Measles Part II:

*Cause and Effect of Vaccine Misinformation: A Case Study in Minnesota*

Presentation to Washington Vaccine Update
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Twitter: InfectiousPS
Disclosures

This activity is coprovided by WithinReach and Cardea Services.

Successful completion of this continuing education activity includes the following:

• Attend the entire conference
• Complete an online evaluation at http://www.surveygizmo.com/s3/3840875/WA-Vaccine-Update-Learner-Evaluation
• Complete an online certificate request at the link above

If you have any questions about this CE activity, contact Margaret Stahl at seattle@cardeaservices.org or (206) 447-9538
Disclosures

Faculty: Patsy Stinchfield, MS, RN, CPNP, CIC

CME Committee: David Couch; Kathleen Clanon, MD; Johanna Rosenthal, MPH; Pat Blackburn, MPH; Richard Fischer, MD; Sharon Adler, MD.

CNE Committee: Leigh Casey Wallis, MPH; Paul Throne, DrPH, MPH, MSW; Kristen Wilson-Weiberg, BSN, RN; Liz Jaquette, MPH; Mackenzie Melton, MPH, Ginny Cassidy-Brinn, MSN, ARNP.

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Richard Fischer, MD is a member of an Organon speaker’s bureau.

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Learning Objectives

By the end of this session, you should be able to:

1. Describe the role of activists in disseminating vaccine information in an immigrant community
2. Discuss ways to effectively communicate with similar communities in Washington State.
Minnesota Sees Largest Outbreak of Measles in Almost 30 Years

By CHRISTOPHER MELE  MAY 5, 2017

Amira Hassan of Burnsville, Minn., and her father, Mohamud, at the Children's Minnesota specialty clinic in Minneapolis on Tuesday.

Health officials are grappling with the largest outbreak of measles in Minnesota in almost 30 years, which is mainly sickening young children of Somali immigrants who fell under the sway of anti-vaccination activists.
MEASLES

is highly contagious and spreads through the air when an infected person coughs or sneezes.

It is so contagious that if one person has it, 9 out of 10 people of all ages around him or her will also become infected if they are not protected.
“The Somali Community was Targeted”

SOMALI VACCINATION RATES FALL

The Somali backlash against the measles vaccine is new; their kids' vaccination rates matched the general population until 2008, when fears of a link between the vaccine and autism sparked a reaction among Somali parents.

Immunization rates for Minnesota-born children at age 2

Source: Minn. Dept. of Health

MMR uptake among Somali immigrants in Minnesota: This is the effect of nearly a decade of antivaccine propaganda.

Source: MN Department of Health
Effects of Misinformation
• Measles is one of the leading causes of death among young children even though a safe and cost-effective vaccine is available.
• In 2015, there were 134,200 measles deaths globally – about 367 deaths every day or **15 deaths every hour**.
• Measles vaccination resulted in a 79% drop in measles deaths between 2000 and 2015 worldwide.
• In 2016, about 85% of the world's children received one dose of measles vaccine by their first birthday through routine health services – up from 73% in 2000.
• During 2000-2015, measles vaccination prevented an estimated 20.3 million deaths making measles vaccine one of the best buys in public health.
WHO: Unacceptable tragedy

Measles kills 35 people in Europe as disease spreads through un-vaccinated children, warns WHO

Majority of fatalities in Romania, which has seen a 'substantial drop in immunisation coverage'

Katie Forster Health Correspondent | @katieforster | Wednesday 12 July 2017 07:30 BST | 0 comments
Measles
It isn’t just a little rash

About 1 out of 4 people who get measles will be hospitalized.

1 out of every 1,000 people with measles will develop brain swelling (encephalitis), which may lead to brain damage.

1 or 2 out of 1,000 people with measles will die, even with the best care.

WWW.CDC.GOV/MEASLES
Voices from our parents

• Had I known the “M” in MMR was for measles, I never would have skipped it. Measles is what my sister died of in Somalia!

• All I knew was that when I came to America, don’t take “the triple shot.” I didn’t know why but now I have evidence of how dangerous it is to not protect your children.

• I didn’t think there was measles in the US. So I was more afraid of autism than measles so I didn’t get MMR. I am telling all of my family and friends now to get the MMR because my child could have died from measles here like her cousin did in Somalia.
Ways to Combat Misinformation:
Social Media Outreach

**Community Management and Response**

- **Social Media Organic**
  - [Image of a tweet from Children's Minnesota](#)
  - [Image of a blog post](#)
  - [Image of total impressions and total engagements](#)

**Total Impressions**: 390,458

**Total Engagements**: 1,197
Measles is an extremely contagious respiratory disease caused by a virus. It spreads in the air through coughing and sneezing and can live for up to two hours on surfaces or in an area where an infected person has coughed or sneezed. While no longer common in the U.S., it is still common in many other countries and may be brought into the U.S. by unvaccinated travelers. The best way to prevent measles is to be fully vaccinated.

Our Experts

Patsy Stinchfield, MS, RN, CPNP, is an infectious disease nurse practitioner and Director of Infection Prevention and Control and the Children’s Immunization Project at Children’s Minnesota. She is a widely-recognized infectious diseases specialist and expert on vaccinations and immunizations, and has served as a source for the Associated Press, The New York Times, USA Today and more.

Contact our media relations team to contact our experts.

Measles toolkit for health professionals

Children’s Minnesota, in partnership with the Minnesota Department of Health, is currently managing a measles outbreak. In response, all usual safety and protective measures have been implemented to minimize spread in our hospitals and clinics. Measles is a highly contagious virus and therefore the number of confirmed cases and exposed people continue to increase. We believe we must work together as healthcare providers to stop the spread of the disease and educate the community on the importance of immunization.

Since this outbreak was first identified in a Children’s patient, we have developed and implemented several key documents, processes, and procedures to help our clinicians manage the increasing needs for services. Because the situation continues to evolve and the number of exposed people in the community has extended beyond our walls, we are offering the following resources to providers in and out of our network in an effort to help others manage the situation within their own healthcare facilities.

Thank you for your commitment to the health and well-being of the communities we serve.
• Health provider landing page
• Provider letters
• Exposed patient letters
• Clinic patient letters

Created Content

- Internal staff memos
- Internal staff talking points

MEASLES: WHAT YOU NEED TO KNOW

WHAT IS MEASLES?
Measles is an extremely contagious respiratory disease spread by sneeze and coughing and sneezing and is transmitted either from an infected person who has coughed or sneezed.

WHO SHOULD BE VACCINATED?
- During a local MMWR outbreak, children should get the first dose of the MMWR vaccine.
- The second dose of MMWR is usually given between 4 and 6 years old.
- During the current outbreak, children in Connecticut should be vaccinated at least 1 month before entering school.
- All adults who have not had measles or two doses of MMWR vaccine should be vaccinated.

WHAT ARE THE SYMPTOMS OF MEASLES?
Measles symptoms appear about 7 to 14 days after a person is exposed to measles. If you or one of your family members is experiencing the symptoms below, please seek medical care.

1. Red, watery eyes
2. Small red spots
3. Sore throat

MEASLES: WHAT ARE THE SIGNS AND SYMPTOMS?

The most common symptoms of measles are:
- Fever
- Cough
- Red, watery eyes
- Inflamed lymph nodes
- Characteristic rash

MEASLES: WHAT TO DO IF I THINK I MAY HAVE BEEN EXPOSED?
- Get medical care for yourself or your children if you or they are sick. If you are sick, please call your health clinic.
- Avoid contact with others until you no longer have a fever.
- If you believe others in your family have been exposed to measles, please call your health clinic.
- Contact your local health department to be sure it is safe to return to work or school.

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- Contact your local health department to be sure it is safe to return to work or school.
- For more information, please contact the Infectious Disease Department at 603-679-4638.

Hospitals & clinics
posters & signage

Educational
resources

Postcards
9 Cases Of Measles Confirmed In Minnesota

Health officials in Minnesota have confirmed nine cases of measles in the state, all in children who have not been vaccinated. There have also been recent cases of measles in Nebraska, Michigan and Texas. Experts say it could be a bad year for measles globally.

Here & Now’s Meghna Chakrabarti speaks with Patsy Stinchfield (@InfectiousPS), senior director of infection prevention and control at Children’s Hospitals and Clinics of Minnesota.
Work directly with the Somali Community

- Somali Employee resource group
- Somali Clinicians Listening dinner
- Somali Imam meetings
- Ramadan Eid meeting and dinner
- Public Meetings
- Day to Day 1:1
- Phone conversations and really listening
- Translated materials
Sorting the Wheat from the Chaff: Vaccine-Associated Rash Illness Occurring Amidst a Large Measles Outbreak—Minnesota, 2017

Karen Martin, MPH; Rajal Mody, MD, MPH; Malinini Desilva, MD, MPH et al

*All cases met the CSTE confirmed measles case classification: an acute febrile rash illness with detection of measles-virus specific nucleic acid from a clinical specimen using polymerase chain reaction or direct epidemiologic link to a confirmed case.*
Results. Over **42,000 MMR doses above expected** were administered during the outbreak. We identified 71 measles cases and 30 VARI.

- The median age of VARI patients was 1.2 years (range 10 months–48 years) and for measles cases 2.8 years (range 3 months–57 years).
- VARI diagnosis increased with rising MMR administration (figure);
- rash onset occurred a median of 11 (range 7–18) days after MMR receipt.
- Most VARI (97%) occurred following first MMR dose.
- The presence of fever was similar among VARI and measles cases (97% of VARI vs. 100% of measles cases; P = 0.12), but
- differences were seen in the proportion with
  - cough (30% vs. 96%; P < 0.001),
  - coryza (47% vs. 85%; P < 0.001),
  - conjunctivitis (23% vs. 68%; P < 0.001), and
  - exposure to infectious measles cases (0% vs. 96%).
Worst Case Effect of Misinformation: Fatal complications

- **SSPE**—cdc.gov/measles/complications  
  Accessed 10.16.17

- *Subacute sclerosing panencephalitis (SSPE)* is a very rare, but fatal disease of the central nervous system that results from a measles virus infection acquired earlier in life. SSPE generally develops 7 to 10 years after a person has measles, even though the person seems to have fully recovered from the illness. The risk of developing SSPE may be higher for a person who gets measles before they are two years of age. Death usually occurs 1-3 years after diagnosis.
Who do young parents trust?
John Oliver *Last Week Tonight*

• Over 7 million YouTube views and 3.3 million on Facebook (29K likes and 2500 comments)
“The greatest medicine of all is to teach people how not to need it.”

Thomas Edison