

2022 Community Health Worker (CHW) Training

Public Health Division
Immunization Program

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Objectives

The objective of this presentation is to learn and understand vaccine preventable diseases and immunizations; approaches to addressing client misconceptions surrounding immunizations; cultural approaches in addressing infectious diseases; how vaccines work and their adverse reactions; the basics of mortality and morbidity in prevention education; the basics of antivirals; immunity and herd immunity; the basics of vaccines, their need, and how to promote them; and the importance of collaboration in health education.

Definitions to Know

Virus	A germ that causes infections.
Infection	An invasion of the body by harmful micro-organisms or parasites.
Active Immunity	Begins when the body is exposed to a disease and triggers the immune response to send antibodies to begin fighting off that disease.
Vaccine-Induced Immunity	Begins through the beginning of a killed or weakened form of the disease organism through the vaccine.
Natural Immunity	Begins from being exposed to a disease through an infection.
Passive Immunity	Antibodies given to help fight a disease.
Antibodies	Proteins produced by the body to neutralize or destroy
Pathogen	Organism that cause diseases
Non-Infectious Disease	Diseases that are not caused by pathogens
Infectious Disease	Disorders caused by organisms that can be passed from person to person.
Antigen	A toxin or substance that activates an immune response in the body
Bacteria	One-celled micro-organisms that damage cells with toxins.
Chronic Disease	Conditions that last one year or longer, usually require ongoing medical attention and cannot be prevented by vaccines or cured by medication.
Droplet Transmission	Occurs when direct spray of large droplets enter the eyes or nose when an infected person: <i>coughs, sneezes, blows their nose, or talks.</i>

What is an infectious disease?

An infection caused by different organisms through bacteria, viruses, fungi, or parasites, called germs. It can be contracted from the environment or passed from person to person.

It is important to understand what vaccine preventable diseases are in order to educate an understanding of the different types of vaccines that are given.

Vaccine Preventable Diseases

Varicella (Chicken Pox)	Diphtheria (DTaP)	Influenza (Flu)	Hepatitis A	Hepatitis B
Haemophiles Influenzae type b (Hib)	Human Papillomavirus (HPV)	Meningococcal	Measles (MMR)	Mumps
Rubella (German Measles)	Pneumococcal	Polio	Poliomyelitis	Rotavirus
	Shingles (Herpes Zoster)	Tetanus (Lockjaw)	Pertussis (Whooping Cough)	

Varicella (Chickenpox)

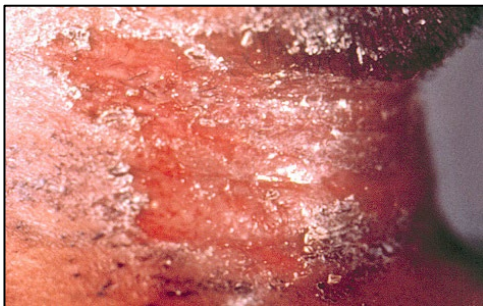
- Very contagious infection caused by a virus that causes an itchy, blister-like rash all over the body.
- Can be severe in infants under 12 months, pregnant women, and the immunocompromised.
- Symptoms usually last about a week, and can include fever, loss of appetite, tiredness, and headaches.
- Spread from person to person by coughing, sneezing, and/or directly touching the blister-like rash, or mucus of an infected person.



Diphtheria (DTaP)

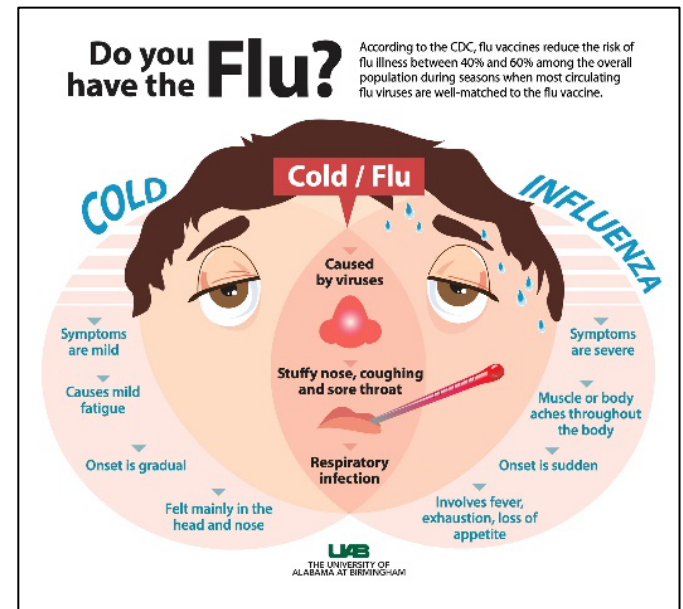


- A very rare, but serious infection caused by bacteria of the nose and throat that makes poison.
- The bacteria affects the respiratory system, which makes it hard to breathe and swallow.
- If the toxin reaches the blood stream, it can cause damage to the heart, kidneys, and nerves in the body.
- Symptoms include weakness, sore throat, fever, and swollen neck glands.
- It is spread from person to person through coughing, sneezing, and/or touching open sores.



Influenza (Flu)

- A virus that attacks the respiratory system through nose, throat, and lungs.
- Can be deadly in young children, elderly, pregnant women, and people with weakened immune systems.
- Symptoms usually last 5-7 days and can range from fever, chills, muscle aches, cough, congestion, headache, and weakness.
- It is spread from person to person through droplet transmission when a person sneezes, coughs, blows their nose, or talks.
- Complications from the flu may include bacterial pneumonia, ear infection, sinus infection, worsening of chronic medical conditions (such as congestive heart failure, asthma, or diabetes) or life-threatening sepsis





- ✓ Flu and pneumonia are respiratory illnesses that should be taken seriously. In the United States, pneumonia and the flu combined are the eighth leading cause of death. Older adults are at greater risk than younger adults for contracting pneumococcal pneumonia, the most common bacterial form of the disease. Taking steps to prevent pneumonia, recognizing the symptoms, and getting early treatment are vital to maintaining good health.
- ✓ The flu can become pneumonia. About one-third of all pneumonia cases in this country are caused by respiratory viruses, most commonly influenza.
- ✓ Both influenza and some types of pneumonia have protective vaccines, although none are completely protective.
- ✓ Flu strains change each year and annual vaccination is needed.
- ✓ Pneumonia vaccinations are usually only necessary once.
- ✓ American Indian and Alaskan Native (AI/AN) people are at high risk for flu and flu-related complications.
- ✓ Influenza and Pneumonia are in the top 10 leading causes of death for AI/AN people.
- ✓ During normal flu seasons the AI/AN death rate is 2 times higher compared to whites.
- ✓ Flu vaccination provides a greater benefit against hospitalization during moderate to severe seasons.
- ✓ The flu vaccine cannot cause the flu

Flu

Fever/feeling feverish/chills

Cough

Sore throat

Runny or stuffy nose

Muscle or body aches

Headaches

Fatigue

Vomiting and diarrhea

Pneumonia

Cough that may produce mucus

Fever and chills

Shortness of breath

Chest pain

Fatigue

Flu Vaccine

Facts & Myths



Department of Health
and Human Services
Centers for Disease Control
and Prevention

MYTH “The flu isn’t a serious disease.”

FACTS Influenza (flu) is a serious disease of the nose, throat, and lungs, and it can lead to pneumonia. Each year about 200,000 people in the U.S. are hospitalized and about 36,000 people die because of the flu. Most who die are 65 years and older. But small children less than 2 years old are as likely as those over 65 to have to go to the hospital because of the flu.

MYTH “The flu shot can cause the flu.”

FACTS The flu shot cannot cause the flu. Some people get a little soreness or redness where they get the shot. It goes away in a day or two. Serious problems from the flu shot are very rare.

MYTH “The flu shot does not work.”

FACTS Most of the time the flu shot will prevent the flu. In scientific studies, the effectiveness of the flu shot has ranged from 70% to 90% when there is a good match between circulating viruses and those in the vaccine. **Getting the vaccine is your best protection against this disease.**

MYTH “The side effects are worse than the flu.”

FACTS The worst side effect you’re likely to get from a shot is a sore arm. The nasal mist flu vaccine might cause nasal congestion, runny nose, sore throat and cough. The risk of a severe allergic reaction is less than 1 in 4 million.

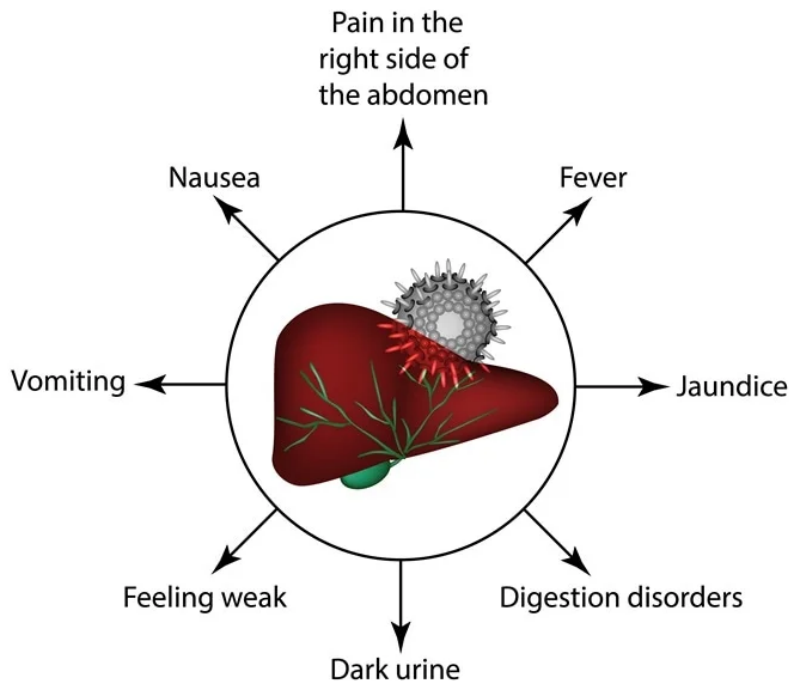
MYTH “Only older people need a flu vaccine.”

FACTS Adults and children with conditions like asthma, diabetes, heart disease, and kidney disease **need to get a flu shot**. Doctors also recommend children 6 months and older get a flu shot every year until their 5th birthday.

MYTH “You must get the flu vaccine before December.”

FACTS Flu vaccine can be given before or during the flu season. The best time to get vaccinated is October or November. **But you can get vaccinated in December or later.**

SYMPTOMS OF HEPATITIS A

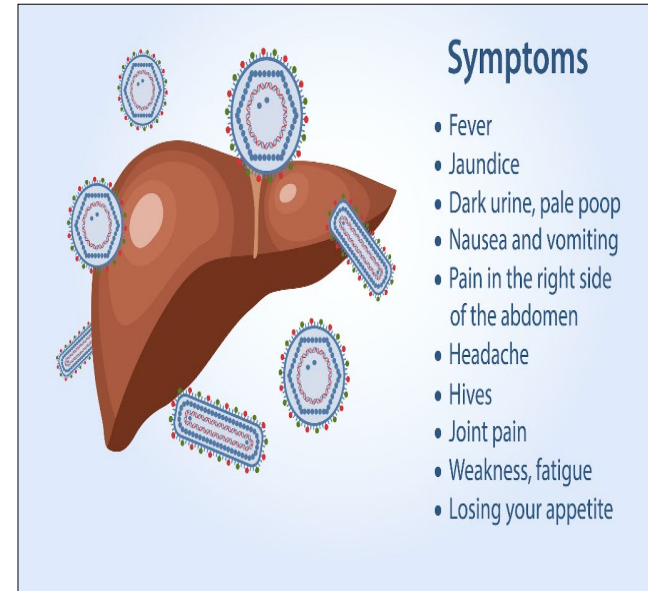


Hepatitis A (HAV)

- An infection of the liver
- Very contagious and can be found in the stool and blood of the infected person.
- Spread through close personal contact of someone who is infected or ingested through contaminated food, or drinks.
- Symptoms can last up to two months, but HAV is usually not a long-lasting illness.
- High risk groups include international travelers/adoptees, (due to diet/water ingestion), drug injection, homeless, male sex male.

Hepatitis B (HVB)

- An infection of the liver.
- Spread by bodily fluids, from person to person by sexual contact, needle sharing, mother to baby during childbirth,
- Not all infected people show symptoms right away.
- Usually, a short-term illness but can result in a long-term, chronic illness that can lead to more severe health issues such as cirrhosis or liver cancer.
- Higher risk for chronic infection if infected at a younger age.



Haemophilus Influenza Disease (HIB)

- Type of bacteria that can cause many different infections when bacteria invades parts of the body that are usually clear of germs.
- Symptoms depend on the type of infection that is transmitted.
- Infections caused by HIB can be mild or severe.
- Common types of diseases caused by HIB include:
 - Pneumonia- Lung infection
 - Sepsis- Bloodstream infection
 - Meningitis- Swelling of brain and/or spinal cord
 - Epiglottitis- Swelling of the throat
 - Cellulitis- Skin infection
 - Infectious Arthritis- Inflammation of the joints

Human Papilloma Virus (HPV)

- The most common sexually transmitted infection amongst late teens to early 20-year-olds.
- There is no cure for the virus, and in most cases, it goes away on its own but can cause severe health problems such as genital warts and/or cancer.
- It is spread through sexual intercourse with someone who has the virus through vaginal, anal, or skin to skin contact during sex.
- If you are sexually active, you are at risk even if you have only had one sexual partner.
- Protection: vaccinations as early as 9 years old, use of condoms, monogamous relationship, routine screenings for cervical cancer beginning at age 21.

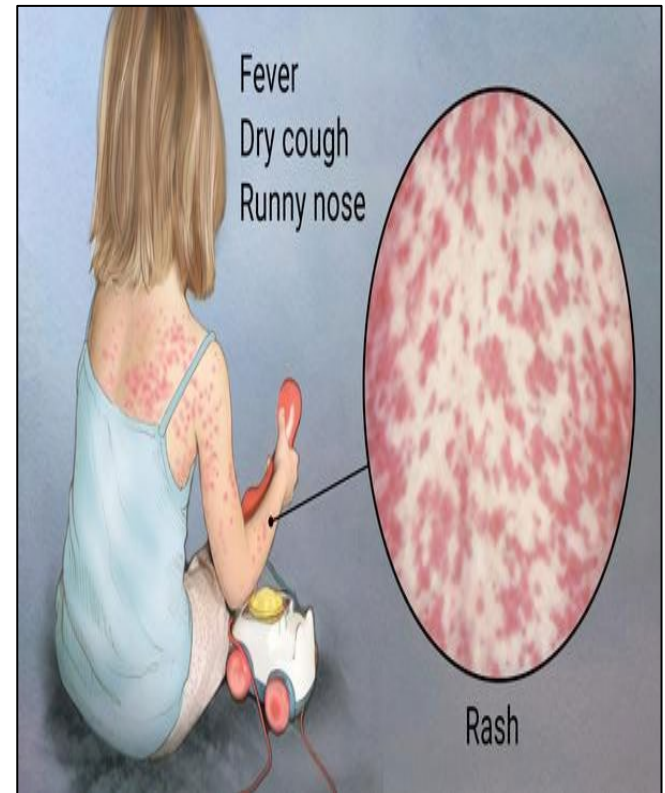
Meningococcal Disease

- Any illness caused by a bacteria called *Neisseria meningitidis*.
- Illnesses associated with the disease can be deadly such as meningitis (infection of the lining of the brain and spinal cord) and infection in the bloodstream.
- Spread by respiratory droplets, sharing saliva or kissing for long periods of time.
- Approximately 1 in 10 people carry the bacteria in the back of their nose and throat without any symptoms.
- Most common symptoms are fever, headache, and stiff neck.
- Infants who contract the virus show fewer common symptoms. Infant symptoms may include inactive, irritable, vomiting, poor feeding, or have a bulging on their soft spot.
- Risk Factors include infants, teens, elderly, college campus, medical conditions, Africa travel.



Rubeola (Measles)

- Highly contagious infection caused by the measles virus.
- Spread by droplets that last in the air for up to an hour.
- Symptoms can appear around 10-14 days after exposure and can last up to 7 days.
- Symptoms include fever, cough, runny nose, sore throat, inflamed eyes, tiny white spots in the mouth, blotchy body rash
- Infants under one year are particularly vulnerable.



Mumps



- A contagious infection that is caused by a virus that affects the salivary glands.
- It is spread by direct contact with saliva or respiratory droplets.
- Oftentimes a child is most contagious before they know they have been infected.
- Symptoms typically appear 16-18 days after transmission but can range from 12-25 days and are usually mild.
- Symptoms include puffy cheeks, tender, swollen jaw, fever, headache, muscle aches, tiredness, and loss of appetite

Rubella (German Measles)

- A contagious infection caused by the rubella virus.
- Spread through direct contact with saliva or mucus
- Symptoms appear within 2-3 weeks after exposure, which include fever, enlarge neck lymph nodes, headache, runny nose, red rash, and eye redness.
- A woman infected during pregnancy is at risk for miscarriage and serious birth defects which include heart problems, loss of hearing, loss of eyesight, intellectual disabilities, liver or spleen damage.



Pneumococcal Disease



More than
900,000
children will die
worldwide from
pneumonia:
a preventable and
treatable illness

Biggest
infectious killers
of children under 5'

15% pneumonia
9% diarrhoea
5% malaria
2% meningitis
1% HIV/AIDS

- Infection caused by a bacteria called *Streptococcus pneumoniae* that can range from ear and sinus infections to more severe infections like pneumonia and/or bloodstream infections.
- Children 2 years and younger, adults 65 years and older, and people who are immunocompromised are at higher risk.
- Spread through direct contact with saliva or mucus.
- Oftentimes children carry the bacteria with little or no symptoms.
- There are many different symptoms, depending on the infection. Some of these infections can cause long-term problems.

Polio (Poliomyelitis)

- Disabling and deadly disease caused by the poliovirus.
- Spread when the stool of an infected person is introduced into the mouth of another person through contaminated water or food. The virus can live in feces for many weeks. It spreads immediately up to two weeks after symptoms appear.
- Symptoms include sore throat, fever, tiredness, nausea, headache, and stomach pain. Even if there are no symptoms, you can still pass the virus to others.
- More serious symptoms include:
 - Paresthesia- pins and needles feeling in legs
 - Meningitis- infection of the lining of the spinal cord and/or brain
 - Paralysis- Stiffness, unable to move parts of the body, or weakness in arms and legs
 - Can lead to permanent disability and even death
- Children who have recovered from polio can develop new muscle pain, weakness, or paralysis as adults 15-40 years later.

Rotavirus

- Virus that is most common in infants and young children.
- The virus is put into the environment by an infected person's stool.
- Spread by the rotavirus particles in your mouth.
- Common ways of spread include unwashed hands, objects or surfaces that are contaminated with feces then put your hands or fingers in your mouth, consumed contaminated food



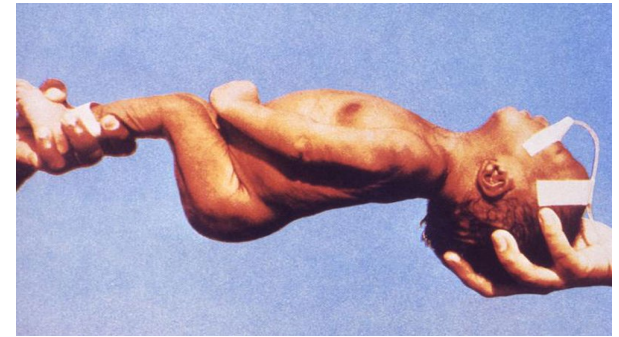


Shingles (Herpes Zoster)

- A reactivation of varicella (chickenpox), causing a painful rash, abdominal pain, diarrhea, vomiting, loss of appetite, dehydration, decreased urination, dry mouth, dizzy, no tear crying.
- Anyone who has had chickenpox may develop shingles later in life.
- A common complication is long-term nerve pain.
- Rarely, shingles can lead to blindness, pneumonia, hearing problems, brain inflammation, or death.
- You cannot transmit shingles from someone who has them, but you can transmit chickenpox from someone who has shingles if you have not had chickenpox or are unvaccinated.
- You are at greater risk for shingles if you are immunocompromised and/or receive immunosuppressant drugs.

Tetanus (Lockjaw)

- An infection caused by a bacteria called *Clostridium tetani* that produces a toxin that invades the body causing painful muscle pains.
- Infection often causes the neck and jaw muscles to lock, making it hard to open your mouth or swallow.
- It is spread through spores of the tetanus bacteria. These spores are found throughout the environment including soil, dust, and manure. These spores develop into bacteria when they enter the body.



Tetanus (Lockjaw)

Common ways Tetanus gets into the body:

- Wounds caused by an object puncturing the skin, like nails or needles
- Wounds contaminated with dirt, feces, or saliva
- Burns
- Crush injuries-prolonged compression
- Injuries with dead tissue
- Insect bites
- Dental infections
- Compound fractures-bone break is exposed
- Surgical procedures
- Clean superficial wounds
- Chronic sores and infections
- IV drug use
- Intramuscular injections

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

- Fever and sweating
- Changing in blood pressure and heart rate
- Easily broken bones
- Involuntary tightening of vocal cords

- Headache
- Pulmonary embolism
- Pneumonia
- Difficulty breathing

The time from exposure to illness is usually between 3-21 days but range from 1 day to several months and symptoms include:

Pertussis- Whooping Cough



- Highly contagious respiratory infection that's caused by bacteria *Bordetella pertussis*.
- It is known for uncontrollable, violent coughing that makes it hard to breathe.
- Affects all ages but is serious for babies less than 1 year.
- It is spread from person to person by droplets through sneezing or coughing when you share breathing space.
- You stay contagious up to two weeks after cough starts, antibiotics help, but do not take away cough completely.
- Symptoms usually begin with cold-like symptoms such as mild fever, runny nose, and an occasional cough. If it goes untreated, it can cause vomiting, exhaustion, and violent, rapid coughs until all air in your lungs is gone followed by a “whooping” sound.

Immunity

To understand vaccines, it's important to understand the immune system and how the body fights illness. When germs invade the body, they attack and multiply causing an infection which is what causes the illness. The immune system is geared to use several systems to fight infection.

- Blood contains red blood cells to carry oxygen to tissues and organs.
- White blood cells are for fighting infection which work by swallowing up germs leaving behind parts of the germs called antigens. The body then identifies these antigens as dangerous, so the body produces antibodies to attack the antigens.



Results when exposure to an illness triggers the immune response to replicate antibodies to fight off disease.



Occurs when a vaccine is introduced into the body.



Takes time to build in the body



Long- lasting

Active Immunity



Results through the placenta during pregnancy, breastfeeding or blood transfer.



Occurs when a person is given antibodies to fight off disease.



Immunity begins immediately



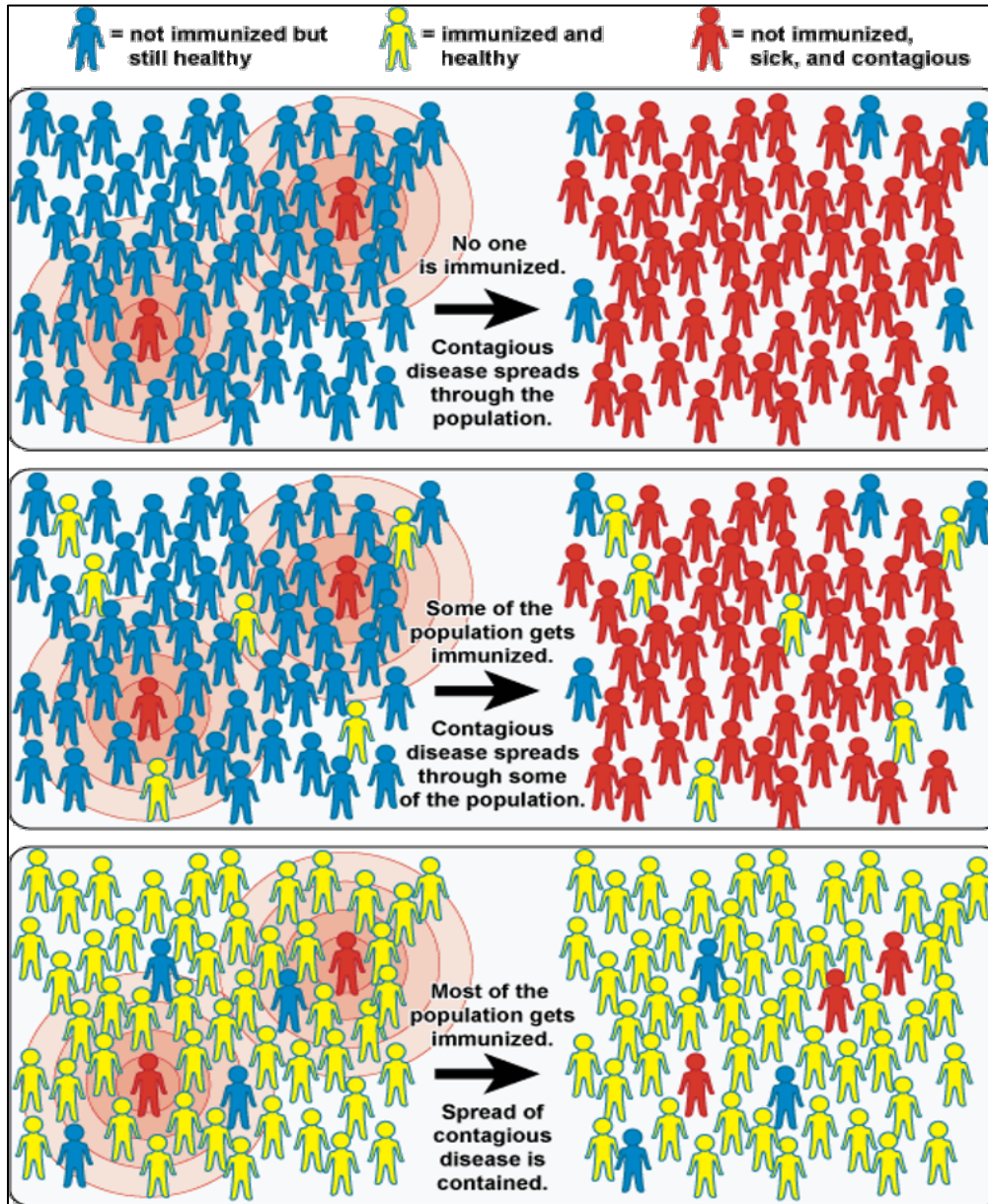
Short- lasting

Passive Immunity

Herd Immunity

- Exists when many people have been infected and become immunized with a vaccine and the chain of infection is broken.
- A way of protecting a whole community from a disease by getting a population to be vaccinated.
- Higher vaccination rates protect the public and the people that have not been vaccinated. Protection requires a high percentage of a community to be vaccinated to be effective.

**Polio and Smallpox were once deadly in the U.S. and due to widespread vaccination efforts, these diseases have become rare.*



If enough people in a community, or a “herd” are immune to a disease, it helps protect all individuals in that community, even the unvaccinated. Herd immunity is very important for those individuals who cannot get a vaccine, such as an individual who has an autoimmune disorder, or who is immunocompromised.

How Vaccines Work

- Vaccines are made from parts of the same germs that cause the infectious disease imitating an infection. Vaccines are given to introduce your body to these germs so your immune system can react to the vaccine and make antibodies.

Example:

The Inactivated Polio Vaccine (IPV) is made from the polio virus, but the germs are weakened so it doesn't make you sick.



Hepatitis B- *HepB*

- 3-dose series (Birth, 1-2, 6-18 months)

Rotavirus- *RV1/RV5*

- 2-dose series (2, 4 months)
- OR 3-dose series (2, 4, 6 months)

Diphtheria, Tetanus, & Acellular Pertussis- *DTaP*

- 5-dose series (2, 4, 6, 15-18 months, 4-6 years)

Haemophilus Influenzae- *Hib*

- 4 dose series (2, 4, 6, 12-15 months)
- OR 3-dose series (2, 4, 12-15 months)

Pneumococcal- *PCV13/ PPSV23*

- 4-dose series (2, 4, 6, 12-15 months)

Inactivated Poliovirus- *IPV*

- 4-dose series (2, 4, 6-18 months, 4-6 years)

Measles, Mumps, Rubella- *MMR*

- 2-dose series (12-15 months, 4-6 years)

Varicella- *VAR*

- 2-dose series (12-15 months, 4-6 years)

Routine Vaccines: Birth-18 Years

Routine Vaccines: Birth-18 Years

Hepatitis A- HepA

- 2-dose series (6, 12-23 months)

Influenza- Flu

- Annual dose
- 2-dose series if child has never received a flu vaccine

Meningococcal B- MenB-4C/ MenB-Fhbp

- 2-dose series at least 1 month apart
- 2-dose series at least 6 months apart

Tetanus, Diphtheria, & Acellular Pertussis- Tdap

- 1-dose (11-12 years)

Human Papillomavirus- HPV

- Dose dependent on age of initial vaccination
- Age 9 -14 years at initial vaccination: 2-dose series at (birth, 6-12 months) **minimum interval: 5 months; repeat dose if administered too soon*
- Age 15 years or older at initial vaccination: 3-dose series (birth, 1-2, 6 months) **minimum intervals: dose 1 to dose 2: 4 weeks / dose 2 to dose 3: 12 weeks / dose 1 to dose 3: 5 months; repeat dose if administered too soon*

Table 1 Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States, 2022

These recommendations must be read with the notes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars. To determine minimum intervals between doses, see the catch-up schedule (Table 2).

Vaccine	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16 yrs	17–18 yrs
Hepatitis B (HepB)	1 st dose	← 2 nd dose →							← 3 rd dose →								
Rotavirus (RV): RV1 (2-dose series), RV5 (3-dose series)			1 st dose	2 nd dose	See Notes												
Diphtheria, tetanus, acellular pertussis (DTaP <7 yrs)			1 st dose	2 nd dose	3 rd dose				← 4 th dose →			5 th dose					
Haemophilus influenzae type b (Hib)			1 st dose	2 nd dose	See Notes			← 3 rd or 4 th dose → See Notes									
Pneumococcal conjugate (PCV13)			1 st dose	2 nd dose	3 rd dose			← 4 th dose →									
Inactivated poliovirus (IPV <18 yrs)			1 st dose	2 nd dose				← 3 rd dose →				4 th dose					
Influenza (IIV4)											Annual vaccination 1 or 2 doses						
or																	
Influenza (LAIV4)												Annual vaccination 1 or 2 doses					Annual vaccination 1 dose only
Measles, mumps, rubella (MMR)					See Notes			← 1 st dose →				2 nd dose					
Varicella (VAR)								← 1 st dose →				2 nd dose					
Hepatitis A (HepA)					See Notes			2-dose series, See Notes									
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)																1 dose	
Human papillomavirus (HPV)																See Notes	
Meningococcal (MenACWY-D ≥9 mos, MenACWY-CRM ≥2 mos, MenACWY-TT ≥2 years)																1 st dose	2 nd dose
Meningococcal B (MenB-4C, MenB-FHbp)																	See Notes
Pneumococcal polysaccharide (PPSV23)																	See Notes
Dengue (DEN4CYD; 9-16 yrs)																	Seropositive in endemic areas only (See Notes)

 Range of recommended ages for all children
 Range of recommended ages for catch-up vaccination
 Range of recommended ages for certain high-risk groups
 Recommended vaccination can begin in this age group
 Recommended vaccination based on shared clinical decision-making
 No recommendation/not applicable

Vaccine Misconceptions

Natural acquired immunity is better than the immunity provided from vaccines.

- False: Natural infections can cause severe complications that can be deadly, even if the disease/illness is mild.

Vaccine preventable diseases are rare in the United States.

- True: Even though rare they do circulate around the world and can be brought to the U.S. putting the unvaccinated at higher risk

Vaccines side effects are not worth the vaccine.

- False: while side-effects are common most are mild.

Types of Vaccines

Inactivated

Subunit

Live

Toxoid

Conjugate

Inactivated Vaccines

Inactivated Vaccines or Killed Vaccines are made by inactivating or killing the germ in the process of making the vaccine. They fight viruses and bacteria to produce immune responses. This is different than live vaccines because multiple doses are necessary to build up and/or maintain immunity.

- Inactivated Vaccines include:
 - Inactivated Poliovirus (IPV)
 - Pertussis (Whooping Cough)
 - Rabies Vaccine
 - Hepatitis A Vaccine

Subunit Vaccines

Subunit vaccines only contain fragments of the germ (subunit parts) to make a strong and effective immune response. Since not all parts of the germ are entered through the vaccine side effects are less common.

- Subunit Vaccines include:
 - Hepatitis B
 - Acellular Pertussis Vaccine
 - Pneumococcal Vaccine
 - Meningococcal Vaccine

Live Vaccines

Live Vaccines are the closest thing to natural infections. A weakened form of the germ is used so it does not cause serious disease. **Children with weakened immune systems cannot get live vaccines.*

- Live Vaccines Include:
 - Measles, mumps, rubella (MMR combined vaccine)
 - Rotavirus
 - Smallpox
 - Chickenpox
 - Yellow fever

Toxoid Vaccines

Toxoid Vaccines prevent diseases that are caused by the toxins in the body by using a toxin made from the germ that causes the disease. The toxins are weakened so they cannot cause illness.

This creates immunity to the parts of the germ that cause illness rather than the actual germ. **Immunity to the harmful effects of the infection.*

- Toxoid Vaccines Include
 - Diphtheria Vaccine
 - Tetanus Vaccine

Conjugate Vaccines

Conjugate Vaccines fight different types of bacteria. The bacteria in these vaccines have antigens with a sugar-like outer coating that hides the antigen, making it hard for a young child's immature immune system to recognize and respond to it.

This is a type of a subunit vaccine which combines a weak antigen with a strong antigen as a carrier, so that the immune system has a stronger response.

- *Conjugate Vaccines Include:*
 - *Hib*
 - *Pneumococcal Conjugate*

FAQ's About Vaccines

Are vaccines safe?

Yes. Like with all medications there are some side effects, but most are minor. Serious side effects are rare, and patients should report any side effects to their health care provider.

Do vaccines cause autism?

No. There is no link between Autism Spectrum Disorder (ASD) and vaccines. Vaccine ingredients such as thimerosal is a preservative used in some vaccines to prevent contamination in multi-dose vaccines. Thimerosal contains mercury and is not like the one contained in fish which can cause damage because of their high levels. There is no link between thimerosal and autism.

Does clean water and modern hygiene protect me from diseases without vaccination?

No. While clean water and modern hygiene help prevent and slow the spread of disease, they do not eliminate the disease.

Is it okay to receive multiple vaccines in the same visit?

Yes. The vaccine schedule is designed to provide maximum protection safely. The CDC shot recommendation schedule should be followed for all vaccination needs.

I am healthy and don't need any vaccines.

Incorrect. If you are healthy vaccines are still necessary to help eliminate the spread of disease.

Can vaccines overload my baby's immune system?

No. Vaccines do not overload the immune system. A healthy baby's immune system successfully fights off thousands of germs everyday. Antigens are parts of germs that cause the body's immune system to build antibodies, which fight off diseases.

Antivirals

Medications that help the body fight off viruses that cause disease by blocking the germs so that viruses cannot replicate in healthy cells. A preventative measure to lower the risk of getting or spreading viruses because they boost the immune system. This helps fight the virus and lower the amount of active virus in the body. They treat chronic or life-threatening viral infections such as HIV or Herpes.

- Antivirals ease and shorten duration of episodes of chronic diseases, but do **NOT** cure the actual viral infection. They can make the virus inactive in the body, therefore preventing the spread of viral infections after a known or suspected exposure.
- Skipping or starting and stopping medication will allow the virus to adapt or change and the antiviral will no longer be effective. The medication cannot be taken for long periods of time.

Antibiotics VS. Antivirals

- Does not affect viruses
- Bacteria reproduces outside of the cell in the body making it easier to target.
- Wider range of development
- One antibiotic can treat many different bacterial infections.
- Helps the immune system fight off bacterial infections.
- Works against specific viral infections.
- Virus reproduces inside the cell in the body making it harder to target.
- Difficult to develop.
- More viral infections than drugs for treatment.

Healthcare Cultural Competency

- The ability of providers to effectively deliver health care services that meet the social, cultural, and linguistic needs of every patient.
- Assist the needs of all community members.
- Be respectful and responsive to all health beliefs and practices that they partake in.

*Open Attitude → Self Awareness → Awareness of Others →
Cultural Knowledge → Cultural Skills*

Being Culturally Competent

- Improve health outcomes and quality of care
- Contribute to the elimination of racial and ethnic health disparities
- Provide relevant training by health professionals

Five Elements of Cultural Competence INDIVIDUAL LEVEL

1 acknowledge cultural differences

2 understand your own culture

3 engage in self-assessment

4 acquire cultural knowledge & skills

5 view behavior within a cultural context

Lack of Cultural Competency

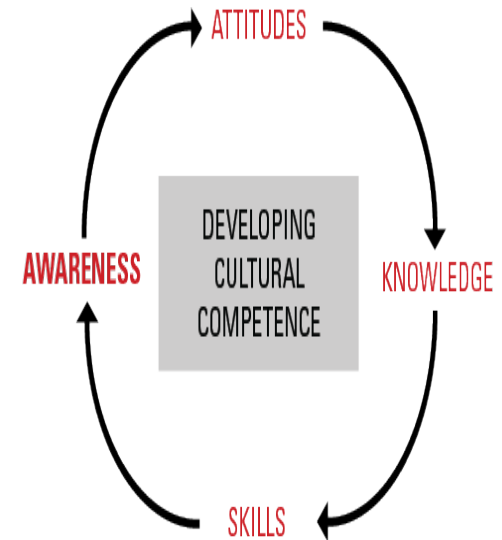
- Causes harmful health results
- Deters communication quality between patients and providers that will increase misdiagnosis and loss of trust.
- Eliminates connection with providers, minimal involvement in medical decisions, and low satisfaction from the patient.

- *Do you know your client's literacy level?*
- *Do you know if your clients have any impairments?*
- *Did you help summarize you clients' health documents?*
- *Did you help your clients understand their health records and needs?*
- *Did you help promote your client's independence to engage in their health?*

Understand the Community

Ethnic Minorities

- Often overburdened by chronic health conditions due to a lack of understanding.
- Higher morbidity and mortality rates due to chronic diseases.
- Healthcare facilities visits often occur more often due to chronic illness.



Health Education

Health education is a combination of experiences designed for communities to improve their health overall.

It is very important to understand the communities' behaviors, triggers, environmental conditions, policies, and deficiencies toward healthcare.

Collaboration in Health Education



Collaboration is defined as exchanging information or sharing resources for mutual benefit to achieve a common purpose.



In Public Health, the process begins by identifying the issue and then collaborating for a common goal to seek a resolution. This often requires working with multiple agencies.



Collaboration in health education can promote the importance of living a healthy life.

Establish Relationships

Gather Information

Identify the Problem(s)

State Target Behavior

Generate Interventions

Implement the Interventions

Evaluate the Interventions

Collaboration Process

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CLIENTS LEARN BEST WHEN THEY CAN LISTEN, REPEAT, AND PRACTICE INFORMATION.



EDUCATING AND ADVOCATING FOR CLIENTS ABOUT THEIR HEALTH.



PRESENT STRATEGIES TO MANAGE ILLNESSES AND VARIOUS DISEASES.



ADVOCATE FOR THE RELATIONSHIP BETWEEN THEIR COMMUNITY AND THEIR PROVIDERS.

Community Health Worker's Role

Morbidity

The condition of suffering from a disease or medical condition. Medical condition refers to mental or physical illness, chronic and age-related diseases. Conditions may worsen over time and lower the quality of life.

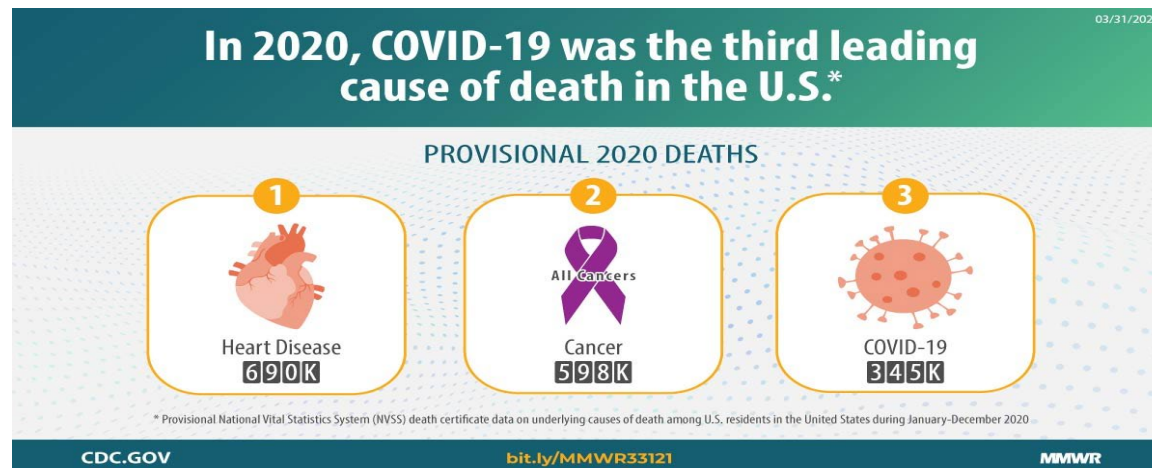
- Co-Morbidity refers to a person that has more than one illness, that does not always have the same cause, but occur together and worsen together. Ex. Depression, obesity

- Prevention Includes
 - Early and regular health screenings
 - Health education
 - Access to healthcare
 - Developing healthy habits

Common Morbidities

- Heart disease
- Cancer
- Stroke
- Alzheimer's disease
- Pneumonia
- Influenza
- Kidney disease
- COPD
- Diabetes
- Suicide
- Asthma
- Chronic respiratory disease

**Morbidity raises your risk of mortality*



Mortality

Refers to death. Mortality rate is the number of deaths caused by an event or illness over a specific period

- Excess mortality is an event or disease that causes more deaths than expected, such as COVID-19 pandemic increased death rate.

Contact Us



NMSIIS Help Desk (833) 882-6454

Immunization Record Requests, Exemption Inquiries, Data Exchange Support, VFC Support, Reconciliations, Inventory Maintenance, Training Requests, Password Resets, Duplicate Records/Patients, NMSIIS Access and Updates



COVID-19 Vaccine Email covid.vaccines@state.nm.us

COVID-19 Vaccine Inquiries

NMSIIS Email NMSIIS.Access@state.nm.us

NMSIIS Organizational and User Access, Training Requests, Password Resets, Duplicates Records/Patients



NMSIIS/Immunization Program Website

<https://www.nmhealth.org/about/phd/idb/imp/siis/>

Thank You!

