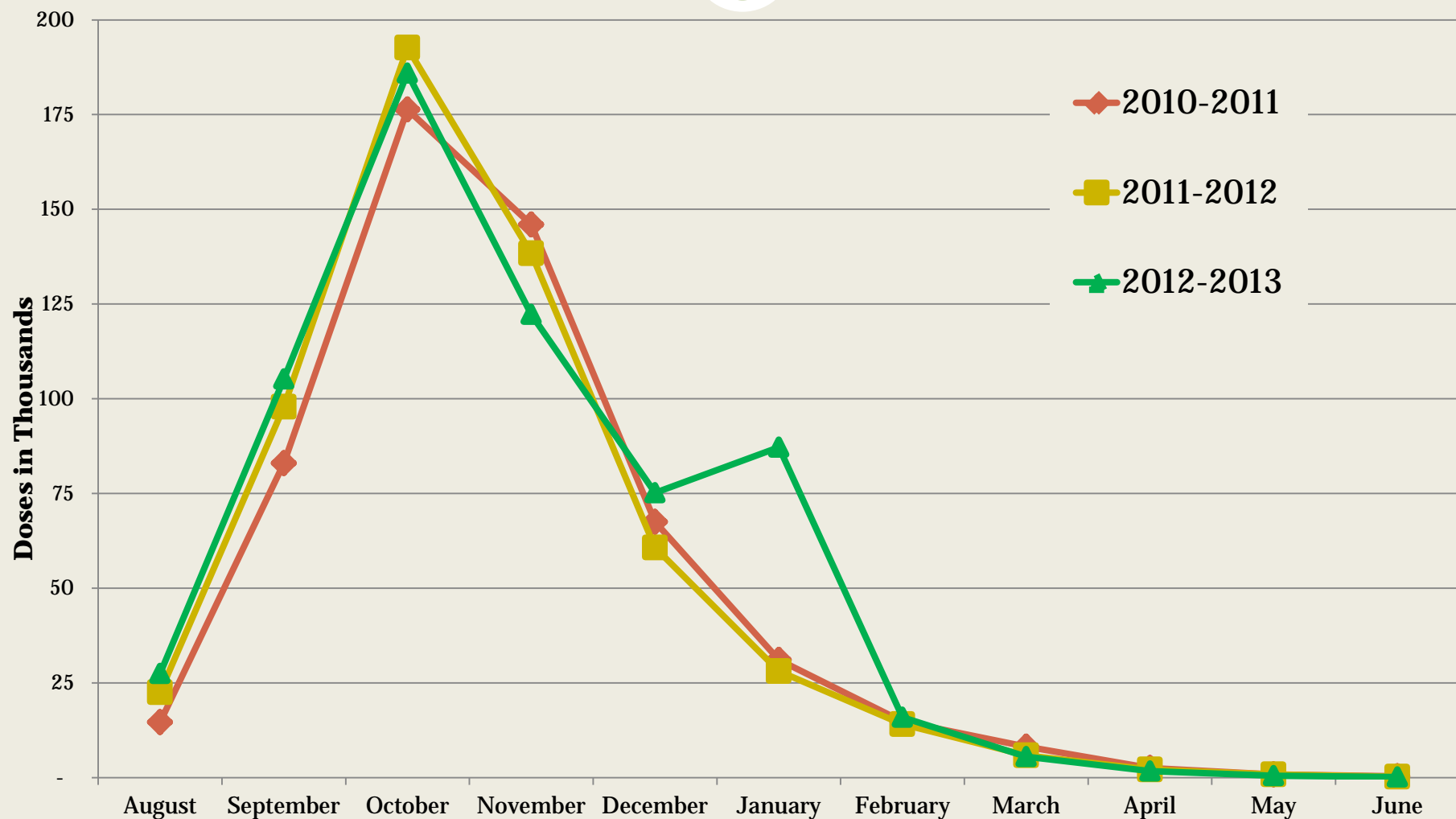
- **Data extracted from NYSIIS**
 - Children under the age of 18 (only 2 children under 3 years)
 - Resident in NYS, excluding of New York City residents
 - Excluded those receiving vaccination in New York City
- Reviewed vaccination history for these children.
- Reviewed influenza vaccinations in the last 3 years
- Data included type of vaccine and type of provider; demographic data; dates of vaccination
- Analyzed
 - Vaccine Type, Provider Type, Demographics Data, Vaccination Dates
- Compared 2012-2013 season to 2010-2011 and 2011-2012 seasons

Results

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Influenza doses administered to children less than 18 in NYS, by Influenza season

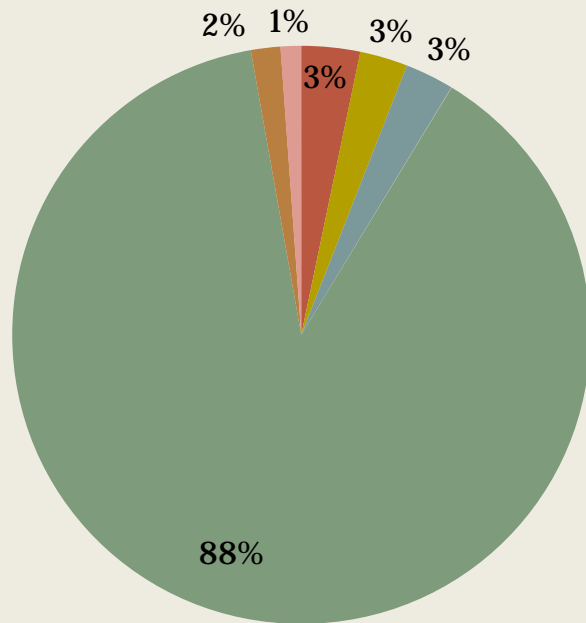
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Doses administered to children by provider type, 2012-2013 season

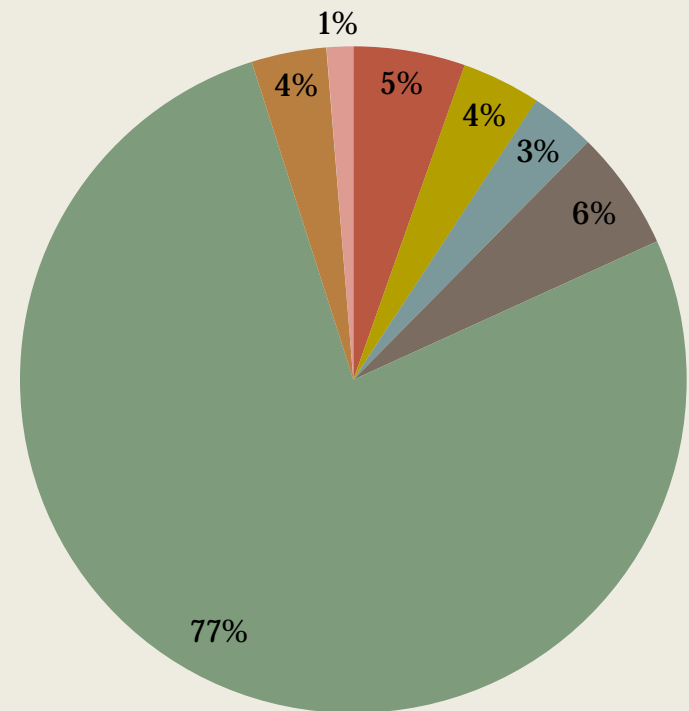
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Influenza doses administered, 2012
– 2013, August 1, 2012-January
11, 2013 and April 12, 2013-June
30, 2013



N = 544,437

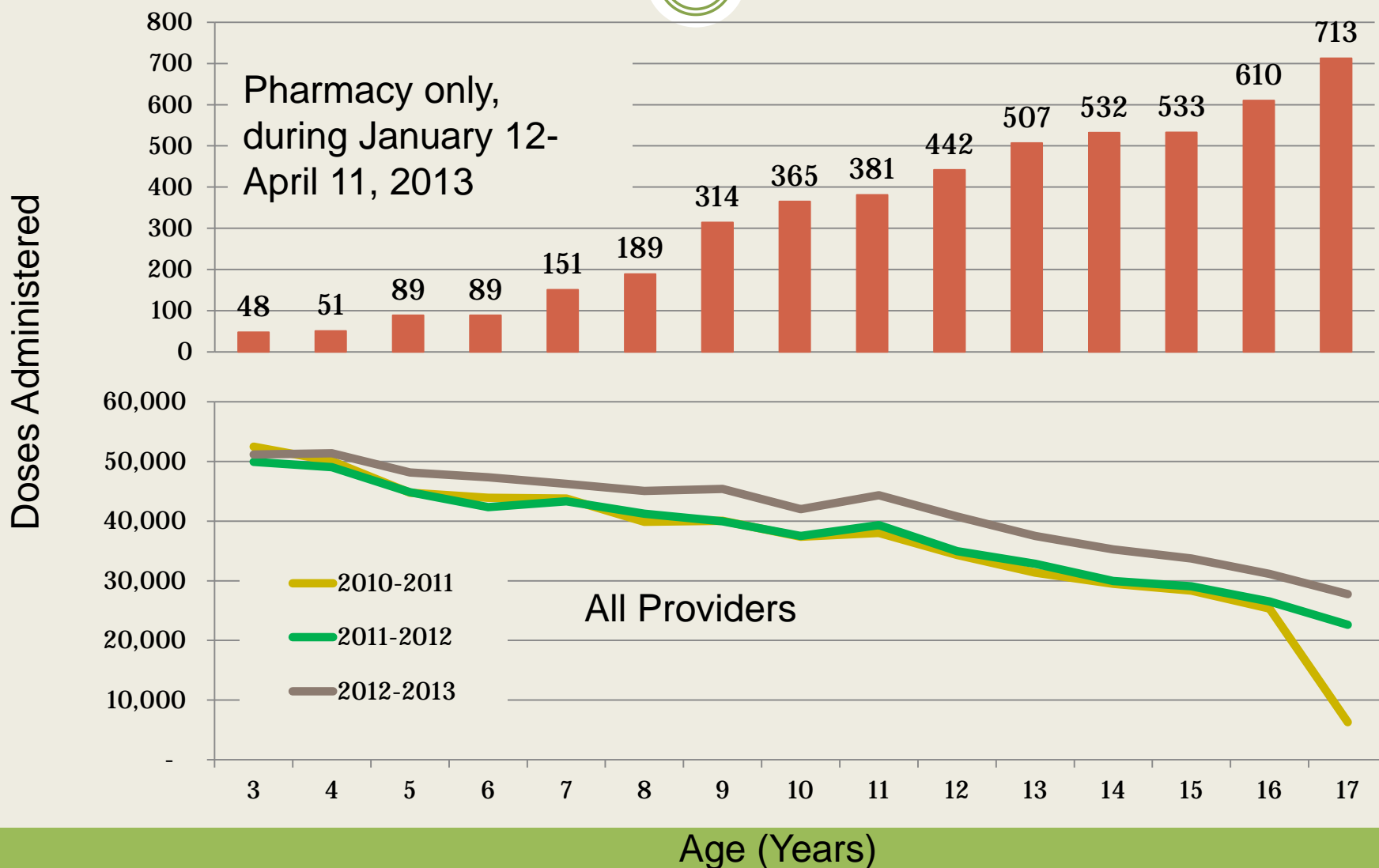
Influenza doses administered,
January 12 – April 11, 2013



N = 82,734

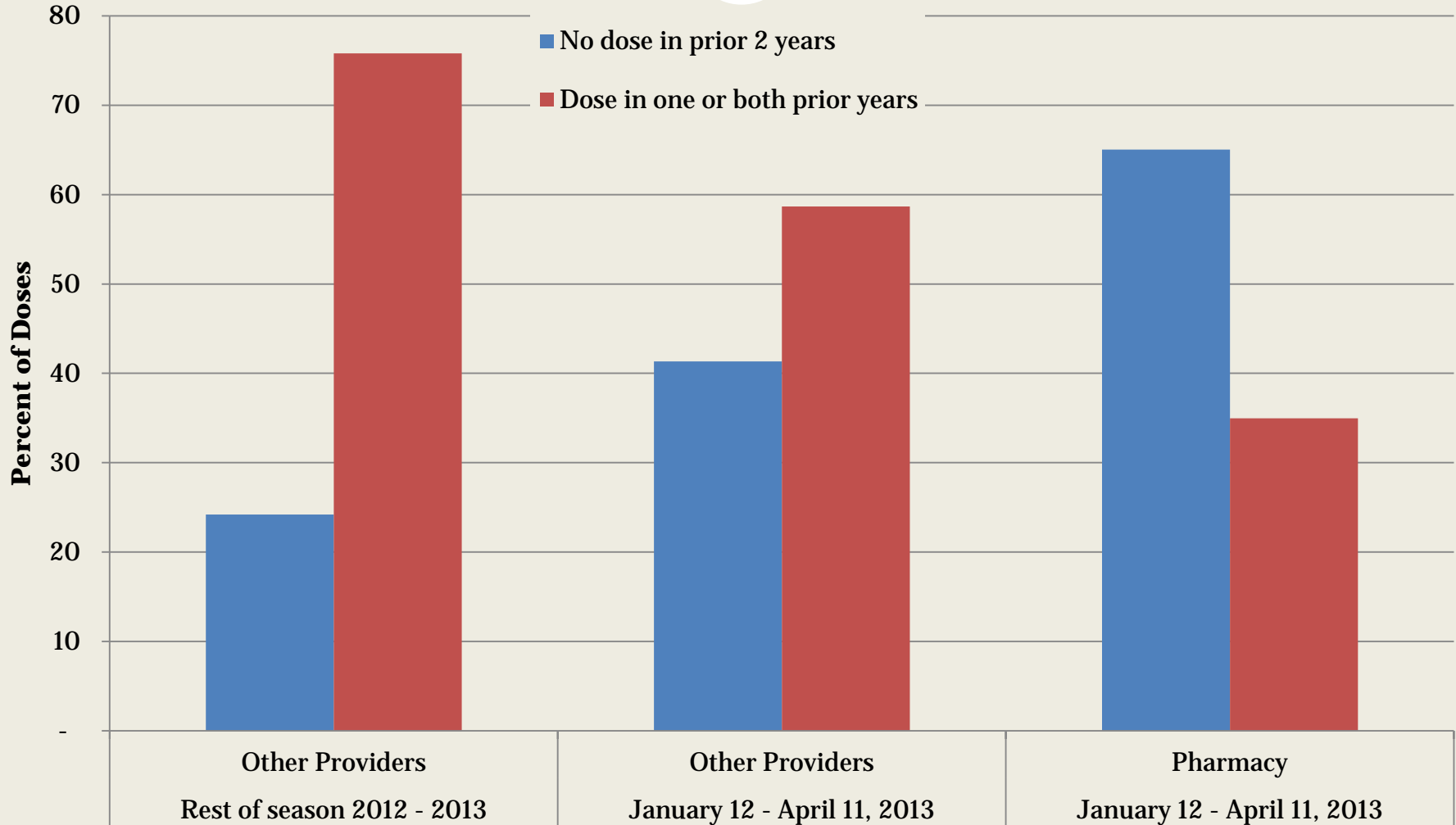
Doses administered to children less 18 yrs of age in NYS and Influenza season

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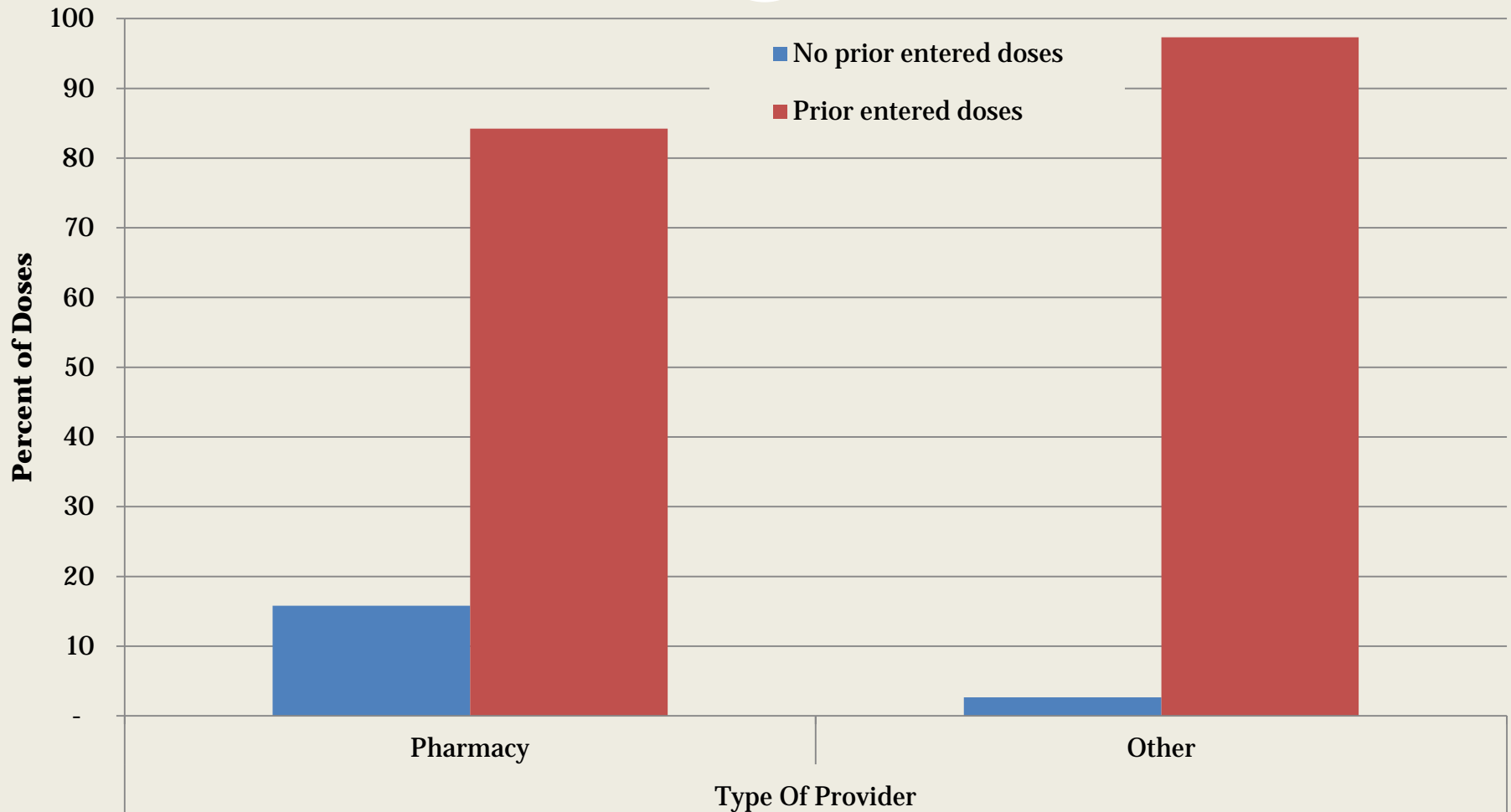
Immunized in 2012-2013, by Influenza history from 2010-2011 and 2011-2012 seasons

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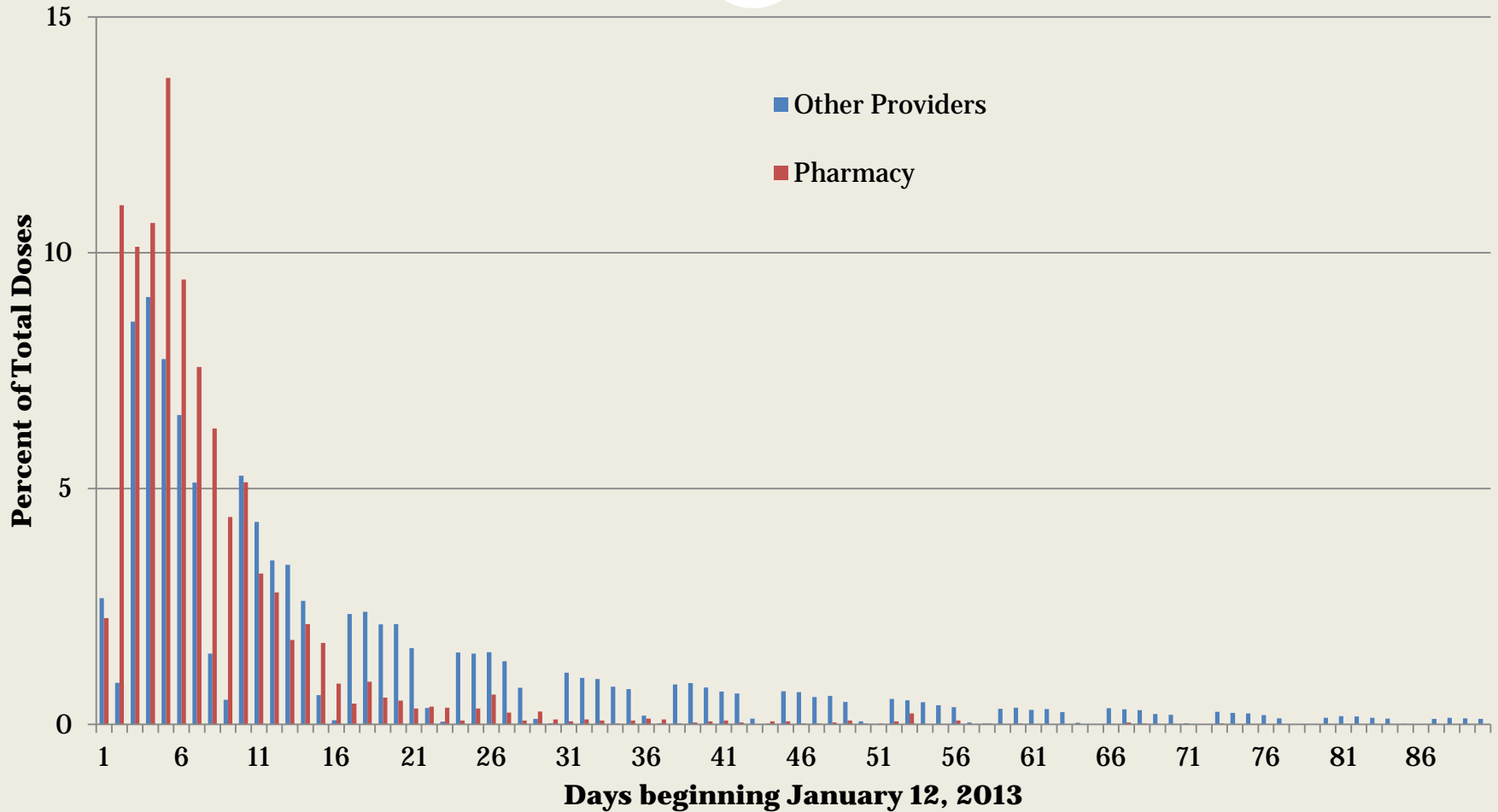
Patients immunized by location and registry status by prior entry of doses, January 12 – April 11, 2013.

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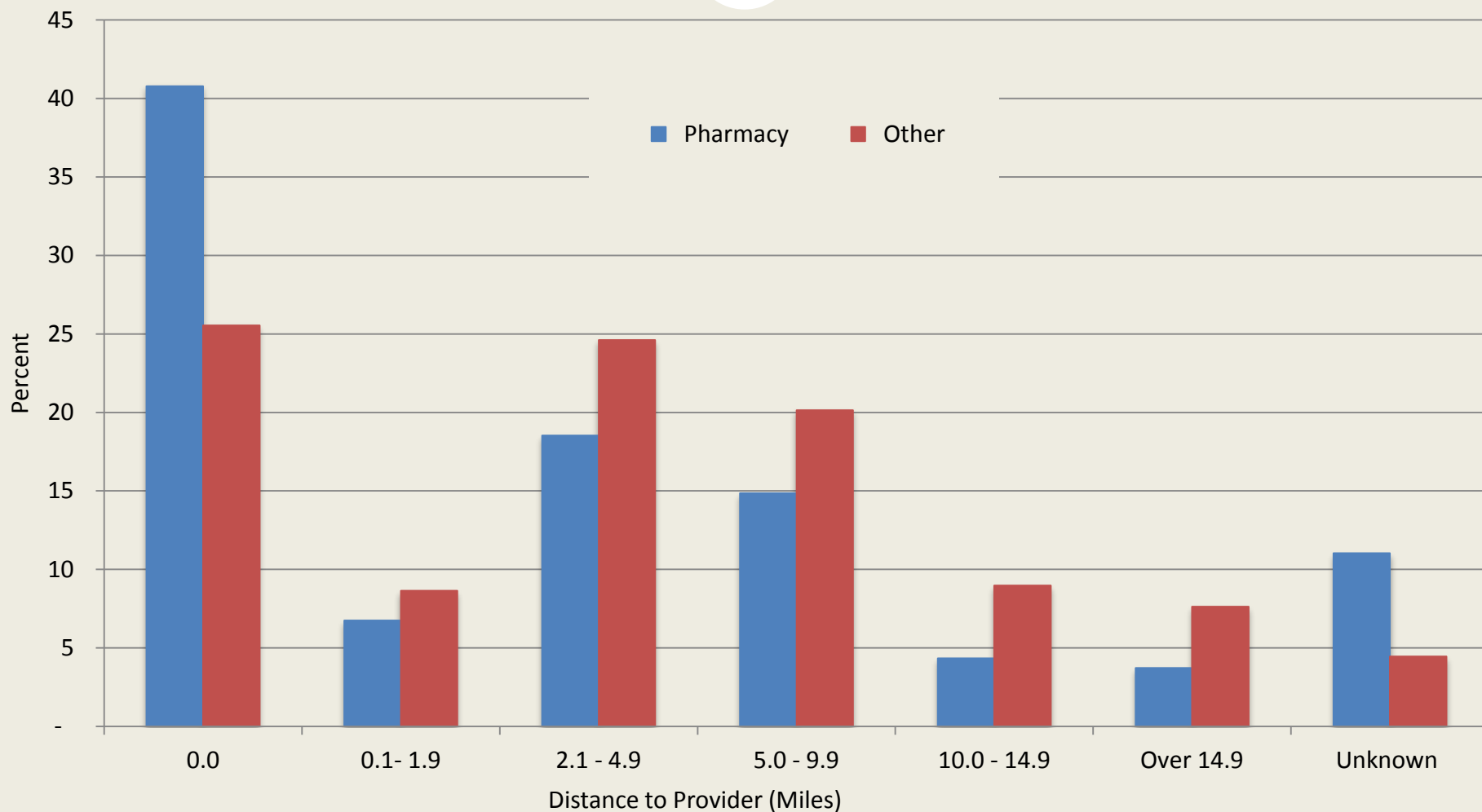
Immunization by Provider Type and Day, January 12 – April 11, 2013

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Childhood Influenza Immunizations, January 12 – April 11, 2013, Distance to provider

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Summary

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- Pharmacists administered 6% of total childhood doses during the study period.
- As age increased between 3 and 17 years, the number of doses administered increased at pharmacies
- 40 percent of pharmacy doses, travel of less than 0.5 mile
- 15 percent of children at pharmacy had no previous doses in registry
- Pharmacy vaccinated persons not receiving vaccine annually
- Pharmacists can play an important role in increasing uptake, particularly in children aged 9 to 17 years of age.

References

- Pharm law survey 2013:
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- <http://www.cdc.gov/flu/weekly/>
- Pharmacist Involvement With Immunizations: A Decade of Professional Advancement. Michael D. Hogue, John D. Grabenstein, Stephan L. Foster, Mitchel C. Rothholz. J Am Pharm Assoc. 2006;46(2):168-182.
- <http://www.governor.ny.gov/executiveorder/90>
- http://www.cdc.gov/flu/professionals/vaccination/coverage_1112estimates.htm#data
- New York State Department of Health Bureau of Immunization. Certified Pharmacist Immunizer Survey Report: 2008 – 2011 Reporting Period. December 2011
- Pediatricians' Attitudes About Collaborations With Other Community Vaccinators in the Delivery of Seasonal Influenza Vaccine Allison Kempe, MD, MPH; Pascale Wortley, MD, MPH; Sean O'Leary, MD; Lori A. Crane, PhD, MPH; Matthew F. Daley, MD; Shannon Stokley, MPH; Christine Babbel, MSPH; Fran Dong, MS; Brenda Beaty, MSPH; Laura Seewald, BS; Christina Suh, MD, MPH; L. Miriam Dickinson, PhD, Academic Pediatrics, Volume 12, Issue 1, January–February 2012, Pages 26–35

Questions?

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Pharmacy Contribution to Doses Administered in NYS Regions January 12 – April 12, 2013

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