

# NYS Health Connector

## New York State Measles Watch

### Overview

Office of Quality and Patient Safety  
Division of Information and Statistics

Division of Epidemiology  
Bureau of Immunization and the  
Bureau of Surveillance and Data Systems

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## Introduction

The US has experienced the largest measles outbreak since elimination of endemic virus transmission was declared in 2000. Beginning in October 2018, NYS has reported the largest number of measles cases since 1991 with transmission in communities in the Hudson valley. The majority of cases being unvaccinated or undervaccinated.

Measles can be severe and is highly infectious; following exposure, up to 90% of susceptible persons develop measles. It is spread by the airborne route, when an infected person coughs or sneezes. Measles virus can remain active and contagious for up to 2 hours in the air.

The goal of this dashboard is to provide timely information about local, regional, and statewide (excluding NYC) measles activity throughout the outbreak. This includes information regarding school vaccination requirements for upcoming school years, school immunization rates, and locations offering MMR vaccination.

The data represents laboratory-confirmed and epidemiologically linked cases of measles reported to the New York State Department of Health (NYSDOH) between October 1, 2018 to November 16, 2019, which meet a standardized case definition.

## Dashboard Data Sources and Methods

Measles data displayed are derived from the Communicable Disease Electronic Surveillance System (CDESS), NYSDOH's repository for communicable disease investigation and morbidity.

Reporting of laboratory-confirmed measles is mandated under Part 2 of the New York State Sanitary Code. Clinical laboratories, as defined in Public Health Law (PHL) § 571 electronically report positive measles laboratory test results to the NYSDOH via the Electronic Clinical Laboratory Reporting System (ECLRS).

Reporting of suspected or confirmed measles is mandated under the New York State Sanitary Code (10NYCRR 2.10 and 2.14). All physicians, nurses, laboratory directors, infection control practitioners, health care facilities, state institutions, and schools should report to the local health department where the patient resides immediately.

Measles cases are assigned to a county based on the patient's address.

New York State (NYS) [Public Health Law Section 2164](#) and [New York Codes, Rules and Regulations \(NYCRR\) Title 10, Subpart 66-1](#) require every student entering or attending public, private or parochial school in NYS to be immune to diphtheria, tetanus, pertussis, measles, mumps, rubella, poliomyelitis, hepatitis B, varicella and meningococcal in accordance with Advisory Committee on Immunization Practices (ACIP) recommendations. In accordance with this law the Bureau of Immunization conducts a yearly survey of all public, private or parochial, and BOCES schools in NYS to determine the number of students who have immunity to each disease and who are completely immune to all the diseases. Included in this survey are the number of students who have religious and medical exemptions and are currently in process of completing their vaccinations. Data is collected on all students in grades kindergarten through 12. The data for the dashboard is a percentage of the total students enrolled in each school or school district. Data is not available for individual public

schools in NYC.

Counties assigned by New York State Department of Education (NYSED) are used to define the county of the school. Data from schools within a county were aggregated to determine county percentages.

## Definitions

**Confirmed case:** A report of measles identified in a person's qualifying laboratory specimen (see Methods for more details) or persons epidemiologically linked to a laboratory confirmed case.

**Hospitalizations:** Admission of a measles case to a hospital (includes ICU admissions).

**CDC Week:** CDC designates each week of the year with a sequential number starting with 1 to a maximum of 52 or 53. Week 1 is the first week of the year that has at least four days in the calendar year (also known as MMWR week). Detailed information about how CDC week is calculated is at [https://wwwn.cdc.gov/nndss/document/MMWR\\_Week\\_overview.pdf](https://wwwn.cdc.gov/nndss/document/MMWR_Week_overview.pdf).

**Outbreak week:** The number of weeks since the beginning of the measles outbreak in New York State. October 1, 2018 is considered the start of the outbreak and this is the beginning of week 1. Outbreak weeks go from Sunday through Saturday.

**Week ending date:** The last date of each CDC or outbreak week. Each week begins on Sunday and ends on Saturday; week ending dates are always on a Saturday.

**Region:** The five regions in New York are defined by county as:

Capital District Region counties: Albany, Clinton, Columbia, Delaware, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

Central Region counties: Broome, Cayuga, Chenango, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St Lawrence, Tioga, Tompkins

Metropolitan Region counties: Dutchess, Nassau, Orange, Putnam, Rockland, Suffolk, Sullivan, Ulster, Westchester

New York City counties/boroughs: Bronx, Kings, New York, Queens, Richmond

Western Region counties: Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Wyoming, Yates

**Students:** Persons enrolled in grades kindergarten through 12 in a NYS public, private or BOCES school.

**Total Students Completely Immunized:** Percentage of students immune to diphtheria, tetanus, pertussis, measles, mumps, rubella, poliomyelitis, hepatitis B, varicella and meningococcal.

**Total Students with Measles Immunity:** Percentage of students immune to measles.

**Total Students with Exemptions:** Percentage of students who have religious and or medical exemptions.

**BOCES:** Boards of Cooperative Educational Services of New York State services include but are not limited to career and technical programs for high school students, literacy programs, professional development and instructional technology.

**Medical Exemptions:** If a physician licensed to practice medicine in New York State certifies that an immunization is detrimental to a child's health, the requirement for that immunization is waived until such immunization is no longer detrimental to the child's health.

**Religious Exemptions:** No longer valid in New York State. Effective June 13, 2019, Public Health Law § 2164 as amended by Chapter 35 of the Laws of 2019, only allows for medical exemptions from vaccination for children attending school beginning 2019 – 2020 school year. However, data shown from before June 2019 will reflect the number of students with exemptions from vaccination due to religious beliefs.

## How to Interpret the Data

Weekly data is provided to track how measles activity changes over time, and county-level data is provided to allow focus on a particular geography.

Data from the current surveillance year are in progress.

The **Measles Activity in New York State** tab displays the latest weekly data. Here, the number of confirmed cases is displayed by county and statewide (excluding NYC). Measles cases are counted in the outbreak week in which their date of rash onset occurs. Individual counties can be selected on the map to display the number of measles cases for the selected timeframe. Data displayed is based on the default timeframe “Confirmed Cases in the Last 6 Weeks”. Data can be represented from the beginning of the outbreak, the current week plus the 2 prior weeks, or the most recent. Data is available in a summary table, which presents the number of measles cases by outbreak week, and area.

The **Look-up Immunizations Rates for NYS Schools** tab displays immunization rates on the most recent school year available by public school district or private school. Here, the “Immunization Rates by School” displays data for the default public school district, “Addison Central School”, alternate school districts can be selected from the provided picklist or typing in the district name in Step 2. To review immunization rates for private schools, in Step 1 click on ‘Private School’ and in Step 2 select the appropriate school from the provided picklist or type in the school name in Step 2.

The **Summary** section presents the percentage of students immunized in the selected school district or private school, compared to immunization rates of all NYS (including NYC) schools. The second section presents **Historical Trends** of immunization and exemption rates for the selected school district or private school. The data presented is the most recent school year and the prior four school years. For public school districts the third section presents **Historical Trends** of immunization and exemption rates for the individual schools within the school district. The data presented is the most recent school year and the prior four school years. Alternate school districts can be selected from the provided picklist or typing

in the district name. Data is added yearly.

The **Map of Student Exemption Rates for NYS Schools** tab displays individual school immunization rates by county and school type. Data displayed defaults to all school types (public, private, and BOCES) and student exemption status in all NYS counties, including the boroughs/counties of NYC (data is not available for individual public schools in NYC). Individual schools can be displayed by county, school type and schools with students who have: 1.) medical and or religious exemptions or 2.) no medical or religious exemptions. By hovering over a select school (point on the map) a summary of the individual school's immunization and exemption rates is presented for the most recent school year and the prior four school years. Data is added yearly.

The **Find an MMR Vaccine Near You** tab provides users with the ability to determine if MMR vaccine clinics are available at the local health department, if there are commercial MMR vaccine clinics in their county or search for locations offering MMR vaccine.

## **Limitations**

The number of cases reported is only one measure of measles impact; information on illness severity cannot be derived from the case counts.

Despite these limitations, the data can provide useful situational awareness (e.g., trend) information during an outbreak.

School immunization survey data are reported by the school. Precautions for mathematical inaccuracies are in place but cannot ensure accuracy. Audits of approximately three percent of schools are completed each year to verify the immunization survey reporting.

## **De-identification**

The New York State Department of Health adheres to all applicable federal and state rules, regulations and standards for the de-identification of protected health information. For more information on de-identification methods, please visit: [https://www.hhs.gov/hipaa/for-professionals/privacy/special-topics/de-identification/index.html#\\_edn1](https://www.hhs.gov/hipaa/for-professionals/privacy/special-topics/de-identification/index.html#_edn1).

## **Contact Information**

For more information or questions about this data, please contact [nysapd@health.ny.gov](mailto:nysapd@health.ny.gov).