

Communications Principles to Address Vaccine Hesitancy

Public Health Communications Webinar Series

June 13, 2019



Webinar Objectives

- Discuss ways to dispel common myths and misinformation associated with vaccine-preventable disease outbreaks
- Illustrate effective ways to address groups resistant to embrace the benefits of vaccines in a non-confrontational way
- Identify new challenges facing public health professionals who are charged with protecting the health of communities from vaccine preventable diseases.

Agenda

- **Case Study: Hennepin County Public Health (MN)**
 - Alisa Johnson, MA, Area Manager for Public Health Protection & Promotion
 - Dave Johnson, MPH, Manager of Health Statistics & Surveillance
- **Case Study: Ocean County Health Department (NJ)**
 - Dan Regenye, MHA, Health Officer and Public Health Coordinator
- **A New Approach to Discussing Immunization**
 - Ken Hempstead, MD, Board-Certified Pediatrician, Kaiser Permanente



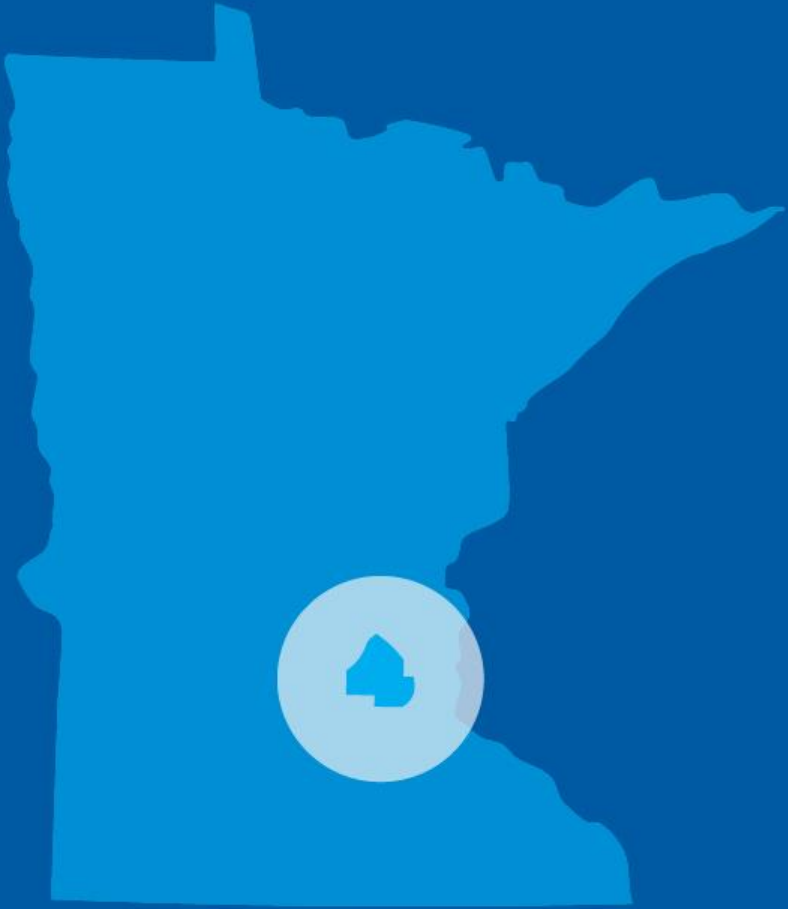
HENNEPIN COUNTY

MINNESOTA

Public Health

Hennepin County, MN

- 1.25 million residents
 - 420,000 live in Minneapolis
 - 13% foreign born
 - Large Somali-Minnesotan immigrant/refugee population



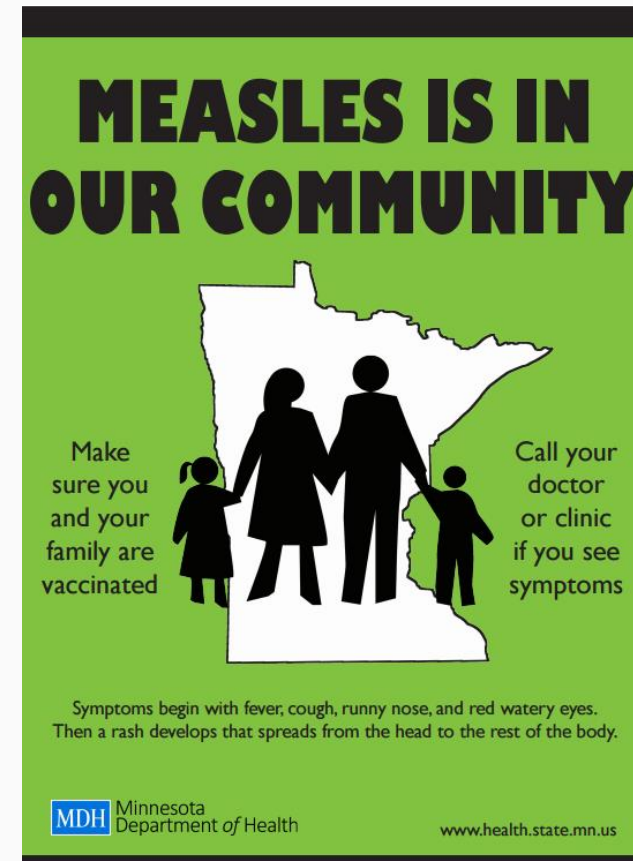
2017 Measles Outbreak

- First case confirmed April 11 in an unvaccinated 20-month-old with no travel history
- Majority of cases among unvaccinated Somali-Minnesotan children
- All told: 70 cases in Hennepin County, 9 cases outside Hennepin County
- 22 cases were hospitalized
- Close to 9,000 people exposed



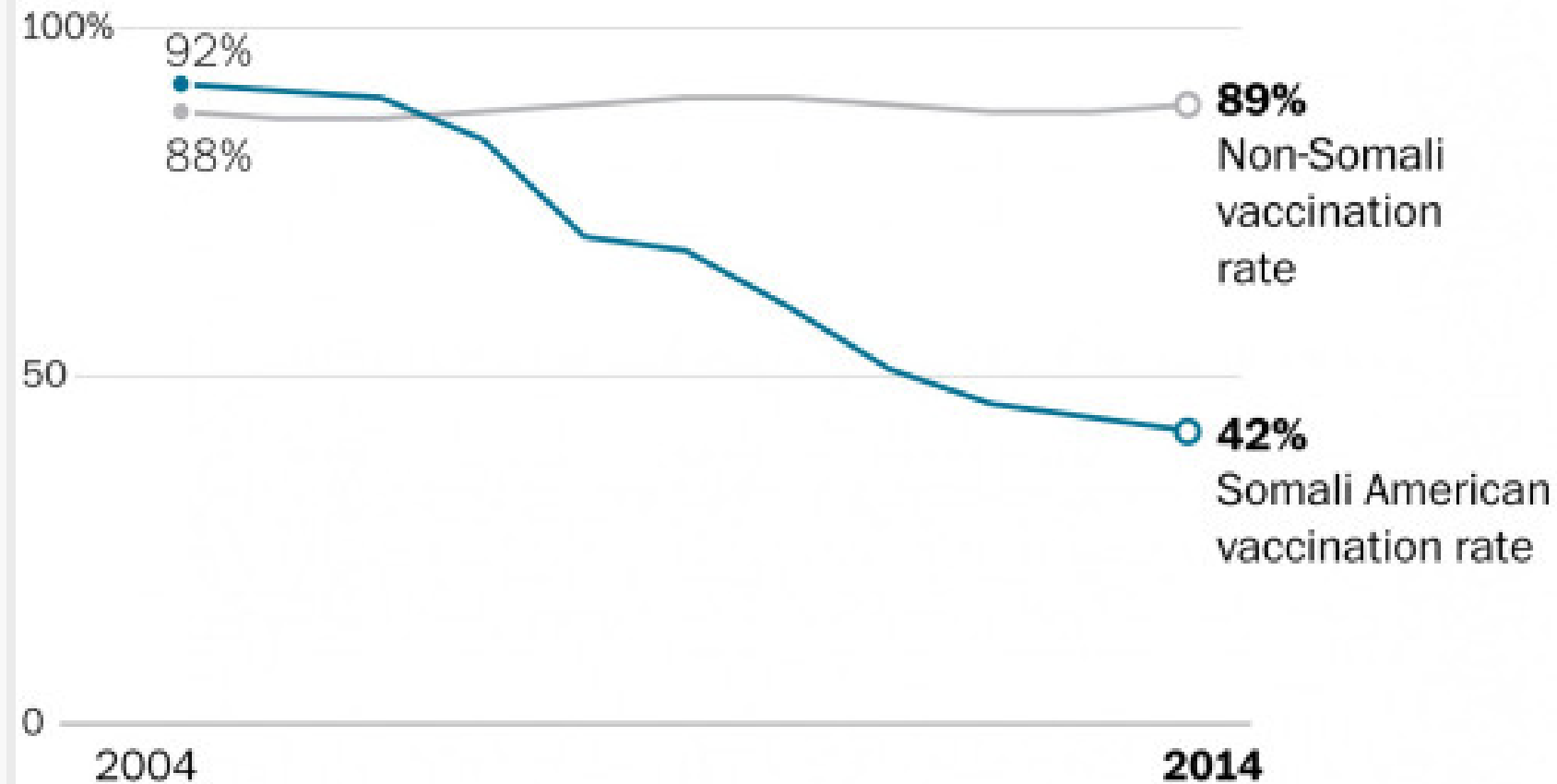
Coordinated Public Health Response

- State & County Health Department collaboration
- Close integration with primary hospital
- Case investigation and isolation
- Post exposure prophylaxis
- Contact investigation
- Exclusion of susceptible individuals
- Community outreach and education



A plummeting vaccination rate in Minnesota

The vaccination rate for measles, mumps and rubella began falling sharply a decade ago among children of Somali descent who live in Minnesota. That drop is now being blamed for a major measles outbreak within the Somali American community there.



Rates at 24 months in Minnesota-born children

Source: Minnesota Department of Health

THE WASHINGTON POST

"About immunization...not immigration"

PUBLIC HEALTH

Unfounded Autism Fears Are Fueling Minnesota's Measles Outbreak

May 3, 2017 - 4:24 PM ET
Heard on All Things Considered

MARK ZDECHLIK

FROM **MPRnews**

3:41

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Transcript

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ALL SECTIONS | 🔍

StarTribune

LOCAL

Voice of America holds town hall on Somali measles outbreak

Discussion of community's suspicions and worries was broadcast on Voice of America.

By Jean Hopfensperger Star Tribune | JULY 8, 2017 — 6:24PM



Immunization Guidance Changed in Outbreak

- MMR vaccination recommendations vary based on the location and age of the patient
- Accelerated immunization schedule in affected areas
- Providers assessed MMR vaccination status for all patients at every visit
- Recall MMR- children and adolescents age 12 months and older

Community Outreach

- Public Health and Multicultural Services teams
 - >150 visits to apartment buildings, businesses, community centers, mosques
 - Focus on vaccine recommendations, debunking myths about vaccine, and promoting exclusion compliance
 - Somali speakers. Somali health staff.



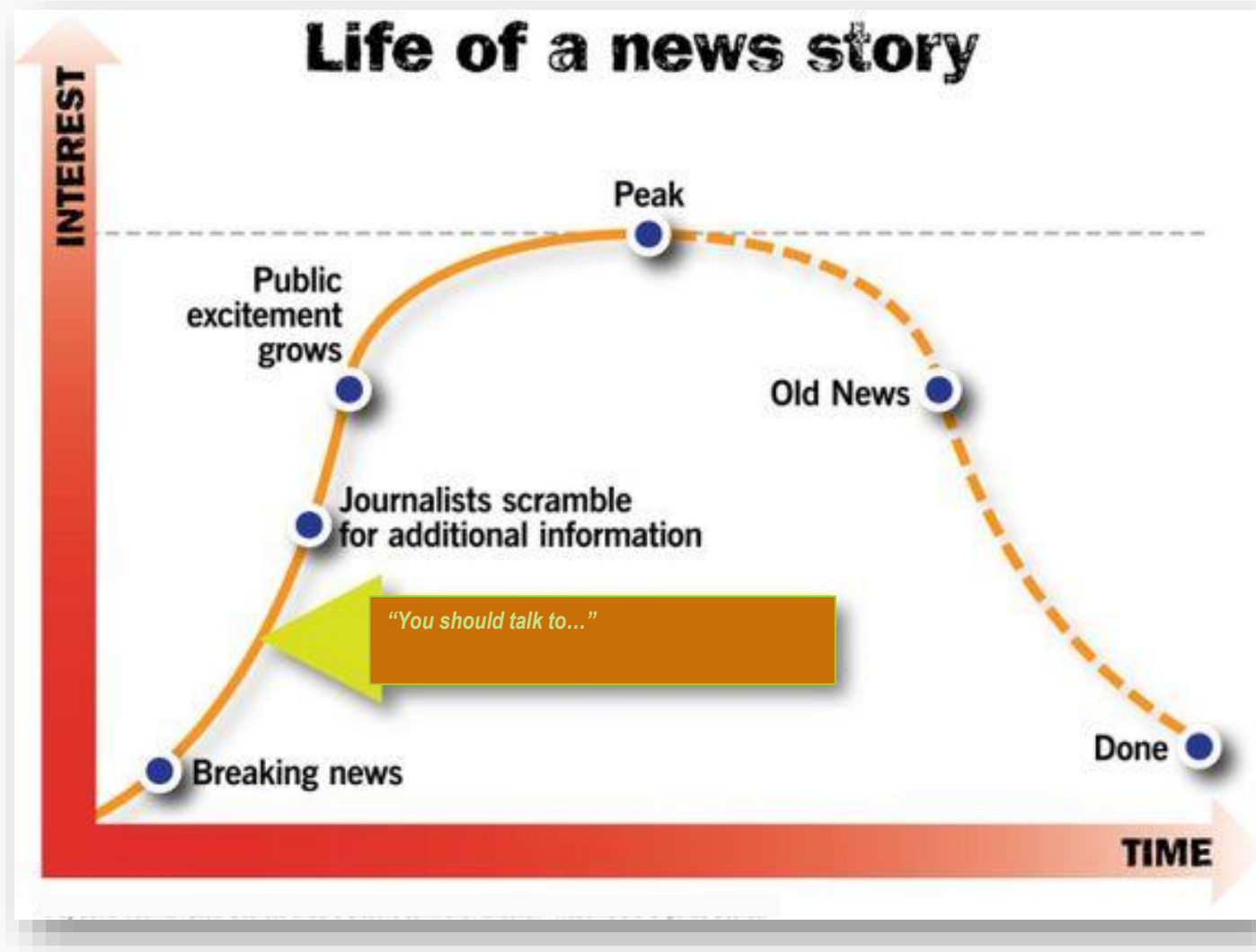
Community leaders are best messengers



Face-to-face, one-on-one



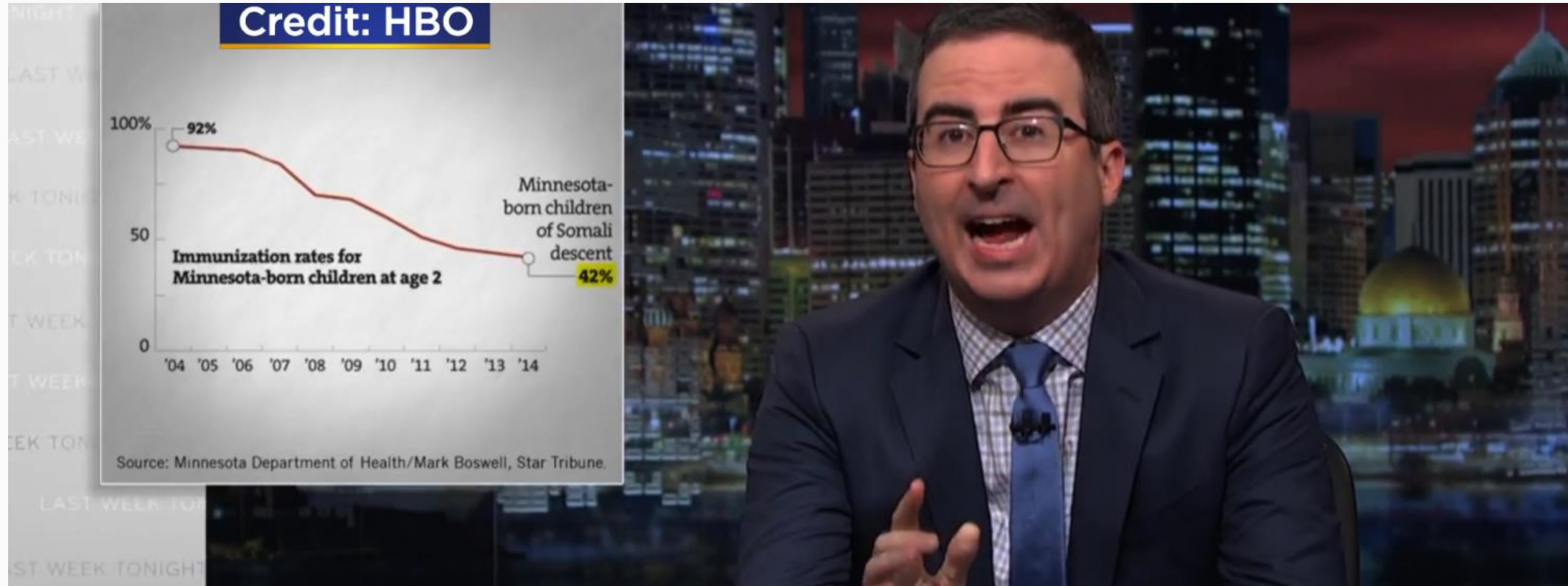
Seize the opportunity when the media is interested



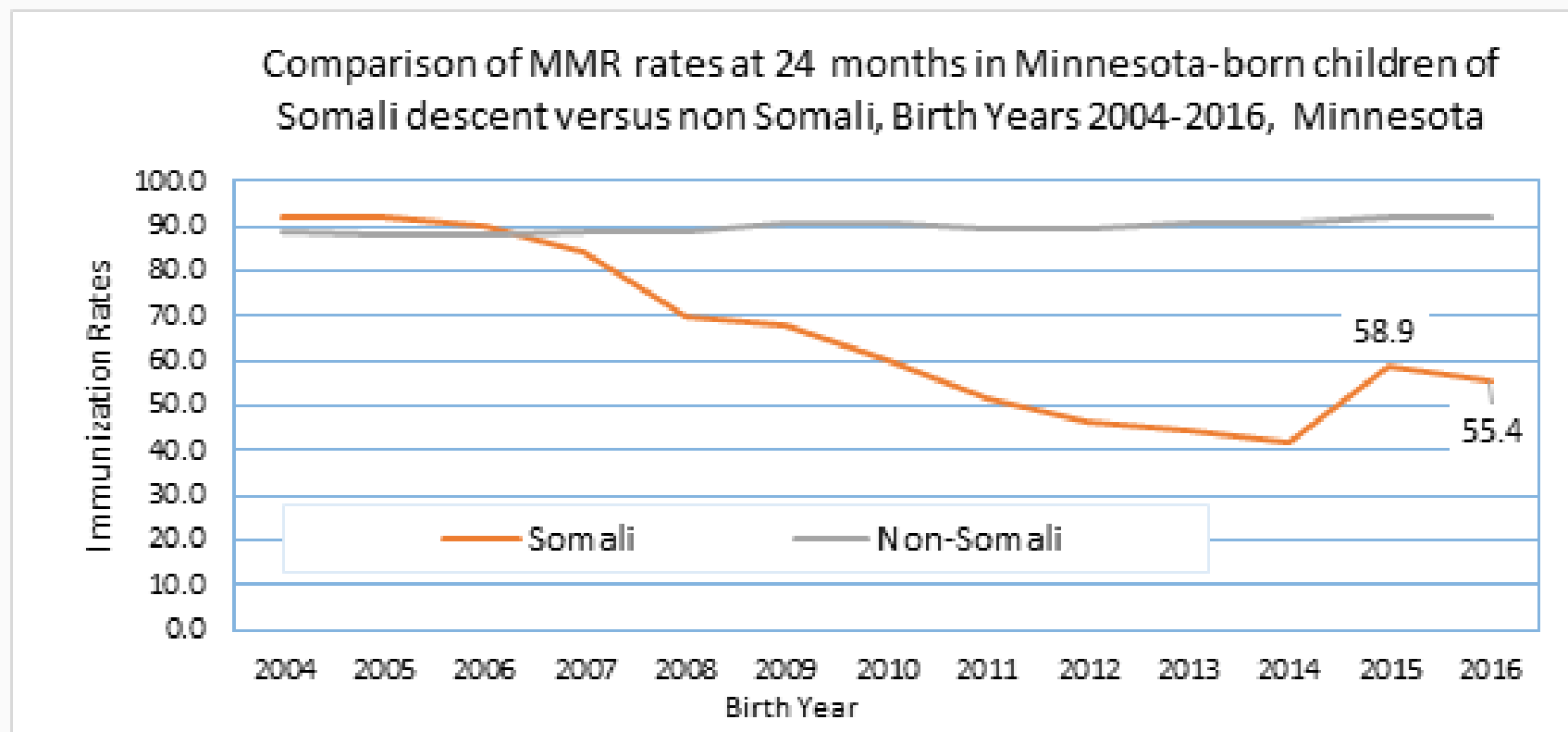
Anti-Vaccination Advocates Activated

- Have targeted Somali community since the mid-2000's
- Coordinated several events designed to stoke vaccine fears
- Public Health took a coordinated approach and did not directly engage this discussion.
- Focus was that we have an outbreak, and that vaccines are the most effective means to prevent disease
- Some in the Somali community were ready to directly oppose anti-vaxxers. We supported them taking ownership on that front.

National attention went beyond traditional media coverage

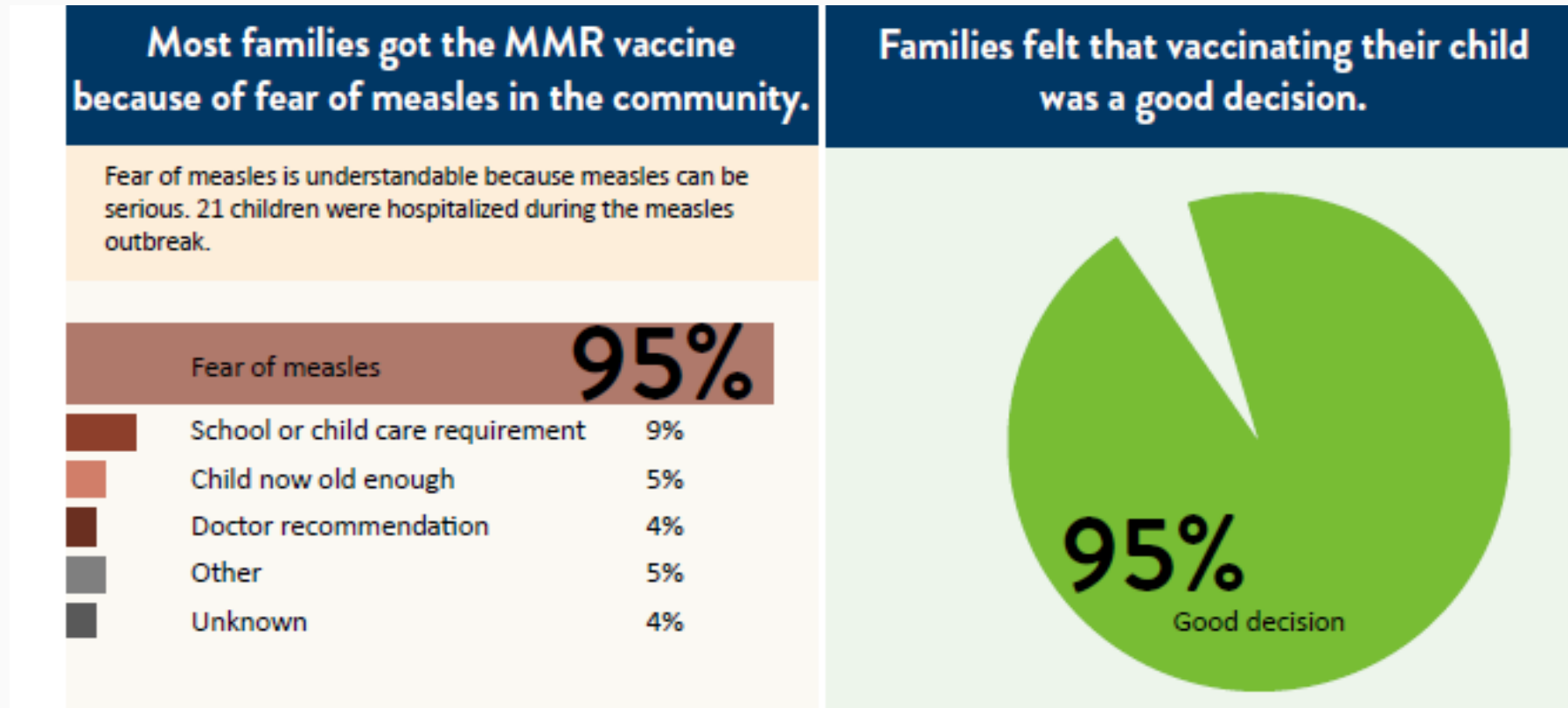


Vaccination rates increased, then fell post-outbreak



Source: Minnesota Department of Health

Vaccine-hesitant parents reported fear of disease was top reason for vaccination during outbreak



Source: Minnesota Department of Health

Post-outbreak approaches

- Collaboration between state and local health departments
- Staff support for a Somali Public Health Advisors group
- Support for MDH Faith in Medicine project
- Support vaccine promotion in public health outreach such as Child & Teen Checkups (EPSDT), WIC, case management, interpretation assistance

Lessons Learned

- Focus on vaccine-hesitant parents, not anti-vaxxers
- Adjust our messages understanding community feels targeted/stigmatized
- Vaccine-first messages may not be effective
- In-person communications strategies are most effective
- Assure outreach staff working day-to-day have tools to engage parents with science based messages

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2018 and 2019 Measles Outbreak

Ocean County, New Jersey

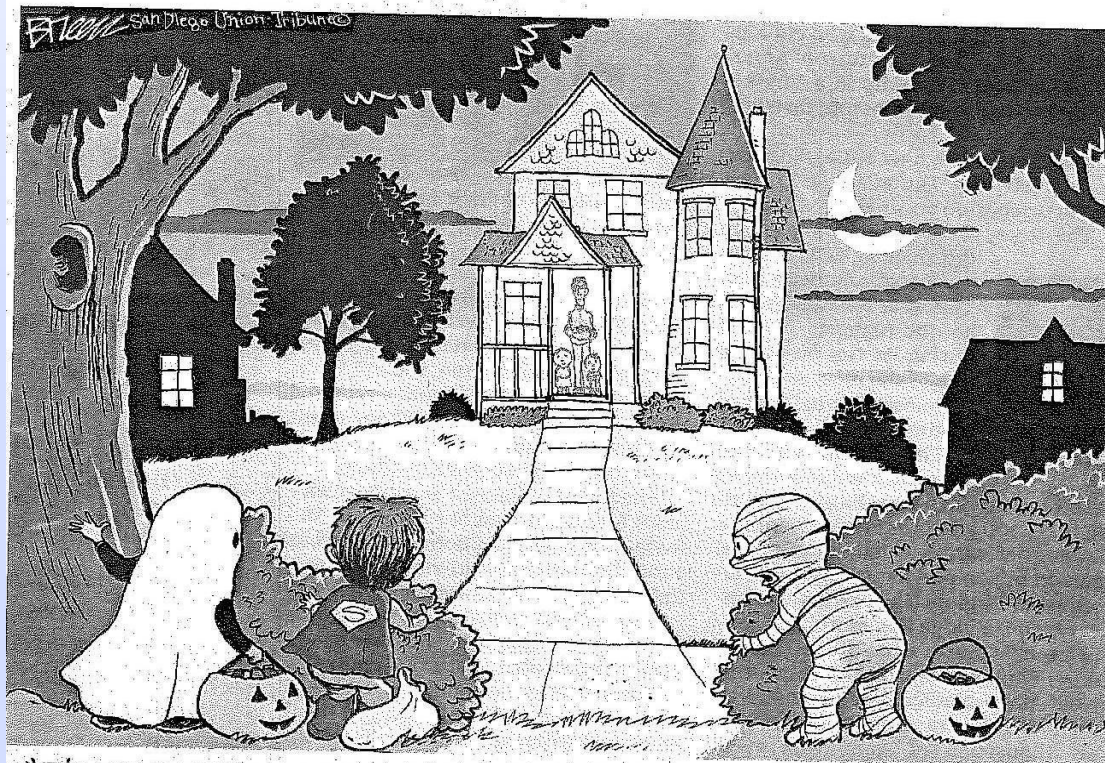


Asbury Park Press, October, 2018

Thomas M. Donovan President and Publisher
Hollis R. Towns Executive Editor and Vice President/News
Randy Bergmann Editorial Page Editor



Established 1879
Pulitzer Prize
winner 1998



"IT'S THE SCARIEST HOUSE IN THE NEIGHBORHOOD...THEY DON'T VACCINATE THEIR KIDS."

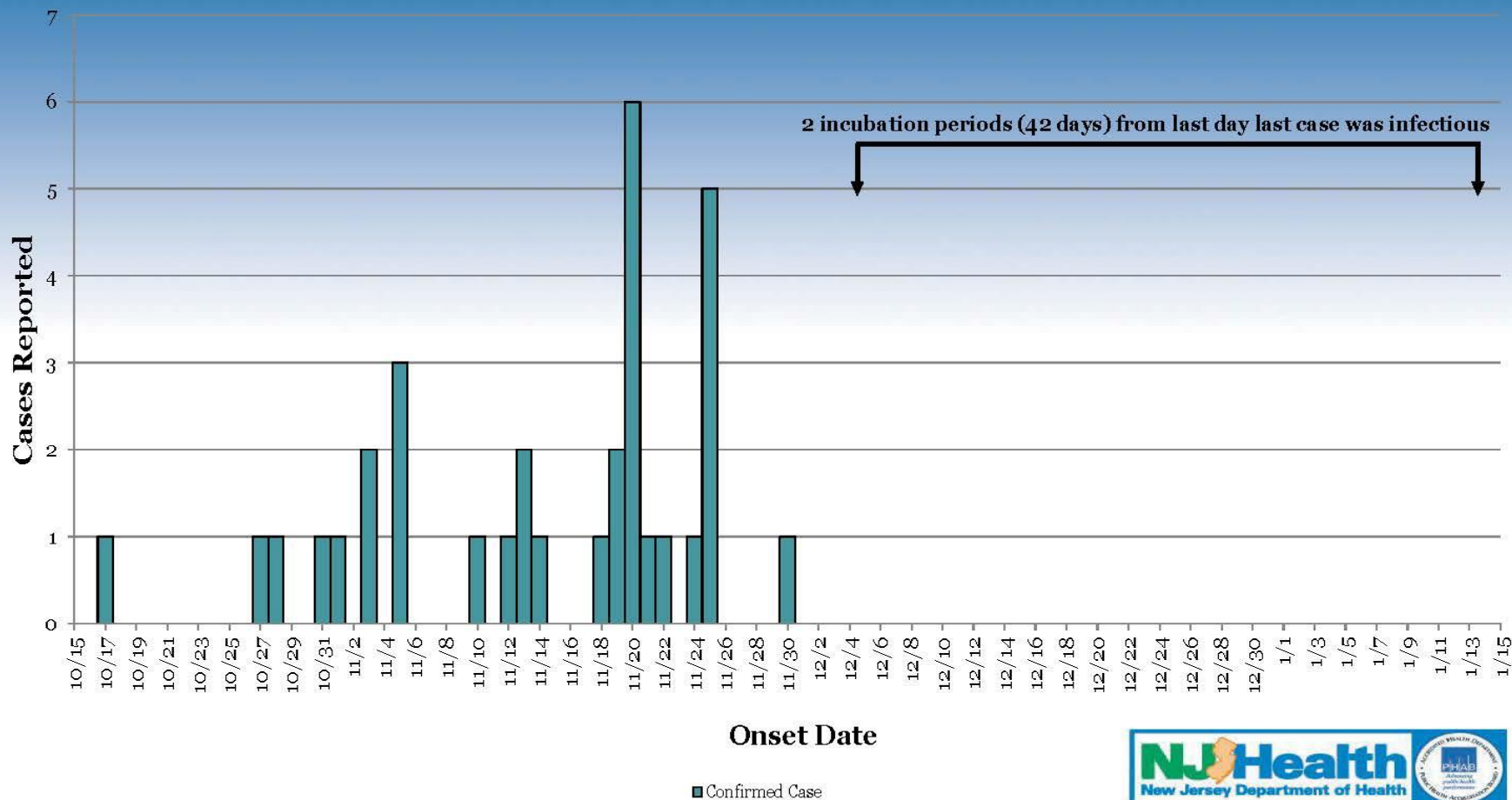
Measles Outbreak Declaration/ Definition

- New Jersey Department of Health (NJ DOH) would be the entity which declares outbreak
- An outbreak is defined as a chain of transmission including 3 or more cases linked in time and space
- A measles outbreak is declared over (also by the NJ DOH) once 2 full incubation periods (42 days) have passed from the last day the last known case would have been infectious

Measles timeline, Ocean County

| Date | Note |
|----------|--|
| 10/24/18 | CDU receives fax from FQHC: + measles antibody test results and patient encounter notes dated 10/17/18. Additional specimens collected and shipped to CDC for confirmation. |
| 10/26/18 | NJDOH issues press release announcing laboratory confirmed case of measles case in an individual who acquired the disease after international travel. |
| 10/29/18 | NJDOH offers to make 317-funded MMR vaccine available. |
| 10/30/18 | CDU receives 2 additional reports of measles from medical providers. |
| 11/1/18 | OB declared by NJDOH. Press release goes out announcing 2 additional cases who acquired disease after contact with the international traveler. |
| 11/4/18 | CDU expresses need for assistance with other CD investigations, suggests asking NJDOH REP. |
| 11/5/18 | Daily conference calls with NJDOH begin. |
| 11/6/18 | First FQHC public vaccination clinic |
| 11/7/18 | HO publically issues school exclusion guidance. |
| 11/7/18 | NJDOH issues recommendations for providers to consider vaccinating 6 mos - 11 mos infants. |
| 11/8/18 | PHEL provides training to FQHC to be able to ship specimens directly to CDC reference laboratory; FQHC to act as central point of shipping for area providers to expedite receiving results. |
| 11/8/18 | Internal meeting re: measles response TO; designated extension/hotlines established for both press inquiries and calls from the public. |
| 11/9/18 | Letter signed by 32 medical providers/pediatricians sent out recommending exclusion of all unvaccinated students from school. |
| 11/9/18 | HO publically issues letter of support for provider school exclusion recommendations. |
| 11/12/18 | Regional Epi offers assistance to OCHD to help support CDU manage surge in work volume. Agency accepts offer. |
| 11/13/18 | OCHD begins use of designated pay code to assist in quantifying OB response efforts. |
| 11/19/18 | FQHC begins shipping directly to CDC reference laboratory after receiving appropriate packaging supplies. |
| 11/21/18 | Regional Epi Coordinator for region offers assistance to OCHD. Agency accepts offer. Logistics discussed on conference call same date, inclusive of REP coordinator. |
| 11/26/18 | REP begins takes on some of OC's non-outbreak CDRSS case volume. |
| 12/20/18 | 33rd and final case reported. Delayed identification, did not alter date OB could be declared over by NJDOH. |
| 1/16/19 | OB declared over by NJDOH after 42 days elapsed from the last day the last known case was infectious. |

2018 Ocean County Outbreak, Cases by Onset Date



Ocean County Measles Outbreaks, 2018-2019



2018 and 2019 Ocean County Measles Outbreaks

| | 2018 Outbreak | 2019 Outbreak |
|--|---|---|
| Total Number of Cases | 33 | 12 |
| Rash Onset Date Range | 10/17/18 to 11/30/18 | 2/28/19 to 3/30/19 |
| County of Residence | Ocean County – 30 Passaic County – 3 | Ocean County – 8 Monmouth County – 4 |
| Age Range | 6 months - 59 years | 5 months - 51 years |
| Mean Age | 11.5 years | 17 years |
| Percent 18 or Under | 88% | 67% |
| Vaccination Status (measles-containing vaccine) | <ul style="list-style-type: none"> • 79% - unvaccinated • 3% - 1 documented dose • 15% - 2 documented doses • 3% - unknown status | <ul style="list-style-type: none"> • 100% - unvaccinated or unknown status |
| Hospitalized (does not include ED visits) | 0 | 0 |

Measles: Where is this going?

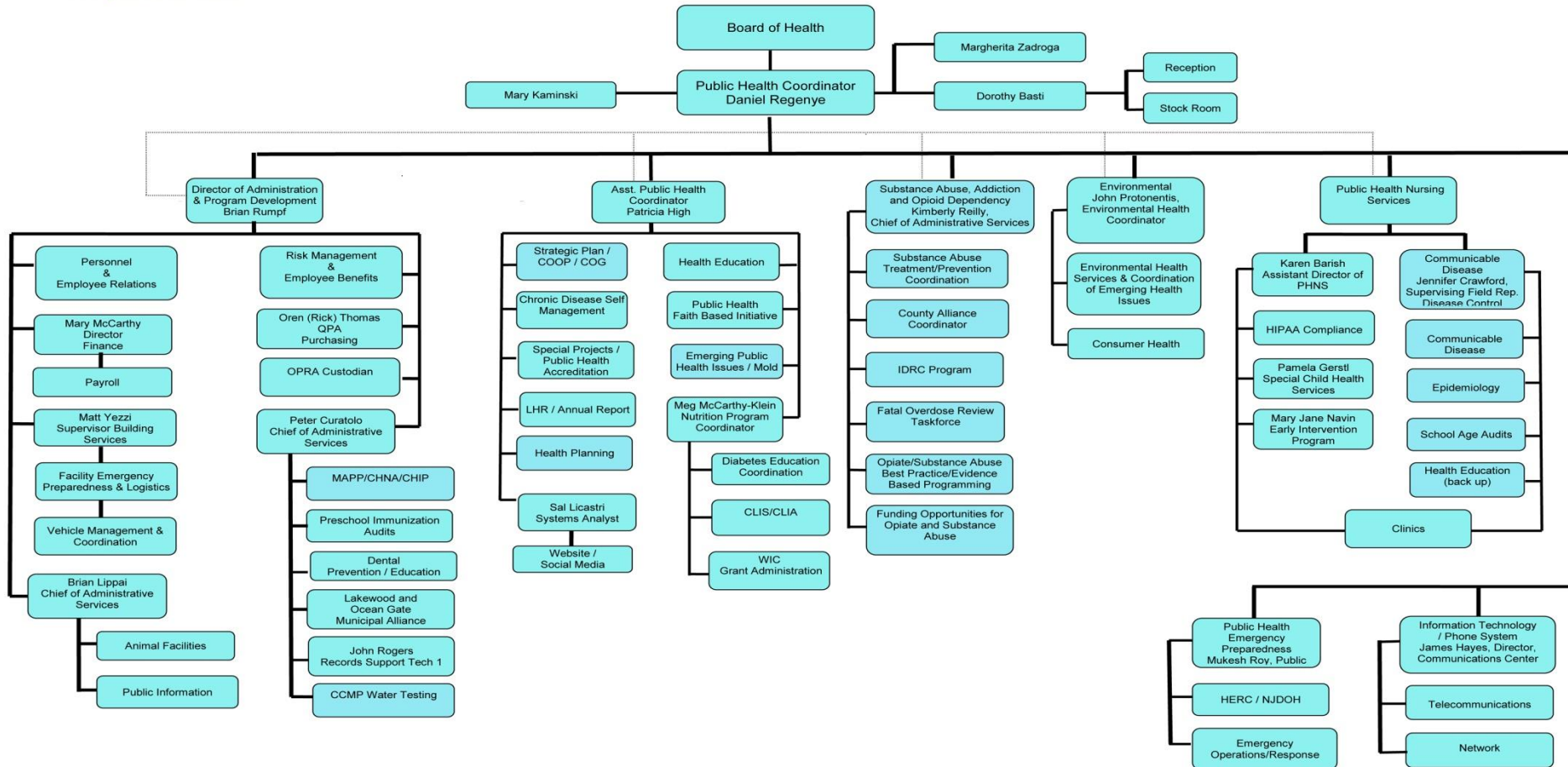
- Measles is a highly contagious virus
- Measles is so contagious that if one person has it, up to 90% of the people close to that person who are not immune will also become infected
- Measles virus can live for up to two hours in an airspace where the infected person coughed or sneezed
- Infected people can spread measles to others from four days before through four days after the rash appears.

Where is this going?

Hope for the best, but plan for the worst

- November 1, 2018 (Outbreak declared, 3 cases)
- November 2, 2018
 - Measles 101 staffing orientation (**surge capacity**), total of 30+/- staff
 - Public Health Coordinator (PHC)/ Health Officer
 - Assistant PHC/ Deputy Health Officer
 - Communicable Disease Unit
 - Nursing Clinics (clinical and administrative staff)
 - Public Health Preparedness Unit
 - Public Information Unit
 - Human Resources
 - Finance Division
 - Health Education Unit

TABLE OF ORGANIZATION

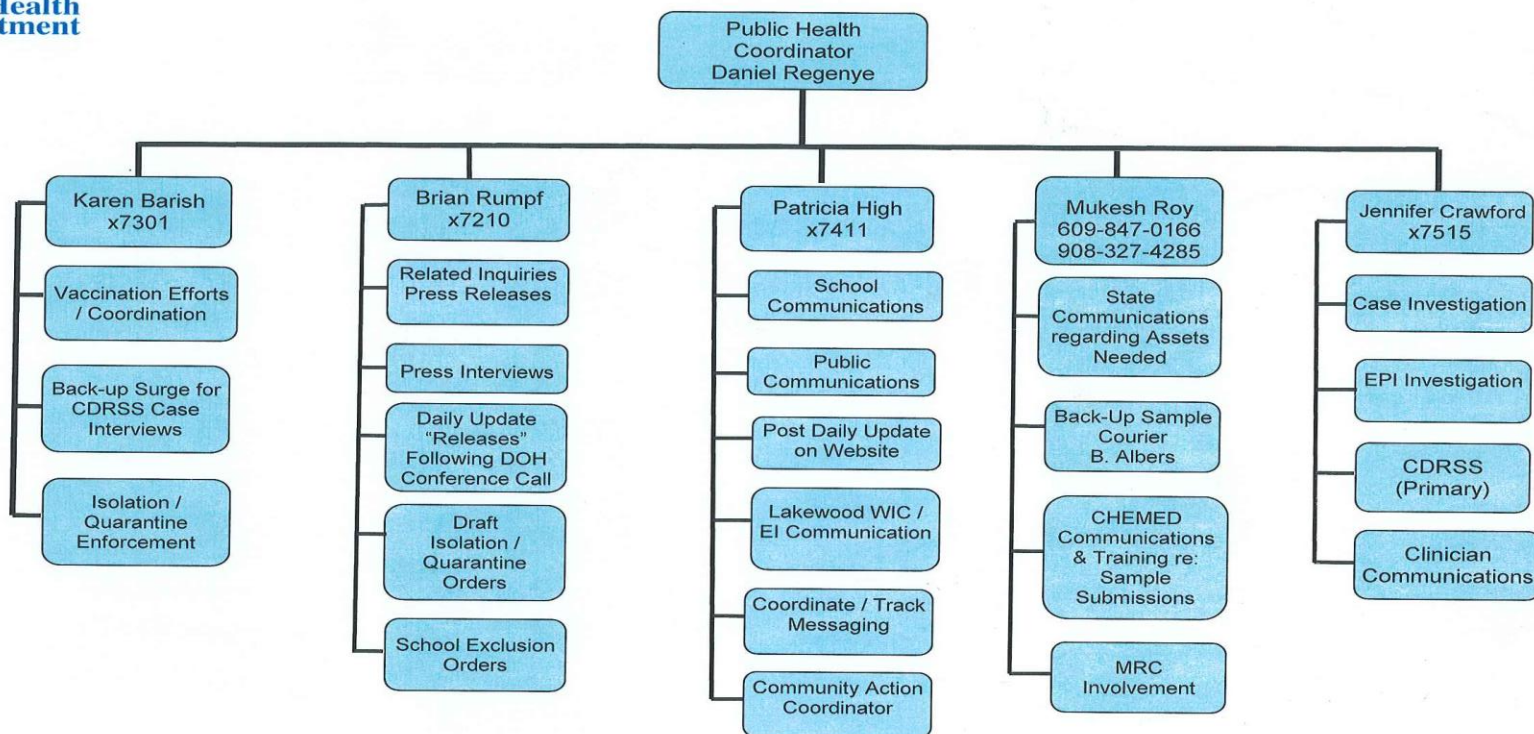


April 1, 2019

Incident Command (IC) established



MEASLES TASK ASSIGNMENT

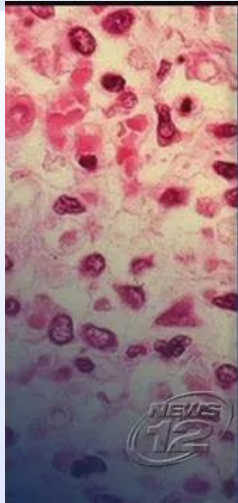


November 8, 2018
Version 1.1

Measles: Administrative matters

- Time code
- Daily conference call w/ NJ DOH
- Daily internal communication w/ staff (prior to and after each NJ DOH call)
- Educate/ remind “community” on the requirement to immediately report suspect measles
- Update/ distribute Health Department “on call” roster
- Draft Health Officer “Isolation”, “Quarantine” and “Exclusion” orders
- Burden of OPRA requests
- Public Health Nurse enforced Health Officer orders
- Communication to Board of Health, Elected Officials, Community Leaders, other

Risk Communication/ Messaging



MEASLES OUTBREAK BETWEEN OCTOBER 28 - NOVEMBER 1

- SCHUL SATMAR
405 FOREST AVENUE, LAKEWOOD
- CHEMED HEALTH CENTER
1771 MADISON AVE, LAKEWOOD
- OFFICE OF DR. ELI EILENBERG
150 JAMES ST, LAKEWOOD
- FOUR CORNERS BAGEL & CAFE
150 JAMES ST, LAKEWOOD

NEW JERSEY DEPARTMENT OF HEALTH

COMMUNITY MESSAGE

Reported Lakewood NJ Outbreak of Measles

To the Campus Community:

We are closely monitoring the recent cases of measles which have occurred in Lakewood, NJ and the recommendations from the NJ Department of Health. The New Jersey Department of Health has two confirmed cases of measles — a highly contagious disease — who could have exposed others to the infection while in Lakewood, NJ between October 25 and 30, 2018. The Department of Health is considering this an outbreak of measles in the Lakewood community.

Anyone who visited the following locations may have been exposed to measles:

- NPGS Grocery Store, 231 Main St, Lakewood, NJ 08701
 - October 26 between 9 a.m. - 12 p.m.
 - October 29 between 2:15-4:45 p.m.
- Pizza Plus, 241 4th St, Lakewood, NJ 08701
 - October 28 between 12:30-3:30 p.m.

POTENTIAL MEASLES EXPOSURE

MIDDLESEX, OCEAN COUNTIES NJ

- SKY ZONE, 600 HADLEY RD,
SOUTH PLAINFIELD
APRIL 22 FROM 12:00 P.M.
TO 5:00 P.M.
- RIVER 978 BANQUET HALL,
978 RIVER AVE, LAKEWOOD
APRIL 23 FROM 6:00 P.M.
TO 1:00 A.M.



POSSIBLE MEASLES EXPOSURE IN PASSAIC

- PASSAIC CHILL YOUTH DROP IN CENTER
AT 217 BROOK AVENUE
NOVEMBER 17 BETWEEN 8:30 P.M. AND MIDNIGHT
- JUNIOR'S KOSHER DELI
AT 215 MAIN AVENUE
NOVEMBER 18 BETWEEN 7:30 P.M. AND 10 P.M.

LAKESWOOD MEASLES EXPOSURE WARNING

SOURCE: NJ DEPARTMENT OF HEALTH

PIZZA PLUS
241 4TH ST
OCTOBER 28 BETWEEN
12:30PM & 3:30PM

NPGS GROCERY STORE
231 MAIN ST
OCTOBER 25 BETWEEN
9AM & 12PM
OCTOBER 29 BETWEEN
2:15PM & 4:45 PM

Health officials confirm measles case in Chicago

POSTED 4:30 PM, MAY 16, 2019, BY WGN WEB DESK AND COURTNEY COUSAMM, UPDATED AT 07:28AM, MAY 19, 2019

New York Has Stunning 82 Percent of America's Measles Cases as Outbreak Total Soars to 839

Twenty-three states have reported cases, but the vast majority have been in New York — mainly in New York City and in nearby Rockland County
 Published May 13, 2019 at 10:18 AM | Updated at 10:31 AM EDT on May 13, 2019



LIFE-SAVING SHOT —

NYC declares emergency over measles outbreak, mandates vaccinations

Officials say anti-vaxxers are fuelling the outbreak by spreading "fake science."

BETH MOLE - 4/9/2019, 1:59 PM



Health & Fitness

NJ Measles Outbreak Grows: Disease's Worst Rate Since Eradication

Officials issue stern warnings about the need for vaccines as measles cases at a NJ restaurant and elsewhere are identified. Here's where.
 By Tom Davis, Patch National Staff | Apr 25, 2019 10:29 am ET

N.J. measles: Traveler with highly-contagious disease may have spread it to others at Newark airport in April

Updated May 3, 2019; Posted May 2, 2019



Ocean County measles outbreak expands

By Justin Auciello - November 14, 2018



Risk Communication

- **Media**, Numerous requests from television, radio, print and internet media (many unannounced), (Health Officer)
- **Public** (Health Education, hotline extension)
- **Clinicians/ Healthcare Providers** (Communicable Disease Unit)
- **Elected officials** (Health Officer or Director of Administration)
- **Faith based leaders** (several internal)
- **Internally**, (supervisory staff)

Purpose of Communication

- Clear consistent messaging from trusted source
- Guidance to clinicians and healthcare partners
- Update public on status of outbreak
- Educate public on importance and safety of vaccination
- Educate community on “What Public Health does” and what we are doing behind the scenes (“Silent” First Responder)
- Develop potential “action items”

Partnerships

- Healthcare Providers
 - FQHC's
 - Pediatricians
 - Hospitals
 - Other
- Local Governing Body
- OEM (County and Local)
- Schools/ Childcare/ Play Groups (public and private)
- Community
- Public Health (NJ DOH, LHD's in NJ, US)

Healthcare Provider Partnerships

- Pediatricians: Very Strong support for Public Health
- Federally Qualified Health Centers:
 - Two in Ocean County, NJ
 - Center for Health Education Medicine and Dentistry (CHEMED) *index case reported from
 - Ocean Health Initiatives (OHI)
- Hospitals: Very supportive and good working relationship over time
- **Messaging was very important in regards to their roles with outbreak**

Messaging “Patients of Concern”

- Consistent messaging for “exposed or symptomatic” individuals should NOT present at clinicians office or hospital
 - Call in advance and clinician should have a plan in place to see the patient in an appropriate setting/ manner
 - Specimen collection

Vaccination opportunities

- Vaccine procured through the NJ DOH VFC program
- FQHC's led the effort to vaccinate population
 - Ocean County Health Department coordinated vaccine supply through FQHC and NJ DOH (>12,500 doses MMR)
 - Ocean County Health Department held a “stockpile” of MMR vaccine
 - Ocean County Health Department provided Public Health nurses, Medical Reserve Corp nurses and administrative staff to assist in FQHC led vaccination clinics

Emergency Response

- Ocean County Health Department facilitated a request from CHEMED for the NJ DOH mobile negative pressure isolation tent which is staged by the NJ EMS task force
- Ocean County Health Department preparedness staff worked with Lakewood Twp. OEM to request the asset through the County of Ocean OEM
- This tent was used during the outbreak to provide clinical oversight to symptomatic patients or “patients of concern”

Triage Symptomatic /Non-Symptomatic



Emergency Response

- E-Team
- Negative Pressure Isolation Tent
- EMS Taskforce



Emergency Response

- Always on a Friday afternoon and Weekend



Schools/ Daycare/ Playgroups

Public and Private

- Looking for A LOT of guidance during the outbreak
 - Ocean County Health Department performs audits for immunization compliance with schools and daycare and overall they are fairly good (low 91/93% range)

School Exclusion

In accordance with N.J.A.C. 8:57-4.3 (d) and 4.4 (d) a school, preschool, or child care center may exclude children with religious or medical exemptions during a vaccine preventable disease outbreak or threatened outbreak as determined by the Commissioner, Department of Health, or his or her designee



State of New Jersey

DEPARTMENT OF HEALTH

DIVISION OF EPIDEMIOLOGY, ENVIRONMENTAL AND OCCUPATIONAL HEALTH

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CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

CATHLEEN D. BENNETT
Commissioner

May 19, 2017

N.J.A.C. 8:57-4.3 and N.J.A.C. 8:57-4.4, Immunization of Pupils in Schools,
Medical and Religious Exemptions

The New Jersey Department of Health (Department) has received numerous inquiries regarding N.J.A.C. 8:57-4.3 and N.J.A.C. 8:57-4.4, Immunization of Pupils in School, Medical and Religious Exemptions. Schools, child care centers and local health departments who are responsible for processing requests for exemptions from mandatory immunization requirements are reminded that such exemptions are limited to medical and religious reasons. Requests for exemptions based on philosophical, moral, secular, or more general reasons are unacceptable and should not be granted.

- Medical Exemptions:

N.J.A.C. 8:57-4.3 provides for exemptions from mandatory immunization(s) which are medically contraindicated. A written statement shall be submitted to the school, preschool, or child care center from a physician licensed to practice medicine or osteopathy or an advanced practice nurse (certified registered nurse practitioner or clinical nurse specialist) indicating that an immunization is medically contraindicated for a specific period of time, and the reason(s) for the medical contraindication, based upon valid medical reasons as enumerated by the Advisory Committee on Immunization Practices (ACIP) or the American Academy of Pediatrics (AAP) guidelines.

- Religious Exemptions:

N.J.S.A. 26:1A-9.1 provides an exemption from mandatory immunization "if the parent or guardian of the pupil objects thereto in a written statement signed by the parent or guardian upon the grounds that the proposed immunization interferes with the free exercise of the pupil's religious rights."

N.J.A.C. 8:57-4.4 provides an exemption from mandatory immunization for a child in school, preschool, or child care center if the child's parent or guardian submits to the school, preschool, or child care center a written, signed statement requesting a religious exemption from the immunization, pursuant

to N.J.S.A. 26:1A-9.1. Religious exemptions extend to private, parochial, and public institutions.

When a parent or guardian submits a written, signed request for exemption from mandatory immunization(s) due to religious beliefs, the statement should be accepted and the religious exemption granted. The request does not need to identify membership in a recognized church or religious denomination or describe how the administration of immunizing agents conflicts with the student's religious beliefs in order for the request to be granted. Religious affiliated schools or child care centers shall have the authority to withhold or grant a religious exemption from the required immunization for pupils entering or attending their institutions without challenge by any secular health authority.

In accordance with N.J.A.C. 8:57-4.3 (d) and 4.4 (d) a school, preschool, or child care center may exclude children with religious or medical exemptions during a vaccine-preventable disease outbreak or threatened outbreak as determined by the Commissioner, Department of Health, or his or her designee.

The Department hopes that the information provided will enable schools, child care centers, and local health departments to process requests for exemptions in a uniform and expeditious manner. The Department remains committed to ensuring that our children and communities are protected against vaccine-preventable diseases. The dramatic decrease in the morbidity and mortality of vaccine-preventable diseases is attributed, in large part, to enforcement of school immunization requirements. The Department remains grateful for all the work expended locally to implement and enforce these important health regulations within the prescribed authority.



OCEAN COUNTY HEALTH DEPARTMENT

P.O. Box 2191
Toms River, N.J. 08754-2191
(732) 341-9700 ext. 7201
Fax: (732) 831-6495
www.ochd.org

November 9, 2018

The Ocean County Health Department has received inquiries regarding the exclusion of unvaccinated children from school, preschool or childcare facilities and offers the following as a supplement to its November 7, 2018 "School Exclusion Guidance". While the November 7, 2018 guidance is factual and accurate, there are other guidance documents and components of N.J.A.C. 8:57 that provide decision making autonomy to schools, preschools and childcare facilities. Most specifically, as noted in the attached May 19, 2017 correspondence from the New Jersey Department of Health;

"In accordance with N.J.A.C. 8:57-4.3 (d) and 4.4 (d) a school, preschool, or child care center may exclude children with religious or medical exemptions during a vaccine-preventable disease outbreak or threatened outbreak as determined by the Commissioner, Department of Health, or his or her designee."

At this time, with the best information we have been provided, in an effort to curtail the spread of disease in the community and in review of literature of other measles outbreaks currently in existence elsewhere, the Ocean County Health Department **"HIGHLY ENCOURAGES"** and **"SUPPORTS"** the exclusion of non vaccinated children from schools, preschools and daycares during the time of the current New Jersey Department of Health declared outbreak of measles in our community. The Ocean County Health Department encourages everyone to review their vaccination status for ALL vaccine preventable disease and get vaccinated if appropriate.

The Ocean County Health Department further reminds all Healthcare Providers and Administrators, per N.J.A.C. 8:57-1.5, that measles is an **IMMEDIATELY** reportable disease (even if only suspected) directly to the Ocean County Health Department.

A primary focus of Public Health and the Ocean County Health Department is to "Prevent, Promote and Protect". We fulfill this task in partnership with our community. We urge all residents to continue to work in partnership with us to curtail the spread of measles within the community. If you or a member of your family is contacted for information, the answers you provide are vital and will go a long way to help us to help you, your family and our community stop this current outbreak.

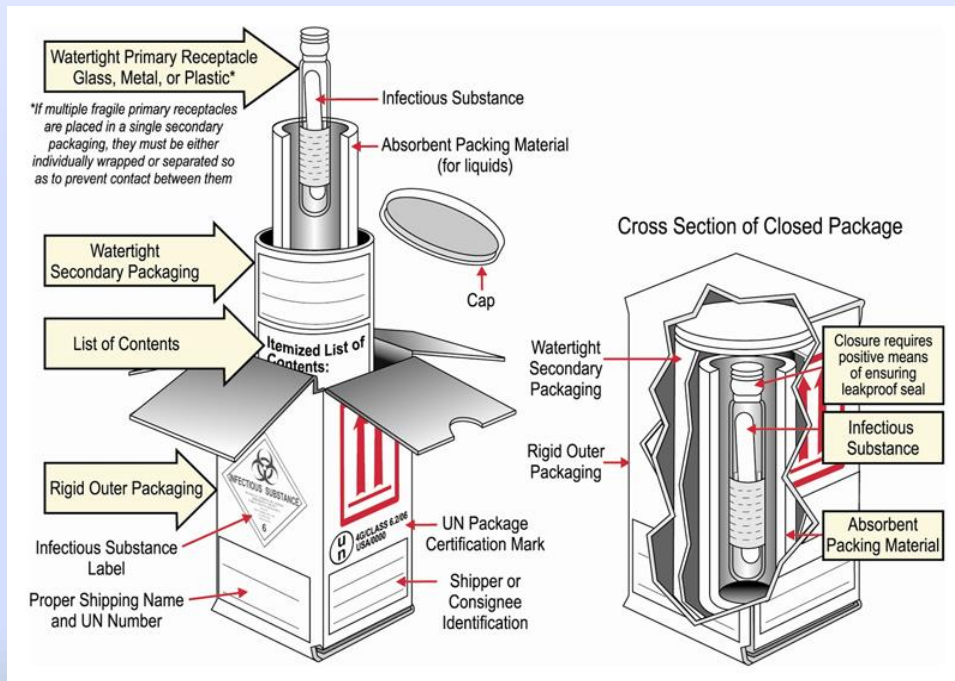

Daniel E. Regenye, MHA
Public Health Coordinator/Health Officer

Community Support:

- In addition to the Ocean County Health Department letter, the local community supported the Public Health efforts by circulating a letter signed by 32 pediatricians promoting vaccination and school exclusion in the absence of vaccination
- Faith based community and Rabbi's messaging the importance of vaccination and there is nothing in the Torah nor the Jewish religion which prohibits vaccination
- Residents in general were very supportive of the Public Health efforts

Lab Samples

- UN3373 Packaging for Biological Substance Category B Agents
- New Jersey Public Health Laboratory, Campus of NJ State Police HQ
- New York State Department of Health Lab , Wadsworth Center, Albany, NY



What went right? (Strengths)

- In hindsight, there is very little I would change from the Ocean County Health Department response and our role with Ocean County partners.
- Very strong community support
 - Providers, FQHC's, Faith based, governing body, residents, law enforcement, emergency management
 - All very well established prior to this measles outbreak
- Strong local media relationships
- Hospitals, Schools, Daycare (private and public)
 - Letter sent providing detailed information on outbreak, reporting responsibilities under NJ law and the Ocean County Health Department 4 deep 24/7 contact information

What went right? (Strengths), cont.

- County Board of Health Legal Counsel
- Support of governing bodies, municipal, county and board of health
- Daily conference calls with NJ DOH
- Internal operations/ staff of Ocean County Health Department
 - Well exercised, fluent in our plans, very competent and dedicated
- Documentation of activities

Challenges/ Opportunities/ Do Differently

- Open Public Records, Access to government records
- Communication
 - More internal
 - More community
 - More Press releases
 - Integrate Social media more
- Challenge assumptions/ exercise scenarios/ ask correct questions (candidly)
 - There are things I assumed would take place or actions that would happen outside my control based on past conversations and promises which were incorrect

Suggestion?

Messaging needs to be reviewed?

- According to CDC website:
 - About 1 out of 4 people who get measles will be hospitalized. (Ocean County had 45 cases associated with outbreak, none were hospitalized)
 - As many as 1 out of every 20 children with measles gets pneumonia, the most common cause of death from measles in young children.
 - About 1 child out of every 1,000 who get measles will develop encephalitis (swelling of the brain) that can lead to convulsions and can leave the child deaf or with intellectual disability.
 - Nearly 1 or 2 of every 1,000 children who become infected with measles will die from respiratory and neurologic complications.
 - Measles may cause pregnant women who have not had the MMR vaccine to give birth prematurely, or have a low-birth-weight baby.
- Are these above outcome statistics being seen in the United States? Or the world? Are they current? I don't know how to answer someone who questions zero hospitalizations when we had 45 cases when according to CDC "about 1 in 4 will be hospitalized" Does this erode the credibility of Public Health?

Take away message/ thought!

- Communicate early and often
- There is no “cookie cutter” approach to any response. You need to know your plan(s), but more importantly understand your role, responsibility and capacity to deliver.
- There is NO step by step guide, be flexible, assess the situation and respond accordingly
- Stay in “your lane”
- The response and actions are always “local”. There is no cavalry coming in to support/ assist
- Continue to develop, foster and invest in local relationships because those are the people/ agencies you will work closest with in the trenches

Shout Out!

- The best staff/ community partners I could ask for during any event or emergency
- **Jennifer Crawford, MPH, CHES**
 - **Supervisor, Communicable Disease Unit**

Questions/ Contact Information

Daniel Regenye, MHA

Public Health Coordinator/ Health Officer

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Q&A



Thank You