



Pertussis in New Mexico

Pertussis Planning and Response Group

New Mexico Department of Health

June 20, 2012



Pertussis: the basics

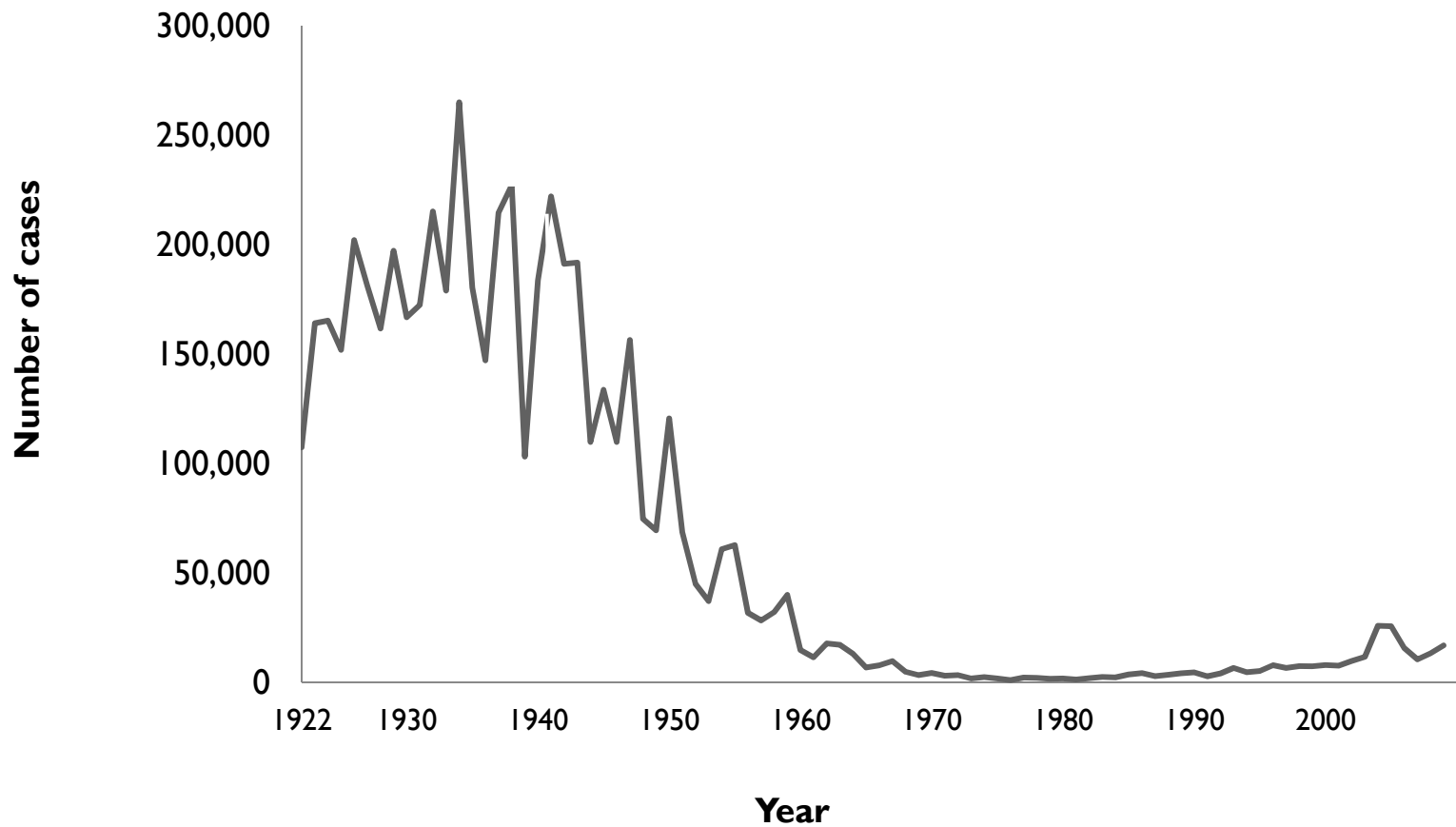
- *Bordetella pertussis*: Gram negative bacillus
- Humans are only known reservoir
- Highly contagious (~80-90% attack rate among non-immune household contacts)
- Droplet transmission
- Incubation: 4-21 days (avg. 7-10)
- 3 stages: catarrhal, paroxysmal, convalescent
- Infants suffer disproportionate burden of illness

Pertussis surveillance

Clinical Case Definition: ≥ 2 weeks cough with any of the following: paroxysmal cough, inspiratory whoop, or post-tussive vomiting

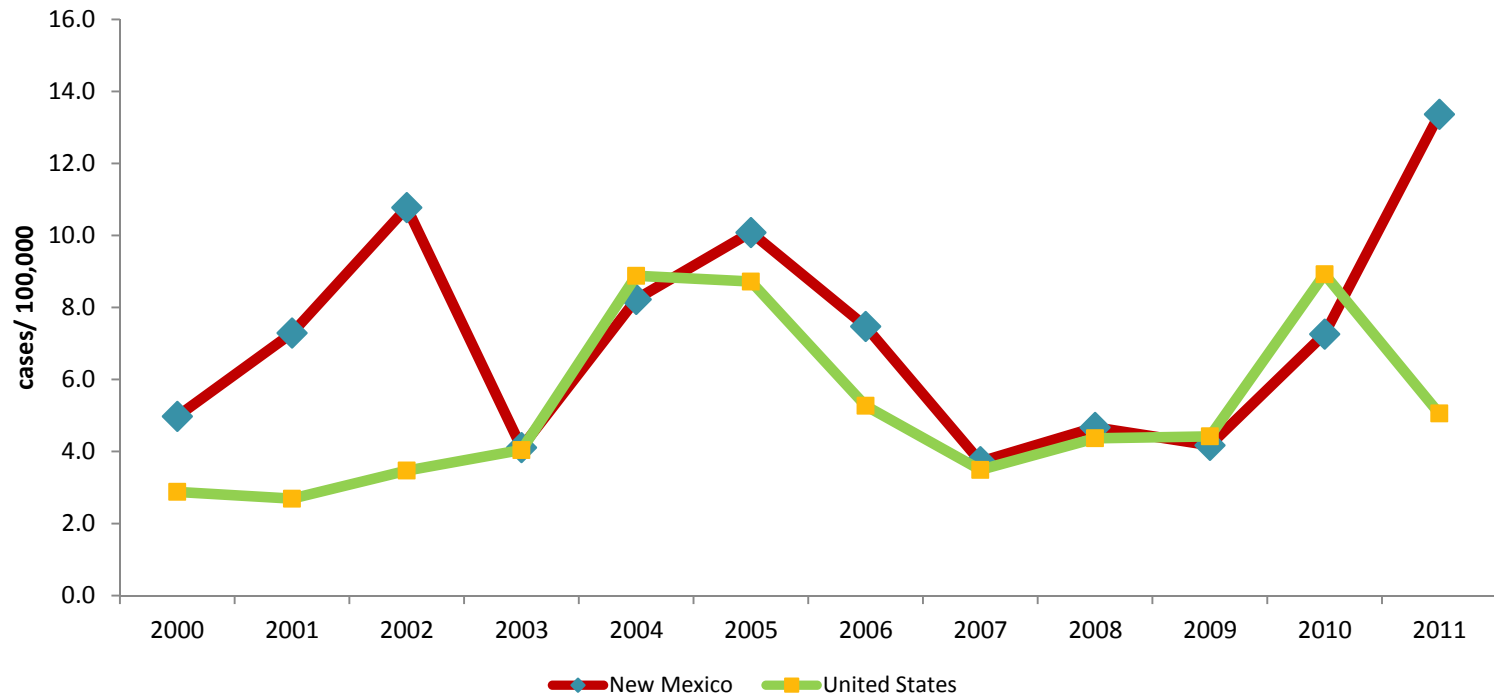
- Confirmed: cough of any duration +culture or case meeting clinical case definition with +PCR
- Epi-linked Confirmed: meets clinical case definition and is linked to confirmed case
- Probable: meets clinical case definition
- Suspect: e.g., positive serologies in a person who doesn't meet clinical case definition

U.S. Reported Pertussis Cases, 1922-2009



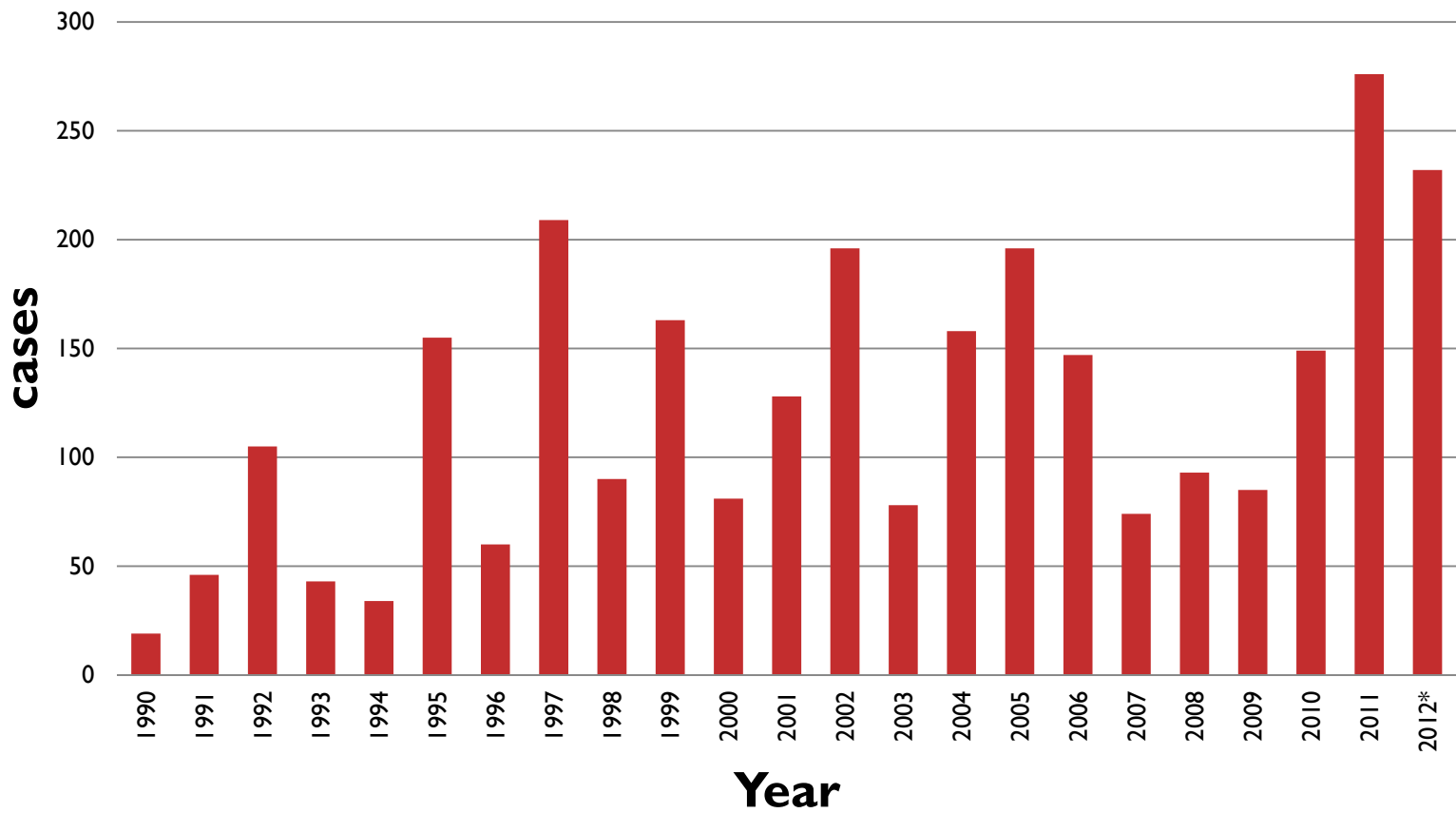
CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System and 1922-1949, passive reports to the Public Health Service

Pertussis rates by year, New Mexico and United States, 2000-2011*



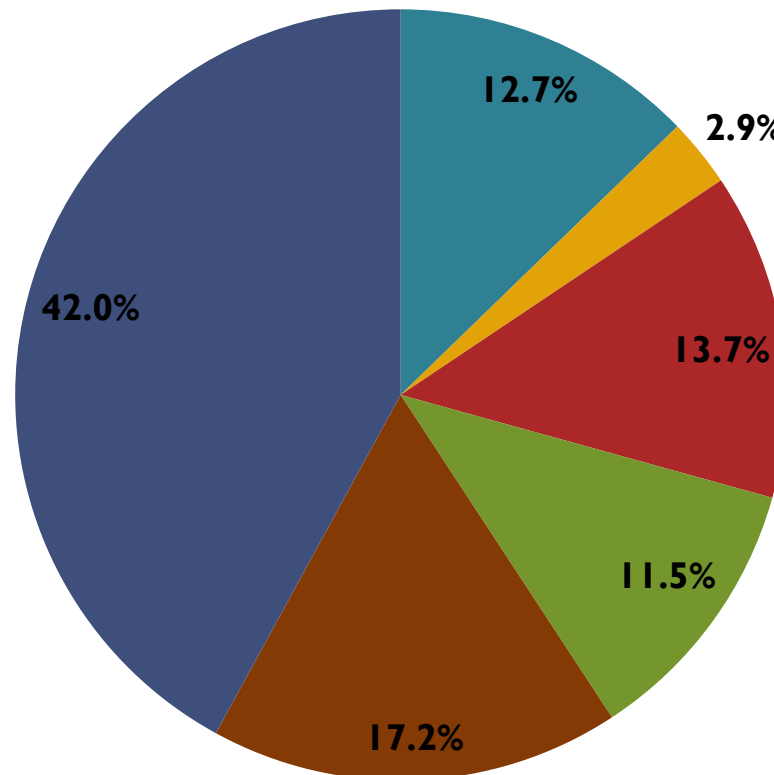
*2011 U.S. rate is provisional and subject to change; updated 11 June, 2012

Pertussis cases by year, New Mexico, 1990 to 2012*



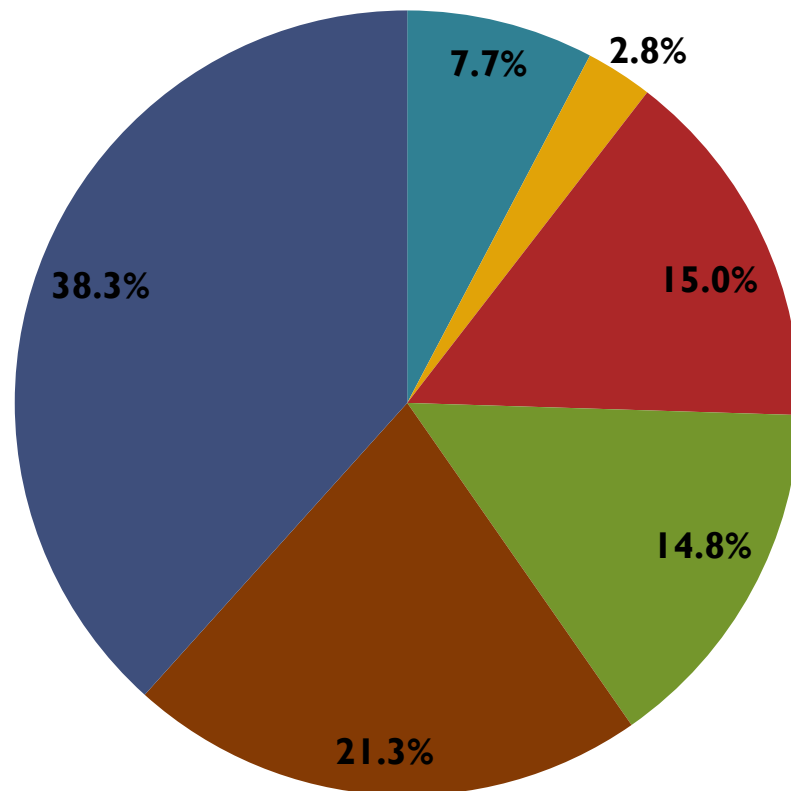
*2012 case count as of 11 June 2012

Pertussis by age group, New Mexico, 2006-2008



2006-2008 total = 314

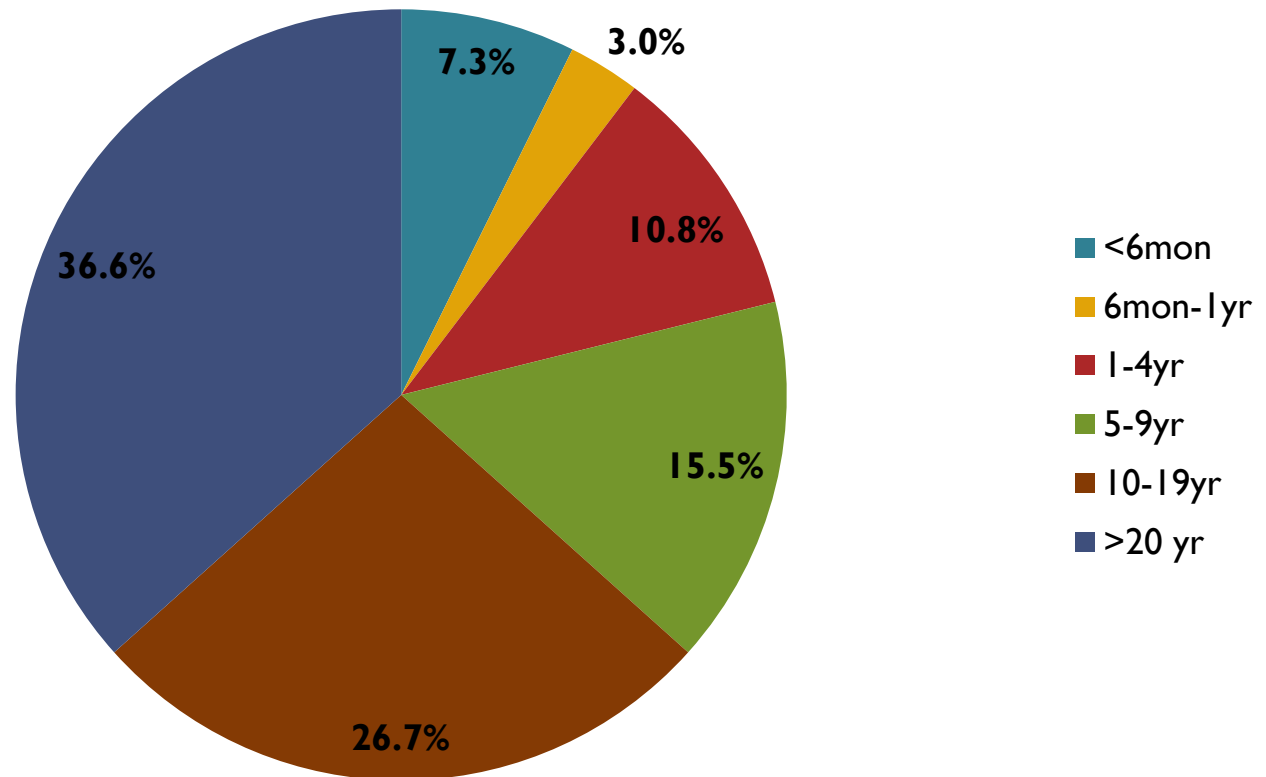
Pertussis by age group, New Mexico, 2009-2011



- <6mon
- 6mon-1yr
- 1-4yr
- 5-9yr
- 10-19yr
- >20 yr

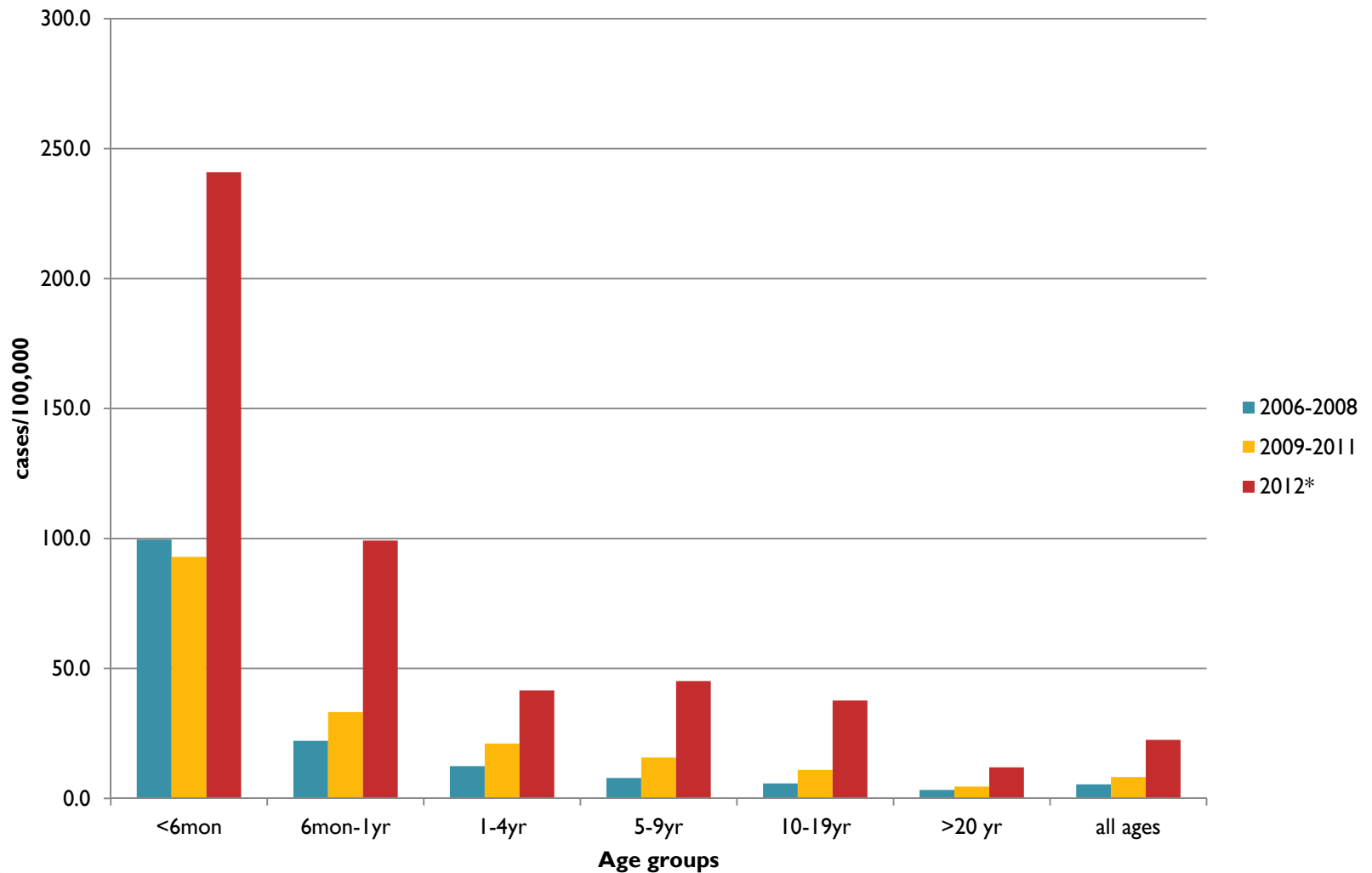
2009-2011 total = 506

Pertussis by age group, New Mexico, 2012*



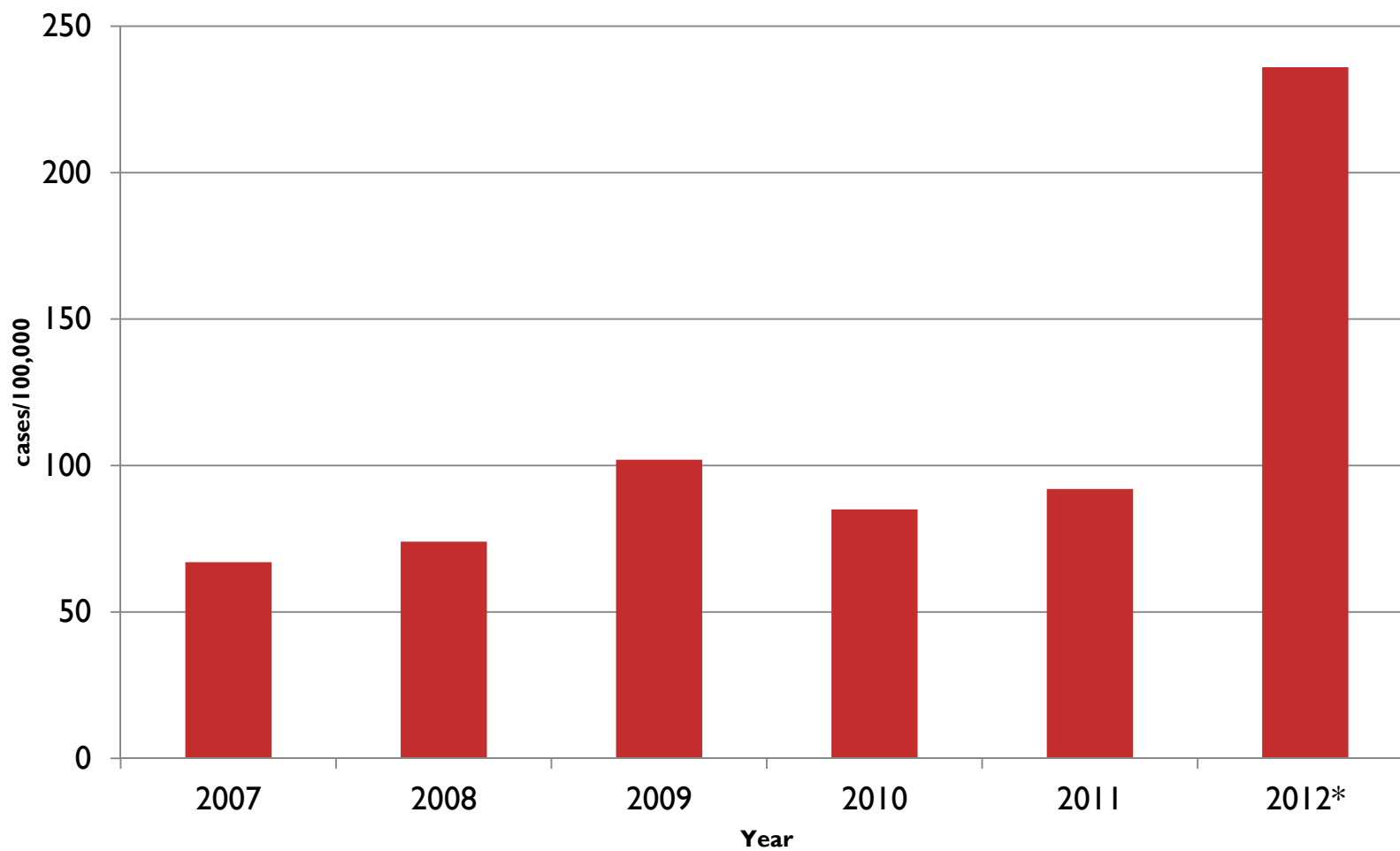
2012 total as of 11 June = 232

Age-specific pertussis rates by age group, New Mexico, 2006-2008 , 2009-2011 and 2012*



*2012 annualized estimate based on cases reported as of 11 June, 2012

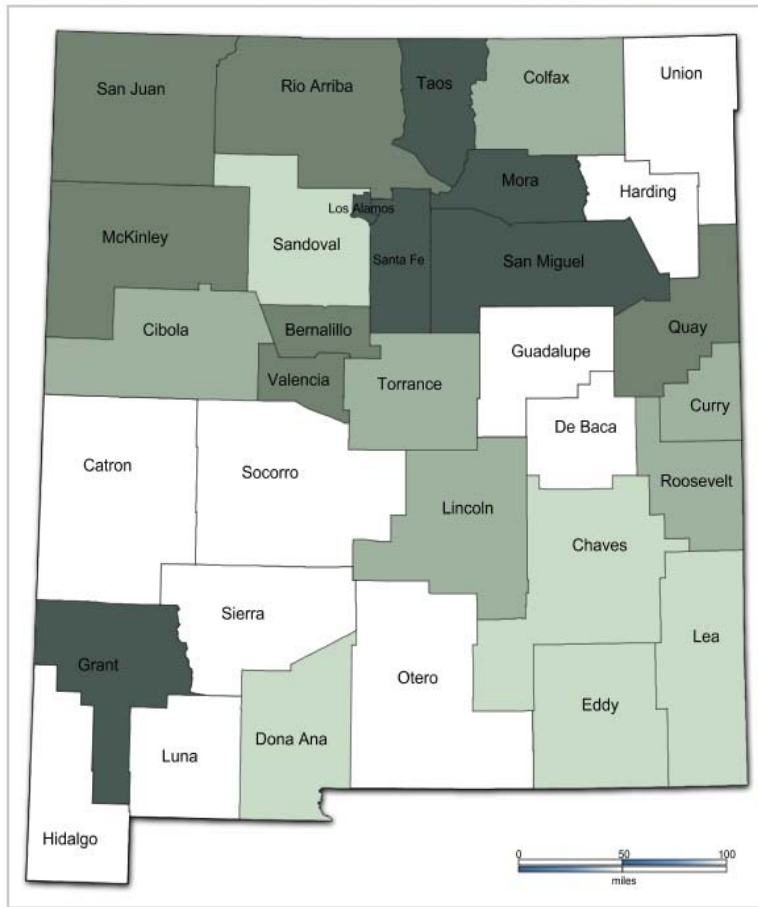
Pertussis rates infants < 6 months of age, New Mexico, 2007-2012*



*Annualized estimated rate for 2012 based on cases <6 months of age reported as of 11 June, 2012.

Pertussis rates by county, New Mexico, 2006-2008 and 2009-2011

Pertussis (Whooping Cough) Cases per 100,000 Population Quartile Map

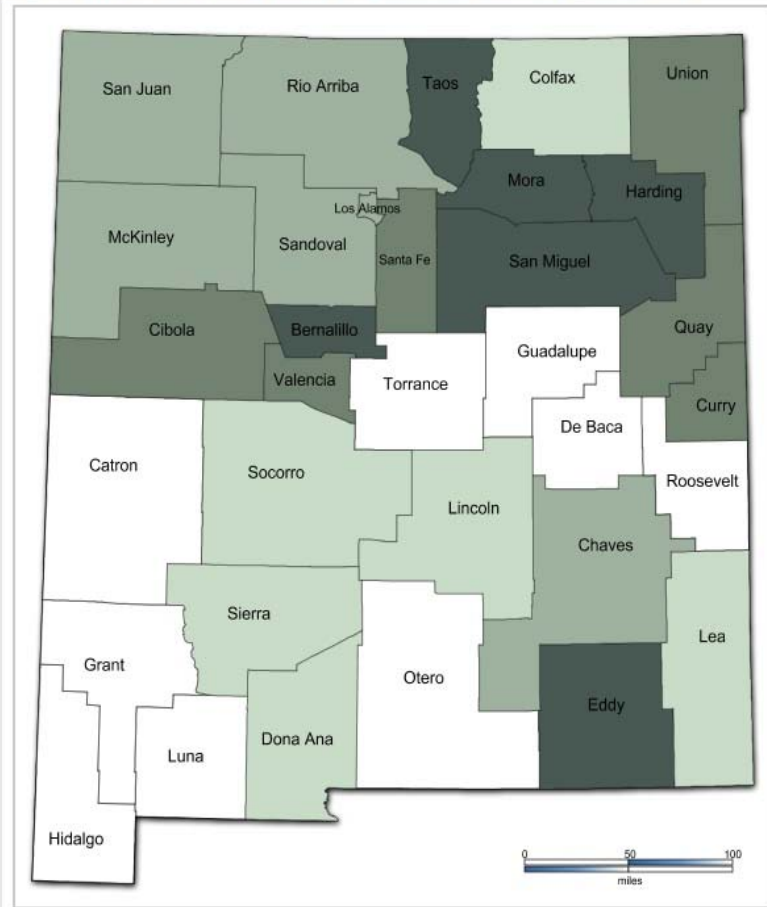


Map Legend

- ** Insuff. Data (count=0, or count=1-3 and population <20)
- 0- 25% Quartile (counties with the lowest rates)
- 25- 50% Quartile
- 50- 75% Quartile
- 75-100% Quartile (counties with the highest rates)

2006-2008

Pertussis (Whooping Cough) Cases per 100,000 Population Quartile Map

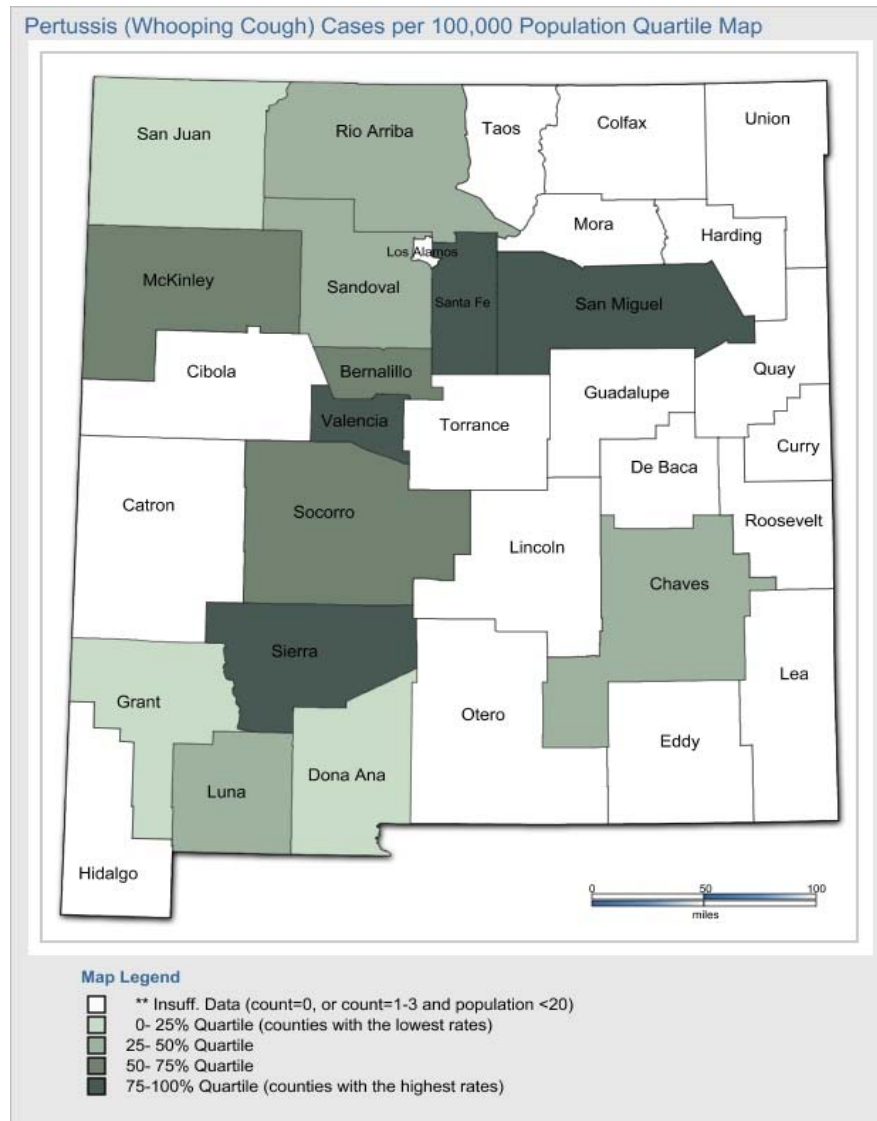


Map Legend

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2009-2011 (maps from NM Indicator-Based Information System)

Pertussis rates by county, New Mexico, 2012 as of 15 June, 2012



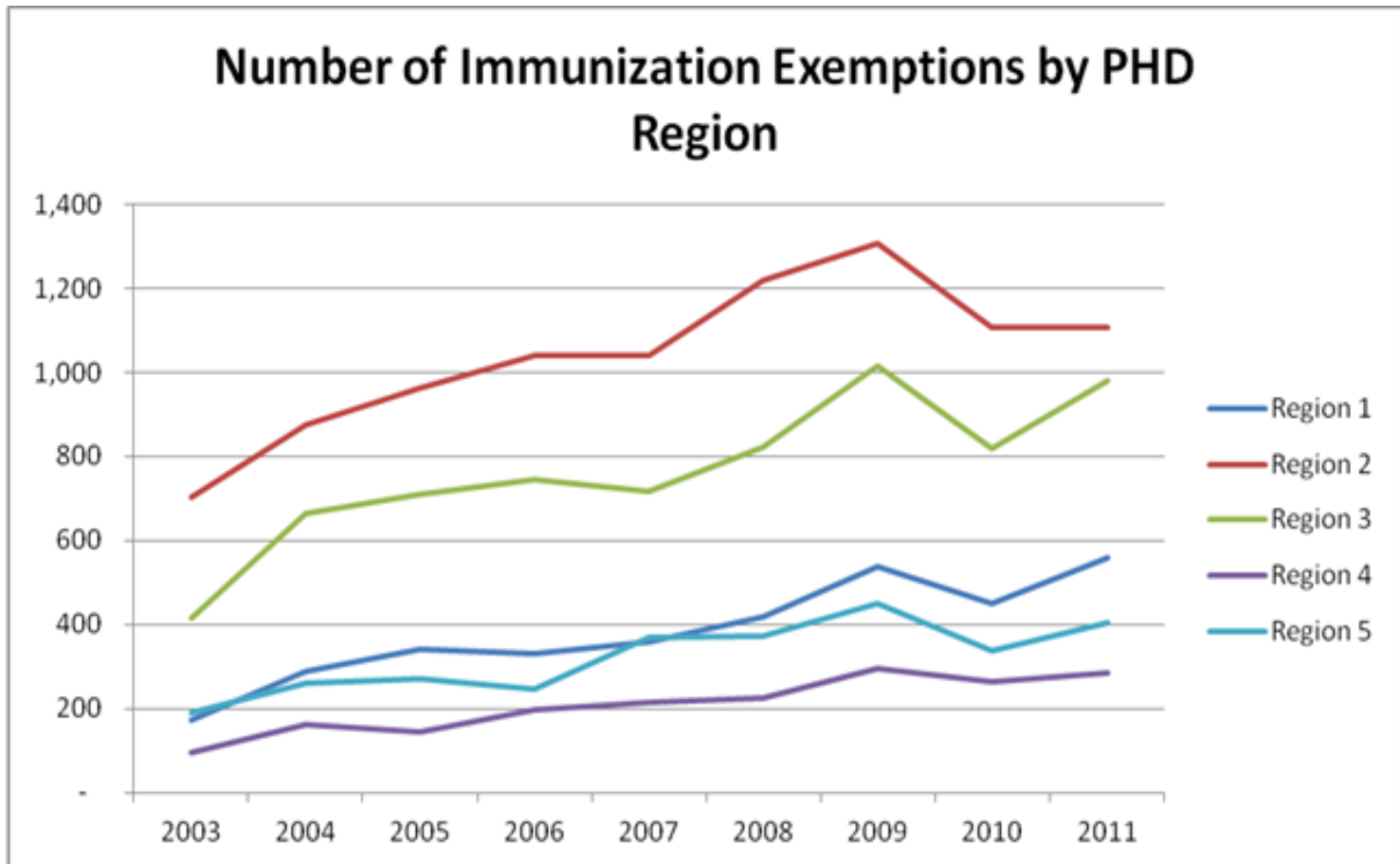
2012 (so far...)

Ranked pertussis rates* per 100,000 pop. by select county, New Mexico

2006-2008	2009-2011	2012 as of 15 June
1. Santa Fe Co. = 19.8	1. San Miguel Co. = 22.7	1. Valencia Co. = 92.4
2. Taos Co. = 15.6	2. Taos Co. = 25.3	2. San Miguel Co. = 64.7
3. San Miguel Co. = 14.6	3. Bernalillo Co. = 14.2	3. Santa Fe Co. = 18.7
4. Bernalillo Co. = 5.5	4. Eddy Co. = 13.6	4. McKinley Co. = 14.0
5. McKinley Co. = 5.5	5. Cibola Co. = 12.3	5. Bernalillo Co. = 11.7
Statewide = 5.3	Statewide = 8.3	Statewide = 11.3

*Rates from New Mexico Indicator-Based Information System; only stable county rates included

What is the role of vaccine exemptors*?



*Data from the New Mexico Immunization Program



Year	Vaccine exemption rates/1,000 children 0-19 years of age by region by year*				
	Region 1	Region 2	Region 3	Region 4	Region 5
2003	1.3	9.3	2.5	1.2	1.6
2004	2.2	11.7	4.0	2.0	2.2
2005	2.6	12.9	4.2	1.8	2.3
2006	2.5	14.1	4.4	2.5	2.1
2007	2.7	14.3	4.2	2.6	3.2
2008	3.2	16.9	4.7	2.8	3.2
2009	4.0	18.3	5.8	3.6	3.9
2010	3.4	15.7	4.6	3.3	3.0
2011	4.2	15.7	5.5	3.5	3.6
Mean	2.9	14.3	4.4	2.6	2.8

*Data for rate calculations from New Mexico Immunization Program and New Mexico Indicator-Based Information System



Thank You!

Questions?

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