Measles -- 2019

Melinda Wharton, MD, MPH
Director, Immunization Services Division
Centers for Disease Control and Prevention

National Vaccine Advisory Committee
Washington, D.C.
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Global Measles Update

Measles -- 2019
Measles case distribution by month and WHO Region (2015-2019)

Month of onset

Measles cases (Lab+Ep+Clinical)

Notes: Based on data received 2019-05 - Data Source: IVB Database - This is surveillance data, hence for the last month(s), the data may be incomplete.
Number of Reported Measles Cases (6M period)

<table>
<thead>
<tr>
<th>Top 10* Country</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madagascar</td>
<td>84765</td>
</tr>
<tr>
<td>Ukraine</td>
<td>56094</td>
</tr>
<tr>
<td>India**</td>
<td>19544</td>
</tr>
<tr>
<td>Nigeria</td>
<td>10610</td>
</tr>
<tr>
<td>Brazil</td>
<td>8663</td>
</tr>
<tr>
<td>Philippines</td>
<td>7518</td>
</tr>
<tr>
<td>Yemen</td>
<td>6779</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>5902</td>
</tr>
<tr>
<td>Thailand</td>
<td>5784</td>
</tr>
<tr>
<td>Venezuela (Bolivarian Republic of)</td>
<td>5668</td>
</tr>
</tbody>
</table>

Notes: Based on data received 2019-05 - Surveillance data from 2018-10 to 2019-03 - * Countries with highest number of cases for the period ** WHO classifies all suspected measles cases reported from India as measles clinically compatible if a specimen was not collected as per the algorithm for classification of suspected measles in the WHO VPD Surveillance Standards. Thus numbers might be different between what WHO reports and what India reports.
Ten countries with the highest numbers of measles cases in the WHO European Region, April 2018–March 2019

Out of 114 798 measles cases reported for April 2018 to March 2019, 104 907 (91%) cases were reported by these 10 countries.

*Based on data from April 2018 to February 2019

Data source: Monthly aggregated and case-based data reported by Member States to WHO/Europe directly or via ECDC/TESSy data as of 06 May 2019
Figure 1. Measles Cases by Week of Rash Onset
1 January 2018-11 May 2019

Source: Philippines Department of Health Measles-Rubella Surveillance Reports 2019
Countries with reported measles cases in The Americas

Distribution of confirmed cases by country, 2019*

<table>
<thead>
<tr>
<th>Country</th>
<th>2018</th>
<th>2019*</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>372</td>
<td>839</td>
</tr>
<tr>
<td>VENEZUELA</td>
<td>203</td>
<td>5,668</td>
</tr>
<tr>
<td>COLOMBIA</td>
<td>199</td>
<td>109</td>
</tr>
<tr>
<td>BRAZIL</td>
<td>87</td>
<td>10,326</td>
</tr>
<tr>
<td>CANADA</td>
<td>29</td>
<td>51</td>
</tr>
<tr>
<td>COSTA RICA</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>URUGUAY</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>CHILE</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>ARGENTINA</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>CARPHA</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>PERU</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>MEXICO</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

* Data for 2018 is from 1 January to 31 December. Data from 2019 is from 1 January to 17 May.
Source: Weekly country reports to PAHO

PAHO. Measles-Rubella Surveillance Bulletin Vol. 25, No. 19
Measles – United States, 2019
2019 US measles outbreaks

- From January 1 to May 24, 2019, **981** people from **26** states have been reported as having measles cases (increase of 41 cases from May 24th)
  - Greatest number of cases reported in the U.S. since 1992 and since measles was declared eliminated in 2000

- Measles outbreaks (3 or more linked cases) currently ongoing in:
  - New York (since 2018): Rockland County, New York City
  - California: Butte County, Los Angeles County, Sacramento County
  - Michigan
  - Georgia
  - Maryland
  - Pennsylvania
  - Washington
Source Countries for International Importations (n=58)
–United States, January 1-May 31, 2019*

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>26%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>16%</td>
</tr>
<tr>
<td>Israel</td>
<td>16%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>7%</td>
</tr>
<tr>
<td>Thailand</td>
<td>5%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>3%</td>
</tr>
<tr>
<td>France</td>
<td>3%</td>
</tr>
<tr>
<td>Germany</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>21%</td>
</tr>
</tbody>
</table>

*Data are preliminary as of May 31, 2019. Percentages are of all 58 international importations.
What CDC is doing to address the outbreak

- Implemented an Incident Management Structure (IMS) within the National Center for Immunization and Respiratory Diseases (NCIRD)
- Investing in state and local health departments for public health infrastructure and laboratory capacity to support front-line response to suspected and confirmed measles cases
- Providing rapid assistance on the ground during outbreak investigations, through a formal request by the state health department
- Epidemiology:
  - Gathering data reported by states on confirmed measles cases and evaluating and monitoring these data from a national perspective
What CDC is doing to address the outbreak

- **Communications:**
  - Communicating with public health officials from states with reported measles cases and providing technical assistance
  - Developed a toolkit with resources for physicians about measles and vaccines
  - Doing outreach to rabbinical, camp, and medical associations to help spread clear, consistent, and credible vaccine information through trusted sources

- **Laboratory:**
  - Testing specimens for difficult diagnostic cases of suspected measles infection when requested by states
  - Using Advanced Molecular Detection (AMD) methods to determine measles virus genotypes and strains
Driver #1
Access to Vaccines

Strategy: Dismantle Barriers to Access
- Minimize vaccine costs to patients
- Connect parents with health care providers
- Find new opportunities to vaccinate and minimize missed chances

Driver #2
Pockets of Low Vaccination

Strategy: Identify, Reach, and Assist Communities at Risk
- Leverage data to identify pockets of low vaccination before an outbreak occurs
- Work with health partners and providers to reach groups at risk
- Create tailored, effective, and empathetic materials and approaches to improve MMR vaccination among at-risk communities

Driver #3
Bad Information

Strategy: Immunize Against Bad Information with Accurate, Persuasive Communications
- Contain and counter false safety and efficacy claims
- Partner with health agencies, providers, and other stakeholders to educate the public and policy makers
- Empower health care providers to make a positive case for vaccines
For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
State Response to the Current Measles Outbreak

Kim Martin, Director, Immunization Policy

National Vaccine Advisory Committee (NVAC) Meeting, June 2019
The Association of State and Territorial Health Officials (ASTHO)

The Association of State and Territorial Health Officials (ASTHO) is the national nonprofit organization representing the state and territorial public health agencies of the United States, the U.S. Territories, and the District of Columbia. ASTHO's members, the chief health officials of these jurisdictions, are dedicated to formulating and influencing sound public health policy, and to assuring excellence in state-based public health practice.

Strategic priorities:

- Improve Public Health Through Capacity Building, Technical Assistance and Thought Leadership
- Advocate for Resources and Policies that Improve the Public’s Health and Well-being
- Develop Strong and Effective State and Territorial Health Officials
Measles State Response Activities

• Enhance surveillance
• Utilize Incident Command System (ICS) and Emergency Management Assistance Compact (EMAC)
• Inform the public of the outbreak and locations where exposures may have occurred
• Educate patients and their contacts about the mode of transmission
• Implement control activities to limit virus transmission
  ○ Provide measles vaccine clinics
  ○ Assess immunity of contacts of cases
  ○ Implement isolation and quarantine
• Analyze the outbreak to determine if there is evidence of population immunity gaps that require public health action

CDC, as of May 24, 2019
Media Response

• ASTHO held two media desk side briefings

• Many of our members held multiple press interviews and wrote Op-Ed pieces on the importance and benefits of immunizations which was covered in such national media outlets as NBC, Fox, CNN, US News and World Report, USA Today, The Hill, WIRED, Stat, Governing, and the Washington Post

• John Wiesman (SHO-WA), ASTHO Immediate Past President, testified before the Senate HELP Committee

State Challenges during the Current Outbreak

• Expensive
• State health agencies may have to pull resources from other programs to assist with the outbreak
• Vaccine misinformation is hard to counter
• Cases or contacts may not follow isolation and quarantine instructions
Long Term State Activities to Increase Vaccination Coverage

- **Expanding Access to Vaccinations**
  - Increasing scope of practice for additional providers (e.g., pharmacists)

- **Expanding Outreach**
  - Providing education to the public to address misinformation or vaccine hesitancy
  - Providing messaging to providers about how to address misinformation and make strong vaccination recommendations

Pharmacists can administer MMR vaccine in all but 3 states/cities (DC, NY and WV)

Pharmacists may need a protocol, prescription or both to administer vaccines

In 19 states, pharmacists are not able to administer MMR to persons under 18 years old and in 17 states there is not an age restriction
Vaccine Exemptions

**Exemption Legislation:**

- Washington removed philosophical exemption for MMR
- Maine eliminated all non-medical exemptions becoming the fourth state without such exemptions
- Many other states are also considering bills to eliminate non-medical exemptions to school vaccination requirements, including Arizona (HB 2162), Iowa (HF 206), Minnesota (SF 1520), New Jersey (A 3818 and S 2173), New York (S 2994 and A 2371), Vermont (H 238) and Oregon (HB 3063) (passed by Oregon House)

As of May 2019, over 900 individual cases of measles have been confirmed in 26 states

Every state and Washington, D.C. have vaccination requirements for children who are starting school and allow medical exemptions

As of 2019, all but four states — California, Mississippi, Maine and West Virginia — allowed for non-medical exemptions
Working to Address Misinformation

- States are focused on close-knit communities where there is vaccine misinformation.
- In some cases, misinformation has gone out to these communities for many years and even generations.
- Doing more of what has been done will likely not address the problem, but the struggle is trying to determine what will be effective in changing the misinformation that has already gone out.
- State health agencies are interested in a proactive approach that is national, but customizable and implemented locally.
- Efforts will need to be coordinated and trust will need to be built in these communities.
Looking towards the Future

- **ASTHO is:**
  - Organizing leadership from NACCHO, ASTHO and AIM to provide input and feedback on implementation of the CDC/HHS strategy to combat vaccine hesitancy
  - Planning to develop a measles podcast
  - Developing an infographic to demonstrate the cost of an outbreak
  - Considering updating the [Communicating Effectively about Vaccines](#) toolkit from 2012
  - Participating in next month’s National Press Foundation Fellowship Program on Current Measles Issues
  - Supporting passage of the VACCINES Act of 2019 (H.R. 2862)
Measles Outbreaks: Where Do We Go From Here?

Michelle Cantu, MPH
Director, Infectious Disease & Immunization
Outline

- Introduction to NACCHO
- The Important Role of Local Health Departments in the Response
- NACCHO Activities During the Measles Outbreak
- NACCHO’s Next Steps & Recommendations
NACCHO is comprised of nearly **3,000** local health departments across the United States. Our mission is to serve as a leader, partner, catalyst, and voice with local health departments.

There’s value in belonging

Learn more by viewing a short video available on our website.
Our Work

- Advocacy
- Partnerships
- Funding
- Training and education
- Networking
- Resources, tools, and technical assistance
The Important Role of Local Health Department Immunization Programs
Public Health System

### Clinical programs and services provided directly in the past year

<table>
<thead>
<tr>
<th>Program/service</th>
<th>% LHDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization</td>
<td></td>
</tr>
<tr>
<td>Adult immunizations</td>
<td>90%</td>
</tr>
<tr>
<td>Childhood immunizations</td>
<td>88%</td>
</tr>
<tr>
<td>Screening for diseases/conditions</td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>84%</td>
</tr>
<tr>
<td>Other STDs</td>
<td>65%</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>62%</td>
</tr>
<tr>
<td>Blood lead</td>
<td>61%</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>54%</td>
</tr>
<tr>
<td>Body Mass Index (BMI)</td>
<td>53%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>34%</td>
</tr>
<tr>
<td>Cancer</td>
<td>32%</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>25%</td>
</tr>
<tr>
<td>Treatment for communicable diseases</td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>79%</td>
</tr>
<tr>
<td>Other STDs</td>
<td>63%</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>35%</td>
</tr>
<tr>
<td>Maternal and child health services</td>
<td></td>
</tr>
<tr>
<td>Women, Infants, and Children (WIC)</td>
<td>66%</td>
</tr>
<tr>
<td>Home visits</td>
<td>60%</td>
</tr>
<tr>
<td>Family planning</td>
<td>53%</td>
</tr>
<tr>
<td>Early and periodic screening, diagnosis, and treatment</td>
<td>38%</td>
</tr>
<tr>
<td>Well child clinic</td>
<td>29%</td>
</tr>
<tr>
<td>Prenatal care</td>
<td>27%</td>
</tr>
<tr>
<td>Obstetrical care</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program/service</th>
<th>% LHDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other clinical services</td>
<td></td>
</tr>
<tr>
<td>Laboratory services</td>
<td>38%</td>
</tr>
<tr>
<td>School-based clinics</td>
<td>34%</td>
</tr>
<tr>
<td>Oral health</td>
<td>28%</td>
</tr>
<tr>
<td>Asthma prevention and/or management</td>
<td>22%</td>
</tr>
<tr>
<td>Home health care</td>
<td>20%</td>
</tr>
<tr>
<td>Correctional health</td>
<td>13%</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>11%</td>
</tr>
<tr>
<td>Comprehensive primary care</td>
<td>11%</td>
</tr>
<tr>
<td>Behavioral/mental health</td>
<td>10%</td>
</tr>
<tr>
<td>Emergency medical services</td>
<td>4%</td>
</tr>
</tbody>
</table>

n=1,461–1,899

Source: National Association of County and City Health Officials (NACCHO) 2016 National Profile of Local Health Departments
IZ Program Top Challenges

- Vaccine hesitancy among patients/parents: 56%
- Limited or insufficient staffing: 44%
- Lack of education/confidence in vax for...: 37%
- Lack of program funding or funding...: 27%
- Increase in VFC provider requirements: 24%
- Lack of funding/participation/function of...: 21%
- Vaccine hesitancy among health care...: 20%
- Changes in state or school immunization...: 17%
- Lack of access to electronic health records: 14%

NACCHO Activities During the 2019 Measles Outbreaks
Communications Efforts

• NACCHO Platforms
  • Providing media talking points
  • Dissemination of updates, guidance, and tools
  • Convening advisory groups

• Social Media Messaging and Promotion of Vaccine Confidence

• Engagement with National Partners
Advancing Policy and Informing Advocacy

- House and Senate Hearings
- Legislation
- National Partner Meetings and Coalitions
NACCHO Recommendations and Next Steps
NACCHO Recommendations

- Increased support for IZ programs and workforce development
- Further exploration of evidence-based strategies
- Improve data systems to enhance vaccine delivery
- Continued coordination within federal government
- Integration of immunization across the life span throughout existing efforts
NACCHO Immunization Staff

Lilly Kan, MPH
Senior Director, Infectious Disease & Informatics
Phone: (202) 507-4238
E-mail: lkan@naccho.org

Michelle Cantu, MPH
Director, Infectious Disease & Immunization
Phone: (202) 507-4251
E-mail: mcantu@naccho.org

Kimberly Scott, MPH
Senior Program Analyst, Immunization
Phone: (202) 595-1123
E-mail: ksharpe-scott@naccho.org

Kerry Premo, MPH
Program Analyst, Immunization
Phone: (202) 507-4268
E-mail: kpremo@naccho.org
June 4, 2019

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