

SAGE Working Group on Pertussis Vaccines

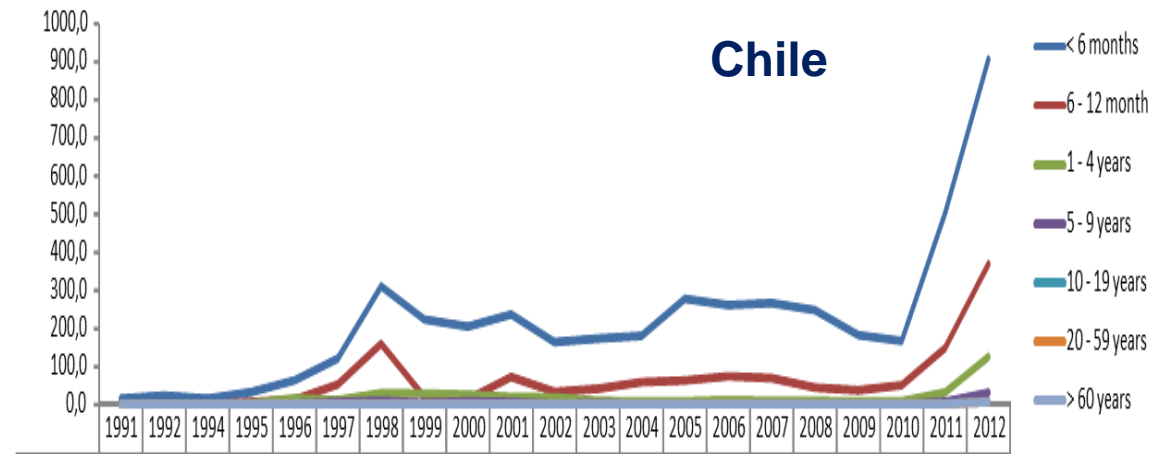
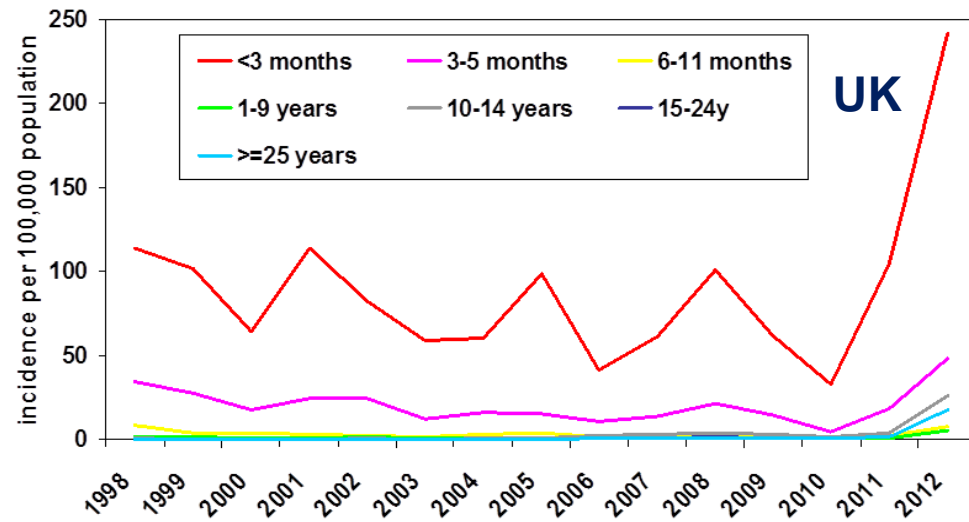
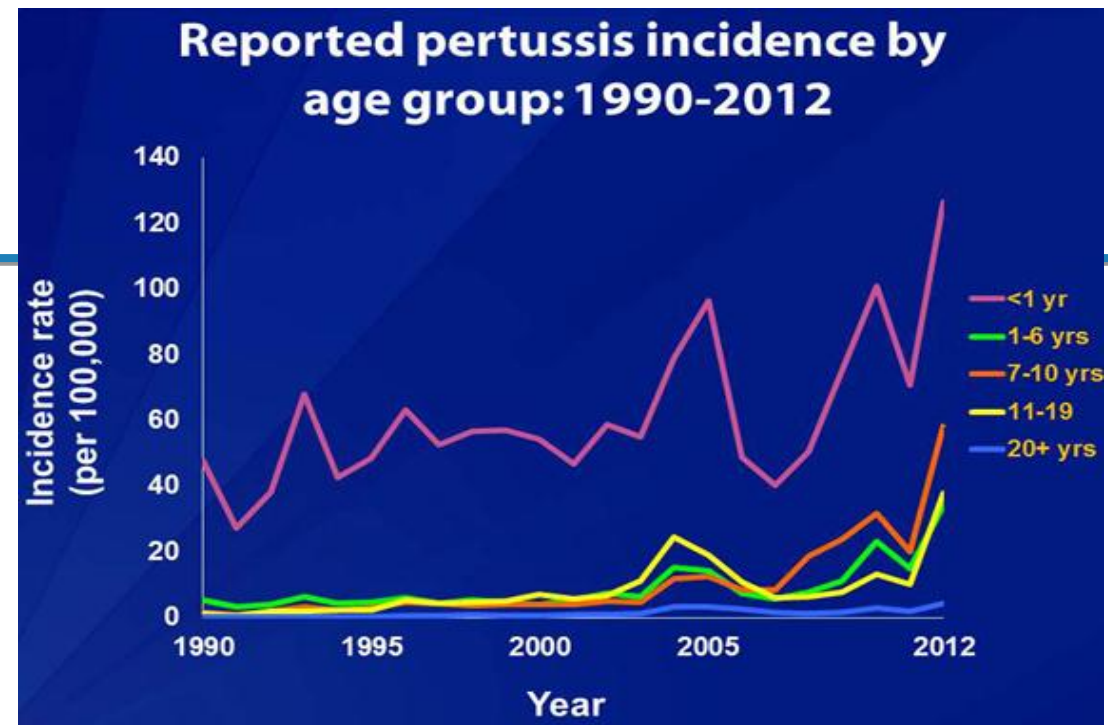
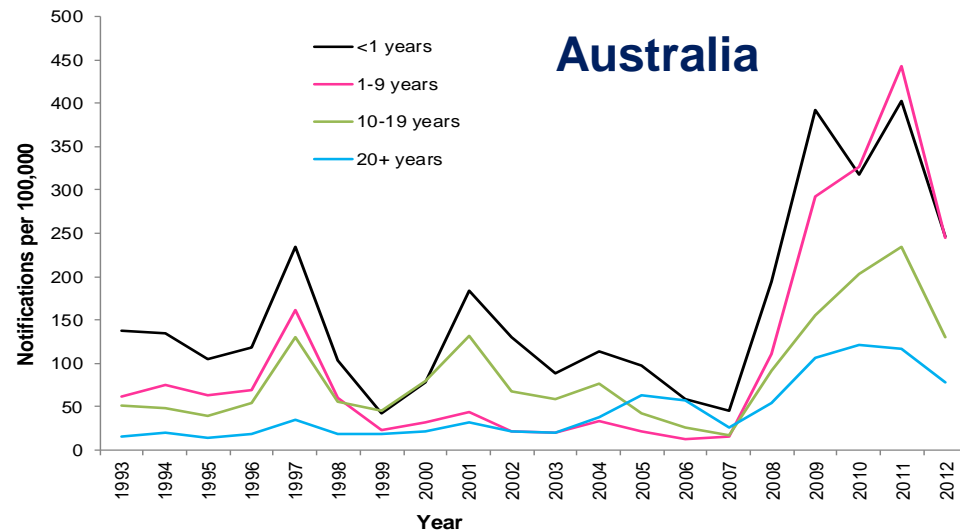
Introduction and Session Overview

C. A. Siegrist, SAGE Pertussis Working Group Chair

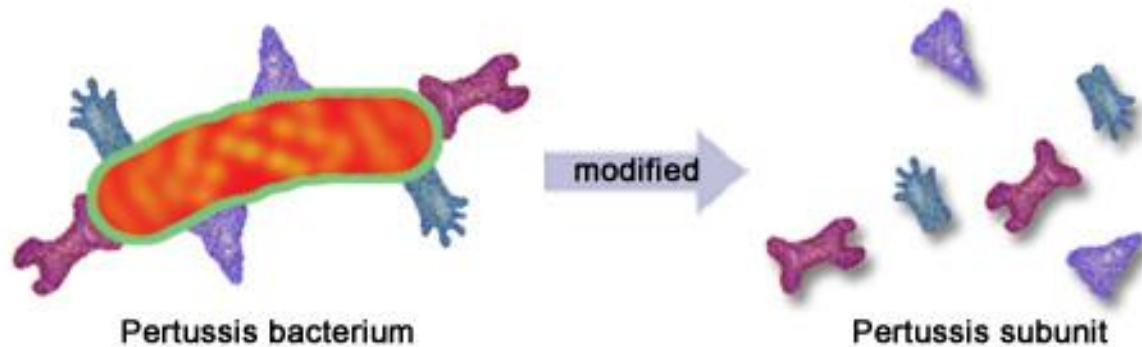
SAGE Meeting

April 1-3, 2014

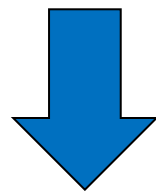
Whooping cough resurgence...



Resurgence ← acellular pertussis vaccines?



- Lower protective efficacy?
- Shorter duration of protective efficacy ?
- Other factors ?



Appropriate immunization strategies ?

Terms of Reference

1. Review epidemiological data from selected countries using aP and/or wP vaccines
 - Evaluate evidence for pertussis resurgence with emphasis on severe pertussis in very young infants
 - Evaluate evidence for hypothesis that resurgence is due to shorter lived protection from aP vaccines
2. Review evidence on effectiveness of 1 or 2 doses of pertussis vaccines against severe disease and death in young infants
3. Review evidence on effectiveness of three strategies to reduce severe disease and death from pertussis in very young infants
4. Review evidence for optimal primary vaccination scheduling and timing of booster dose(s)
5. Review evidence that changes in circulating pertussis strains had an adverse impact on the effectiveness of aP or wP vaccines
6. Propose updated recommendations for SAGE consideration on use of pertussis vaccines

Working Group Composition

- Claire-Anne Siegrist, Switzerland (Chair after February 2014)
- Elizabeth Miller, UK (Chair to February 2014)
- Thomas Clark, USA
- Kathryn Edwards, USA
- Nicole Guiso, France
- Scott Halperin, Canada
- Teeranart Jivapaisarnpong, Thailand
- Daniel Levy-Bruhl, France
- Peter McIntyre, Australia
- Gabriela Moreno, Chile
- Piyanit Tharmaphornpilas, Thailand
- Carl Heinz Wirsing von König, Germany

Terms of Reference

- ✓ 1. **Review epidemiological data from selected countries using aP and/or wP vaccines**
 - Evaluate evidence for pertussis resurgence with emphasis on severe pertussis in very young infants
 - Evaluate evidence for hypothesis that resurgence is due to shorter lived protection from aP vaccines
- ✓ 2. **Review evidence on effectiveness of 1 or 2 doses of pertussis vaccines against severe disease and death in young infants**
- ✓ 3. **Review evidence on effectiveness of three strategies to reduce severe disease and death from pertussis in very young infants**
4. *Review evidence for optimal primary vaccination scheduling and timing of booster dose(s)*
- ✓ 5. **Review evidence that changes in circulating pertussis strains had an adverse impact on the effectiveness of aP or wP vaccines**
6. *Propose updated recommendations for SAGE consideration on use of pertussis vaccines*

Work Remaining

- 4. Review evidence for optimal primary vaccination scheduling and timing of booster dose(s)**
 - To be completed summer 2014 with SAGE presentation in October 2014
 - Combined review with diphtheria, tetanus toxoid, and tetanus toxoid vaccine schedules
 - 4-component framework
 - Previously used for HiB, pneumococcal conjugate, and rotavirus vaccine reviews
 - Age-specific incidence, systematic review of effectiveness and safety of schedules, operational considerations, models/ICEA
- 6. Propose updated recommendations for SAGE consideration on use of pertussis vaccines**
 - To be revisited after scheduled review at October 2014 SAGE meeting
 - Brief update after April 2014 SAGE meeting

Session Overview

- Summary of evidence and conclusions
 - **Potential pertussis resurgence and comparison of aP and wP impact**
 - E. Miller, Member of SAGE pertussis vaccine working group
- Summary of evidence and conclusions
 - **Strategies to prevent early mortality**
 - E. Miller, Member of SAGE pertussis vaccine working group
- Review of proposed recommendations
 - C. A. Siegrist, Chair of SAGE pertussis vaccine working group
- Discussion