

Immunization Measures

Influenza

Routine Childhood

Appropriate Adult Composite



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Influenza Vaccination Measure

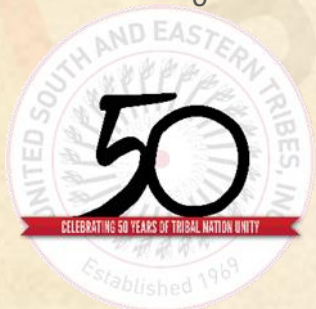
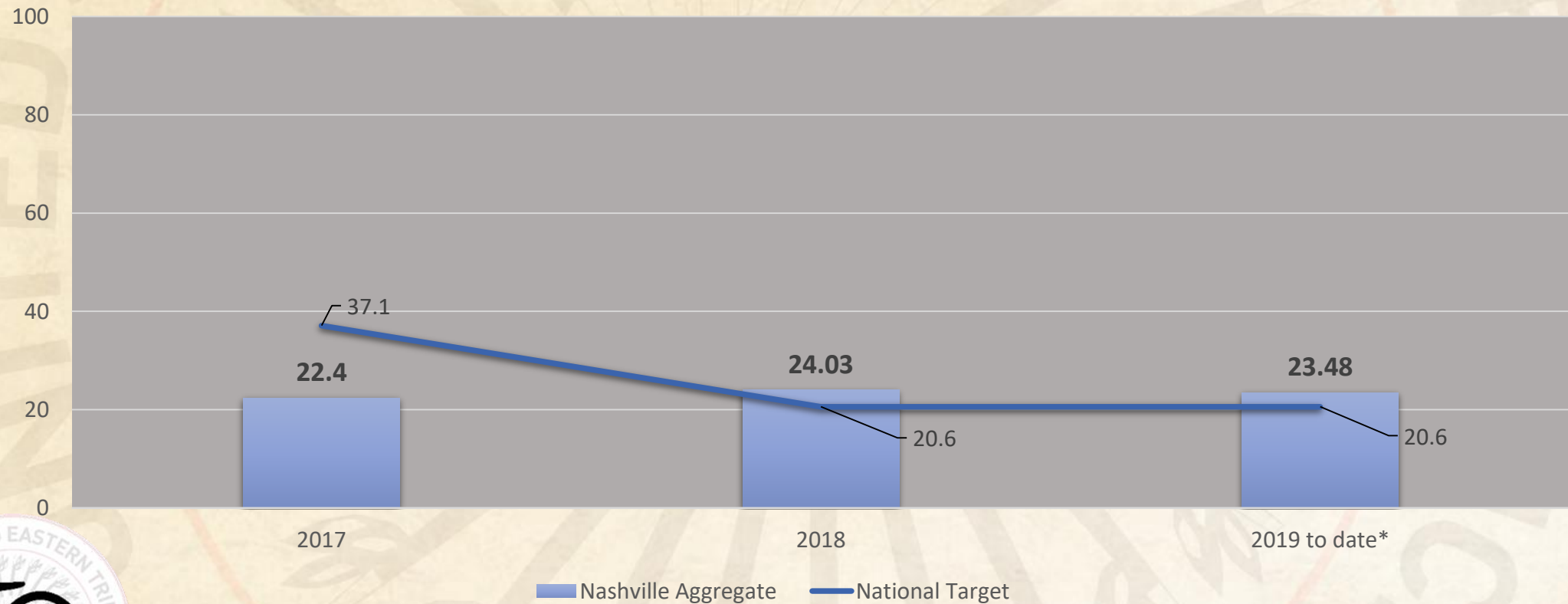
User Population patients with an influenza vaccine documented during the Report Period or with a contraindication documented at ANY time before the end of the Report Period.



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Influenza Measure Performance

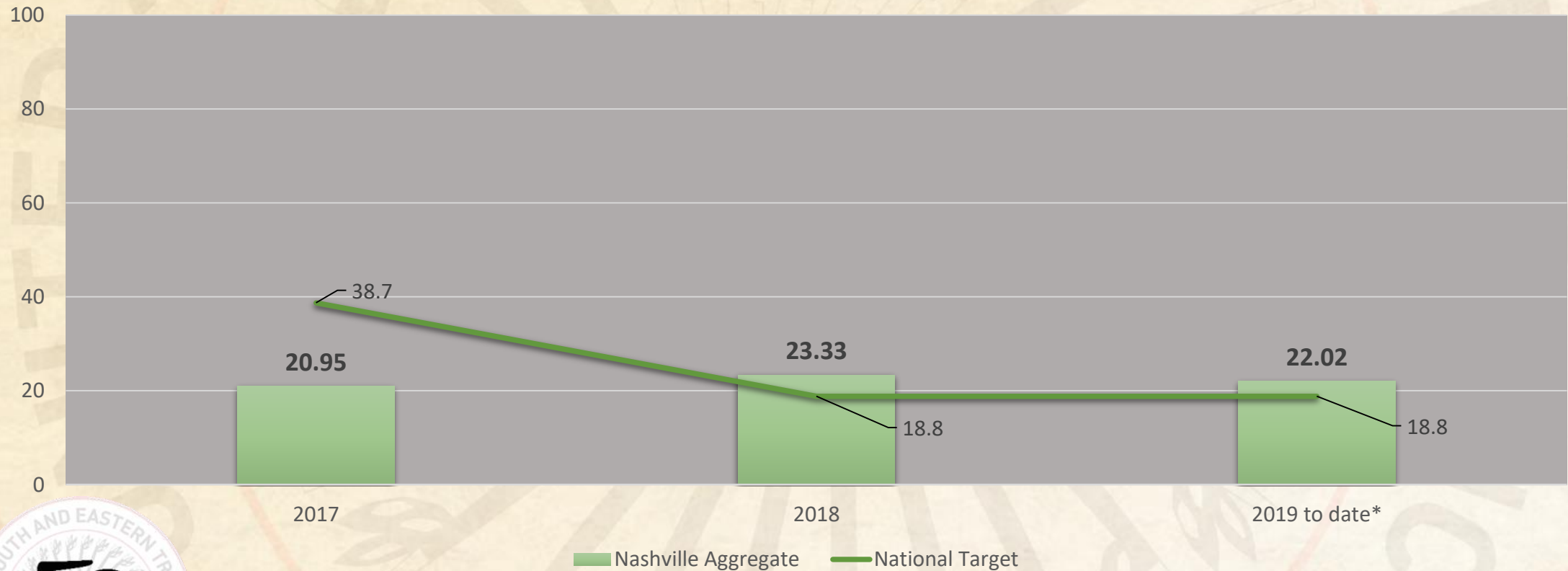
Influenza Vaccination for Ages 6 Months to 17 Years



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Influenza Performance

Influenza Vaccination for Ages 18 and Older



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Childhood Immunizations Measure

Patients who have received the 4:3:1:3*:3:1:4 combination

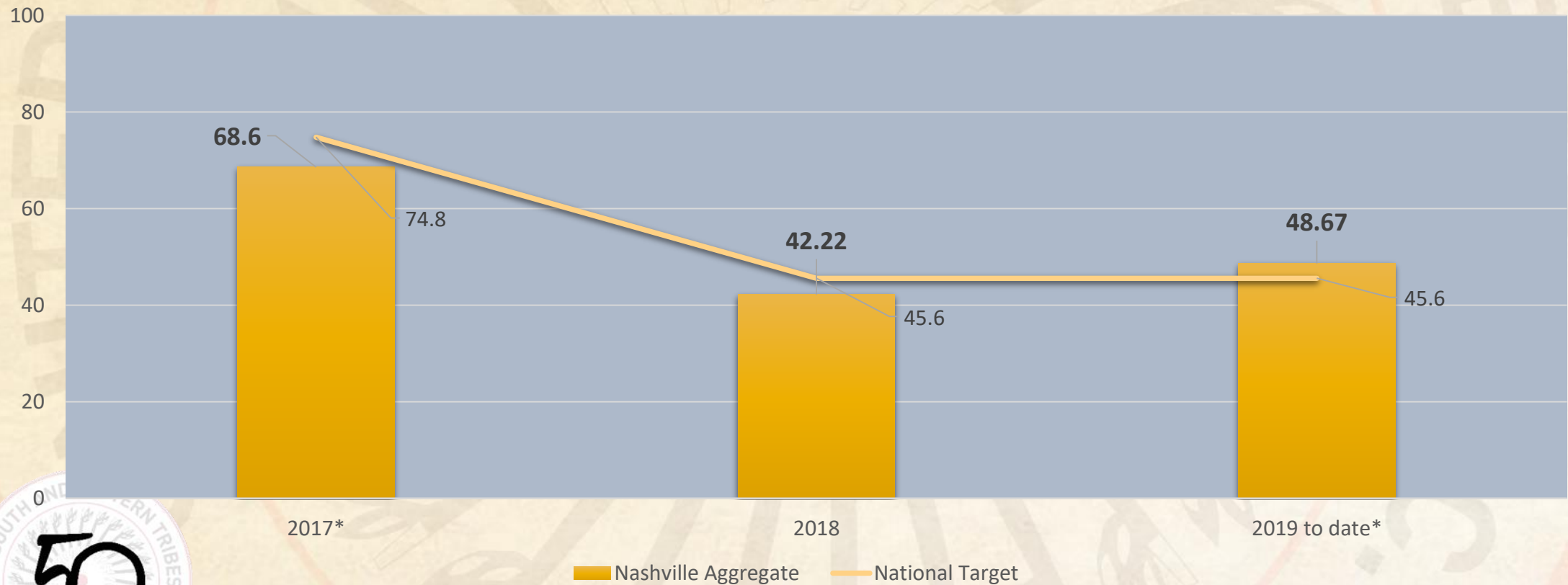
- 4 DTaP, 3 Polio, 1 MMR, 3 or 4 HIB, 3 Hepatitis B, 1 Varicella, 4 Pneumococcal
- The 3 or 4 HIB: to count for the 3 dose of HIB, the first two doses MUST be the 3-dose series, if not, then the patient MUST receive all 4 doses.



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Childhood Immunizations Measure Performance

Childhood Immunizations Ages 19 through 35 Months



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Adult Immunizations Measure

Ages	Vaccines
19-59 years	<ul style="list-style-type: none">• TD-containing vaccine in the last 10 years AND• Tdap ever
60-64 years	<ul style="list-style-type: none">• TD-containing vaccine in the last 10 years AND• Tdap ever AND• Zoster
65 years +	<ul style="list-style-type: none">• TD-containing vaccine in the last 10 years AND• Tdap ever AND• Zoster AND• Up-to-date Pneumococcal vaccine (PPSV23 or PCV13) on or after age 65 years or in last 5 years (but, wait, there's more!)



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Why is the 65 and older so confusing??

- The first three requirements are straightforward
- The up-to-date PPSV23/PCV13 is defined as:
 - Patients who received
 - a) A dose of PCV13 on or after age 19 years or who received a dose of PPSV23 in the past year **AND**
 - b) A dose of PPSV23 on or after age 65 years or a dose of PPSV23 in the past 6 years or who received a dose of PCV13 in the past year

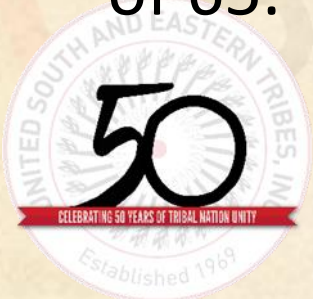
GET IT? GOT IT? GOOD. Moving on



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Just kidding 😊

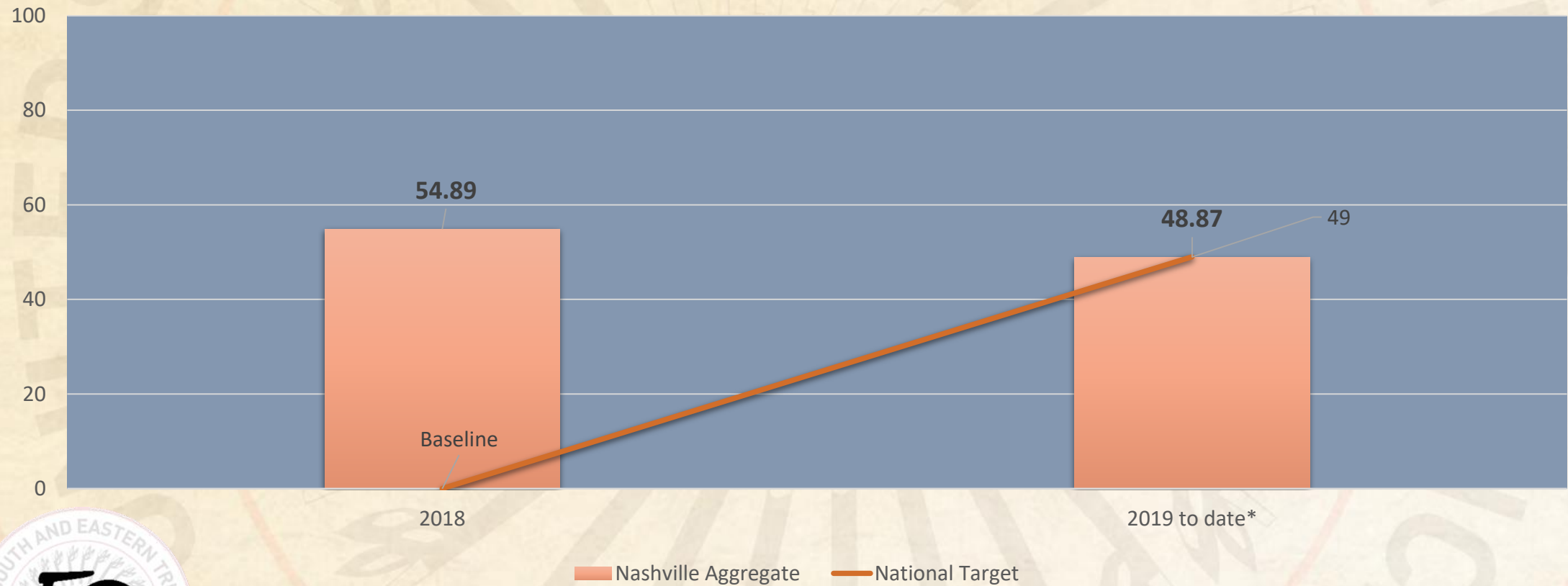
- Easier way to remember this:
 - EVERYONE must have a PCV13 at some point after the age of 19.
 - EVERYONE must have a PPSV23 AFTER the age of 65 or in the past 5 years.
- If the patient does NOT want the PCV13, or has a contraindication, the patient has to have a PPSV23 vaccine EVERY YEAR after the age of 65.
- If the patient does NOT want the PPSV23, or has a contraindication, the patient has to have the PCV13 vaccine EVERY YEAR after the age of 65.



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Adult Immunizations Measure Performance

Adult Immunization Appropriate for Age Group



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Tips to increase performance

- Utilize the state immunization registries
- Hold flu immunization clinics
- Mobilize
- Patient follow-up
- Anything other tips?



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Measles, Mumps, and Rubella...

Oh My!



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

What is measles?

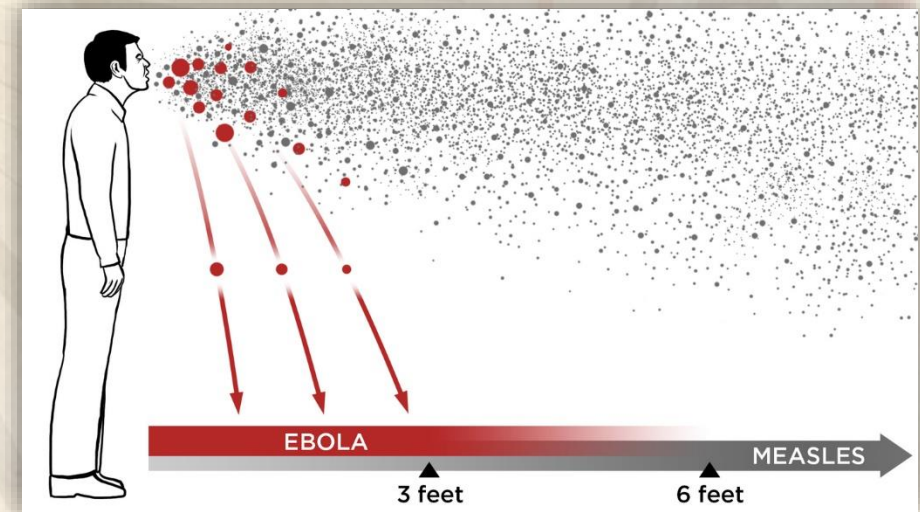
- Measles is an acute viral respiratory illness. Symptoms include:
 - Fever as high as 105°F
 - Malaise
 - Cough, nasal congestion, and conjunctivitis– the three “C’s”
 - Koplik spots, and
 - Maculopapular rash
- The rash usually appears about 14 days after a person is exposed.
- Patients are contagious from 4 days before to 4 days after the rash appears.



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

People at high risk for severe illness and complications

- Infants and children aged <5 years
- Adults aged >20 years
- Pregnant women
- People with compromised immune systems



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

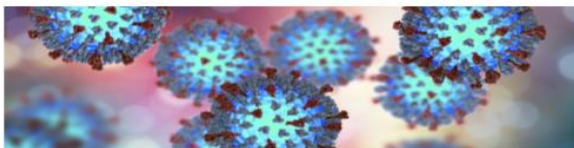
MMR Vaccine

- One dose of MMR vaccine is approximately 93% effective at preventing measles;
- Two doses are approximately 97% effective.
- First dose should be given to children at 12 through 15 months of age, and the second dose at 4 through 6 years of age, or at least 28 days following the first dose.



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Resources



Modes of Transmission	2
Diagnosis and Laboratory Testing	2
Evidence of Immunity	2
1 Vaccine and 1 Vaccine Recommendation	3
1 Vaccine for International Travelers	3
Isolation	4
Treatment	4

What is Measles?

Measles is an acute viral respiratory illness. It is characterized by the following symptoms:

- fever as high as 105°F;
- malaise;
- cough, nasal congestion, and conjunctivitis (the “3 C’s”);
- Koplik spots (see image A to the right); and
- Maculopapular rash (see image B to the right).

The rash usually appears about 14 days after a person is exposed. The rash spreads from the head to the trunk to the lower extremities. Patients are considered to be contagious from 4 days before to 4 days after the rash appears. Sometimes patients with a compromised immune system do not develop the rash.



Image A: Koplik spots are a sign of measles that appear 2 to 3 days before the rash itself. Koplik spots are characterized as clusters of white lesions inside of the mouth opposite the lower first and second molars.



Image B: A maculopapular rash is characterized by a flat, red area on the skin.

Measles Complications

Common complications from measles include:

- Ear infection,
- Bronchopneumonia,
- Croup, and
- Diarrhea

Even in previously healthy children, measles can cause serious illness requiring hospitalization.

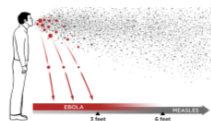
- One out of every 1,000 measles cases will develop acute encephalitis, which often results in permanent brain damage.
- One or two out of every 1,000 children who become infected with

measles will die from respiratory and neurologic complications.

- Subacute sclerosing panencephalitis (SSPE) is a rare, but fatal, degenerative disease of the central nervous system that generally develops 7 to 10 years after a measles infection.

Modes of Transmission

Measles is one of the most contagious of all infectious diseases; up to 9 out of 10 susceptible persons who come in contact with a measles patient will develop measles. The virus is transmitted by direct contact with infectious droplets or through airborne methods, such



Measles virus can remain in the air for up to two hours after the infected person leaves.

Diagnosis and Laboratory Testing

Laboratory confirmation is essential for all sporadic measles cases and all outbreaks. Detection of measles-specific IgM antibody in serum and measles RNA by real-time polymerase chain reaction (RT-PCR) in a respiratory specimen are the

most common methods for confirming measles infection. Healthcare providers should obtain both a serum sample and a throat swab (or a nasopharyngeal swab) from patients suspected to have measles at first contact with

them. Urine samples may also contain the virus and, when feasible to do so, collecting both respiratory and urine samples can increase the likelihood of detecting measles virus.



Evidence of Immunity

Acceptable evidence of measles immunity includes at least one of the following:

- Written documentation of two doses of a measles-containing vaccine.
- Laboratory evidence of immunity.
- Laboratory confirmation of measles.
- Birth before 1957.

Healthcare providers should not accept

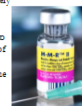
verbal reports of vaccination without written documentation as presumptive evidence of immunity.

Healthcare personnel should have documented evidence of immunity against measles. Persons born before 1957 lived through several years of epidemic measles before the first measles vaccine was licensed in 1963. These people are very likely to have had measles and should be assumed to be immune to the disease.

Vaccination

Measles can be prevented with a measles-containing vaccine, which is primarily administered as the combination measles-mumps-rubella (MMR) vaccine. The combination measles-mumps-rubella-varicella (MMRV) vaccine can be used for children aged 12 months through 12 years for protection against measles, mumps, rubella, and varicella (chicken pox). Single-antigen measles vaccine is not available.

One dose of MMR vaccine is approximately 93% effective at preventing measles; two doses are approximately 97% effective. Almost everyone who does not respond to the measles component of the first dose of MMR vaccine at age 12 months will respond to the second dose. Therefore, the second dose of MMR is administered to address primary vaccine failure.



Vaccine Recommendations

Children

CDC recommends routine childhood immunization for MMR vaccine starting with the first dose at 12 through 15 months of age, and the second dose at 4 through 6 years of age or at least 28 days following the first dose.

Students at post-high school educational institutions

CDC recommends that these students without evidence of measles immunity need two doses of MMR vaccine, with the second dose administered no earlier than 28 days after the first dose.

Adults

People who were born during or after 1957 who do not have evidence of immunity against measles (see Evidence of Immunity on previous page) should get at least one dose of MMR vaccine. People born before 1957 should have serologic testing to determine immunity if there is an outbreak in the area. If the person is not immune, at least one dose of MMR should be administered.

Vaccines for International Travelers

People 6 months of age or older who will be traveling internationally should be protected against measles before traveling internationally.

- Infants 6 through 11 months of age should receive one dose of MMR vaccine (two

that receive this vaccine should also get two more doses according to the routinely recommended schedule).

- Children 12 months of age or older should have documentation

of two doses of MMR (the first dose should be administered at age 12 months or older; the second dose no earlier than 28 days after the first dose).

- Teenagers and adults born during or after 1957 without

evidence of immunity against measles should have documentation of two doses of MMR vaccine, with the second dose administered no earlier than 28 days after the first dose.

United South and Eastern Tribes, Inc

Nashville Area Indian Health Service



"If we vaccinate well, if we increase those vaccination rates, we can stop measles just as we stopped it before."
Tom Frieden, former director of the CDC

Isolation

Infected people should be isolated for four days after they develop a rash; airborne precautions should be followed in healthcare settings. Regardless of presumptive immunity status, all healthcare staff entering the room should use respiratory protection consistent with airborne infection control precautions. Because of the possibility, albeit low, of MMR vaccine failure in healthcare providers exposed to infected patients, they should all observe airborne precautions in caring for patients with measles. The preferred placement for patients who require airborne precautions is in a single-patient airborne infection isolation room.

People without evidence of immunity who have been exempted from measles vaccination for medical, religious, or other reasons and who do not receive appropriate post-exposure prophylaxis within the appropriate timeframe should be excluded from affected institutions in the outbreak area until 21 days after the onset of rash in the last case of measles.

Treatment

There is no specific antiviral therapy for measles. Medical care is supportive and to help relieve symptoms and address complications such as bacterial infections.

Serious measles cases among children, such as those who are hospitalized, should be treated with vitamin A. Vitamin A should be administered immediately on diagnosis and repeated the next day. The recommended age-specific daily doses are

- 50,000 IU for infants younger than 6 months of age
- 100,000 IU for infants 6-11 months of age
- 200,000 IU for children 12 months of age and older

Created May 2019

Source: National Center for Immunization and Respiratory Diseases, Division of Viral Diseases, Centers for Disease Control and Prevention

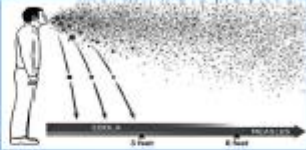


CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Get Your Measles Vaccine!

Why?

Because Measles is super contagious!



The symptoms can take weeks to show up after you've been exposed. The symptoms are:

- Rash
- Runny nose
- Cough
- Red eyes
- High fever

Measles is spread when an infected person sneezes, coughs, or exhales. A person can spread measles even before the rash appears!



When you get the vaccine, you protect those that can't protect themselves!

Measles can be dangerous, especially for babies and young children.



You can prevent Measles by getting the vaccine. Two doses of the Measles-Mumps-Rubella (MMR) vaccine is needed.



Created May 2019



Protect Those that Can't Protect Themselves!

GET YOUR MEASLES VACCINE!



Don't Get Isolated!

GET YOUR MEASLES VACCINE!

Occupants NOT Vaccinated!



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019

Questions?

Bryan Hendrix bhendrix@usetinc.org



CELEBRATING 50 YEARS OF TRIBAL NATION UNITY 1969-2019