Immunization

About

Immunization is a process by which a person gains protection against a disease through vaccination. Vaccines stimulate an individual's immune system to produce antibodies, exactly as if they had been exposed to the disease. After being vaccinated, an individual develops immunity to that disease, without having to get the disease first. This is what makes vaccines such powerful medicine. Unlike most medicines, which treat or cure diseases, vaccines prevent them. The Louisiana Office of Public Health (OPH) adheres to the CDC's Advisory Committee on Immunization Practices (ACIP) recommendations on when individuals should be vaccinated for protection from different diseases. State statute also dictates what immunizations are required for students to attend schools in Louisiana.

Immunization providers administering pediatric vaccine in Louisiana report vaccinations in the immunization information system called LINKS. LINKS is a vaccination information repository that gives healthcare providers their patients' vaccination histories and forecasts which vaccines are needed going forward, and when to administer them based on ACIP recommendations. Schools are required to report the immunization status of all kindergarten and 6th grade students enrolled in classes, on a yearly basis.

The OPH Immunization Program monitors key immunization measures in populations in order to assess the current level of protection that populations have against vaccine preventable diseases, to track trends over time, and to develop and implement public health strategies and programs aimed at improving the health of Louisiana residents over time by increasing immunization rates.

About the Measures

The OPH Immunization Program, through data collected in LINKS, continually tracks the immunization coverage measures focused on the childhood 7-vaccine series completion and teen HPV two-vaccine dose completion. The childhood 7-vaccine series measure indicates the percentage of Louisiana children, ages 19-35 months of age, who are considered up-to date on the 4:3:1:3:3:1:4 vaccination series (at least 4 doses of the diphtheria, tetanus and acellular pertussis vaccine, 3 doses of polio vaccine, 1 dose of measles, mumps and rubella vaccine, 3 doses of *Haemophilus influenzae* type b vaccine, 3 doses of hepatitis B vaccine, 1 dose of varicella vaccine, and 4 doses of pneumococcal conjugate vaccine). The HPV vaccination measure indicates the percentage of 13-17 year olds in Louisiana that have received two doses of HPV vaccine, thus being considered up-to-date or fully immunized.

The school immunization data measures focus on the percentage of kindergarten and 6th grade students within Louisiana who fall into any of the following categories: 1) complete immunization record on file for student; 2) incomplete immunization record for student; 3) missing immunization record for student, or 4) student that has either a medical or non-medical exemption on file. A complete kindergarten student immunization record consists of the student having at least: 4 doses of diphtheria, tetanus and acellular pertussis vaccine, 3 doses of polio vaccine, 2 doses of measles, mumps and rubella vaccine, 3 doses of hepatitis B vaccine, and 2 doses of varicella vaccine. A complete 6th grade student immunization record consists of the student having at least: 1 dose of tetanus, diphtheria, and pertussis vaccine, 2 doses of measles, mumps and rubella vaccine, 2 doses of varicella vaccine, 3 doses of hepatitis B vaccine, and 1

dose of meningococcal conjugate vaccine. Measures within the dataset also provide a split based on whether a school is categorized as public, or non-public.

About the Data

The following data limitations may exist for the immunization coverage dataset:

- Only those vaccinations entered into LINKS before the report is generated are included. Not all immunization providers in the state participate in LINKS.
- There may be some lag time between when a vaccination is administered and when it is entered and captured into LINKS, although the lag time is usually minimal.

The following data limitations may exist for the school immunization dataset:

- Only those students selected by school personnel for the school report are included. Data does
 not include homeschooled students, students that may have enrolled after the school reporting
 deadline, etc.
- There are schools who fail to report student and school data as required by state statute.
- Schools self-select whether they are considered a public or private school, thus there is a chance of error in their selection.

Disclaimer

Data are intended to spur further research and should be used only as a starting point to understanding how the environment and other contributing factors may be connected to disease. Datasets presented on this site are intended to answer some basic questions, but should ultimately lead to further inquiry and more detailed study.

Data limitations should be noted if conducting exploratory ecological studies with these data. Limitations may include data gaps, reporting discrepancies (for example, a disruption of reporting or instrument recording following hurricanes) and insufficient data on all potentially confounding factors. There are numerous additional factors which may contribute to disease onset. These include genetics, access to health care, existing health conditions, medicines, other chemical substances we come into contact with or ingest, nutrition, route and duration of exposure, level of activity, level of stress, and many others.

Responsible use of this data therefore requires exercising caution when drawing conclusions based solely on views of the limited available data. Any perceived relationship, trend, or pattern apparent in the data should not be interpreted to imply causation; may in fact be unrelated; and should be regarded as preliminary, and potentially erroneous, until more in-depth study and if applicable, statistical evaluation, can be applied. The LDH Bureau of Health Informatics and Environmental Public Health Tracking Program cannot guarantee the completeness of the information contained in these datasets and expressly disclaim liability for errors and omissions in their content.

Data Sources

• LINKS (Louisiana's immunization information system)

Additional Information

- OPH Immunizations
- <u>CDC Vaccines</u>

Questions

• Email: <u>healthdata@la.gov</u>