



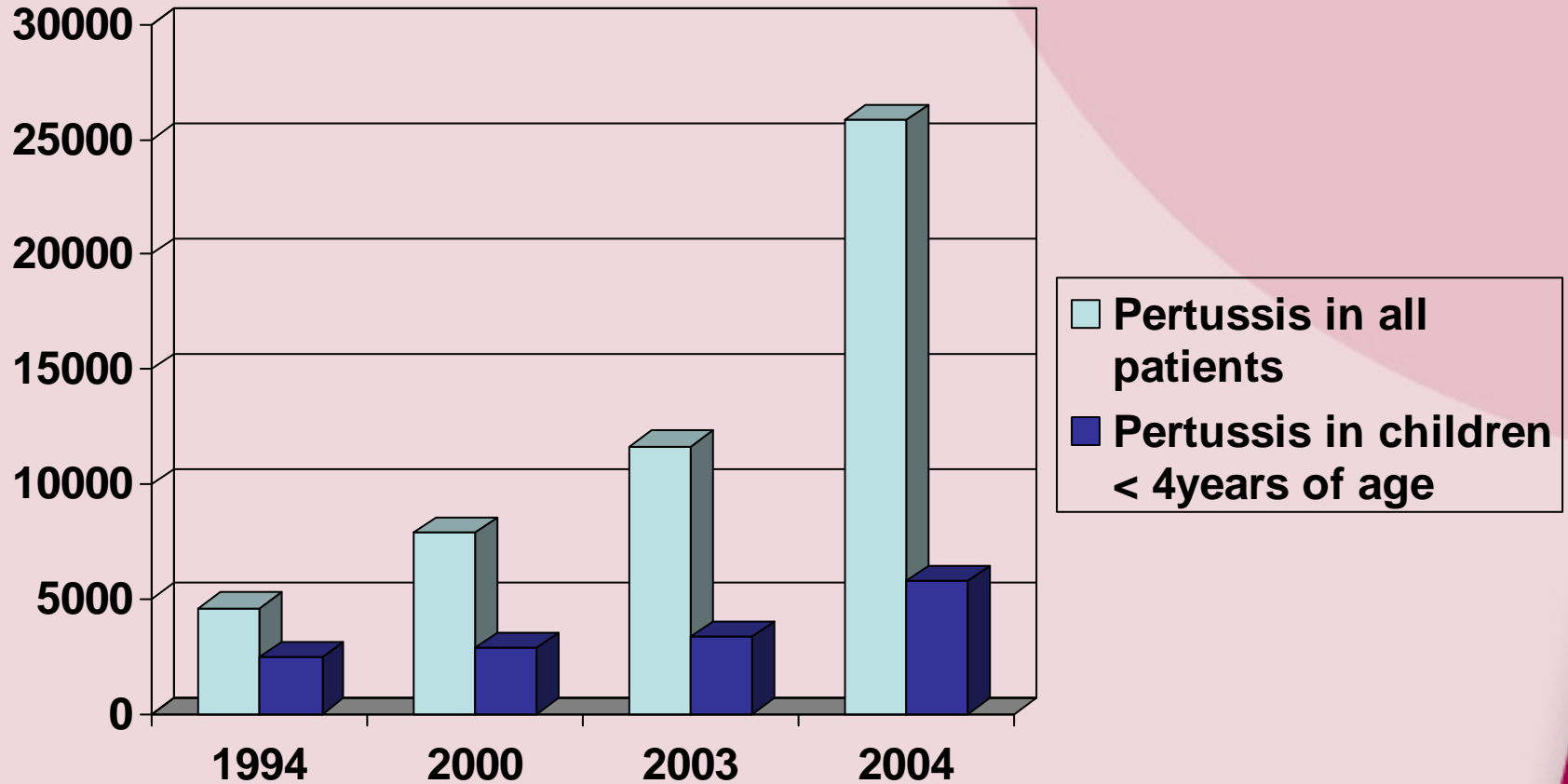
Creating A Hospital Program To “Cocoon” Newborns Against Pertussis & Influenza

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Recent History of Pertussis

- Pertussis is on the rise worldwide
- Several theories as to the cause
- Waning of vaccine-induced immunity
- Pertussis under-diagnosed and under-reported in adolescents and adults
- Spectrum of disease has a wide range
- Less likely to have positive cultures
- Serological diagnosis not standardized

Rise of Pertussis Cases Reported to the CDC



Who Was the Source?

- According to a 2004 CDC study, the source in 43% of cases was:
 - Mothers = 32%
 - Siblings = 20%
 - Fathers = 15%
 - Grandparents = 8%
 - Others = 25%
 - **A FAMILY MEMBER IN 75% OF THESE INFANT CASES!**
- According to a 2007 study, the source in 76%-83% of cases was:
 - Parents = 55%
 - Siblings = 16%
 - Aunts/Uncles = 10%
 - Friends/cousins = 10%
 - Grandparents = 6%
 - PT caretakers = 2%
 - **FAMILY/HOUSEHOLD MEMBERS !**

So what is “Cocooning”?

- The Global Pertussis Initiative (GPI) of 2001 recommended implementation of the cocoon strategy which is defined as:
 - “Immunization of family members and close contacts of the newborn”

So How Does “Cocooning” Work???

- I will need one fragile volunteer to play the part of a darling newborn
- I will need 2 cruel volunteers to play the parts of pertussis and influenza
- I will need 4 kind and caring volunteers to play the parts of family members
- I will need 2 educated volunteers to play the parts of the health care workers

Elements of a Community “Cocooning” Program

- The Ideal:
 - All HCPs
 - All School systems
 - All Health Departments
 - All hospitals start a “Cocooning” Program
- The Reality:
 - Few HCPs
 - Some School systems starting
 - Many Health Departments
 - Few hospitals currently have “Cocooning” Programs

The Power of Collaboration

"Cocooning" Program For
Renown Regional Medical Center
Antepartum, Intrapartum, Postpartum,
NICU, Pediatrics and all HCPs and ancillary staff

Renown Regional Medical Center
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Nevada State Health Division
Doug Banghart RN, MSPH
State Co-ordinator Immunization Action Plan

Washoe District Health Department
Jeanette O'Brien BSN, RN
State Vaccine Program

Setting for Our “Cocooning” Program



- 144 years of service to this community
- Renown Regional Medical Center
- Reno, Nevada
- 859 bed private, not-for-profit hospital
- Tertiary care facility
- 4,800 births/year
- Growing population

Collaboration Is Valuable In Building A "Cocooning" Program

1. FUNDING

- * Can come from a variety of sources

2. VACCINE

- * Transport, storage and tracking

3. EDUCATION

- * HCP, RNs, other staff and new parents

4. DOCUMENTATION

- * HIPPA, Consents, Envelopes and WebIZ

Planning The Implementation of a “Cocooning” Program

- Key members attended planning meetings:
 - **Pharmacy**
 - **Medical Records**
 - **Director of Maternal Child Services**
 - **Nursing management of AP/IP/PP/NICU/Peds**
 - **Hospital Attorney**
- Set a date to start!
- Take plan to Medical staff meetings
- Take plan to Nursing staff meetings
- Take plan to families of newborns

Our Target Populations

1. Health Care Workers

- Pediatricians
- OB/GYN Physicians
- FP Physicians
- CNM/APNs

2. Newly delivered mothers

3. Husbands or S/O of the new mothers

4. Occasionally key family members who would provide care for the newborn

Some Enthusiastic OBs and Nurses On Labor and Delivery



The Process Flow Of Our “Cocooning” Program

- NSHD transports vaccines to Renown Regional
- Pharmacy logs/stores/dispenses (Diebold)
- Printing provides English/Spanish paperwork
- Education/consents done on L&D or PP
- Tdap/Flu vaccine given on AP, PP, NICU, Peds
- Nurses log all doses & recipients on each unit
- All doses recorded & Pharmacy reorders
- Non-Patient consents put in envelope that is sealed & kept in newborn/infant chart in HIS
- All doses recorded in WebIZ
- * Demographic/refusal data scanned for research*

Labor and Delivery Nurses Eager to Educate and Consent for Tdap



Some Parents are Educated and Consented on Labor and Delivery



Parents Consent to the Vaccine to Protect their Newborn



The Postpartum Nurses Are Happy To Protect Our Newborns



On Postpartum, New Mothers Are Glad Tdap Protects Their Newborn



Many New Fathers Endure A “Needle” To Protect Their Newborns



Outcomes of Our “Cocooning” Program

- Highly motivated people can move fast!
- 12,300+ doses of Tdap vaccine given
- Added the Influenza vaccine to our “Cocooning” Program seasonally
- 3,432+ doses of Influenza vaccine given
- Oncology interested in “Cocooning” their vulnerable population
- Assisted other hospitals with “Cocooning”

Lessons Learned

- Huge time commitment for our nurses
- Greatly underestimated data collection
- Keep on trying until you get it right!
- Infants admitted to Peds with Pertussis since July 2006, had either one or both parents decline the Tdap vaccine...
- We ARE immunizing many adolescents and adults in our community!
- We are capturing that data in WebIZ

Areas Where We Need Further Education and Compliance

- Not all health care workers believe in the importance of immunizations
- There are examples in the literature about health care workers infecting those they serve by not being immunized
- Some hospitals require immunizations for those working with newborns and infants
- Personal opinions and evidence based research are NOT the same and WE need to follow the scientific evidence!

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