

IMMUNIZE. PREVENT WHAT'S PREVENTABLE

# VACCINE-PREVENTABLE DISEASES, YOU, AND YOUR HEALTHY CLASSROOM!



THE  
IMMUNIZATION  
PARTNERSHIP

Katy Gore, MPH  
Coalitions and Education Program Manager  
[kgore@immunizeUSA.org](mailto:kgore@immunizeUSA.org)

# THE IMMUNIZATION PARTNERSHIP

## VISION

A community protected from vaccine preventable diseases

## MISSION

To eradicate vaccine-preventable diseases by educating the community, advocating for evidence-based public policy, and supporting immunization best practices



# ACKNOWLEDGEMENTS

---

This presentation is made possible through partnerships and funding from the following:

- › The Ellwood Foundation
- › The Harry S. and Isabel C. Cameron Foundation
- › Episcopal Health Foundation
- › The Florence and William K. McGee Jr. Family Foundation
- › The Cullen Trust for Health Care
- › Houston Endowment
- › Methodist Healthcare Ministries of South Texas
- › John P. McGovern Foundation
- › Rockwell Fund Inc



# DISCLOSURE AND DISCLAIMER

---

- The speakers and planning committee have disclosed no conflicts of interest
- This presentation is for educational use only and does not constitute legal or medical advice





# AGENDA

---

- What are Vaccine-Preventable Diseases?
- What Policies are in Place to Best Protect your Classroom?
- What can YOU do to Keep your Classroom Healthy?



# WHAT ARE VACCINE- PREVENTABLE DISEASES?

WHAT IS EACH DISEASE?

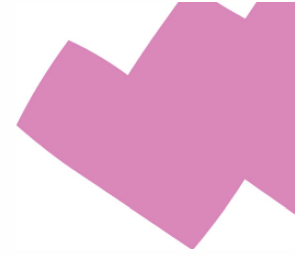
HOW DOES IT SPREAD?

WHAT ARE THE SYMPTOMS?

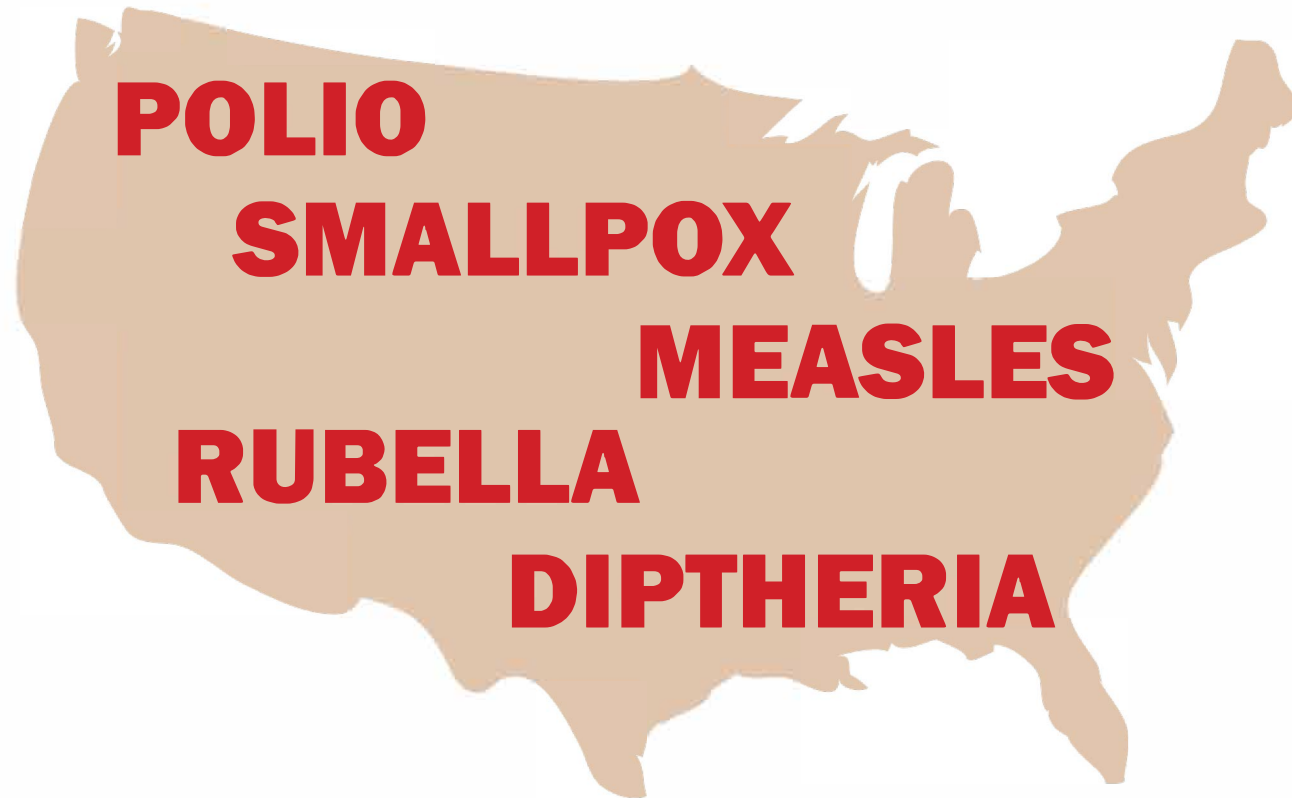


THE  
IMMUNIZATION  
PARTNERSHIP

**Vaccines can  
protect children  
and teens from  
16 different  
diseases and 7  
types of  
cancers.**



# Diseases Eliminated from the USA Thanks to Vaccines



The United States has eliminated these diseases because of successful vaccination programs.

But some of these diseases are still common in other countries and can be reintroduced by travelers.



# MEASLES

Required for Grades K-12th

## WHAT IS IT?

Measles is a highly contagious viral infection that starts in the respiratory system and results in a skin rash.

## HOW DO YOU GET IT?

Measles is spread through droplet transmission from the nose, throat, and mouth of an infected person. These droplets are sprayed when the infected person coughs or sneezes.

## COMMON SYMPTOMS

- Fever
- Runny nose
- Cough
- Red Eyes
- Rash



**90% CHANCE  
OF BECOMING  
INFECTED**



# MUMPS

Required for Grades K-12th

## WHAT IS IT?

Mumps is a viral infection that primarily affects salivary glands (located near your ears). Mumps can cause swelling in one or both of these glands.

## HOW DO YOU GET IT?

Measles is spread through droplet transmission from the nose, throat, and mouth of an infected person. These droplets are sprayed when the infected person coughs, sneezes, or talks.

## COMMON SYMPTOMS

- Fever
- Headache
- Loss of appetite
- Tiredness
- Swollen/tender salivary glands



**CAN CAUSE:**  
**MENINGITIS**  
**ENCEPHALITIS**  
**DEAFNESS**





# TETANUS

Required for Grades K-12th

## WHAT IS IT?

Tetanus is caused by bacteria causing painful muscle contractions. Also called “lockjaw.”

## HOW DO YOU GET IT?

Through open wounds, usually through injuries from contaminated objects. Such as wounds contaminated with dirt, feces, or saliva; and puncture wounds.

## COMMON SYMPTOMS

- Jaw cramping
- Muscle spasms
- Muscle stiffness
- Trouble swallowing
- Seizures



**Found in  
SOIL  
DIRT  
MANURE**



# PERTUSSIS

Required for Grades K-12th

## WHAT IS IT?

Pertussis (whooping cough) is a highly contagious bacterial infection affecting the lungs and airways. The disease causes violent and uncontrollable coughing, making it hard to catch your breath. Pertussis can be deadly, especially in newborns.

## HOW DO YOU GET IT?

The bacteria spreads through the air when an infected person coughs or sneezes.

## COMMON SYMPTOMS

- Coughing fits
- Whooping sound
- Runny nose
- Fever



**CONTAGIOUS  
UNTIL COMPLETE  
5 DAYS OF  
ANTIBIOTICS**





# HEPATITIS B

Required for Grades K-12th

## WHAT IS IT?

Hepatitis B is a serious liver infection caused by the hepatitis B virus.

## HOW DO YOU GET IT?

Hepatitis B virus is easily spread through contact with the blood or other bodily fluids of an infected person. This can happen through bites, sexual contact, needles, toothbrushes, or from mother to baby at birth.

## COMMON SYMPTOMS

- Fever
- Fatigue
- Nausea
- Loss of appetite
- Jaundice



**2 PEOPLE DIE  
EACH MINUTE  
FROM HEP B.**



# CHICKENPOX

Required for Grades K-12th

## WHAT IS IT?

Chickenpox (Varicella) is a common and very contagious disease caused by the varicella-zoster virus.

## HOW DO YOU GET IT?

Chickenpox spreads through the air, saliva, or contact with chickenpox rash or blisters. Chickenpox can also spread by a person with shingles (also caused by the varicella-zoster virus). Chickenpox cannot be spread through indirect contact.

## COMMON SYMPTOMS

- Rash
- Fever
- Fatigue
- Loss of appetite



**UP TO 21 DAYS  
TO DEVELOP  
CHICKENPOX  
AFTER EXPOSURE**



# HEPATITIS A

Required for Grades K-11th

## WHAT IS IT?

Hepatitis A is a serious liver infection caused by the hepatitis A virus.

## HOW DO YOU GET IT?

Hepatitis A virus is highly contagious. It is found in the infected person's stool and blood. It spreads when someone ingests the virus through person-to-person contact or eating contaminated food or drink.

## COMMON SYMPTOMS

- Fever
- Fatigue
- Nausea
- Loss of appetite
- Jaundice



**SYMPTOMS  
CAN LAST FOR  
2 MONTHS**





# MENINGOCOCCAL

Required for Grades 7-12th

## WHAT IS IT?

Meningococcal diseases is a severe and sometimes deadly disease caused by bacteria.

## HOW DO YOU GET IT?

These bacteria spread through the exchange of respiratory and throat secretions like spit. It is often spread by living in close quarters or by activities such as kissing. It usually takes close and lengthy contact to spread

## COMMON SYMPTOMS

- Fever
- Headache
- Stiff neck
- Nausea
- Fatigue



**1 OUT OF 7  
WHO GET THE  
DISEASE  
WILL DIE**



# ROTAVIRUS

Not Required

## WHAT IS IT?

Rotavirus causes severe diarrhea and vomiting. It affects mostly babies and young children. It can cause serious dehydration and hospitalization.

## HOW DO YOU GET IT?

Rotavirus spreads easily. The virus is in the stool of infected people. A person can get sick if they touch a contaminated object and put their hand in their mouth or consume contaminated food or drinks.

## COMMON SYMPTOMS

- Diarrhea
- Vomiting
- Fever
- Abdominal pain
- Loss of appetite



**MOST COMMON CAUSE  
OF SEVERE DIARRHEA  
AMONG CHILDREN**



# HAEMOPHILUS INFLUENZAE TYPE B

Not Required

## WHAT IS IT?

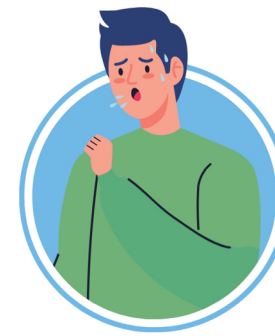
Haemophilus influenzae type b (Hib) disease is caused by bacteria. It affects children under 5 years old and adults with certain medical conditions. Hib causes pneumonia, blood infections and meningitis.

## HOW DO YOU GET IT?

Hib is spread through respiratory droplets when someone who has the bacteria in their nose or throat coughs or sneezes.

## COMMON SYMPTOMS

- Fever
- Nausea
- Cough
- Abdominal pain
- Stiff neck



**LEADING CAUSE OF  
BACTERIAL MENINGITIS  
AMONG CHILDREN**





# PNEUMOCOCCAL

Not Required

## WHAT IS IT?

Pneumococcal disease is an infection caused by bacteria. It can cause many types of illnesses, including ear infections and meningitis.

## HOW DO YOU GET IT?

Pneumococcal spreads through direct contact with respiratory secretions, like saliva or mucus. Many people have the bacteria in their nose or throat another without being ill.

## COMMON SYMPTOMS

- Fever
- Cough
- Difficulty breathing
- Headache
- Stiff neck



**YOUNG CHILDREN  
ARE AT  
INCREASED  
RISK**



# INFLUENZA (FLU)

Not Required

## WHAT IS IT?

Flu is a contagious respiratory infection caused by influenza viruses. It causes mild to severe illness, and at times death. Flu is different from a cold.

## HOW DO YOU GET IT?

The virus usually enters the body through mucus membranes in the mouth, nose, or eyes. The virus spreads mainly by droplets made when people with flu cough, sneeze, or talk. Infection is greater in areas like schools, buses, and crowds.

## COMMON SYMPTOMS

- Fever
- Cough
- Runny nose
- Sore throat
- Muscle aches



**UNLIKE A COLD  
FLU CAN HAVE  
SERIOUS  
HEALTH PROBLEMS**





# COVID-19

Not Required

## WHAT IS IT?

Coronavirus disease (COVID-19) is an infectious disease caused by a coronavirus. Most people will experience mild to moderate respiratory illness. However, others may develop serious illness.

## HOW DO YOU GET IT?

It spreads through respiratory droplets produced when an infected person coughs, sneezes, sings, talks, or breathes. It commonly spreads between people who are in close contact with one another.

## COMMON SYMPTOMS

- Fever
- Cough
- Fatigue
- Muscle aches
- Loss of taste or smell



**The vaccine is  
a vital tool to  
ending the  
pandemic!**



# WHAT ARE THE POLICIES IN PLACE TO PROTECT YOUR CLASSROOM?

STATE VACCINE REQUIREMENTS FOR SCHOOLS

WHAT DOES THE DATA LOOK LIKE



# STATE VACCINE REQUIREMENTS FOR SCHOOLS



Vaccines	CDC Recommendations	Texas Requirements
<b>Measles, Mumps, Rubella (MMR)</b>	2 Doses: Completed by Kindergarten	Required for K-12
<b>Diphtheria, Tetanus, Acellular Pertussis (Dtap, Tdap, Td)</b>	5 doses with lifetime boosters: Completed by Kindergarten *Booster dose every 10 years	Required for K-12
<b>Inactivated Poliovirus (IPV)</b>	4 doses: Completed by Kindergarten	Required for K-12
<b>Hepatitis B</b>	3 Doses: Completed by 6 months	Required for K-12
<b>Varicella</b>	2 Doses: Completed by Kindergarten	Required for K-12
<b>Hepatitis A</b>	2 doses: Completed by 18 months	Required for K-11
<b>Meningococcal (MenACWY)</b>	2 doses: 11-12 years, 16 years	Required for 7-12; College
<b>Meningococcal B</b>	1 doses: Completed by 18 years	
<b>Rotavirus</b>	2 Doses: Completed by 4 months	
<b>Haemophilus influenzae type b</b>	4 doses: Completed by 18 months	
<b>Pneumococcal conjugate (PCV13)</b>	4 doses: Completed by 18 months	
<b>Human Papillomavirus</b>	2 doses <14 years 3 doses > 15 years	
<b>Influenza</b>	Yearly with the first dose starting at 6 months	

**The CDC Recommended Child and Adolescent Immunization Schedule is comprehensive.**

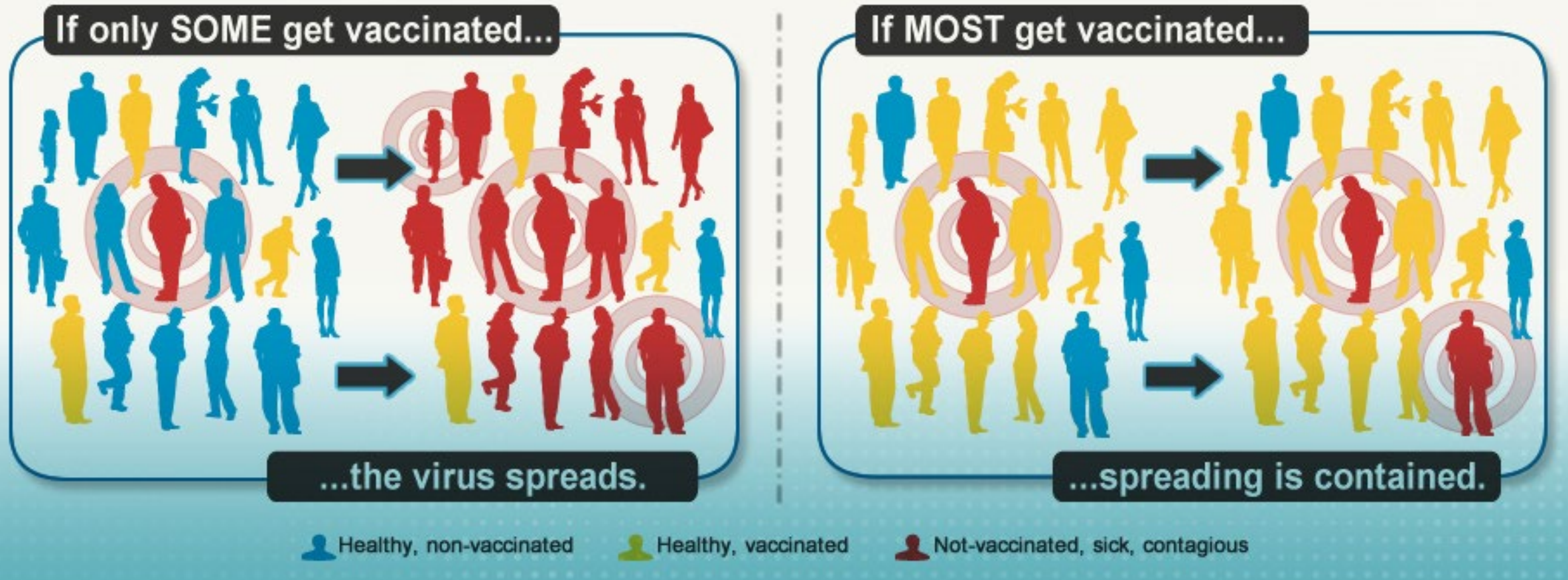


# WHAT DOES THE DATA LOOK LIKE

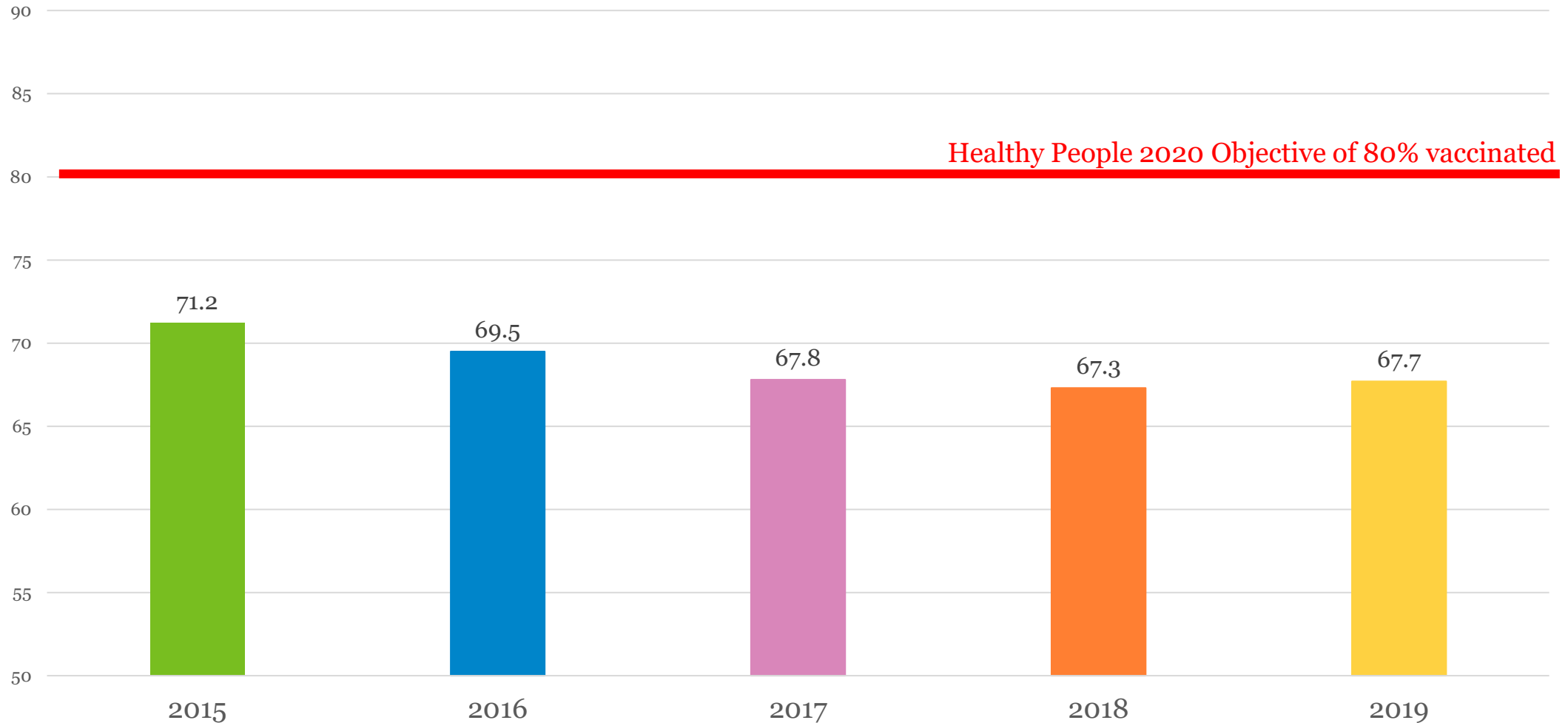




# COMMUNITY IMMUNITY: WHY IS THIS IMPORTANT?

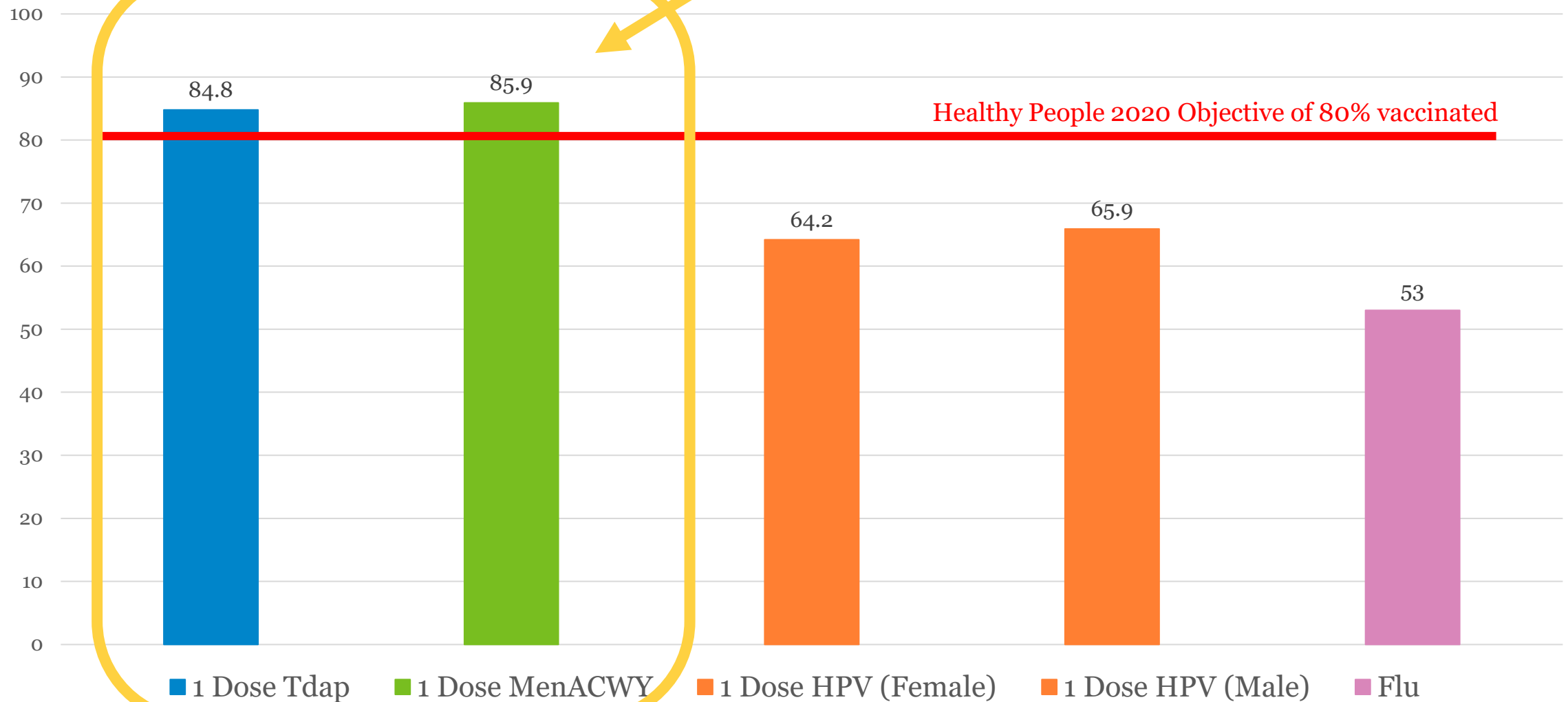


# CHILDHOOD 7-SERIES IMMUNIZATION RATES 2015-2019



# ADOLESCENT VACCINATION RATES 2019

Required vaccines for 7<sup>th</sup> Grade in Texas





# EXEMPTIONS: WHAT YOU NEED TO KNOW

- **Medical Exemptions**

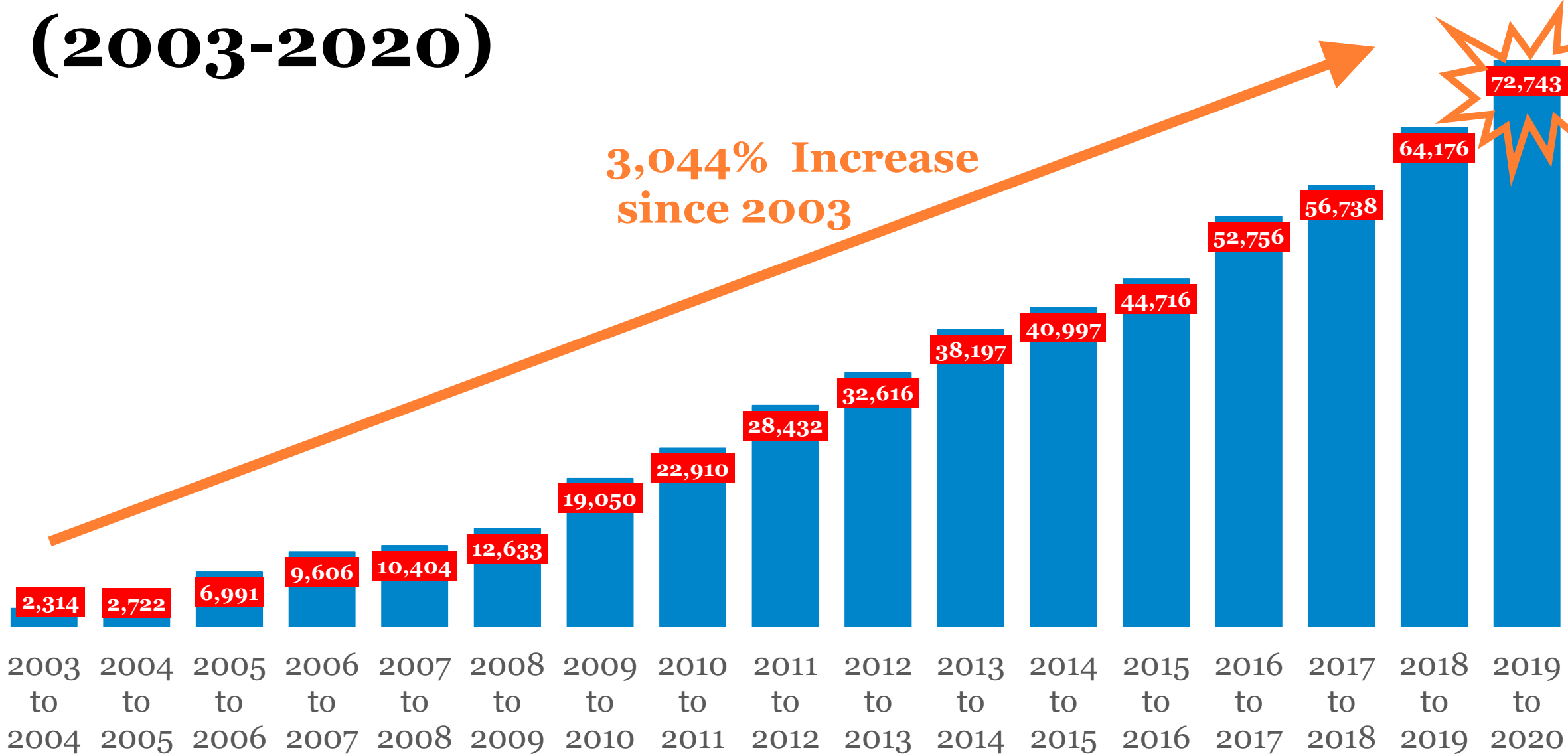
- Written statement by the physician must be submitted to the school.
- *Valid for only one year* from date of signature, unless statement indicates lifelong condition.

- **Reasons of Conscience Exemptions**, including a religious belief

- DSHS-issued affidavit must be completed by parent/guardian and submitted to the school
- *Valid for two years* from date notarized.



# TEXAS NON-MEDICAL EXEMPTIONS (2003-2020)



Source: Tex. Dep't St. Health Serv., *Vaccination Coverage Levels in Texas Schools* (May4,2020), <https://www.dshs.texas.gov/immunize/coverage/schools/>.

# PROVISIONAL ENROLLMENT

- All immunizations *should* be completed by the first day of attendance, but students that are behind schedule may be provisionally enrolled.
- A student may be enrolled provisionally if *at least one dose* of each specified age-appropriate vaccine is indicated in the student's immunization record.
- Review immunization status of a provisionally enrolled student *every 30 days* to ensure continued compliance in completing the required doses of vaccination.



**Table 1. Texas Kindergarten Annual Report of Immunization Status, 2019-2020 School Year**

Vaccine Category	Percent Completely Vaccinated	Reported Reasons for Lack of Completion, by Vaccine			
		Conscientious Exemptions	Medical Exemptions	Provisional Enrollment	Delinquent
		%	%	%	%
DTaP ( <i>Diphtheria, tetanus, and acellular pertussis</i> )	96.63%	2.01%	0.11%	0.49%	0.76%
Hepatitis A	96.40%	1.94%	0.12%	0.96%	0.58%
Hepatitis B	97.44%	1.89%	0.07%	0.18%	0.42%
MMR ( <i>Measles, mumps, and rubella</i> )	96.96%	2.05%	0.12%	0.13%	0.74%
Polio	96.82%	2.04%	0.09%	0.30%	0.75%
Varicella* ( <i>Chickenpox</i> )	96.20%	2.08%	0.15%	0.47%	0.85%

\* An additional 0.25% of kindergarten students met school entry requirements through reported history of varicella (chickenpox) disease.



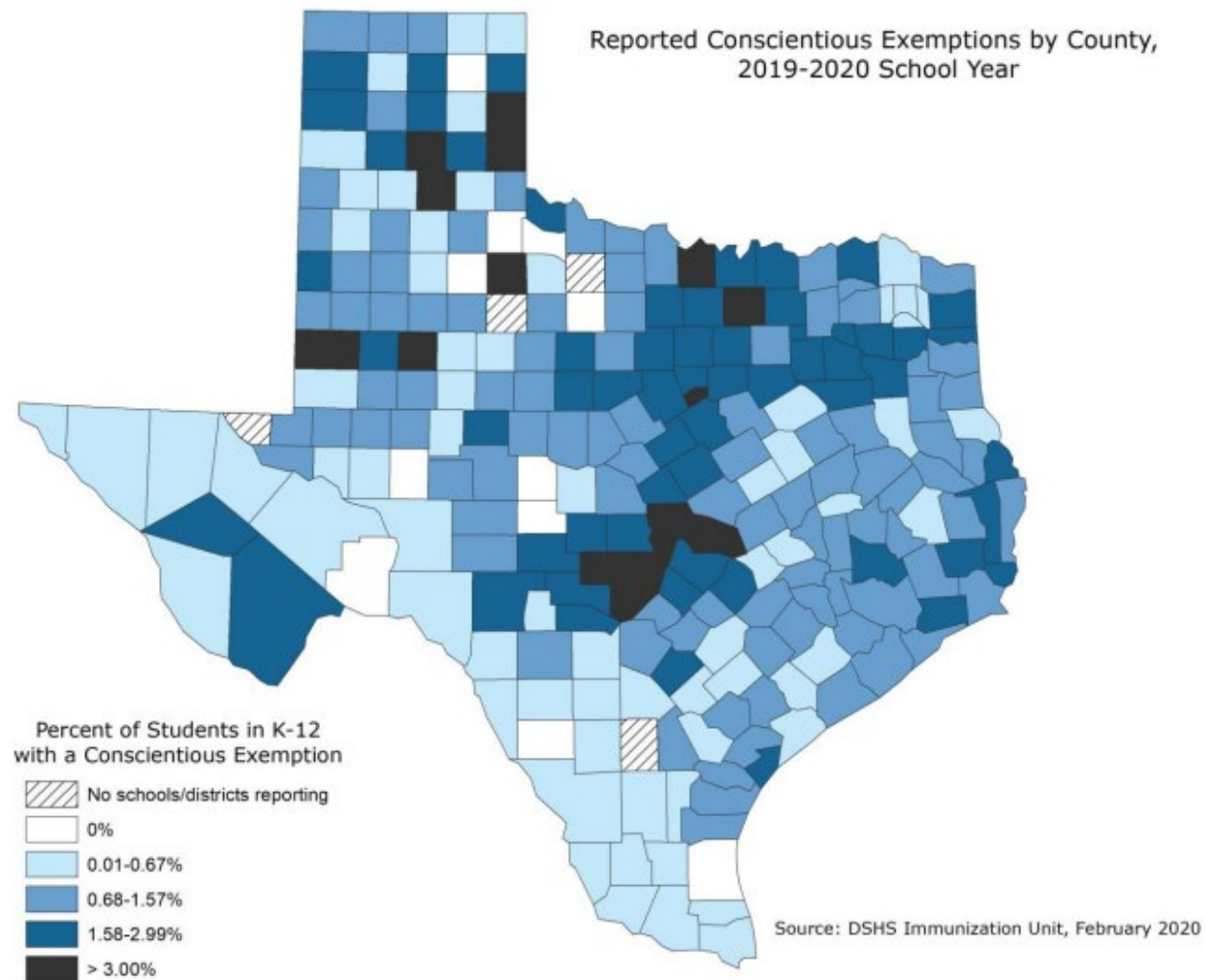
**Table 2. Texas 7<sup>th</sup> Grade Annual Report of Immunization Status, 2019-2020 School Year**

Vaccine Category	Percent Completely Vaccinated	Reported Reasons for Lack of Completion by Vaccine			
		Conscientious Exemptions	Medical Exemptions	Provisional Enrollment	Delinquent
		%	%	%	%
Tdap ( <i>Tetanus, diphtheria, and acellular pertussis</i> )	97.12%	1.37%	0.06%	0.16%	1.29%
Hepatitis A	98.21%	0.99%	0.06%	0.39%	0.35%
Hepatitis B	98.58%	0.95%	0.04%	0.12%	0.31%
MCV4 ( <i>Meningococcal conjugate</i> )	96.98%	1.33%	0.05%	0.06%	1.58%
MMR ( <i>Measles, mumps, and rubella</i> )	98.72%	0.93%	0.05%	0.04%	0.26%
Polio	98.52%	0.98%	0.04%	0.15%	0.31%
Varicella* ( <i>Chickenpox</i> )	97.37%	1.01%	0.08%	0.13%	0.36%

\* An additional 1.05% of 7<sup>th</sup> grade students met school entry requirements through reported history of varicella (chickenpox) disease.



**Figure 1. Percent of Students in Kindergarten through 12th Grade with a Conscientious Exemption on File for at Least One Vaccine, 2019-2020 School Year**



**WHAT CAN YOU DO TO KEEP  
YOUR CLASSROOM HEALTHY?**



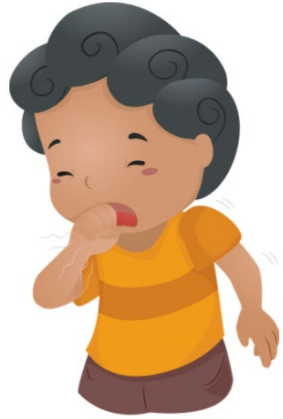
# COMMON ROUTE OF TRANSMISSION IN THE CLASSROOM

- Respiratory: Contact with respiratory particles or droplets from the nose, throat, and mouth.
- Airborne: Contact with aerosolized particles or droplets.
- Fecal-Oral: Contact with human stool; usually ingestion after contact with contaminated food or objects.





# RESPIRATORY & AIRBORNE



- Germs are easily passed from our nose or mouth to our hands and from there to other objects
  - Teach children to **cover their mouth and nose** with a tissue when coughing or sneezing
  - Immediately **discard the tissue** in the trash
  - **Wash hands** with soap and water
  - When handwashing is unavailable, hands may be cleaned with an **alcohol-based hand sanitizer** containing at least 60% alcohol.
  - Sanitizers do not eliminate all types of germs so they should be used to supplement, not replace, handwashing with soap and water



# FECAL-ORAL

- Usually occurs when hands are contaminated after using the toilet
- Teach kids to wash hands after
  - Using the bathroom
  - Playing on the playground
  - Before eating snack or lunch



# HANDWASHING

- Handwashing is one of the best ways to prevent the spread of diseases
  - **Wet hands** under warm running water, hot water is not required
  - **Apply soap** and vigorously rub hands together for at least **20 seconds** (or sing the Happy Birthday song twice) to lather all surfaces of the hands
  - Thoroughly **rinse hands** under warm running water
  - Dry hands using a single-use disposable towel or an air dryer
  - Turn off the faucet with the disposable towel, wrists, or back of hands
- **Hands should be washed frequently** (including after using the restroom, after coming into contact with bodily fluids, before eating and handling food, and any time hands are soiled)



# MAINTAIN A SANITARY SETTING

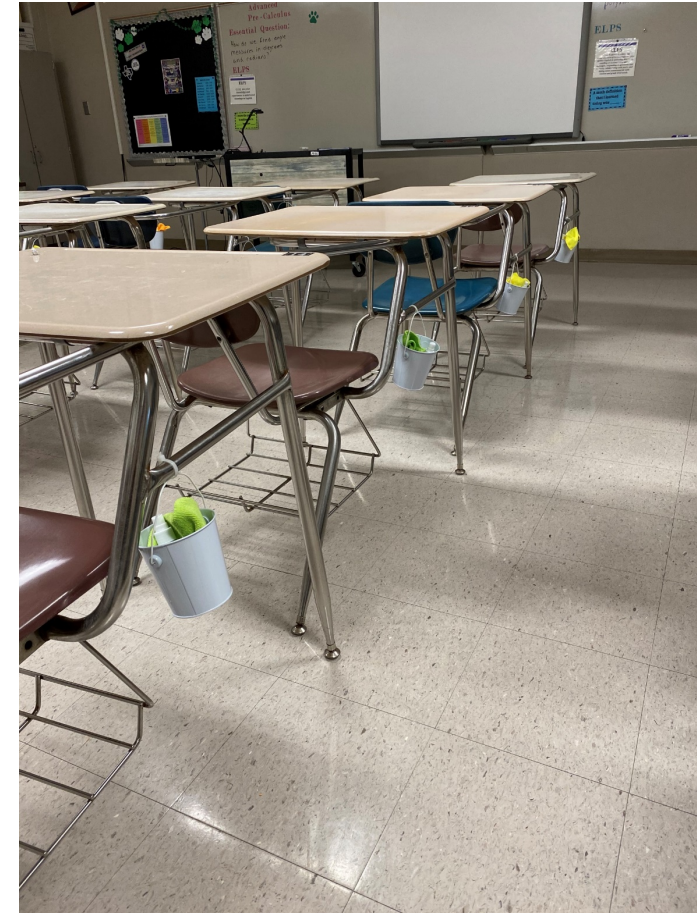


- Follow your school's standard procedures for routine cleaning and disinfecting
- Most studies have shown that influenza can survive on surfaces up to 48 hours and still have potential to be infectious



# DAILY CLEANING PRACTICES

- Sanitize surfaces and objects that are touched often in the classroom
- Immediately clean surfaces and objects that are visibly soiled
- Use disinfecting wipes on electronic items that are touched often





# TO STAY HEALTHY, TEACHERS AND ADMINISTRATORS SHOULD:

- Ask sick students and staff to stay home (and to seek medical attention when necessary).
- Keep a supply of alcohol-based hand sanitizer and sanitizing wipes.
- Teach good hand washing practices.
- Clean and disinfect classroom materials and surfaces.
- Provide reminders in daily announcements about preventing the spread of germs and illnesses.
- Adopt healthy practices, such as safe handling of food and the use of standard precautions when handling body fluids and excretions.
- Encourage students and staff to get an annual flu shot and remain up-to-date on all vaccinations.



VACCINES ARE  
ONE OF THE  
BIGGEST  
PUBLIC HEALTH  
VICTORIES  
IN HUMAN  
HISTORY

#vaccineswork

COVID  
MEASLES  
VARICELLA  
MENINGOCOCCUS  
POLIO  
TETANUS  
HEPATITIS  
PERTUSSIS  
INFLUENZA  
DIPHTHERIA



# THANK YOU!



THE  
IMMUNIZATION  
PARTNERSHIP

If you have any questions about this presentation, please email Katy Gore at [kgore@immunizeUSA.org](mailto:kgore@immunizeUSA.org)

