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hosted by the Missouri Department of Health and Senior Services' Bureau of Immunization Assessment and Assurance
www.health.mo.gov/immunizations

webinar series

Lana Hudanick RN, BSN
Missouri Immunization Rates and Best
Practices on Raising Immunization
October 20, 2016

Objectives

- Understand what the National Immunization Survey (NIS) entails
- Understand what Missouri's NIS rate is compared to the National rate
- Understand how the influenza vaccination rate is determined
- Best Practices to increase immunization rates in the clinic setting

National Immunization Survey

- Began April 1994
- Monitors Immunization rates nationwide
- Target certain populations
- Conducted by the National Opinion Research Center (NORC) at the University of Chicago

Why was the NIS was created?

- Began as a result of the 1989-92 measles outbreak
 - Outbreak was mainly in minority, preschool-aged children
- The Childhood Immunization Initiative
 - Increase vaccination coverage of children 2 years of age and older to 90%
 - Improve vaccine delivery
 - Decrease cost of vaccination
 - Increase vaccination accessibility
 - Increase awareness of vaccination
 - Monitor vaccine coverage levels
- To facilitate Immunization Program improvement and to observe changes in behavior that increases vaccination levels



What Immunization rates does the NIS monitor?

- Immunization Coverage for
 - Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP/DT/DTP)
 - Poliovirus vaccine (Polio)
 - Measles or Measles-Mumps-Rubella vaccine (MMR)
 - Haemophilus influenza type b vaccine (Hib)
 - Hepatitis B vaccine (HepB)
 - Varicella zoster (chickenpox) vaccine (VAR)
 - Pneumococcal conjugate vaccine (PCV)
 - Rotavirus vaccine (ROT)
 - Hepatitis A vaccine (HepA)
 - Influenza vaccine (Flu)



What Immunization rates does the NIS monitor?

- Immunization Coverage for
 - Tetanus, diphtheria, acellular pertussis (Tdap)
 - Meningococcal conjugate (MenACWY)
 - Human papillomavirus (HPV)
 - Influenza vaccine (Flu)



What ages does the NIS target?

- Infants and Children 19 - 35 months of age
 - Started 1994
- Adolescents 13 -17 years of age
 - Started 2006



2015 NIS for Children 19–35 Months of age

National Immunization Survey Rates

- Telephone survey to households with children age 19 -35 months of age
- Follow up survey's mailed to identified health care providers of child
- Assesses individual vaccines as well as series completion
- Series is 4 DTaP, 3 IPV, 1 MMR, 3 Hib, 3 HepB, 1 Varicella and 4 Pneumococcal Conjugate 13 otherwise known as 4:3:1:3:3:1:4 series

2015 NIS for Children 19–35 Months of age



- The survey assessed 15,167 children nationally
- Statewide, the survey assessed 226 children in Missouri
- The survey includes children from all counties in Missouri

National Rates & Missouri Rates for Children 19–35 months old

Vaccine		Healthy People 2020 goal	National Percentage	Missouri Percentage
DTaP	4 doses	90%	84.6%	82.6%
Polio	3 doses	90%	93.7%	90.8%
MMR	1 dose	90%	91.9%	91.6%
Hib	3 doses	90%	82.7%	82.7%
Hep B	3 doses	90%	92.6%	91.4%
Varicella	1 dose	90%	91.8%	92.4%
PCV	4 doses	90%	84%	83.4%
Combined series			72%	71%

What other immunization data is gathered by the survey?

Vaccine	Healthy People 2020	National Percentage	Missouri Percentage
Birth dose HepB	85%	72.4%	75%
Rotavirus series	80%	73.2%	76%
Hep A series 2 doses			

- Birth dose of Hepatitis B rates
 - Hepatitis B vaccine administered within 3 days of birth
- Rota virus vaccination rates
 - Started no later than 14 weeks & 6 days of age
 - Completed no later than 32 weeks / 8 months of age
- Nationally less than 1% of those contacted had received no vaccinations.

Why are some vaccines higher than others?

- Missouri requires some but not all recommended vaccine series for entrance into Preschool or daycare
 - DTaP
 - Polio
 - Hib
 - Hepatitis B
 - PCV 13
 - MMR
 - Varicella
- In Missouri Hepatitis A and Rotavirus are not required vaccinations for preschool or daycare
- The combination 4:3:1:3:3:1:4 series survey rate is based on completion of vaccination series by 24 months of age



Important

Points to remember for NIS 2015

- Nationally, coverage did not change from the previous survey
- The Healthy People 2020 goal was met for 4 out of 8 vaccines
- The survey is performed by telephone with follow up mailings to providers
- Some information is discarded

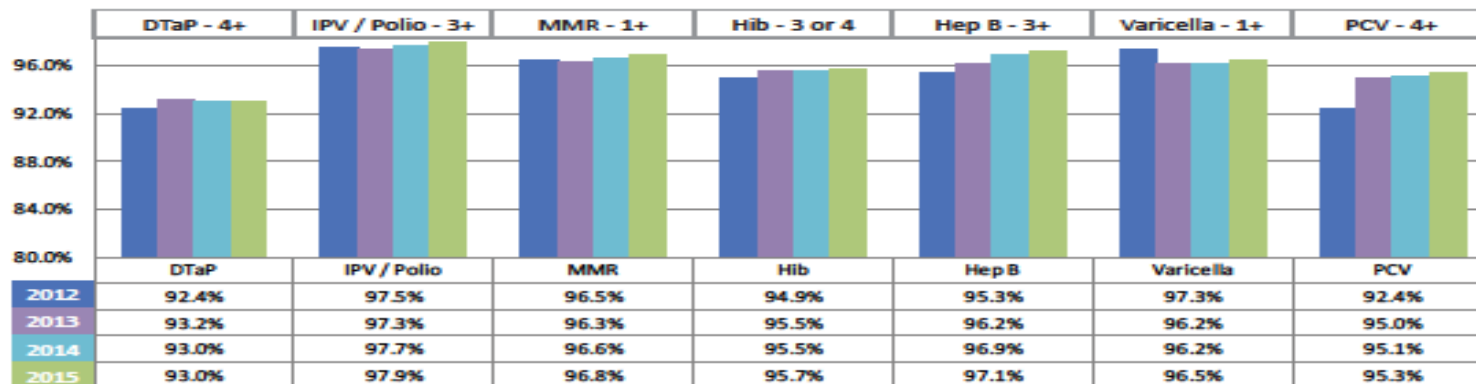
Missouri Immunization Rates

Missouri collects immunization information for children attending preschool/childcare

- Childcare Immunization Status Report
 - Completed by all daycares/preschools who care for 10 or more children
 - Completed by January 15th of each year

MISSOURI CHILD CARE IMMUNIZATION RATES 19 MONTHS THROUGH KINDERGARTEN ENTRY

IMMUNIZATION RATES BY ANTIGEN



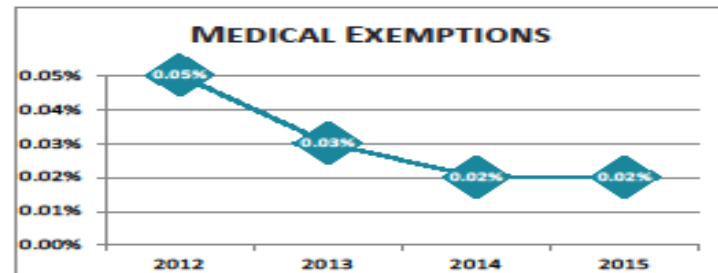
Note: Data is based on child care assessments conducted to verify compliance with Section 210.003, RSMo.

- 2012 children assessed: 20,313
- 2013 children assessed: 20,287
- 2014 children assessed: 19,765
- 2015 children assessed: 18,057

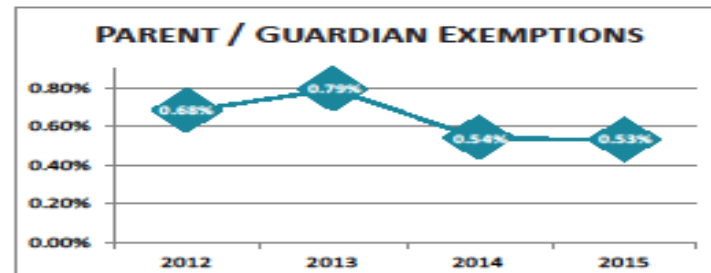
Section 210.003, RSMo requires that no child be permitted to enroll in or attend any public, private or parochial day care center, preschool or nursery school caring for 10 or more children unless the child has been adequately immunized against vaccine-preventable childhood illnesses.

Missouri Child Care Requirements for Children 19 Months through Kindergarten Entry

- DTaP: 4 or more doses of diphtheria, tetanus and pertussis vaccine
- IPV / Polio: 3 or more doses of poliovirus vaccine
- MMR: 1 or more doses of measles, mumps and rubella vaccine
- Hib: number of doses of Haemophilus influenzae type b vaccine depends on product type received and age at first dose
- Hep B: 3 or more doses of hepatitis B vaccine
- Varicella (chickenpox): 1 or more doses of varicella vaccine
- PCV: number of doses of pneumococcal conjugate vaccine depends on age at first dose



Medical exemption: certification by a licensed doctor of medicine, doctor of osteopathy or his or her designee indicating that either the immunization would seriously endanger the child's health or life, or the child has documentation of disease or laboratory evidence of immunity to the disease.



Parent / Guardian exemption: a parent or guardian exemption, by which a child shall be exempted from the requirements of this rule if one parent or guardian files a written objection to immunization with the child care administrator.



2015 NIS for Adolescents 13 – 17 years of age

- The National Survey assessed 21,875 adolescents Nationally
- Statewide the survey assessed 300 adolescents in Missouri



National Rates and Missouri Rates for 13–17 year olds

Vaccine	Healthy People 2020 Goal		National Percentage		Missouri Percentage	
Tdap	80%		86.4%		85.7%	
MCV <i>1 dose</i>	80%		81.3%		69.7%	
Varicella 2 nd Dose	90%		83.1%		68.6%	
HPV						
<i>1 dose</i> <i>F</i> <i>M</i>			62.8%	49.8%	59.3%	44.7%
<i>3 doses</i> <i>F</i> <i>M</i>	80%	80%	41.9%	28.1%	31.5%	25.1%

Points to remember for NIS 2015

- Missouri does have a 8th-12th grade school requirement for Tdap and according to the annual school survey from 2015, the Tdap rate is 96.8%
- The MCV rate should increase as this is the first year the vaccination is required for 8th grade and 12th grade



Missouri Eighth Grade Immunization Rates

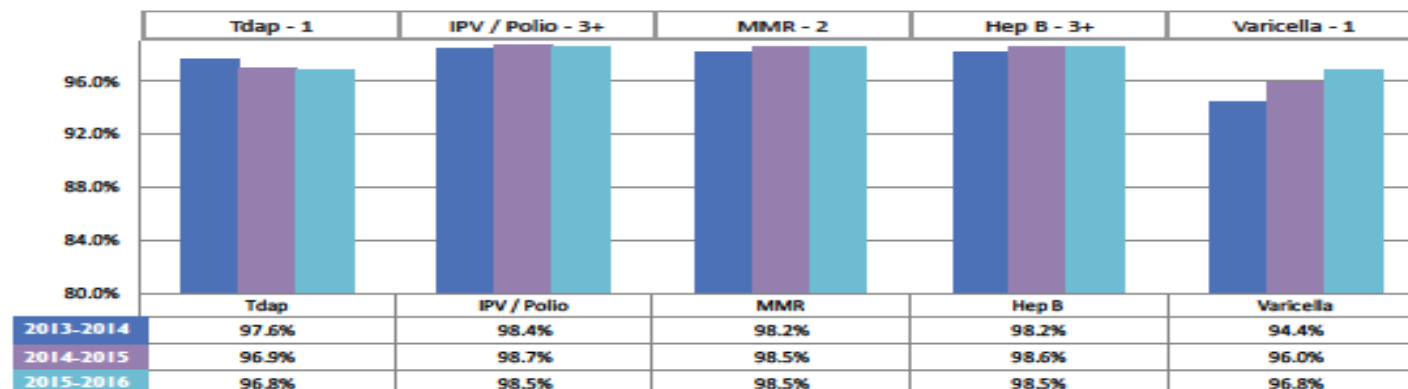
Missouri has a state statute which requires schools in Missouri to submit an immunization status report

- Aggregate report by vaccine antigen
- Number of students enrolled
- All students are assessed each year
- Annual report submitted by October 15 each year
- Bureau of Immunization posts kindergarten and eighth grade immunization rates on the website

MISSOURI SCHOOL IMMUNIZATION RATES

EIGHTH GRADE

IMMUNIZATION RATES BY ANTIGEN



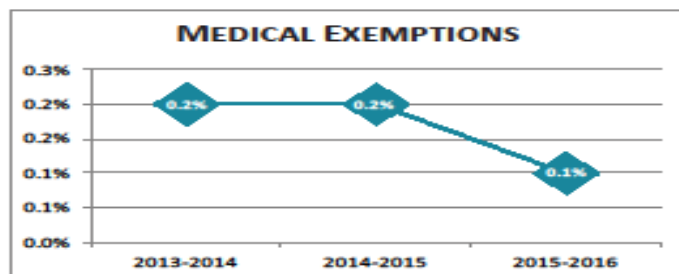
Note: Data is based on self-reported school summary report data in compliance with 19 CSR 20.28.010.

- 2013-2014 children enrolled: 75,123
- 2014-2015 children enrolled: 74,426
- 2015-2016 children enrolled: 73,954

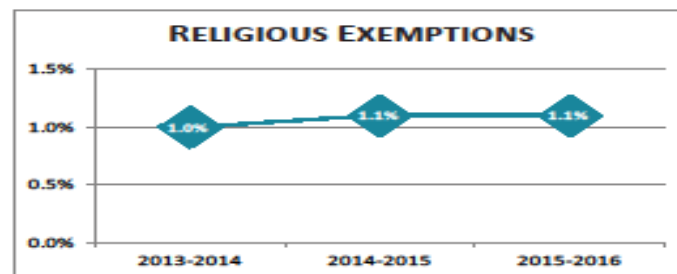
As stated in 19 CSR 20.28.010, it is unlawful for any student to attend school unless the student has been immunized according to this rule or unless a signed statement of medical or religious exemption is on file with the school administrator.

Missouri Eighth Grade Requirements

- DTaP: 4 or more doses of diphtheria, tetanus and pertussis vaccine
- Tdap: 1 booster dose of tetanus, diphtheria and pertussis vaccine
- IPV / Polio: 3 or more doses of poliovirus vaccine
- MMR: 2 doses of measles, mumps and rubella vaccine
- Hep B: 3 or more doses of hepatitis B vaccine



Medical exemption: certification by a licensed doctor of medicine, doctor of osteopathy or his or her designee indicating that either the immunization would seriously endanger the child's health or life, or the child has documentation of disease or laboratory evidence of immunity to the disease.



Religious exemption: a parent or guardian objects in writing to the school administrator that immunization of that student violates his / her religious beliefs.



National Immunization Survey data

Influenza

- Influenza vaccination data is collected along with other immunization data for children
 - 19-35 months of age
 - 13-17 years of age
- A short flu survey is conducted by NIS for children of these ages:
 - 6-18 months of age
 - 5-12 years of age

Behavioral Risk Factor Surveillance System

- A telephone survey to monitor major behavioral risks among adults in the U.S.
- All fifty states and Washington DC plus three U.S territories participate
- Data is collected on actual behaviors
- Data collected is used in health promotion and disease prevention

Influenza Vaccination Rates

National vs Missouri

Age Group	Healthy People 2020	National Average	Missouri Average
6 mo and older	70%	45.6%	47.4%
6 mo – 17 years of age	80%	59.3%	59.4%
6 mo – 4 years	80%	70%	68%
5 – 12 years of age	80%	61.8%	67.4%
13 – 17 years of age	80%	46.8%	39.4%
18 – 64 years of age	70%	36.3%	37.1%
18 – 49 years of age	80%	32.7%	32.4%
HR 18 – 49 years of age	90%	46.0%	44.9%
50 – 64 years of age	80%	43.6%	45.7%
65 years of age	80%	63.4%	69.8%

Points to remember

- Missouri and the Nation were down as a whole on flu vaccination by 1.9%
- Coverage relatively stayed the same as the previous year
- No age group approached the Healthy People 2020 target



BEST
PRACTiCE



IN RAISING IMMUNIZATION RATES

Raising Immunization Rates

Evidence-based strategies from The Guide to Community Preventive Services

- Enhancing Access to Vaccination Services
- Increasing Community Demand
- Provider-or System-Based Interventions

Enhancing Immunization Access

Make it easier for people to get vaccinated

- Provide vaccinations in schools and child care centers
- Work with your local Women, Infant, Child (WIC) offices
- Home visits

Immunization Access: Schools and Childcare

Why collaborate with childcare/preschool to increase immunizations?

- 300,694* children under 6 years of age with working parents
- 33,205* of these children receiving some form of public assistance

*Figures from Childcare Aware

Immunization Access: Schools and Childcare

Why collaborate with local schools to increase immunization rates?

- 800,000+ children in Missouri are enrolled in school
- 522 public school districts in Missouri

Immunization Access: WIC

Missouri numbers

- 242 WIC clinics throughout the state
- WIC provides food and nutrition counseling services to
 - Pregnant women
 - Infants birth-12 months of age
 - Children 1-5 years of age
- 135,000* participants on average



*2015 data

Increasing Access: Home Visits

Might be too labor-intensive to immunize at home but work with home visiting organizations to assess and refer their clients for immunizations

- Parents as Teachers
- Early Head Start/ Head Start
- First Steps
- Nurses for Newborns



Increasing Community Demand

Encouraging people to get immunized can increase immunization rates

- Immunization Reminder/Recall programs
- Mandated Immunizations

Increasing Community Demand: Immunization Reminder/Recall Programs

Reminder/Recall systems can work in a range of settings

- Community
 - Specific populations
 - 15-35 month old reminder/recall program
 - Missing one or more immunizations from the 4:3:1:3:3:1:4 series
- Individual healthcare clinics
 - Missed appointments
 - Upcoming appointments

Increasing Community Demand: Mandated vaccination requirements

Missouri mandates immunization requirements for:

- Preschool/childcare attendance
 - All ACIP recommended immunizations except for
 - Hepatitis A, Flu and Rotavirus
- School attendance
 - All ACIP recommended immunizations except for
 - Hepatitis A, Flu, HPV and MenB



Provider-or System-Based Interventions

- ShowMeVax
- AFIX
- Standing Orders for immunizations
- Best Practice Alerts

Provider- or System-Based Interventions: ShowMeVax

ShowMeVax

- Assess client's immunization status
- Decision support for clinician
- Able to run immunization reports for clinicians
- Assist with Vaccine accountability and ordering

Provider-or System-Based Interventions: AFIX

- Assessment
 - Review immunization records for specific populations at clinics
- Feedback
 - Identify immunization rates for specific populations
 - Review missed opportunities for immunizations
 - Review what is working well
- Incentive
- eXchange

Provider-or System-Based Interventions: Standing Orders

Allows nurses and pharmacists in Missouri to assess and administer the recommended immunizations without a physician being present

- Clinics
- Hospitals
- Pharmacies
- Long-term care facilities



Provider- or System-Based Interventions: Best Practice Alerts

Remind the provider that immunizations are due by utilizing:

- Chart notes
- Computerized alerts
- checklists

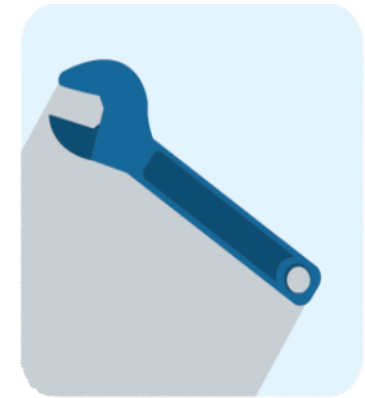




Resources

Resources Available

- Easy to read Immunization Schedules
 - Adult, infant & adolescent
- Infographics on Immunizations
 - HPV & Hep B
- Clinic tools
 - Pneumococcal Algorithm
- Posters, Fact sheets
 - Flu, pertussis, HPV & Meningococcal
- Postage Paid reminder/recall cards
 - Adults, infant/child and adolescent



RESOURCES

Immunization is the single most important way parents can protect their children against serious diseases.

Some of these vaccines may be given in combination, meaning fewer shots.  Can be given as early as 12 months, if there is six months since third dose

Mosconi's Immunization schedule is compatible with the current recommendations of the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP). For more information, please visit the Missouri Department of Health and Senior Services, Bureau of Immunizations at 800.219.8234 or visit <http://www.health.mo.gov/immunizations>. An ACIP, AAP, and AAFP Accredited Action Plan is also available. Services provided at no additional consultation fee.

The Advisory Committee on Immunization Practices (ACIP) recommends all adults 65 years of age and older receive both PCV13 and PPSV23 pneumococcal vaccinations. ACIP also recommends adults 19 through 64 years of age who have underlying medical conditions receive pneumococcal vaccination with PCV13, PPSV23, or both. A second dose of PPSV23 before age 65 is not recommended for adults with Cerebral Spinal Fluid Leaks or adults with cochlear implants.

429-38-573

100+ HPV types
can be low-risk causing genital warts
or high-risk causing cancers.

33,000 cancers
are caused by HPV each year in the
United States.

HPV types 16 and 18
have been identified as the leading
causes of HPV cancers.

79 million
Americans are infected with HPV and another 14 million are added each year

Specific cancers include:

Are vaccines currently available?
There are currently two vaccines for males and three vaccines for females. Vaccines are for individuals 9 through 26 years of age. Talk to your health care professional or medical provider to see if vaccination is right for you and your family.

When is vaccination recommended?
Vaccination is recommended for all children and adolescents 11 through 14 years of age. Catch up vaccination is recommended to begin as soon as 15 through 18 years of age.

Do I really need HPV vaccine?

HPV is spread person-to-person with skin to skin contact. Most spread by intimate contact with another person who is infected.

Is there a treatment for HPV infection?

No, there is no treatment. Most infections resolve without problems, but some infections can continue causing long-term serious and sometimes fatal illness.

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 nevada.nv.gov/immunization for 100% (2010) • Immunization recorded as a communicable disease

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According to our records your preteen/teen is now due or past due for immunizations. These immunizations include but are not limited to:

- | | |
|--|---|
| <input type="checkbox"/> Tdap | <input type="checkbox"/> Varicella #2 |
| <input type="checkbox"/> Influenza | <input type="checkbox"/> HPV |
| <input type="checkbox"/> Meningococcal (MenACWY) | <input type="checkbox"/> Meningococcal B (MenB) |

Please contact our office as soon as possible to get your preteen or teen back on track!

If your preteen or teen has received immunizations from another provider, please notify us so we can update your child's records.

(nB)

Assistance for Immunization Providers

- Immunization Quality Manager (IQM)
 - Assistance with Vaccines for Children Program
 - Visits
- ShowMeVax
 - Online Trainings
 - Support staff available for
 - Calls
 - Trainings

Assistance for Immunization Providers

- Trainings
 - VFC411
 - Immunizations411 Move the Needle on Immunization Rates
 - Missouri Immunization Conference 2017
 - Immunizations411 Monthly Webinars
- Assistance
 - In-person trainings
 - Phone calls
 - Online support
 - ShowMeVax reports

Questions

Lana Hudanick RN,BSN

Public Health Consultant Nurse

Bureau of Immunizations

Missouri Department of Health and Senior
Services

314-982-8260

lane.hudanick@health.mo.gov