

Oregon Pertussis Guidelines: Before & After

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March 18, 2008

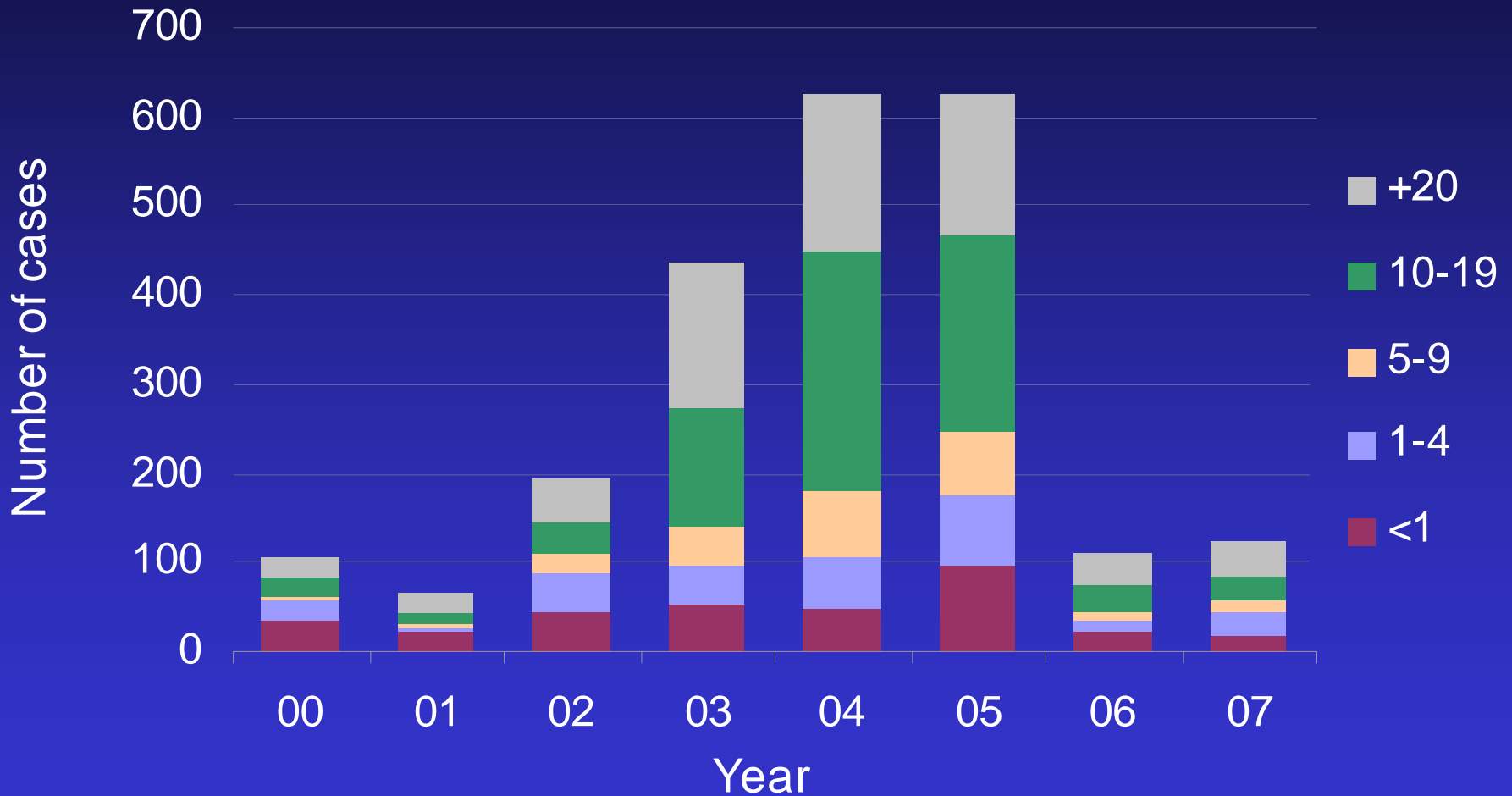
Objectives

- Review Oregon's recent pertussis trends
- Summarize revisions to Oregon's Pertussis Investigation Guidelines
- Present findings of workload impact study

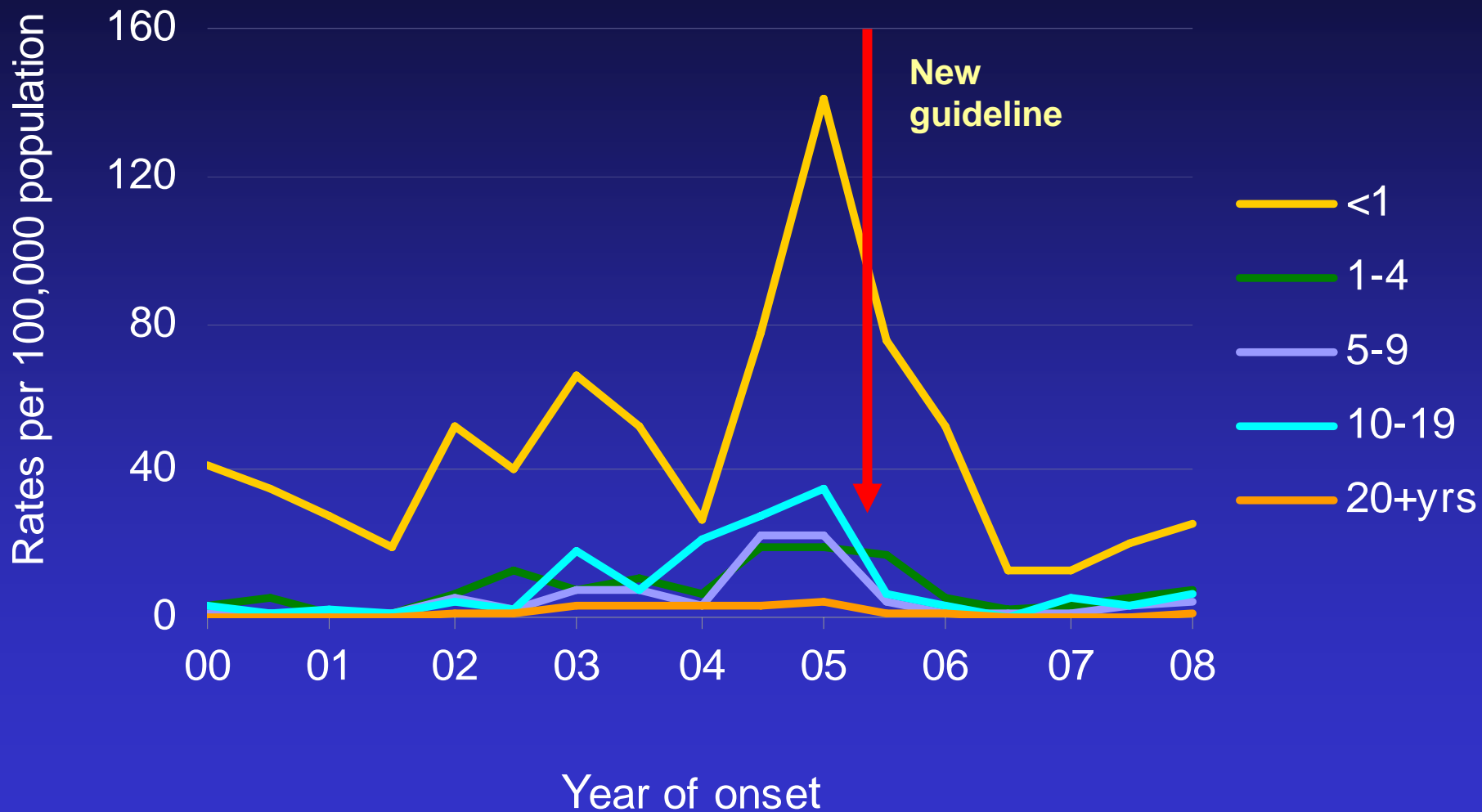
Annual Incidence of Pertussis in US and Oregon



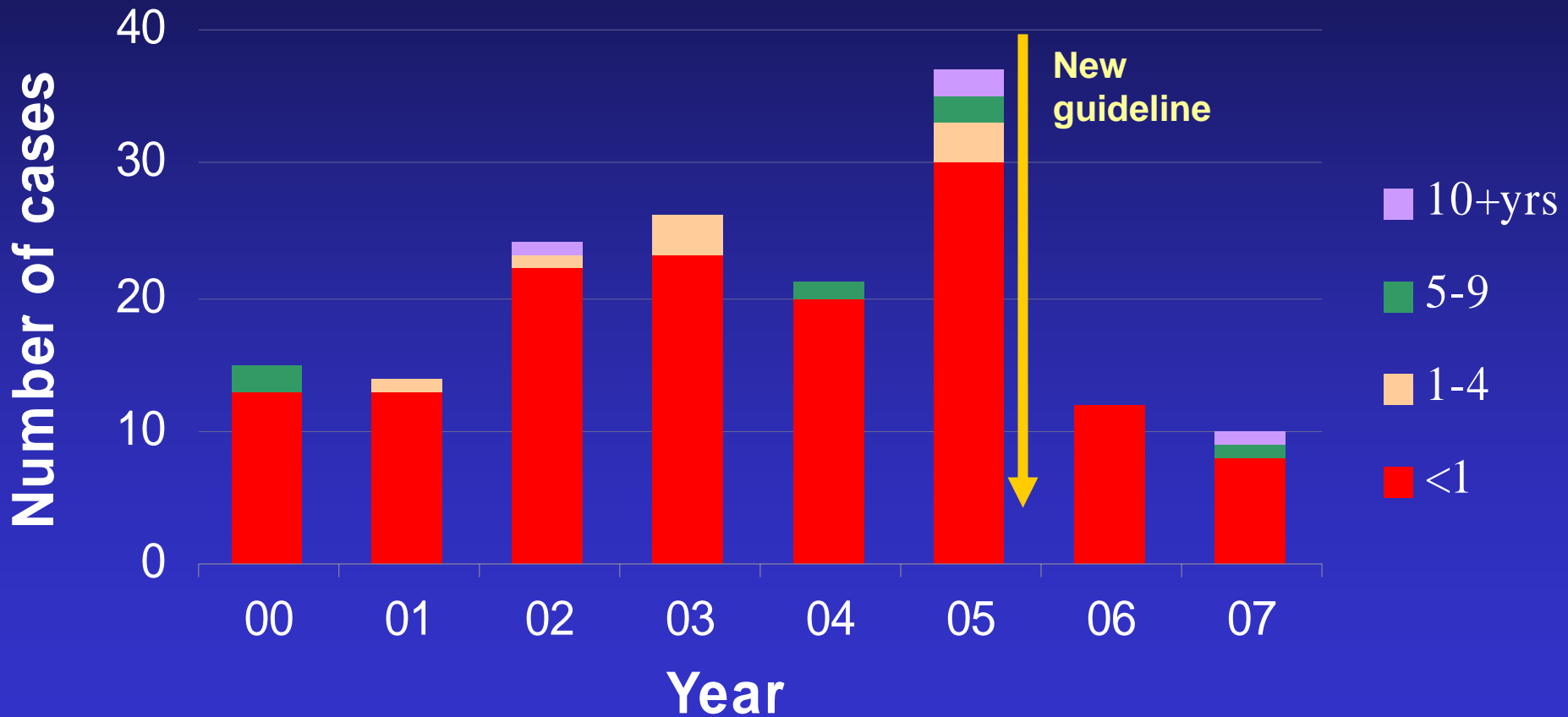
Number of Reported Pertussis Cases by Age Group, Oregon, 2000-2007



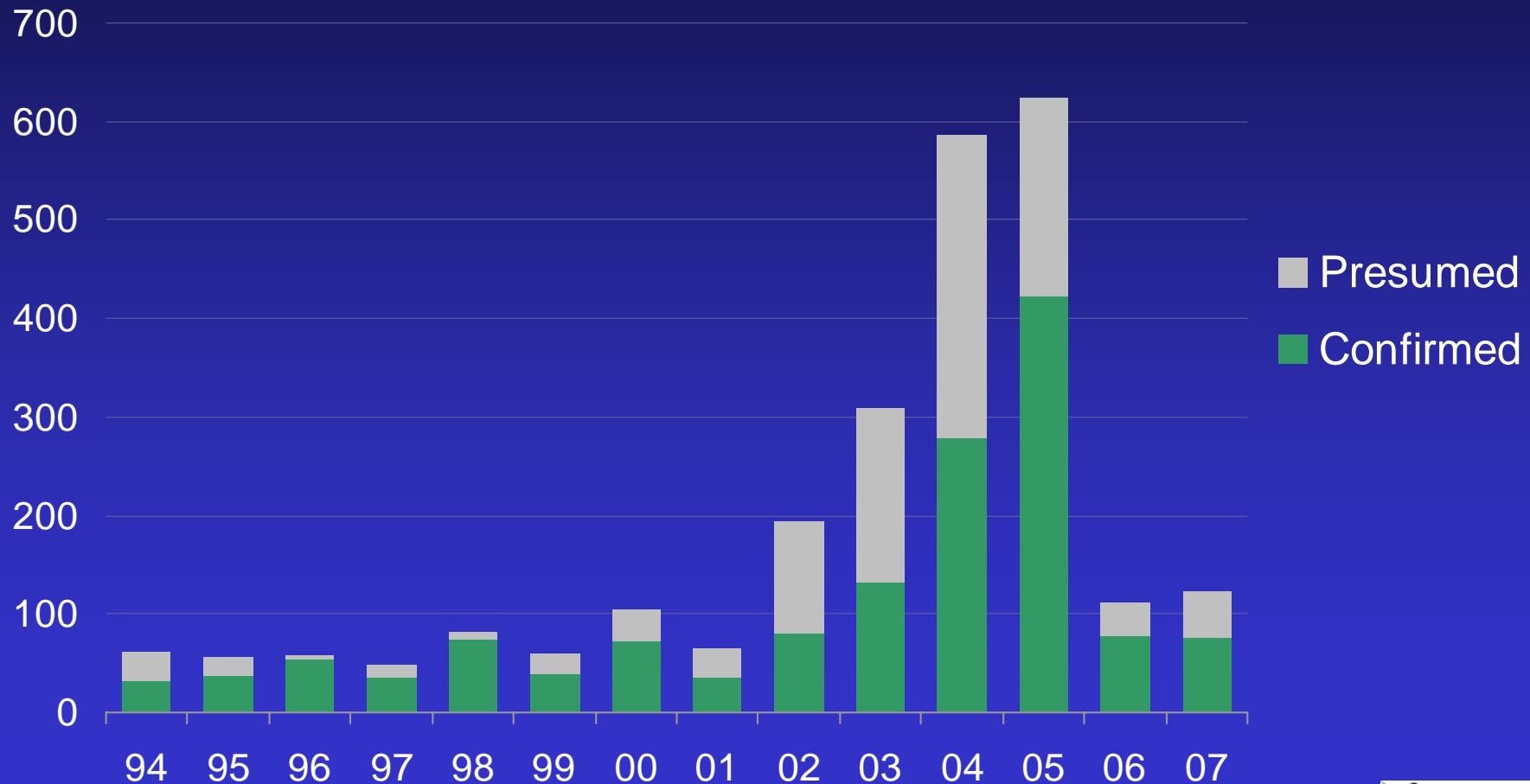
Pertussis Incidence Rates, Oregon, 2000-2007, by Age Group



Number of Pertussis Hospitalizations in Oregon, 2000-2007



Presumed and Confirmed Pertussis in Oregon, 1994-2007



Pertussis Outbreaks (> 2 cases) in OR 2004-2007

Most outbreaks detected in schools



Oregon's Take on Tdap for Schools



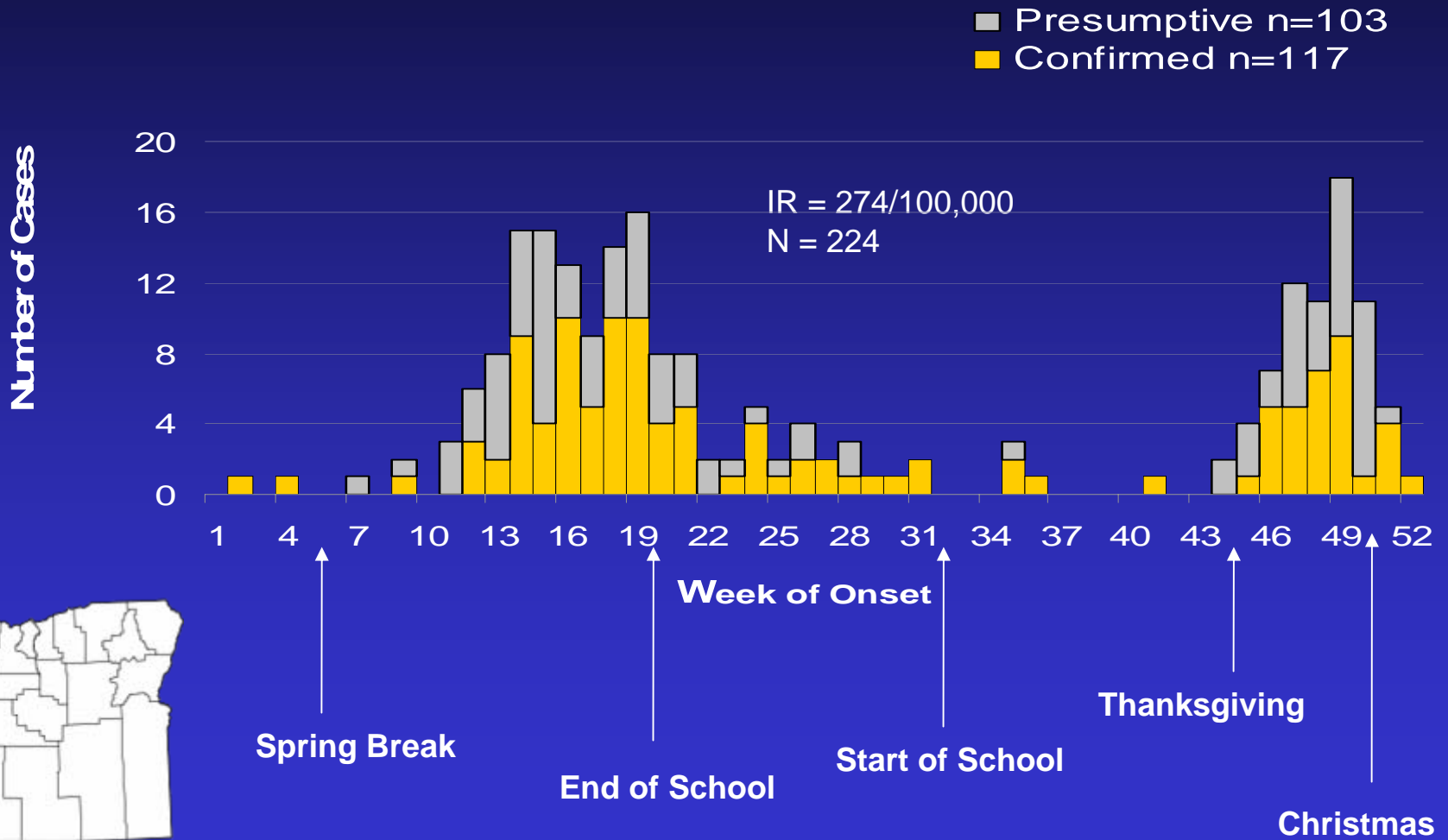
- **Recommendations**

- Routinely at 11-12 yrs if 5 yrs from previous dose
- 1 dose any time during teens if not received at 11-12 yrs
- State-supplied for VFC eligibles and others served at public clinics

- **Requirements**

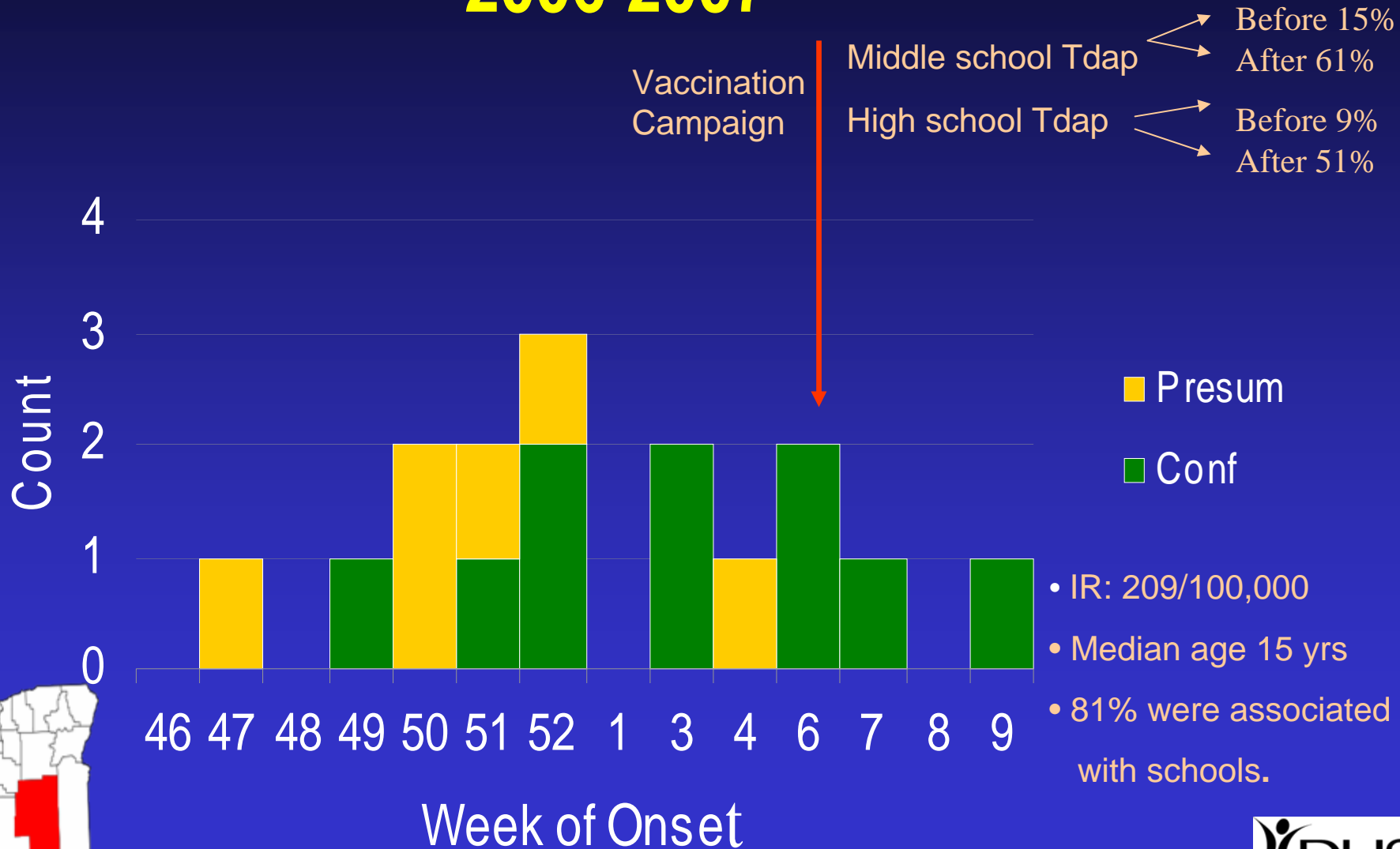
- Pertussis vaccine required for 7th grade starting Fall 2008.
- Requirement will be phased in one grade level per year through 12th grade.

Pertussis in Benton County, 2004

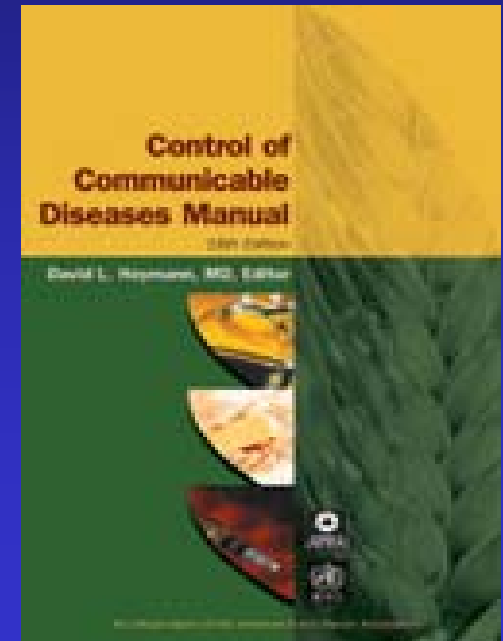
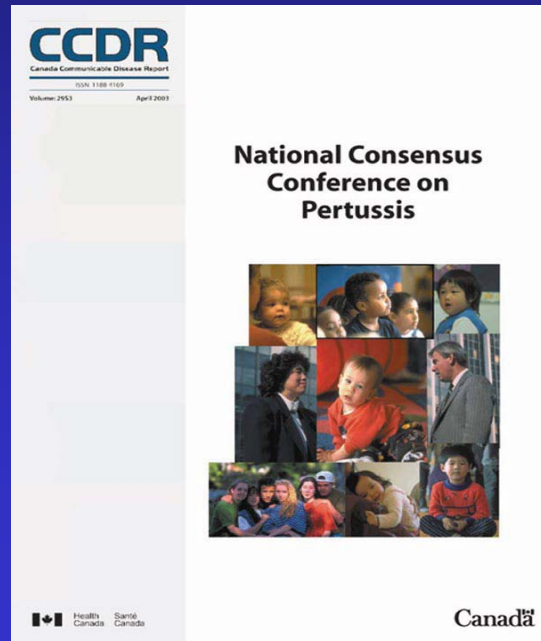
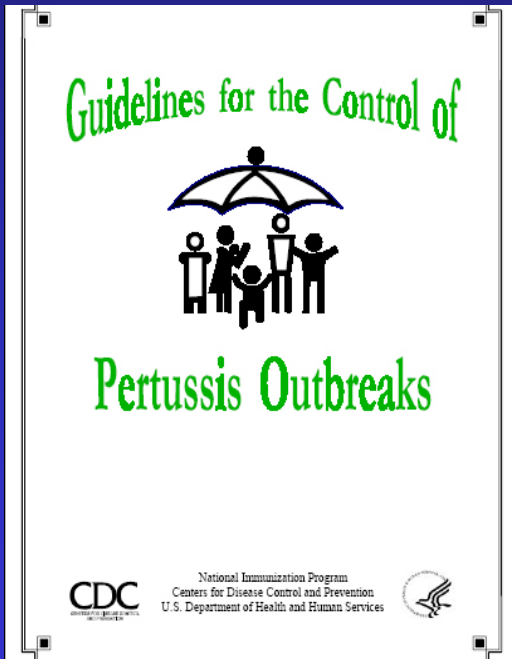


Courtesy of Tasha Poissant, MPH - Benton County Health Dept.

Pertussis in Harney County, 2006-2007



Oregon's Revised Pertussis Guideline



CD Summary

May 3, 2005
Vol. 54, No. 9

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AN EPIDEMIOLOGY PUBLICATION OF THE OREGON DEPARTMENT OF HUMAN SERVICES

PERTUSSIS PROPHYLAXIS — PASSÉ?

Commonly we and most other state health authorities in the US recommend that all close contacts of a pertussis case receive macrolide prophylaxis to prevent further

CAN ANTIBIOTICS PREVENT TRANSMISSION?

In the quest to control pertussis, antibiotics are used in two ways: treatment of contagious cases and prophylaxis

effect¹; 15 households needed to receive prophylaxis in order to prevent cases in one.

The only randomized, placebo-controlled trial of prophylaxis for pertussis

Pertussis

1. DISEASE REPORTING

A. Purpose of Reporting and Surveillance

1. To prevent illness and death among exposed, high risk persons.
2. To vaccinate exposed, underimmunized children.
3. To educate exposed persons about the signs and symptoms of pertussis in order to facilitate prompt diagnosis and treatment and prevent further spread.
4. To monitor the epidemiology of pertussis in Oregon.

Pertussis		FOR STATE USE ONLY # _____ <input type="checkbox"/> case report <input type="checkbox"/> confirmed <input type="checkbox"/> presumptive <input type="checkbox"/> interstate	
Date / time investigation initiated: ___/___/___ :___ am ___ pm COUNTY _____			
CASE IDENTIFICATION			
Name _____ Phone(s) _____ <small>LAST, first initial (M.A.) (state home (H), work (W), message (M))</small>		SOURCES OF REPORT (check all that apply) <input type="checkbox"/> Lab <input type="checkbox"/> Infection Control Practitioner <input type="checkbox"/> Physician <input type="checkbox"/> _____	
Address _____ <small>Street City County Zip</small>		Name _____	
e-mail address _____			

Key Features of Pertussis Guideline

Case definitions

- Confirmed case= Culture or PCR + clinical signs
- Presumptive case=Epi link to a confirmed case + clinical signs.

• Prophylaxis

- Infants
- Pregnant women
- Households with above

• Antibiotic options

- Azithro 30/kg any duration
- Erythromycin 40/kg/day max 1gr/day for 7 days

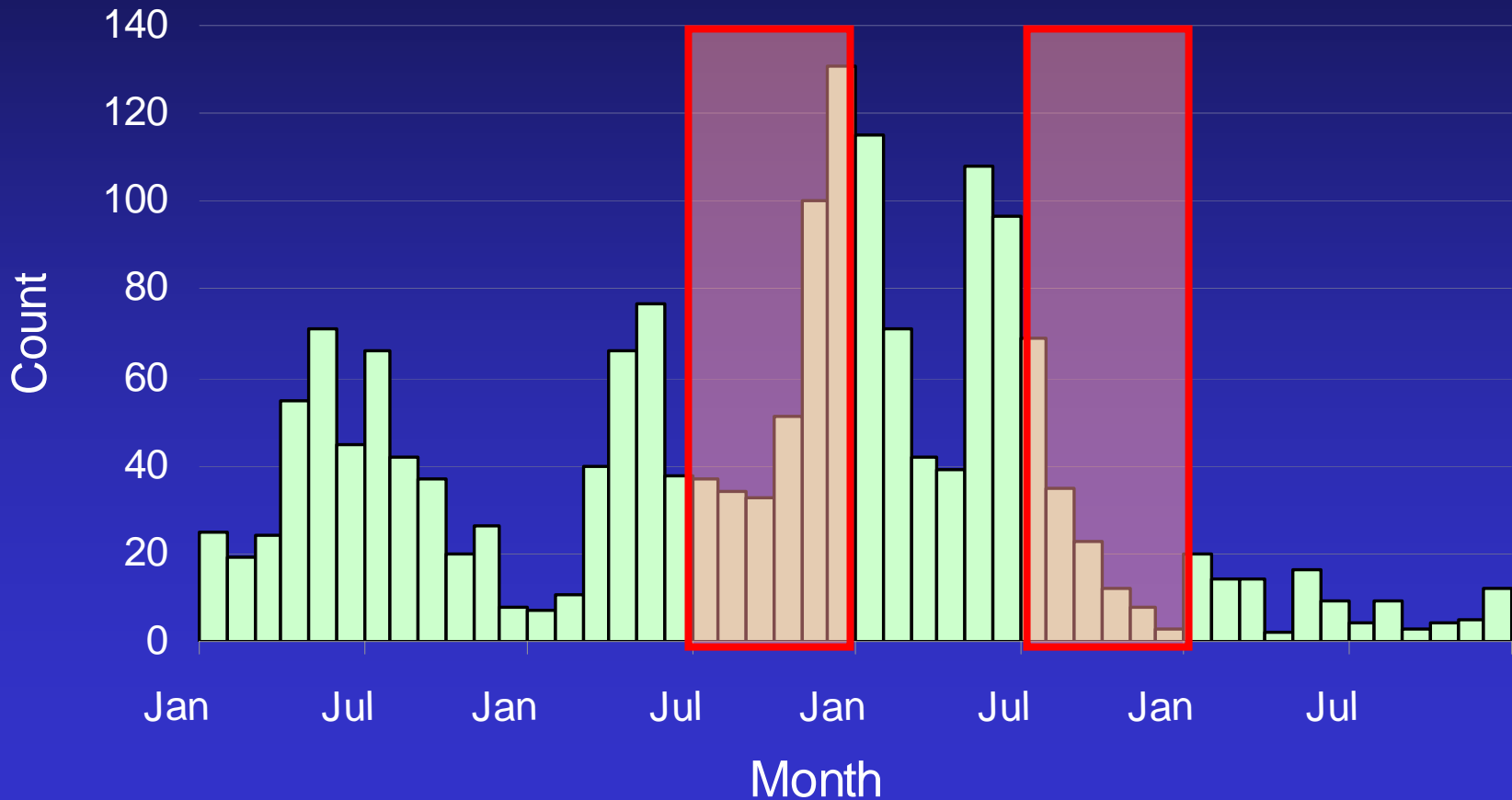
Evaluation of New Pertussis Guideline



Methods:

- A retrospective review was conducted of all reported patients who were diagnosed with pertussis before and after guideline change **07/2004 - 12/2004** and **07/2005 - 12/2005**
- A survey also was conducted to assess the impact of the new guideline on the LHDs workload

Pertussis by Month, 2003-2007



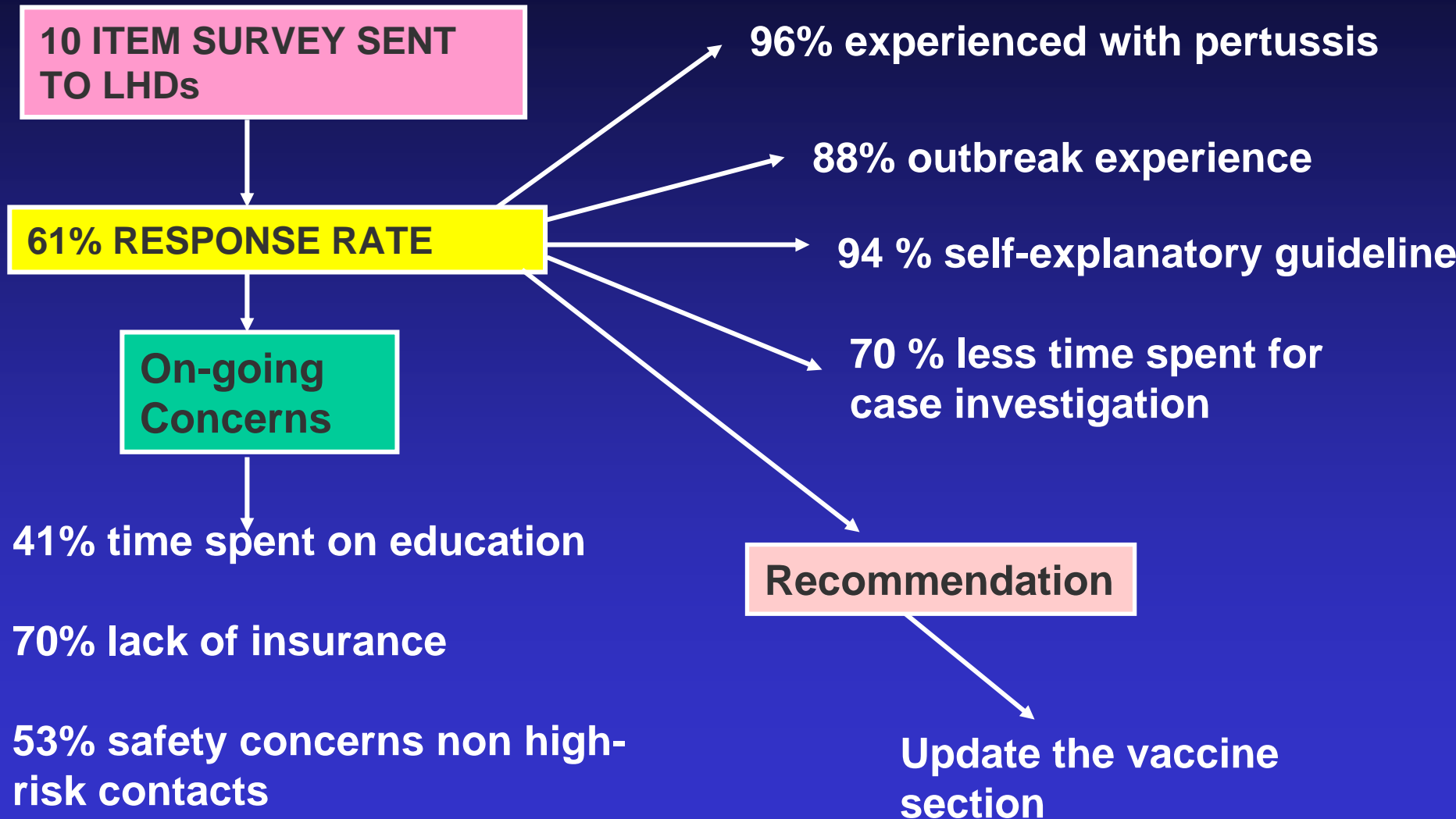
Pertussis in Oregon, 2004-2005

	Old Guideline 7/04-12/04	New Guideline 7/05-12/05
Cases	384	150
Lab-confirmed	180 (47%)	105 (70%)
Mean age	17.3 yrs	13.7 yrs
Hospitalizations	14 (93% infants, 86% < 4mos)	11 (82% infants, 72% < 4mos)

Pertussis in Oregon, 2004-2005

	Old Guideline 7/04-12/04	New Guideline 7/05-12/05	Statistics
Contacts	1900 (avg=5/case; median=3)	569 (avg=4/case; median=3)	
Prophylaxis	1596 (84%)	221 (39%)	RR=1.8 95%CI (1.73 2.04) P<0.001
High Risk (HR) contacts	39 (2%)	41 (7%)	RR=2.1 95%(1.74-2.74) P<0.001
Time to prophylax HR	Mean=2 days Median=1 day	Mean=1.7 days Median=1 day	Not sig.
Secondary cases	25 (1.3%)	4 (0.7%)	Not sig.

Pertussis Guideline Survey of LHDs



Limitations

“Oh, that’s too bad...”

- Retrospective Study
- Incomplete ascertainment
- Testing bias
- Guideline changed
- Case report changed

SUMMARY

- The number of prescriptions for prophylaxis per case has dropped significantly
- There is a significant increase in the proportion of infants and pregnant women identified
- LHDs report spending less time on the case investigations

Acknowledgements

- **OPHD**

Paul Cieslak, MD
Martha Skiles, MPH
Yangdol Sherpa
Michelle Barber, MS
Sara Beaudrault, MPH
Stacy de Assis Matthews, MPH
Kathy Scott, DrPH

- **CDC**

Tejpratap Tiwari, MD

- **LHDs**

Eileen Marma, RN
Mary Shaughnessy, RN
Tasha Poissant, MPH
Karen Landers, MD
Amy Sullivan, PhD
Trevor Hostetler, RN
Cheryl Keniston, RN
Melanie Thomas, RN

- **BC CDC**

Karen Pielak, RN, MSN



THANK YOU