



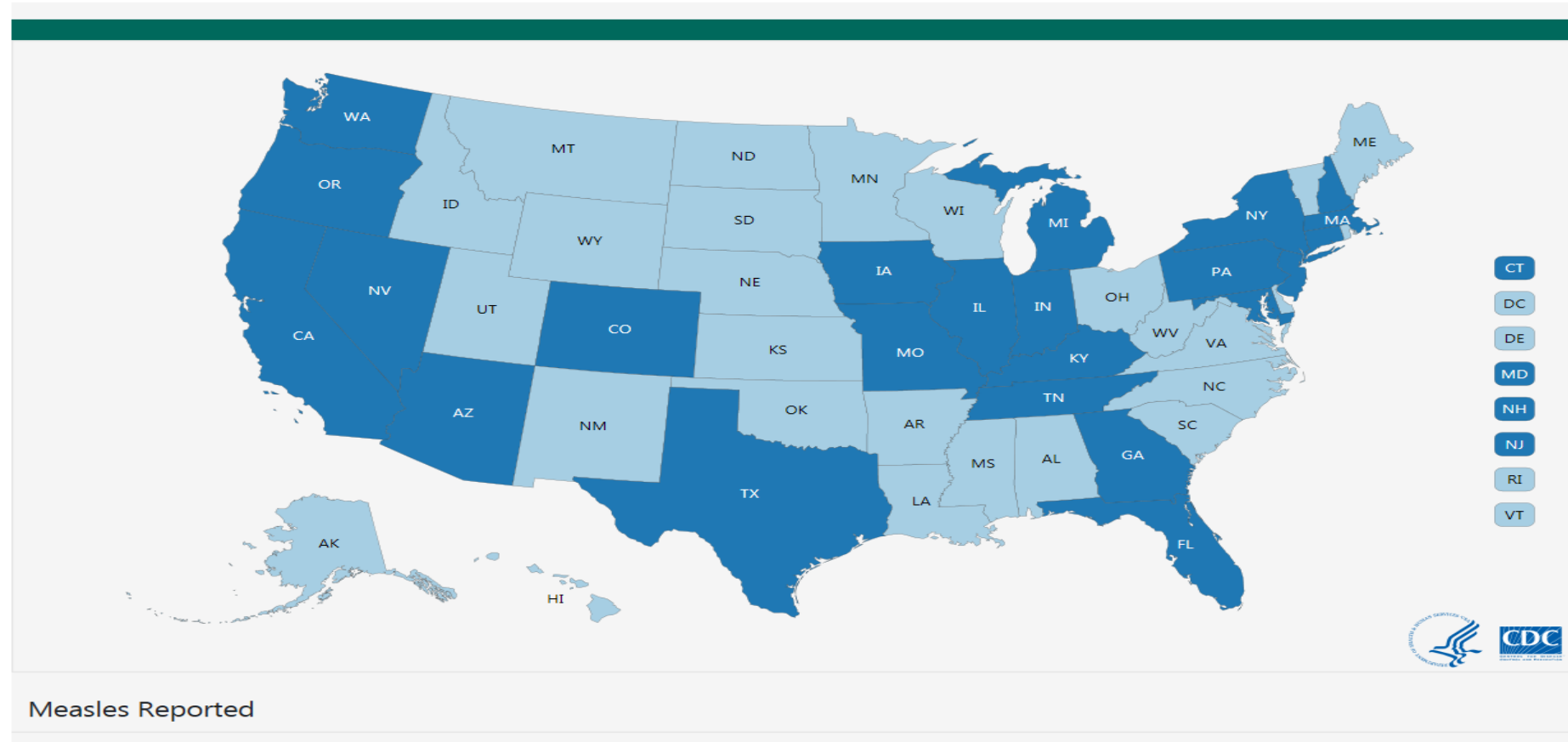
Measles Update 2019

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Measles Update 2019

States That Have Reported Measles Cases in 2019



The states that have reported cases to CDC are Arizona, California, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Michigan, Missouri, Nevada, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Texas, Tennessee, and Washington.



Measles Update 2019

U. S. Measles Outbreak 2019

- The majority of people who got measles were unvaccinated.
- Both adults and children became ill with measles in these outbreaks.
- Measles is still common in many parts of the world.
- Travelers with measles continue to bring the disease into the U.S.
- Measles can spread when it reaches a community in the U.S. where groups of people are unvaccinated

<https://www.cdc.gov/measles/cases-outbreaks.html>





Measles Update 2019

MUMPS, MEASLES, RUBELLA VACCINE (MMR)

Efficacy of Measles vaccine (administered as MMR)

- One dose of vaccine (~95% efficacy);
- Two doses of vaccine (>99 efficacy)





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Data Sources

North Carolina Immunization
Registry (NCIR)

National Immunization Survey (NIS)

Healthy People 2020





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North Carolina Immunization Registry
NCIR

Web-based NC registry where providers can enter all vaccines given, especially to children under age 19 years.

Data can be pulled by county of residence.

Caveats: Clients who move out of county or state may still be listed under original county of registry. Not all providers record vaccines in NCIR.





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National Immunization Survey

NIS

Telephone surveys used to monitor vaccination coverage among children 19–35 months.

Conducted by National Center for Immunization and Respiratory Diseases (NCIRD) of the Centers for Disease Control and Prevention (CDC).

During interview parents/guardians are asked for permission to contact child's vaccine providers. These providers are mailed surveys to collect information administered on vaccines.

State and national coverage rates are calculated based on this data.





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Healthy People 2020 Goals

- Healthy People 2020 Goals for immunization are rooted in evidence-based clinical and community activities and service, and establish coverage targets for vaccination
- Achieving and maintaining 90% coverage for individual vaccines is an important way of maintaining herd immunity.
- Herd immunity is protection from infectious disease because when more people are vaccinated, the chance of disease transmission is decreased.

<https://www.healthypeople.gov/2020/data-search/Search-the-Data#topic-area=3527>



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Children who were 2 years of age as of October 1, 2018

Number of Recommended Doses	≥ 1 MMR
Healthy People 2020 Goal	90%
National (NIS)	91.5%
NC (NIS)	92.2%
Durham County Residents (NCIR)	85%



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Kindergarten Entry – US 17-18 school year

Number of Recommended Doses	2 doses of MMR
Healthy People 2020 Goal For Children in Kindergarten	95%
Children Enrolled in Kindergarten in the US (median) (NIS)	94.3%
Children enrolled in Kindergarten in NC (NIS)	97%



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2018-2019 Durham County Kindergarten Immunization Requirements

- Durham County school kindergarteners overall had a 95% compliance rate with all required vaccines by day 30 of the school year.
- Public schools 94% of children had obtained all the required immunizations by day 30 of the school year.
- Durham county private schools 94.1 %
- Charter schools 98.6%. Only three charter schools did not report data.
- This data means that for this current 18-19 school year, the county was at 95% compliance rate with 2 MMR vaccines for kindergarteners 30 days into school year.





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Medical Exemption

§ 130A-156. Medical exemption. The Commission for Public Health shall adopt by rule medical contraindications to immunizations required by G.S. 130A-152. If a physician licensed to practice medicine in this State certifies that a required immunization is or may be detrimental to a person's health due to the presence of one of the contraindications adopted by the Commission, the person is not required to receive the specified immunization as long as the contraindication persists.





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Religious Exemption

§ 130A-157. Religious exemption. If the bona fide religious beliefs of an adult or the parent, guardian or person in loco parentis of a child are contrary to the immunization requirements contained in this Chapter, the adult or the child shall be exempt from the requirements. Upon submission of a written statement of the bona fide religious beliefs and opposition to the immunization requirements, the person may attend the college, university, school or facility without presenting a certificate of immunization.



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Estimated number and percentage of children enrolled in kindergarten with an exemption from one or more vaccines 2017 -2018 school year

	Percent of Medical Exemptions	Percent of Non-Medical Exemptions	Any Exemption
National Median (NIS)	0.2%	2.0%	2.2%
NC (NIS)	0.2%	1.8%	2.0 %





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Measles Clinical Description

- Generalized, maculopapular rash lasting ≥ 3 days
- Temperature $\geq 101^{\circ}\text{F}$ or 38.3°C
- Malaise, cough, coryza, or conjunctivitis

https://epi.dph.ncdhhs.gov/cd/lhds/manuals/cd/reportable_diseases.html





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Measles Transmission

- Infectious period – 4 days before until 4 days after rash onset
- Mode of transmission – airborne or droplet (airborne virus can remain infectious up to 2 hours after case occupied room)
- Measles cases continue to be imported since measles is endemic globally

<https://epi.dph.ncdhhs.gov/cd/lhds/manuals/cd/reportable>





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Measles Contact

- A measles contact is any person sharing air space with a case during his or her infectious period for up to 2 hours after a case has occupied that air space.

<https://epi.dph.ncdhhs.gov/cd/lhds/manuals/cd/reportable>





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Definition of Measles Outbreak

3 or more cases linked in time and place and is determined by local and state health department investigations.





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Probable Case:

In the absence of a more likely diagnosis, an illness that meets the clinical description with:

- No epidemiologic linkage to a confirmed case of measles; and
- Noncontributory or no measles laboratory testing.

https://epi.dph.ncdhhs.gov/cd/lhds/manuals/cd/reportable_diseases.html





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Confirmed Case

An acute febrile rash illness with:

- Isolation of measles virus \ddagger from a clinical specimen; or
- Detection of measles-virus specific nucleic acid \ddagger from a clinical specimen using polymerase chain reaction; or
- IgG seroconversion \ddagger or a significant rise in measles immunoglobulin G antibody \ddagger using any evaluated and validated method; or • A positive serologic test for measles immunoglobulin M antibody or
- Direct epidemiologic linkage to a case confirmed by one of the methods above





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Proof of Immunity

- Immunization with 2 doses of measles virus-containing vaccine (the first dose administered at age ≥ 12 months; the second dose no earlier than 28 days after the first dose)
- Lab evidence of immunity (measles immunoglobulin G [IgG] in serum) – equivocal results are considered non-immune
- Birth before 1957 (for HCP all persons have a serology obtained, if non-immune, they receive MMR x 2)



Measles Update 2019

Outbreak Control Measures

Immunization

1st dose at 12-15 months (for travel or outbreaks, 1st dose may be provided to infants 6-11 months of age – in these cases children should receive 2 additional doses at recommended ages)

2nd dose at 4-6 years of age (2nd dose should always be provided at least 28 days after 1st dose)

If appropriately immunized, boosters are not recommended

Contraindications: Pregnancy, immunocompromised (except HIV with CD4 >200), anaphylaxis to vaccine component





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Durham County Department of Public Health Strategies

- Immunization Program sends letters to remind families who have children in the 2 year old cohort (children age 2 by October 2018) of both missed appointments and upcoming appointments. Automatic reminder calls are programmed to remind all clients of upcoming appointments.
- Immunization Program is coordinating with Lincoln Community Health Center sites to provide MMR vaccine to both adults and children. Additional stock is now on hand to meet the increased demand for this vaccine.
- Immunization Program is conducting a review of all Public Health employee vaccines to ensure that all employees are up to date on all required vaccines, including MMR. The Immunization Program will coordinate drawing titers to check immune status and provide vaccine as needed to all employees





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Questions?



**DURHAM
COUNTY**

DCO
NC

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