

# Prevent Disease



**IMMUNIZE!**

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# Prevent Disease - IMMUNIZE!



Presented by the Virginia Business Coalition on Health (VBCH) and Square One.

Square One is a non-profit school readiness and child health initiative that provides professional development training to those who work with young children ages 0-5 and their families.

Square One is a division of VBCH which is a non-profit employer-sponsored member coalition of purchasers of healthcare.

Visit [www.SqOne.org](http://www.SqOne.org) and [www.myVBCH.org](http://www.myVBCH.org)

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\*Course developed in June 2012.

# Prevent Disease – IMMUNIZE!



This one hour self-paced online training course is designed to provide information on the importance of immunizations for adults.

Parents, grandparents, early childhood educators, childcare providers, home visiting agency staff, healthcare professionals and others who work with infants and young children need to be vaccinated!

As you progress through this online course, **please note the “review” quiz questions will help you “practice” for the final quiz.**

You will be asked to **follow the link to take the “Final Quiz” on the last slide in this presentation.** A certificate will be sent to you after receiving an 80% pass rate via email.

# Prevent Disease – Immunize!



## GOALS

- **UNDERSTAND HOW VACCINES WORK**
- **REVIEW RECOMMENDED ADULT VACCINES**
- **DEMONSTRATE WHY VACCINES ARE NECESSARY**

# Vaccine Are For Adults, Not Just Children



- Some adults may not have received vaccines or had the disease
- Some vaccines are specifically recommended for adults
- Some protect against diseases that are more common in adults
- Some protect against diseases that can be more serious when adults get them
- Some are boosters that extend the protection from a disease
- Most protect the adult and those around them who may be more vulnerable

# Why Do Adults Need Vaccines?



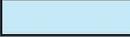
- Some diseases like pertussis are on the rise in the U.S.
- Reduces risk of getting diseases like measles, shingles, whooping cough or influenza
- Every year in the US, over 40,000 adults die from diseases that vaccines protect against
- Adults are 100 times more likely than children to die of diseases that vaccines can prevent
- Not all vaccines are 100% effective in protecting you from disease, but they do lessen the severity

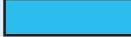
*Source: American Society for Microbiology & Children's Hospital of Philadelphia*



## Recommended Immunizations for Adults

| Then you should get these vaccines:      | If you are this age,  |               |               |               |               |           |
|--|---|---------------|---------------|---------------|---------------|-----------|
|  | 19 - 21 years   | 22 - 26 years | 27 - 49 years | 50 - 59 years | 60 - 64 years | 65+ years |
| Influenza (Flu)                          | Get a flu vaccine every year                                      |               |               |               |               |           |
| Tetanus, diphtheria, pertussis (Td/Tdap) | Get a Tdap vaccine once, then a Td booster vaccine every 10 years |               |               |               |               |           |
| Varicella (Chickenpox)                   | 2 doses   |               |               |               |               |           |
| HPV Vaccine for Women                    | 3 doses   |               |               |               |               |           |
| HPV Vaccine for Men                      | 3 doses   | 3 doses       |               |               |               |           |
| Zoster (Shingles)                        |   |               |               |               | 1 dose        |           |
| Measles, mumps, rubella (MMR)            | 1 or 2 doses  |               |               | 1 or 2 doses  |               |           |
| Pneumococcal (pneumonia)                 | 1 or 2 doses  |               |               |               |               | 1 dose    |
| Meningococcal                            | 1 or more doses   |               |               |               |               |           |
| Hepatitis A                              | 2 doses   |               |               |               |               |           |
| Hepatitis B                              | 3 doses   |               |               |               |               |           |

 Boxes this color show that the vaccine is recommended for all adults unless your doctor or nurse tells you that you cannot safely receive the vaccine.

 Boxes this color show when the vaccine is recommended for adults with certain risks related to their health, job or lifestyle that put them at higher risk for serious diseases. Talk to your doctor or nurse to see if you are at higher risk.

 No recommendation

### FOOTNOTES:

(Influenza vaccine) <sup>1</sup>There are four different flu vaccines available—talk to your doctor or nurse about which flu vaccine is right for you.

(HPV vaccine for men) <sup>2</sup>There are two different kinds of HPV vaccine but only one HPV vaccine (Gardasil<sup>®</sup>) can be given to men. Gay men or men who have sex with men who are 22 through 26 years old should get HPV vaccine if they haven't already started or completed the series.

(MMR vaccine) <sup>3</sup>If you were born in 1957 or after, you should have already gotten MMR vaccine. Talk to your doctor or nurse about how many doses you may need.

If you are traveling outside of the United States, you may need additional vaccines. Ask your doctor or nurse which vaccines you may need.

For more information, call toll free 1-800-CDC-INFO (1-800-232-4636) or visit <http://www.cdc.gov/vaccines>



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

# Adults Are An Important Part Of The Herd



- In order for communities to have protection against disease, there has to be a high level of vaccination
- Depending on the particular disease, 85%-95% of people must be vaccinated for general protection
- With these high levels of vaccination, those that cannot be vaccinated benefit from the **herd protection**
- This herd protection is especially important for the very young, the very old, those with cancer and other serious diseases
- If vaccination levels decline, disease reappears!

Sources: [www.historyofvaccines.org](http://www.historyofvaccines.org) & Children's Hospital of Philadelphia Vaccine Education Center



# Vaccines



**HOW DO THEY WORK TO  
PROTECT US?**





## Your Immune System

Specially designed to fight off infections and diseases

Has 2 parts – one that acts quickly and one that provides more long term responses

Vaccines work with the long term memory one

- When you get sick from an infection with a virus or bacteria, you usually do not get that illness again.
- Your immune system not only fights diseases but also memorizes them.
- Your immune system monitors your body and if the same offender comes back, the immune system recognizes it and kills the virus or bacteria before it can hurt us.
- Understand that some diseases have many different strains or types and vaccines protect you against the most dangerous and/or the most common strains.

*Source: Children's Hospital of Philadelphia*

# Vaccines and Your Immune System



- Vaccines are made with a form of the virus or bacteria that cannot make you sick by using cell parts or weakened cells
- When you receive a vaccine, your immune system recognizes it as a “bad guy” and goes to work, creating antibodies or “good guys” to fight the disease and storing that information.
- This immune response takes some time and protection is not immediate
  - For the young, it is often a series to get the best protection.
  - For seniors, sometimes their immune system just doesn’t work as well and need a special or stronger dose to provide protection.
  - In general, it takes about 2 weeks after a vaccine before you are protected.



*Sources: Centers for Disease Control & Prevention and Children’s Hospital of Philadelphia Vaccine Education Center*

# We all want the most protection for ourselves and our family...



# Types of Vaccines



- Use live, weakened virus
  - Attenuated=weakened
  - Shingles, chickenpox, MMR, nasal spray flu vaccine, pertussis
- Use whole, killed virus or bacteria
  - Flu shot, Hepatitis A
- Use a piece of the virus or bacteria
  - HPV, meningococcal, pneumococcal
- Sometimes it is the poison produced by the bacteria that is the cause of disease so people must be protected from the poison more than the bacteria
  - Tdap

*Sources: Centers for Disease Control & Prevention and Children's Hospital of Philadelphia Vaccine Education Center*

# True or False?



Can you get the flu  
from the flu shot?

Do you know?

Find the correct answer on the next slide...

# Answer



## False!

- The flu shot is made from killed virus so it cannot give you the flu.
- You may feel achy and sore for a few days after it as your immune system is working to create antigens against the flu strains in the shot.
- If you were exposed to a cold or the flu before getting the flu shot, you can get sick. It takes about 2 weeks for the protection to be active.



## LET'S REVIEW....

Can you answer these  
four questions?

True or False?

Check your answers on  
the next few slides...

- Adults who get vaccines as babies are protected throughout their life.

T or F

- Herd protection comes from making vaccines from cow serum.

T or F

- Vaccines provide protection from the vaccine-preventable disease(s) in about 2 weeks from the final dose.

T or F

- Vaccines are only made from live viruses or bacteria so you get the disease from the vaccine.

T or F

# Review Questions and Answers



## Question....

- Adults who get vaccines as babies are protected throughout their life.

## Answer...

- **False**

Protection from vaccines may last a long time, but new diseases and sometimes fading immunity make vaccines necessary at different ages during life. For example, the shingles vaccine is usually given at age 60 and above. Tetanus and pertussis protection fade with time and need boosting.

# Review Questions and Answers



## Question....

- Herd protection comes from making vaccines from cow serum.

## Answer...

- **False**  
Herd protection comes from many people in a community being vaccinated, thus providing protection for those who cannot be vaccinated. Usually this means 85%-95% of people being vaccinated to keep out disease.

# Review Questions and Answers



## Question....

- Vaccines provide protection from the vaccine-preventable disease(s) in about 2 weeks from the final dose.

## Answer...

- **True**  
Vaccines “trick” the body into thinking it has a disease, which makes it produce antibodies to fight the disease. It takes the body a little while to make antibodies so protection is not immediate after a vaccine. Also, if a series is needed, all doses need to be completed before immunity is working at its best.

# Review Questions and Answers



## Question....

- Vaccines are always made from live viruses or bacteria so you get the disease from the vaccine.

## Answer...

- **False**  
Vaccines are made from a part of a virus or bacteria, a weakened form of a live virus, a “killed” type, or even the toxin the bacteria produces. Your body thinks it is “under attack” by these particles and starts producing antibodies for protection. The “real” disease is not given.

Vaccines may make you feel a bit achy or sore as your body produces the antibodies against the disease but you do not get the full-blown disease from the vaccine.

# Vaccine Ingredients



**MYTH: VACCINES ARE UNSAFE BECAUSE THEY CONTAIN MERCURY, ALUMINUM, AND FORMALDEHYDE**

**REALITY: VACCINES ARE SAFE AND EFFECTIVE.**

There is a lot of information circulating, particularly on the internet, about the ingredients in vaccines. Most of the incorrect information has no science behind it and is often not credible. It is important to know that vaccines go through rigorous testing before being approved for use and then are continually monitored for safety. Each ingredient has a specific job and is important to the safety and effectiveness of the vaccine.

# Mercury



- Thimerosal, an ethylmercury-based preservative, was used in trace amounts in some childhood vaccines for many years to prevent contamination.
- As a precaution before studies were completed, it was removed from childhood vaccines in 2001. Today, the only vaccine that contains a very small amount is the influenza vaccine and it is available in a preservative-free version.
- Despite persistent speculation, no credible link has been made between thimerosal in vaccines and autism or other neurological disorders.

*Sources: Vaccine Education Center at Children's Hospital of Philadelphia and "Clear Answers & Smart Advice About Your Baby's Shots" by Ari Brown, MD, FAAP*

# Aluminum



- Aluminum is naturally present in water, soil and air – it's even in breast milk and baby formula. It is also found in fruits, nuts, dairy products and antiperspirants.
- Very large doses of aluminum can cause health problems, but the **amount in vaccines is tiny**. An average recommended dose of antacids contains about 1000 times more aluminum than a vaccine does.
- A tiny amount of aluminum in the form of aluminum salts are used to boost the body's immune response to the vaccine and have safely been used for many years.
- Using aluminum salts as an adjuvant means some vaccines will work better with fewer booster shots.

Sources: Vaccine Education Center at Children's Hospital of Philadelphia and "*Clear Answers & Smart Advice About Your Baby's Shots*" by Ari Brown, MD, FAAP

# Formaldehyde



- Small amounts of formaldehyde are used in the making of some vaccines to sterilize the vaccine fluid.
- Formaldehyde is also a naturally occurring substance in your body and is required for certain functions.
- If you use baby shampoo, mascara, paper towels or have carpeting your home, you have been exposed to formaldehyde.
- The small amount of formaldehyde in vaccines is not a health concern.

*Sources: Vaccine Education Center at Children's Hospital of Philadelphia and "Clear Answers & Smart Advice About Your Baby's Shots" by Ari Brown, MD, FAAP*

# Big Picture



## PAST AND PRESENT TRENDS



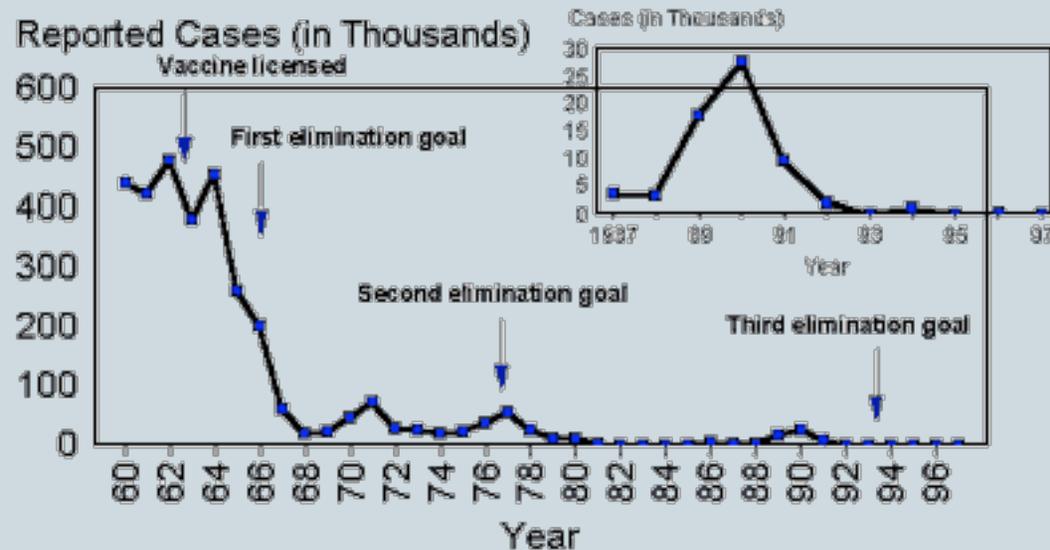
# Before Vaccines....



- If you are younger than 50, you never had to worry about polio or smallpox in the U.S.
  - Polio is not gone –still in many countries like Iran and China
  - Smallpox declared eradicated in 1980
- Diphtheria and whooping cough were major causes of death
- Measles put 20% of those with measles in the hospital



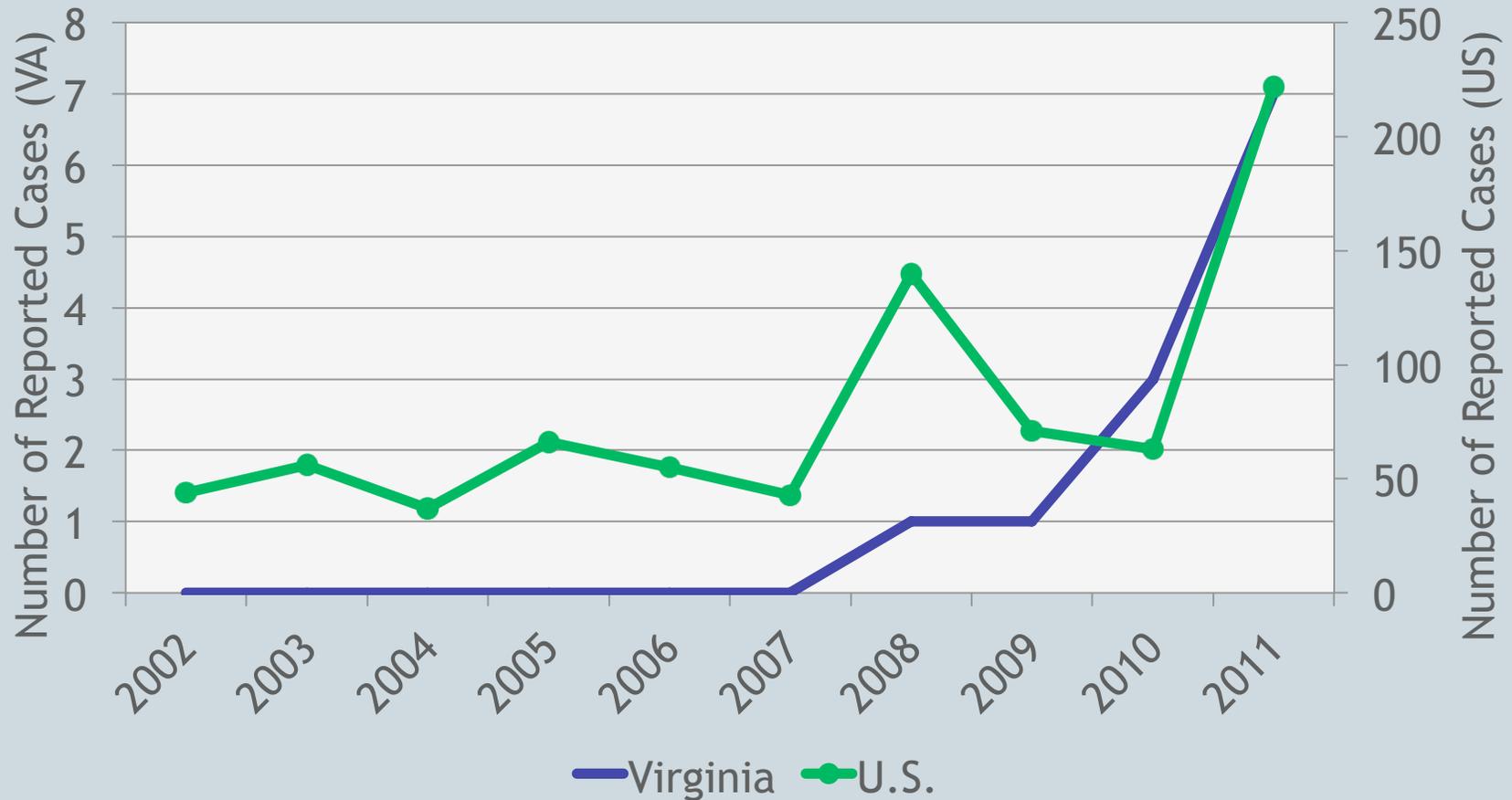
# Measles – United States, 1950-2007



\* Measles is making a comeback. Cases in the U.S. are at a 15 year – high due to unvaccinated people and international travel.

Source: [www.vaccines.gov](http://www.vaccines.gov)

# Measles, U.S. and Virginia, 2002-2011



\*2011 data are provisional

Source: Virginia Reportable Disease Surveillance Data - Tables of Selected Reportable Diseases in Virginia by Year and MMWR Summary of Notifiable Diseases

# Measles in Virginia, 2008-2011

- Since 2008,  $\geq 1$  measles case every year.
- 10 cases were unvaccinated, status undocumented in 2
- Travel or epi-linked to traveler(s) from India, Indonesia, South Africa, France and Italy
- Districts: Loudoun (4), TJ (4), Prince William (3) and Norfolk (1)
- Each case requires hundreds of hours of tracking as well as thousands of dollars to track, contact, and vaccinate those who may have come in contact with the infected person. Additionally, there are medical costs such as doctor visits and hospital stays.

| Year | Cases | Deaths | Rate per 100K |
|------|-------|--------|---------------|
| 2008 | 1     | 0      | 0.01          |
| 2009 | 1     | 0      | 0.01          |
| 2010 | 3     | 0      | 0.04          |
| 2011 | 7     | 0      | 0.09          |

*Source: Virginia Department of Health*

# REMEMBER...



**MANY VACCINE-PREVENTABLE DISEASES  
ARE RARE IN THE U.S., THANKS TO HIGH  
VACCINATION RATES, BUT THEY HAVE  
NOT DISAPPEARED.**

**MOST ARE JUST A PLANE RIDE AWAY!**

## For Example...



- Measles is one of the most infectious diseases in the world.
- Most U.S. cases are from international visitors or those traveling abroad.
- More than 90% of people who are not immune will get measles if exposed.
- According to the World Health Organization, **if vaccinations were stopped, each year about 2.7 million measles deaths worldwide could be expected.**



## LET'S REVIEW...

True or False?

Check your answers on  
the next few slides...

- Thimerosal is found in most childhood vaccines.  
T or F
- Smallpox and polio are now eradicated worldwide.  
T or F
- Measles cases are on the rise in the Virginia and the U.S.  
T or F

# Review Questions and Answers



## Question...

Thimerosal is found in most childhood vaccines.

## Answer...

### **False**

- Thimerosal was removed from all childhood vaccines in 2001. There are still small amounts of it in some flu vaccines. It was removed as a precaution even though no credible link has been shown between thimerosal in vaccines and autism or other neurological disorders.

# Review Questions and Answers



## Question...

- Smallpox and polio are now eradicated worldwide.

## Answer...

### **False**

- Thanks to the vaccine, smallpox was declared eradicated worldwide in 1980, but polio is still around in other countries such as Iran and China. International travel is increasing and most vaccine-preventable diseases that are rare in the U.S. are just a plane ride away.

# Review Questions and Answers



## Question...

- Measles cases are on the rise in the Virginia and the U.S.

## Answer...

### **True**

- Measles outbreaks are being seen throughout the U.S. and are often brought by travelers, both U.S. citizens traveling abroad and those from other countries visiting the U.S.
- Most cases have been seen in those who have not had the MMR vaccine or are too young to get it.

# Adult Vaccines



**WHAT THE HECK DO I NEED?**



# Adult Recommended Vaccines



- **Every adult needs:**

- Influenza (flu) - needed every year since strains change, shift and drift
- Tetanus, diphtheria, pertussis (Tdap) – 1 booster to prevent pertussis (whooping cough)

**Certain ages need specific vaccines in addition to a yearly flu vaccine and a Tdap booster:**

- **Young Adults**

- Human Papillomavirus (HPV) - 3 doses
  - ✦ Women up to age 26
  - ✦ Men up to age 21

- **Older Adults**

- Zoster (shingles) – 60+
- Pneumococcal (pneumonia) – 65+

- **Working with children**

- Varicella (chickenpox) – 2 doses
- Measles, Mumps, Rubella (MMR) – 1-2 doses

- **Travelers**

- Hepatitis A and B – 2 or 3 doses, depending on the type of vaccine
- Meningococcal (meningitis)
- Others may be needed – depends on countries visited



## Adult Recommended Vaccines

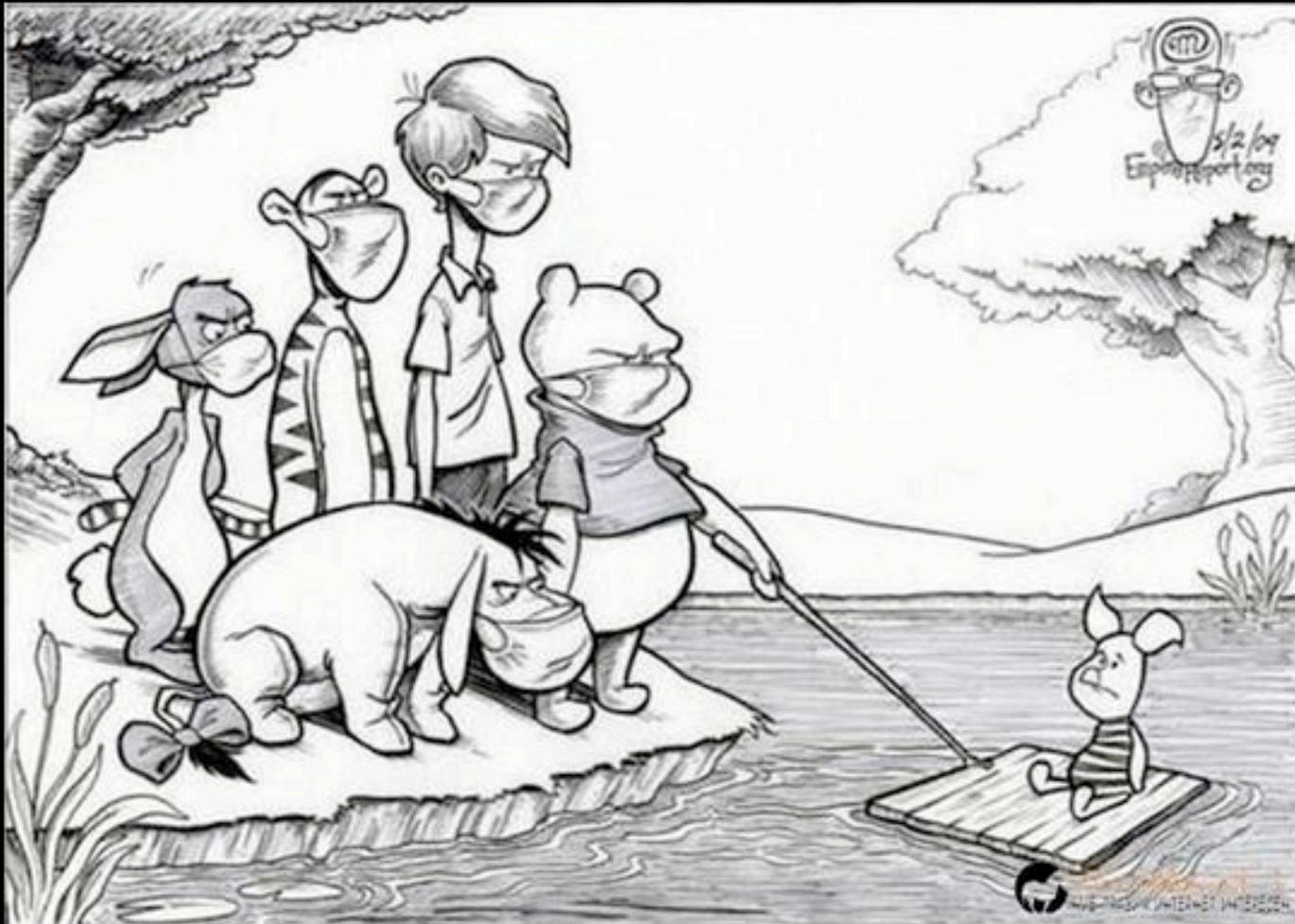
### Influenza (Flu)

1 dose every year

Everyone 6 months and  
older



- Need flu shot every year
  - Viruses change, shift, drift
- More serious than you think – kills 3,300-49,000 and hospitalizes 200,000 each year
- Very young and very old most likely to be hospitalized and/or die from flu complications
- Children are the spreaders!
- Vaccine available in nasal spray or shot
  - New shot types-intradermal (tiny needle) and high dose for 65+



## SWINE FLU

We all have do our part



## Adult Recommended Vaccines

### Varicella (Chickenpox)

2 doses

For adults who have not had the disease or had 2 doses of vaccine

- Important for those working with children
- More serious disease in adults than in children
- Varicella can infect unborn babies during pregnancy, causing birth defects or fetal death
- Those who need the vaccine:
  - Adults who have not been diagnosed with chickenpox or had the chickenpox vaccine
  - Adults who have only received a single dose of the chickenpox vaccine



## Adult Recommended Vaccines

### Measles, Mumps and Rubella (MMR)

1-2 doses

For adults who have not had the disease (born after 1957) or not been vaccinated

- Important for those working with children
- Can spread to others before symptoms appear
- Can be more serious diseases when adults get them
- Measles, mumps and rubella (German measles) are all dangerous to unborn babies
- All highly contagious and spread easily



## Adult Recommended Vaccines

### Human Papillomavirus (HPV)

3 doses

Women through age 26

Men through age 21



- HPV causes over 6 million new infections every year
- HPV strains in vaccine protects against 70 % of all cervical cancers and cancer of the anus, penis, mouth and throat
- One kind of HPV vaccine protects against genital warts
- Most effective before sexual activity begins for both women and men



## Adult Recommended Vaccines

### Zoster or Shingles

1 dose after age 60



Zoster

ADAM.

- At risk for shingles if you've had chickenpox
- Painful rash, often on trunk of body and face
- Rash follows nerve paths
- Pain can last for months and be severe
- Vaccine recommended even if you've had shingles



## Adult Recommended Vaccines

### Pneumococcal Vaccine

1 dose after age 65

- Protect against many forms of pneumonia
- If medical conditions exist, may receive dose earlier than 65 and need another dose after 65



# Pertussis or Whooping Cough



**OLD DISEASE. NEW IMPACT**



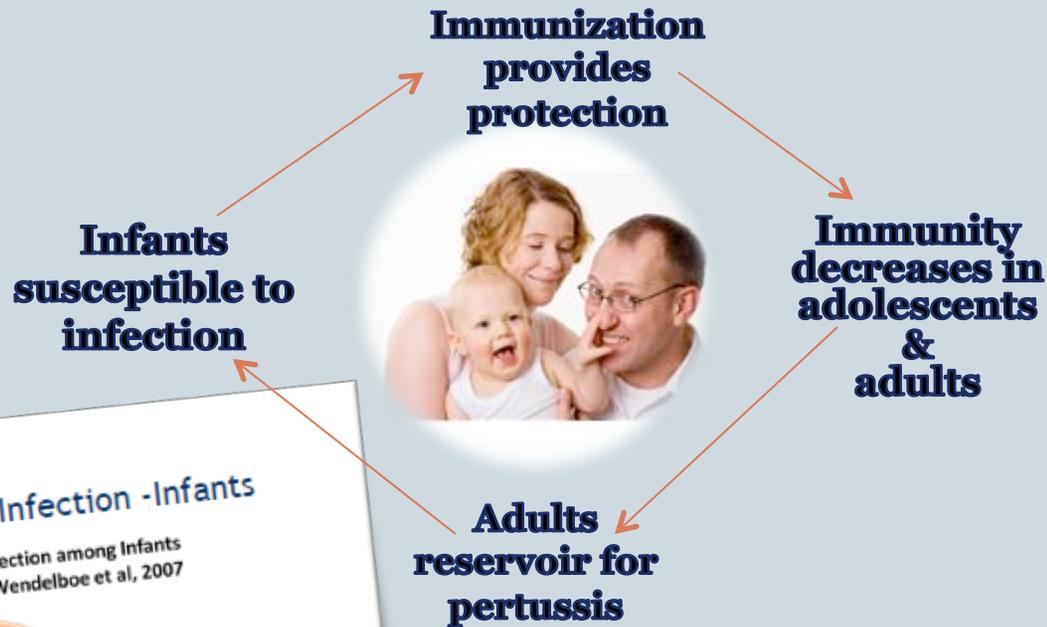
# Pertussis Disease



- Infection that affects the air way, causing spasms of coughing, making it difficult to breathe, eat, or drink
- Known as “**whooping cough**” or the “100 day cough”
- Infects all people - Adults may have an annoying cough while often most severe in infants
- Infants under 1 year are at greatest risk for death
- Often goes undiagnosed
- Adults and teens are the spreaders!
- Showing up at alarming rates around the U.S. and in some states, such as Washington, it is an epidemic

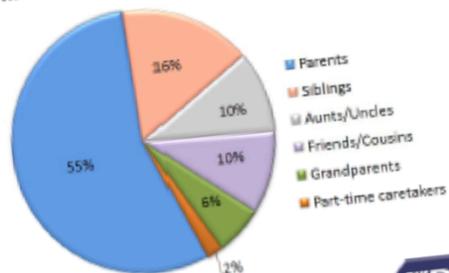
# Transmission

## WHO'S GIVING IT & WHO'S GETTING IT



### Source of Pertussis Infection - Infants

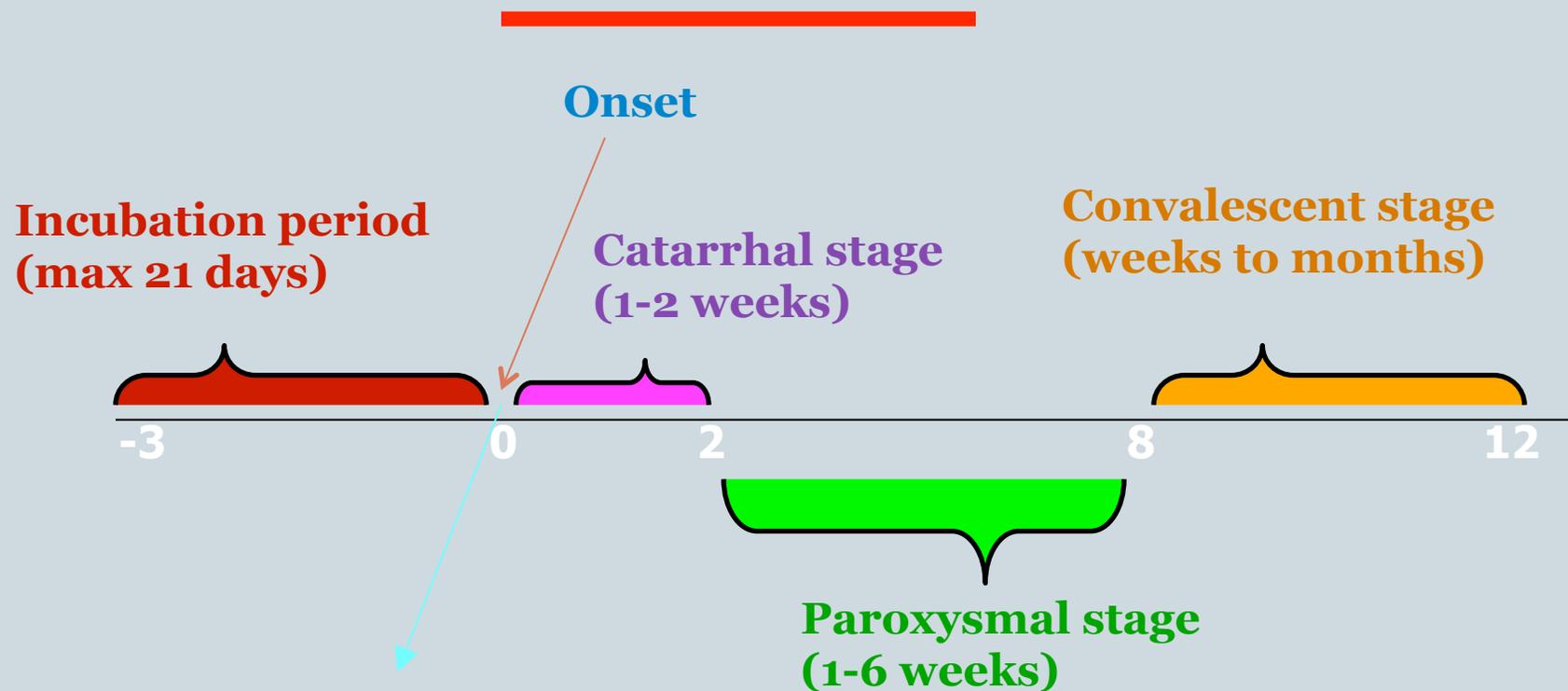
Source of Pertussis Infection among Infants ≤ 6 months, by Role, Wendelboe et al, 2007



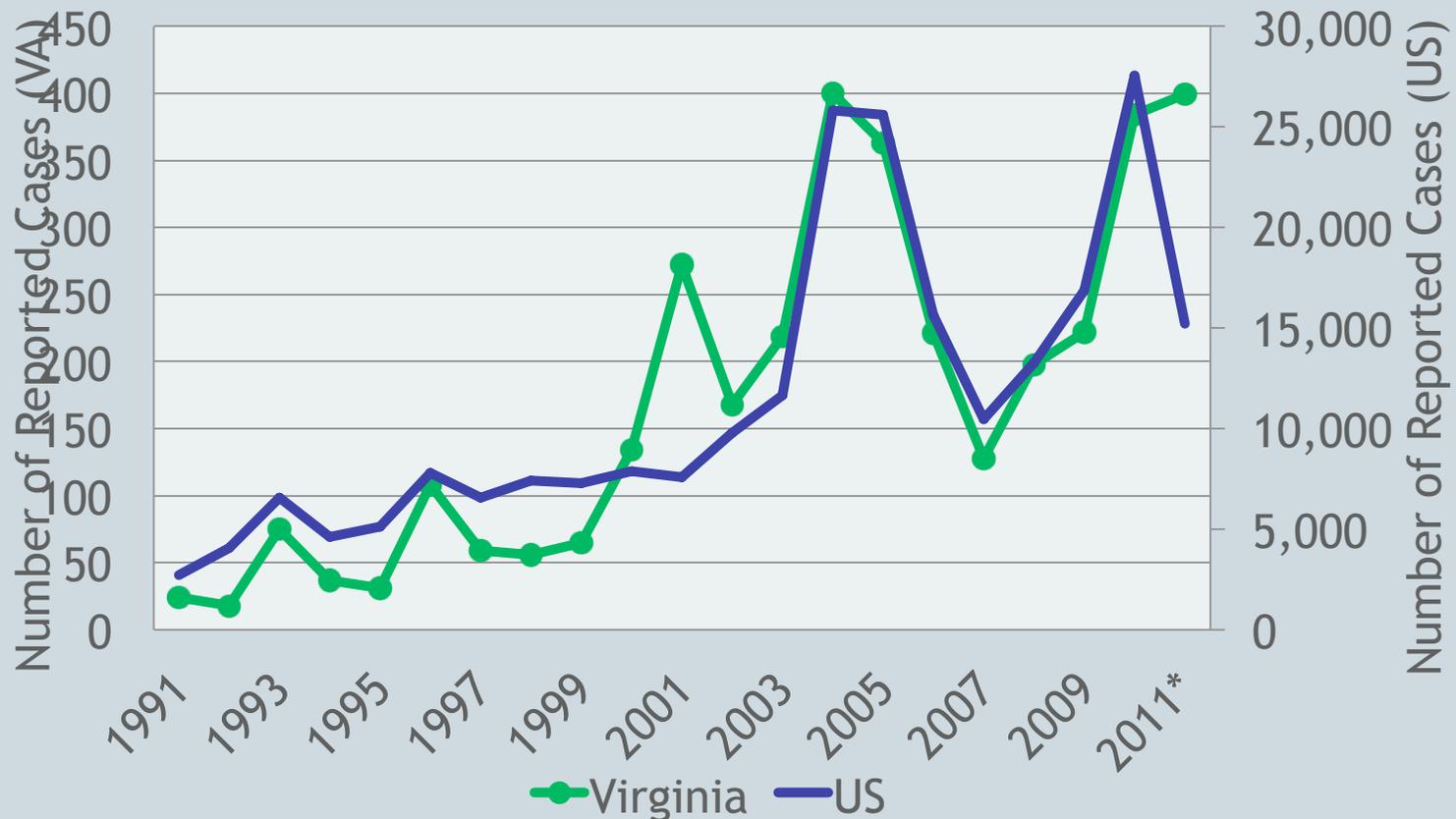
# Stages of Pertussis



**Communicable period**  
(onset to 3 weeks after start of paroxysmal cough)



# Pertussis, U.S. and Virginia, 1991-2011\*



\*2011 data are provisional

Source: Virginia Reportable Disease Surveillance Data - Tables of Selected Reportable Diseases in Virginia by Year and MMWR Summary of Notifiable Diseases

# Pertussis in Babies

## Pertussis Complications in Infants

- Pertussis-related complications and deaths occur almost exclusively in young infants.
- 58.9% of infants <1 year with pertussis were hospitalized in Virginia, 2006-2010.
- 2005 study showed mean length of stay for pertussis-infected infants <1 year: 6 days, \$9,586/stay.
- 91.2% (177/194) of pertussis-related deaths were among infants <6 months of age, U.S., 2000-2009.
- 85.7% (6/7) of pertussis-related deaths were among infants <4 months of age, Virginia, 2000-2010.
- In 2010, the U.S. reported 22 pertussis related deaths, 10 from California (<3 months of age).



# Sound of Pertussis



To hear what whooping cough  
or pertussis sounds like, visit

<http://www.pkids.org/diseases/pertussis.html>



# Pertussis Treatment



- **Antibiotics**
  - 5-14 days depending on the antibiotic
- **Limited impact on illness but decreases transmission**
  - May not stop the cough, but will lessen the likelihood of passing on the disease to others
- **Therapy not useful after 21 days of cough**
  - Adults often go undiagnosed. If seen in later stages of the disease, medication may not help.





## Tdap Vaccine

Protects against 3 diseases

Adults 19 and above are to get a booster dose

NEW! Those 65+ should get a booster, even if not in direct contact with an infant

Pregnant women who are at least 20+ weeks can get a Tdap booster

- Tetanus
  - also known as lock jaw
- Diphtheria
  - respiratory disease – sore throat and fever
  - extremely rare in US
- Pertussis
  - also known as whooping cough
- “Cocooning” means surrounding a baby who is unprotected by adults, teens, and children who are protected by the vaccine.
- Vaccine can be given in the second or third trimester (20+ weeks) of pregnancy and will provide some protection for the newborn baby.



# Tdap % Coverage Adults 18-64 years U.S. and Virginia, 2008-2010

| Characteristic  | U.S.-2008 | U.S.-2009 | U.S.-2010 | VA- as of 4/18/12<br>(VIIS population) |
|---|-----------|-----------|-----------|--|
| <b>Total, 19-64 years</b>                             | 5.9       | 6.6       | 8.2       | 16.7                                   |
| <b>Ages 19-24 yrs</b>                                 | 8.1       | 8.4       | NA        | 18.8                                   |
| <b>Ages 25-49 yrs</b>                                 | 5.8       | 6.9       | NA        | 14.9                                   |
| <b>Ages 50-64 yrs</b>                                 | 4.7       | 5.4       | NA        | 18.5                                   |
| <b>Persons with household infant &lt;1 yr contact</b> | 5.0       | 10.2      | 10.6      |  |
| <b>Healthcare personnel</b>                           | 15.9      | 17.0      | 20.3      |  |

*NA= not available. Sources: National Health Interview Survey (NHIS) for 2008-2010. Coverage for Virginia adults is based on the population of adults in VIIS with at least one vaccination in the system.*

# Who should get a whooping cough vaccine?

- Babies/children get a series of shots (5) DTaP
  - 2 months, 4 months & 6 months
  - One between 15-18 months
  - One between ages 4-6 years old
- Preteens get a booster Tdap between 11-12 years old
  - In Virginia, it is a requirement for 6<sup>th</sup> grade entry
- **All adults need a booster, ages 19 and above**
  - Even those 65+ are now included in the general recommendation



# Possible Reactions



➤ **Mild to moderate discomforts may include:**

- **Pain**
- **Redness or swelling at the injection site**
- **Mild fever of at least 100.4°F or fever over 102°F**
- **Headache**
- **Tiredness**
- **Nausea, vomiting, diarrhea, stomach ache**
- **Chills, body aches, sore joints, rash, swollen glands (uncommon)**
- **Extensive swelling of the arm where the shot was given**



➤ **With a vaccine, as with any medicine, there is always a small risk of a life-threatening allergic reaction or other serious problem.**



Adapted from Vaccine Information Statement (Interim) Td &  
Tdap Vaccines  
1/24/2012  
42 U.S.C. § 300aa-26

# Prevention



- Get vaccinated!
- Check infection control policies/guidelines
- Review immunization requirements/records
- Educate yourself
- **BE PROACTIVE**





## LET'S REVIEW...

True or False?

Check your answers on  
the next few slides...

- HPV vaccine prevents cervical cancer and is only for young women.  
T or F
- Shingles is related to chickenpox and causes a painful rash.  
T or F
- Pertussis is on the rise and most adults need a booster dose of the Tdap vaccine.  
T or F
- Adults have the worst outcomes from whooping cough.  
T or F

# Review Questions and Answers



## Question...

- HPV vaccine prevents cervical cancer and is only for women.

## Answer...

### **False**

- The HPV vaccine is recommended for young women and men. It helps prevent cervical cancer, anal cancer, penile cancer. One type also works to prevent genital warts.

# Review Questions and Answers



## Question...

- Shingles is related to chickenpox and causes a painful rash.

## Answer...

### **True**

- Shingles is actually the “reawakened” chickenpox virus. It often causes a rash that is on the body trunk or head, following nerve patterns. It can be very painful with the pain lasting for months.

# Review Questions and Answers



## Question...

- Pertussis is on the rise and most adults need a booster dose of the Tdap vaccine.

## Answer...

### **True**

- Those who are age 19 and older need a Tdap booster to help prevent the spread of pertussis or whooping cough. Pertussis cases are at record levels, with some states declaring it an epidemic.

# Review Questions and Answers



## Question...

- Adults have the worst outcomes from whooping cough.

## Answer...

### **False**

Adults often have a milder form of whooping cough and may not even seek treatment. Babies less than 1 year of age are impacted the most, being hospitalized or even dying. They are too young to have completed the vaccine series for this disease.

# Tdap Flyers



**THESE FLYERS ARE DESIGNED FOR  
DIFFERENT AUDIENCES AND CAN BE  
DOWNLOADED FROM THE PROJECT  
IMMUNIZE VIRGINIA WEBSITE UNDER THE  
TOOLS SECTION**

**SOME HAVE A BOX WHERE YOU CAN ADD  
YOUR OFFICE'S OR ORGANIZATION'S NAME  
AND INFORMATION**

**[WWW.IMMUNIZEVA.ORG/TOOLS](http://WWW.IMMUNIZEVA.ORG/TOOLS)**

# Tdap Flyers

## SHARE YOUR LOVE .... NOT YOUR COUGH



### Get your Tdap vaccine to protect your baby

#### What is pertussis?

Whooping cough or pertussis is making a comeback. This disease clogs the airways, making it difficult to breathe. The telltale "whoop" sound comes from the person gasping for air. It often starts out like a cold but a terrible cough can follow, lasting 1-6 weeks.

#### Who gets it?

Anyone at any age can get whooping cough, but it is especially dangerous in young babies. Babies under 12 months of age have not yet had all the necessary shots for the best protection so they can suffer the most – with a stay in the hospital or even death.

#### Why worry?

Family members are the ones who often unknowingly give whooping cough to the baby. Their protection against the disease has worn off and they can get the disease without even knowing it. When teens and adults have whooping cough, the symptoms can be mild so it goes undiagnosed.

#### What to do?

Parents, grandparents, siblings and caregivers all need a booster shot of Tdap, the vaccine that protects against tetanus, diphtheria and pertussis. The best way to protect your baby is to make sure all those around her have a Tdap booster. Check with your doctor, pharmacy or health department about getting your Tdap vaccine today.



## Share your love of learning....



### Not the flu and whooping cough

When caring for children, you can catch all sorts of infections and share them with other staff members, children in your care, and your own family. Sharing diseases like flu (influenza) and whooping cough (pertussis) can be serious.

#### Why worry?

Whooping cough is making a comeback. This disease clogs airways, making it difficult to breathe. Anyone at any age can get whooping cough, but it is especially dangerous to those under 12 months of age. The flu is also a respiratory disease that is especially dangerous to children under age 5. They can suffer the most – with a stay in the hospital or even death. You can spread these diseases even before you feel sick. Both whooping cough and flu are often undiagnosed and unknowingly spread to others.

#### What to do?

Protect yourself. By getting vaccines, you will protect others and avoid missing work. Childcare providers, preschool staff, and teachers need:

Tdap - a booster is needed once as an adult to provide protection against whooping cough.

flu vaccine - available in nasal mist or shot, it is needed every year to protect against the flu strains that are spreading during flu season.

For more information, contact to your doctor, pharmacist, health department or visit [www.immunize.org](http://www.immunize.org) or [www.vdh.state.va.us/Epidemiology/Immunization/](http://www.vdh.state.va.us/Epidemiology/Immunization/)



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You Would Do  
Anything  
To Protect  
Your Grandchild

So Get Your  
Tdap Vaccine  
Today

You thought that whooping cough (pertussis) was a thing of the past. Unfortunately, it is making a comeback. In adults, whooping cough can be mild with a lasting cough that often goes undiagnosed and spreads to others. Anyone at any age can get whooping cough, but it is especially dangerous to those under 12 months of age. These young babies have not had all their necessary shots for the best protection so they can suffer the most – with a stay in the hospital or even death.

Family members are often the ones who unknowingly give whooping cough to the baby. All adult family members including grandparents need to get a booster dose of Tdap, the vaccine that protects against tetanus, diphtheria and whooping cough.

Check with your doctor, pharmacist, or health department today about getting your Tdap vaccine today.



# Health Commissioner's Pertussis Prevention Task Force



- Task Force membership represents a variety of health-related, public and private organizations charged with developing recommendations to prevent the spread of pertussis, with a focus on cocooning.
- Task Force activities have included a peer-to-peer letter from the Commissioner and Virginia medical societies, provider surveys, webpage, FAQs/outreach materials and an AARP article highlighting Tdap vaccination.
- Approximately 40,000 doses of Special Project Tdap vaccine were distributed to Health Departments, with a few thousand to interested Free Clinics. Any adult aged 19 years or older is eligible.
- Formal recommendations to the Health Commissioner will be available in summer 2012, and a more permanent Immunization Advisory Committee is being formed.
- <http://www.vdh.state.va.us/epidemiology/Immunization/Pertussis/index.htm>

# Virginia Department of Health



TO ADDRESS THE RISING RATES OF  
PERTUSSIS, THE VIRGINIA HEALTH  
DEPARTMENT HAS CREATED A NEW  
PERTUSSIS PREVENTION PAGE THAT HAS  
INFORMATION AND EDUCATIONAL  
MATERIALS

[HTTP://WWW.VDH.STATE.VA.US/EPIDEMIOLOGY/  
IMMUNIZATION/PERTUSSIS/INDEX.HTM](http://www.vdh.state.va.us/epidemiology/immunization/pertussis/index.htm)

# Resources



- The National Foundation for Infectious Diseases (NFID) has a set of resources for adults  
[www.adultvaccination.org](http://www.adultvaccination.org)
- The Vaccine Education Center at the Children Hospital of Philadelphia has extensive information on all vaccines but has a good booklet on adult needs  
[www.chop.edu/service/vaccine-education-center/vaccines-for-adults/](http://www.chop.edu/service/vaccine-education-center/vaccines-for-adults/)
- Centers for Disease Control and Prevention (CDC) has materials on adult and child vaccines (written in Spanish language also)  
[www.cdc.gov/vaccines/spec-grps/adults.htm](http://www.cdc.gov/vaccines/spec-grps/adults.htm)
- Virginia Department of Health (VDH) has a special pertussis page on its website  
[www.vdh.state.va.us/epidemiology/Immunization/Pertussis/index.htm](http://www.vdh.state.va.us/epidemiology/Immunization/Pertussis/index.htm)
- Project Immunize Virginia has pertussis flyers that can be downloaded for free  
[www.immunizeva.org/tools](http://www.immunizeva.org/tools)

# Contact Information



- Project Immunize Virginia
  - Statewide immunization coalition that promotes timely immunizations across the lifespan
- Website: [www.immunizeva.org](http://www.immunizeva.org)
- Phone : 757-668-6435 or 757-668-6488
- Email: [piv@evms.edu](mailto:piv@evms.edu)

# Disclaimer



All health-related information contained within this “online training” is intended to be utilized as an educational tool. Every effort has been made to ensure that the material within this website is accurate and timely as of June 2012.

This information should not be used as a substitute for a visit with a healthcare professional. Your healthcare provider should be consulted regarding matters concerning the medical condition, treatment, and needs of you and your family.

# Thanks for participating...



## Time to take the final quiz...

- You will need to answer 8 out of 10 questions correctly to receive a passing score.
- A certificate for 1 hour of in-service training will be awarded via email after passing the quiz.
- When you are ready to take the quiz, go to:  
<http://sqone.org/g/immunize>

Good luck!