

Measles Outbreak Response National Perspective

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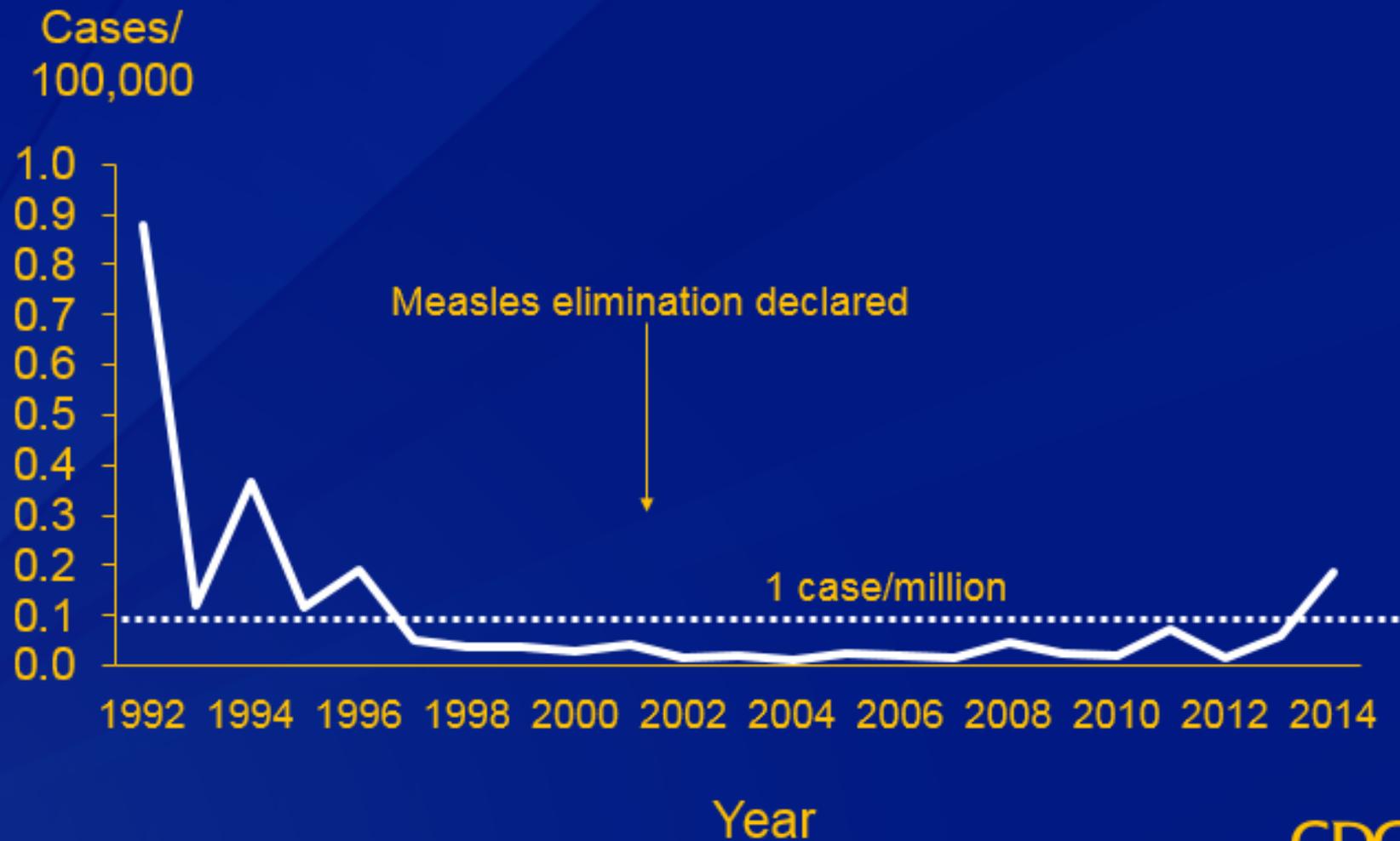
National Vaccine Advisory Committee (NVAC)

Atlanta, GA

June 9, 2015



Reported Measles Incidence United States, 1992-2014*



Measles, U.S., 1997-2015*

Cumulative Number by Month of Rash Onset



* Provisional total 2014

* 2015 data through Jan 30

Measles U.S. 2014*

- ❑ **668 cases reported from 28 states including 23 outbreaks**
 - 60 importations
 - 25 from the Philippines
 - 54 (91%) among U.S. residents
 - 99% cases import-associated
 - 86% cases outbreak-associated
 - 77 cases (12%) hospitalized

- ❑ **Cases in U.S. residents (N=658)**
 - 76% unvaccinated
 - 16% unknown vaccination status (70% of those were adults)
 - 9% vaccinated (including 5% with 2 or more doses)
 - Among unvaccinated:
 - 80% were personal belief exemptors
 - 2% were travelers with missed opportunities age 6 mos-4 yrs
 - 8% were too young to be vaccinated
 - 10% were unknown/other

* Provisional data

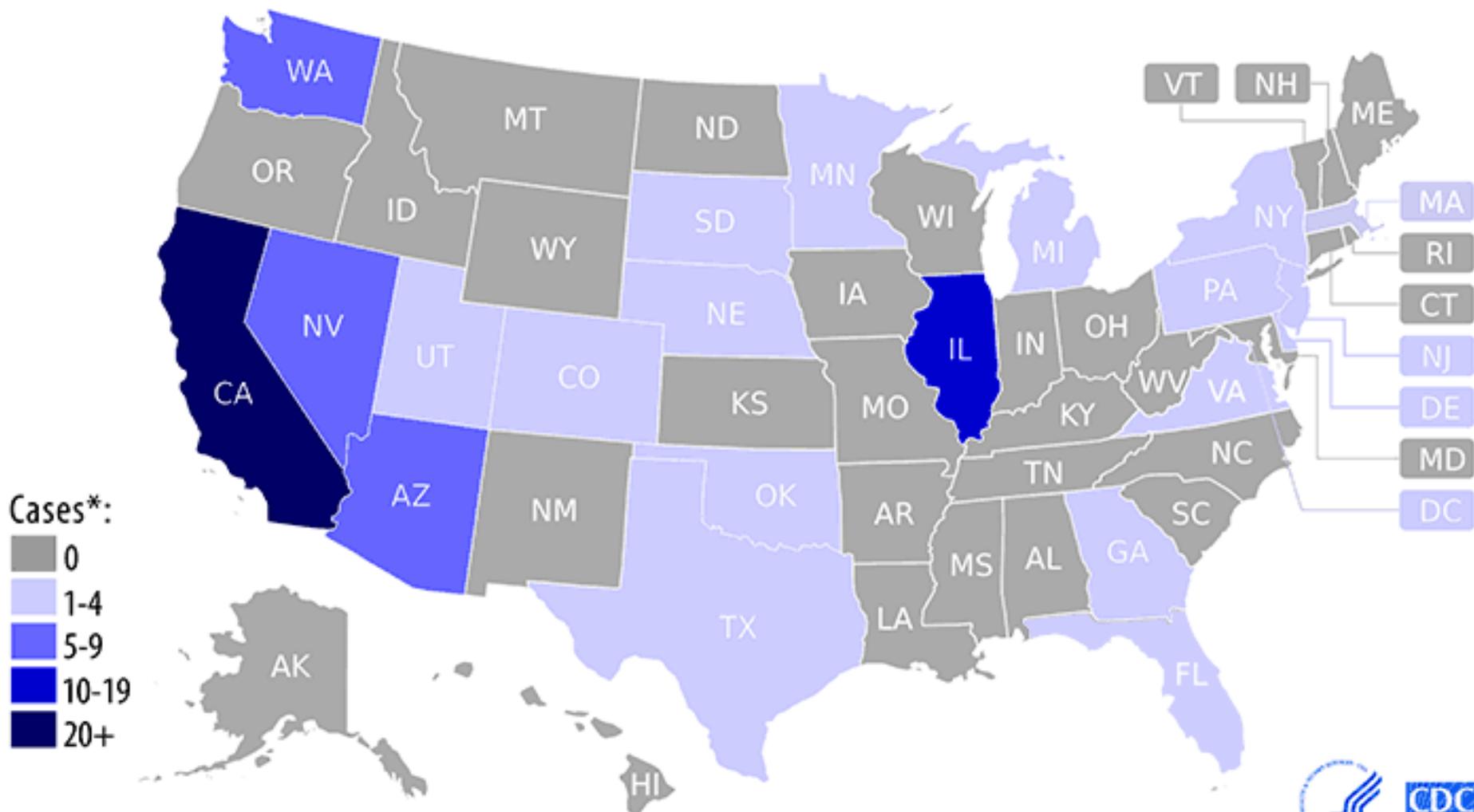
Epidemiology of 2015 Measles Cases

MMWR April 17, 2015

- ❑ 159 cases (through April 2)
- ❑ Majority of cases were adults:
 - <12 mos: 16%
 - 1-4 yrs: 12%
 - 5-19 yrs: 17%
 - ≥20 yrs: 54%
- ❑ 71 (45%) unvaccinated and 60 (38%) unk. vax;
- ❑ 28 (18%) had been vaccinated

2015 Measles Cases in the U.S.

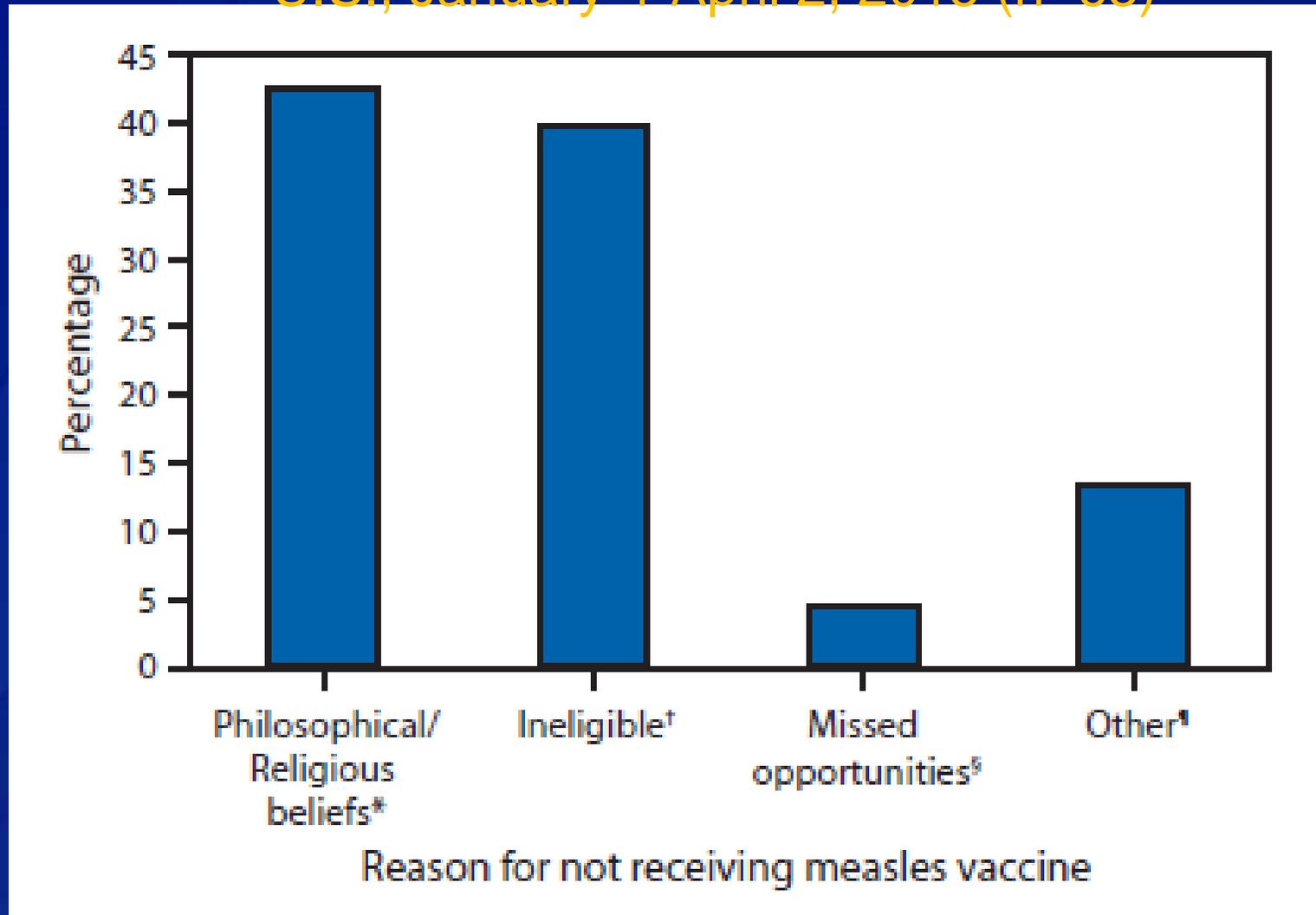
January 1 to May 29, 2015



*Provisional data reported to CDC's National Center for Immunization and Respiratory Diseases



Percentage of U.S. residents with measles who were unvaccinated, by reason for not receiving measles vaccine – U.S., January 4-April 2, 2015 (n=68)



Source: MMWR April 17, 2015

† ineligible for measles vaccination, generally those aged <12 months and those with medical contradictions

Every Measles Case Requires Follow up: Reliance on Public Health Infrastructure



Hospital



Transportation



Childcare centers



Emergency dept's



Family



Widely attended
gatherings

CDC's Role in Measles Outbreak

- ❑ **State/local health departments lead the investigations**
 - Determine who may have been exposed & who's at risk (unvaccinated or otherwise not immune)
- ❑ **CDC supports health departments**
 - Provides technical assistance
 - Evaluates & monitors data gathered by states on confirmed cases
 - Tests specimens for difficult diagnosis cases if requested
 - Uses Advanced Molecular Detection methods to determine virus genotypes and strains
 - Provides rapid assistance on the ground if requested
 - **Informs healthcare professionals and facilities about current outbreaks, vaccine policy, and clinical guidance**
 - **Develops and disseminates tools and materials to clinicians and partners**
 - **Provides information to the public**



Redesigned Measles Site

- ❑ Built in responsive design
- ❑ Slider element adds dynamic look; map with date indicates site is “current”
- ❑ Modules focus on primary audiences



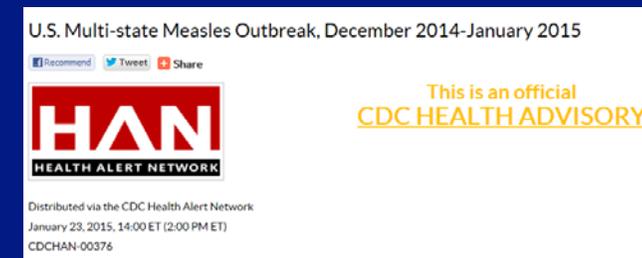
Communicating with Audiences: Public Health Professionals

□ Call to action

- Coordinate efforts to inform clinicians, health facilities, schools and childcare centers, partners and consumers
 - Disease is serious; vaccination is best protection; unvaccinated at risk, especially when travelling internationally

□ Examples of outreach and products

- Weekly email updates
- Health Alert Network (HAN) message
- Immunization Works! newsletter article
- “Have You Heard?” syndicated feed
- Key messages disseminated with Dept of Ed
- Business health executive conference call





Vaccines and Immunizations

Immunization Managers Home

[Price Lists & Vaccine Codes](#)

[SchoolVaxView](#)

[Vaccination Coverage Rates & Data](#)

[Program Contacts](#)

[Requirements & Laws](#)

[Vaccines Home](#) > [Immunization Managers Home](#) > [Requirements & Laws](#) > [State Vaccination Requirements](#)



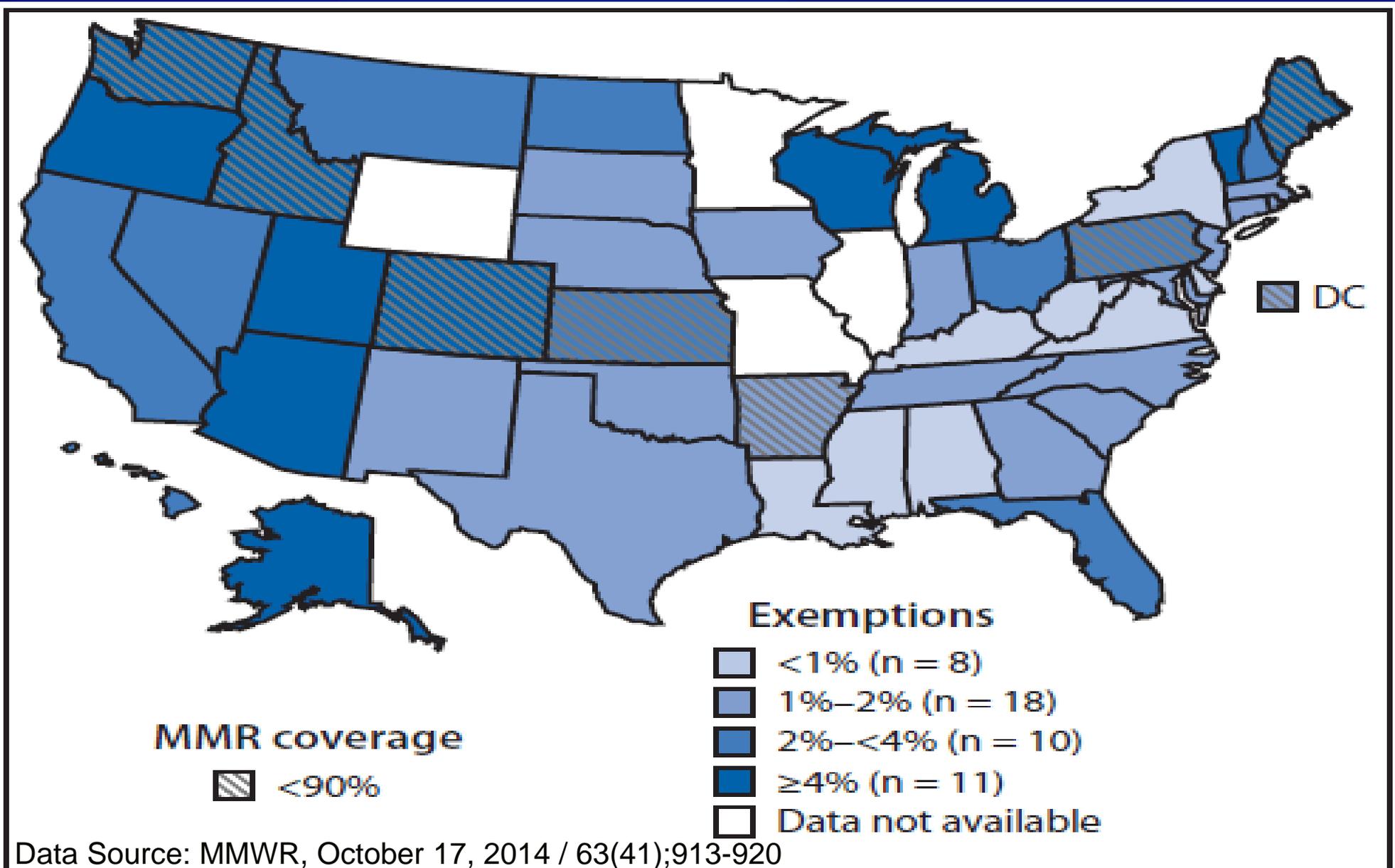
State Vaccination Requirements Selected References

General epidemiology of exemptions

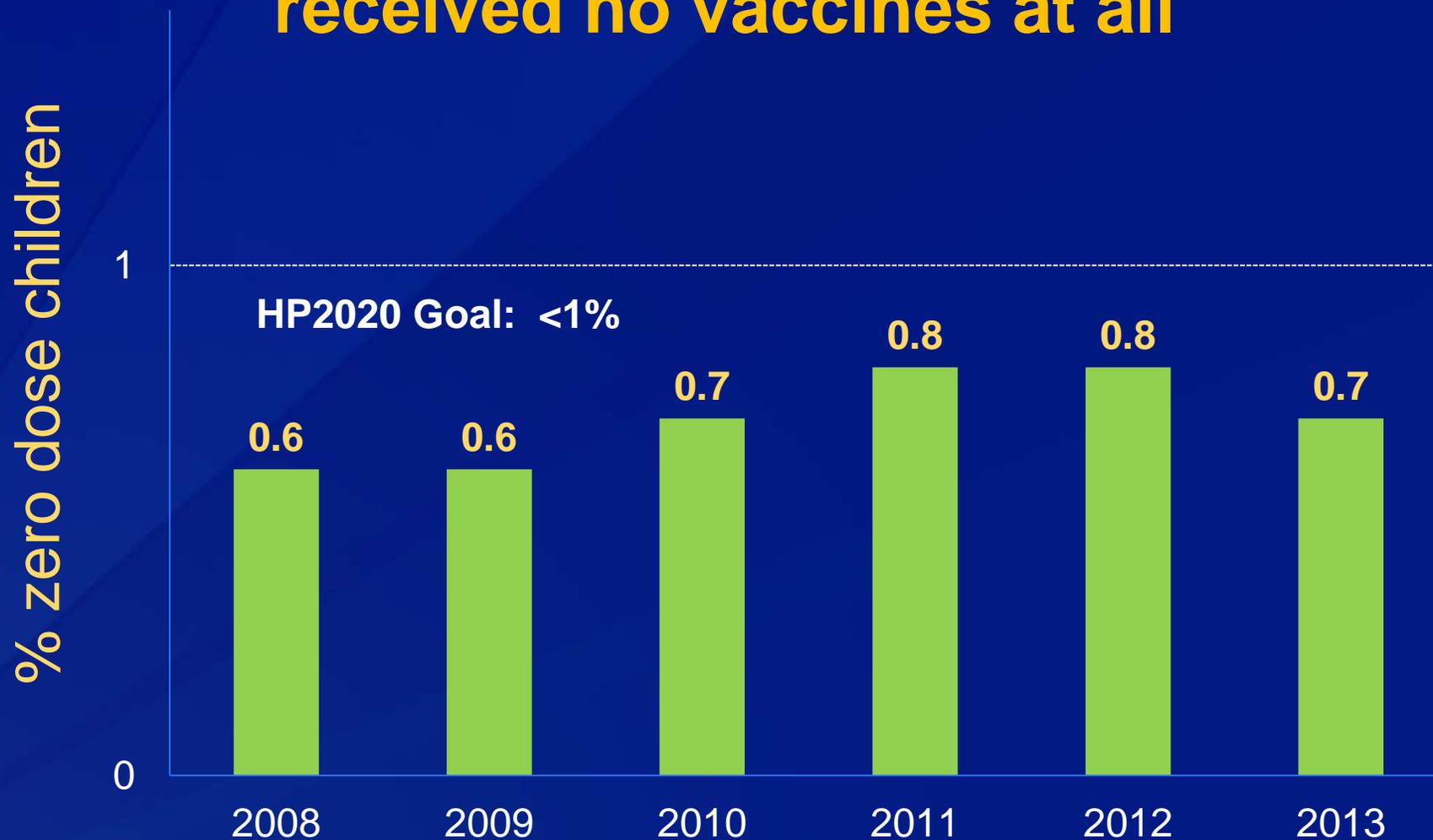
- Wang E, Clymer J, Davis-Hayes C, Bottenheim A. [Nonmedical exemptions from school immunization requirements: a systematic review](#) . *AJPH*. Nov 2014;104:e62-e84.

Source: <http://www.cdc.gov/vaccines/imz-managers/laws/state-reqs-refs.html>

Kindergarten exemptions and MMR coverage, 2013-14 school year



Very few toddlers have received no vaccines at all



Children and Adolescents Unvaccinated Against Measles*

- ❑ Analyzed data from 2010-2013 NIS and NIS Teen
- ❑ Among unvaccinated children, 75% attributable to factors other than parents' negative vaccine beliefs
- ❑ Among adolescents, MV vaccine-related beliefs not associated with being unvaccinated
- ❑ Lower SES associated with under vaccination

*Smith P, Public Health Reports 2015;130, 1-20.

Communicating with Audiences: Healthcare Professionals

- Call to action
 - Ensure patients (including adults) are up to date on MMR vaccine
 - Consider measles in patients with febrile rash; ask about travel history
- Examples of outreach and products
 - Tweets from @DrFrieden and @CDCizLearn
 - Clinician Outreach and Communication Activity (COCA) call
 - Think Measles button
 - Updated clinical guidance
 - Medscape video with SME

The screenshot shows the CDC website page for Measles (Rubella). The page is titled "Measles (Rubella)" and includes a search bar at the top right. The main content area is titled "For Healthcare Professionals" and contains several sections: "Clinical Features", "The Virus", "Background", "Complications", and "People at High Risk for Complications". There is also a "Related Links" section on the left and a "Measles Clinical Features" section with an image of a child's face. At the bottom of the page, there is a banner that reads "THINK MEASLES" and "Guidelines for Patient Evaluation, Diagnosis & Management" with the CDC logo and the website URL www.cdc.gov/measles/rubella.

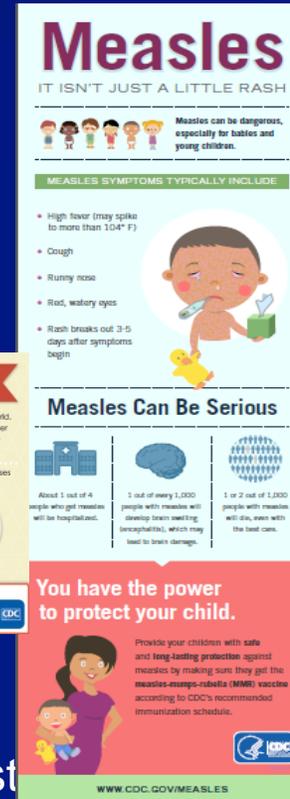
Communicating with Audiences: Consumers

□ Call to action

- Parents, protect your children with measles vaccine
- Travelers, measles is a health risk in many destinations; make sure you and your family are protected
- Measles is highly contagious and can have serious complications

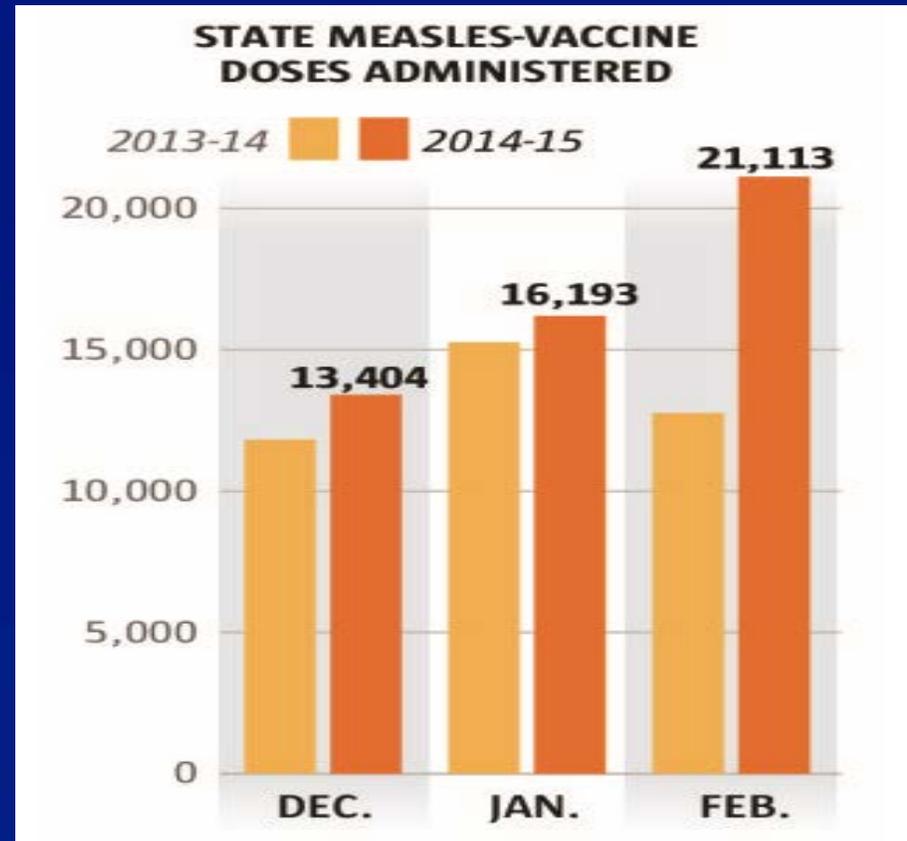
□ Examples of outreach and products

- Infographics and “sharable” images
- Fact sheets for parents and for childcare providers
- Weekly social media (Facebook, Google+ and Twitter) posts with prevention messages
- Messaging on electronic airport monitors



Impact of Measles Outbreak in 2015 on immunization activity?

- MMR doses given in 2013-14 v. 2014-15 in WA state
- Increase of 27%
- Greatest increase in Feb. after local outbk

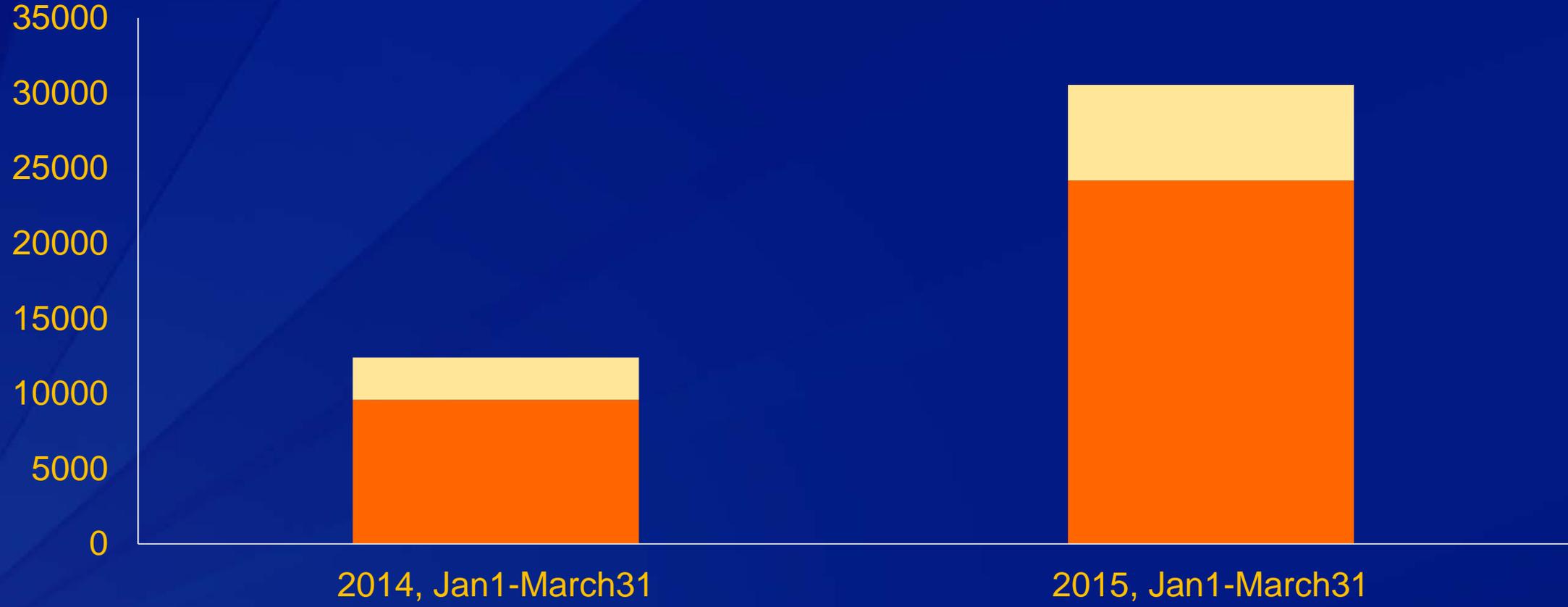


Source: Washington State Department of Health
Adapted from: Seattle Times, April 1, 2015

Public sector orders for MMR for adults increased ~3-fold in 2015

Doses

■ Awardees with Measles Cases ■ Awardees with no reported measles



Key Points from Measles 2015

- ❑ Eliminated in 2000 from US, still a plane ride away**
- ❑ Astute clinician needed for 'old' diseases**
- ❑ Public health infrastructure critical**
- ❑ Improving immunization abroad will reduce risk here**
- ❑ Clinicians play key role in parental vaccine acceptance**
- ❑ State requirements keep vaccination the default option and protect communities**
- ❑ Improved immunization histories for adults (eg IIS) can aid understanding the changing epidemiology of VPDs**