Outbreak! Pandemic! Panic!

Immunizations and Tools for Preventing and Responding to Communicable Diseases

Service + Solutions = Success

Emma O. Gillespie
Partner, Seattle
901 5th Ave. Ste 3400
Seattle, WA 98164
P: (206) 287-1775
F: (206) 287-9113

Jinju Park
Associate, Seattle
222 SW Columbia Ste 1575
Portland, OR 97201-6615
P: (503) 224-3650
F: (503) 224-3649
Measles outbreak
DISNEYLAND MEASLES OUTBREAK SPREADS
Ebola

[Map showing the spread of Ebola in West Africa, with different color shades indicating the number of deaths in each region.]

Source: National health ministries and WHO.
TWITTER IS GREAT FOR WATCHING UNINFORMED PANICS UNFOLD LIVE.

REALTIME RESULTS FOR SWINE FLU

1,918 MORE RESULTS SINCE YOU STARTED SEARCHING. REFRESH TO SEE.

SKEEV37: OH GOD I ATE PORK YESTERDAY BEFORE I KNEW ABOUT SWINE FLU!

LESS THAN 10 SECONDS AGO FROM WEB • REPLY • VIEW TWEET

HANNELOREEF: WITHOUT DUCT TAPE I CAN’T SEAL THE DOOR TO KEEP OUT SWINE FLU BUT I CAN’T GET DUCT TAPE WITHOUT GOING OUTSIDE! HELP!

LESS THAN 10 SECONDS AGO FROM WEB • REPLY • VIEW TWEET

PAULYSHOREFAN: HOW LONG UNTIL THE SWINE FLU REACHES ME HERE IN MADAGASCAR?

LESS THAN 10 SECONDS AGO FROM WEB • REPLY • VIEW TWEET

CRACKMONKEY74: SWINE FLU IS GOD’S PUNISHMENT FOR THE ACLU AND LESBIANS AND 9/11 AND NANOBOTS!

LESS THAN 10 SECONDS AGO FROM WEB • REPLY • VIEW TWEET

TWILIGHT753: I FELL DOWN THE STAIRS AND THERE WAS A CRACK AND A JAGGED WHITE THING IS STICKING OUT OF MY ARM GUYS IS THIS SWINE FLU?

LESS THAN 10 SECONDS AGO FROM TWITTERFURY • REPLY • VIEW TWEET

WIGU: @UNITOARD NO, THAT SOUNDS LIKE SYPHILIS, NOT SWINE FLU. WHAT DID YOU SAY YOU DID WITH A PIG?

LESS THAN 10 SECONDS AGO FROM TWEETDECK • REPLY • VIEW TWEET

2011SENIORSRULE: MY DAD SAID FLU VACCINES ARE LINKED TO AUTISM, SO TO BE SAFE FROM SWINE FLU I’M TRYING TO LICK AN AUTISTIC KID.

LESS THAN 10 SECONDS AGO FROM WEB • REPLY • VIEW TWEET
"I will tell you that I had a mother last night come up to me here in Tampa, Florida, after the debate. She told me that her little daughter took that vaccine, that injection, and she suffered from mental retardation thereafter."
A MEASLES OUTBREAK

In a hypothetical community where nobody has immunity from the measles virus, one infected person might infect 12 to 18 people, who might each infect another 12 to 18 people. At this rate, a small outbreak would quickly grow out of control.
**THE HERD EFFECT**

Every person who is successfully vaccinated reduces the potential sources of infection, thus reducing the risk to unvaccinated people. This reduction in risk is sometimes called the **herd effect**. The presence of vaccinated people helps slow the spread of the virus.
**HERD IMMUNITY**

For an outbreak to end quickly, each infected person must infect, on average, fewer than one other person. In this example, at least 17 of every 18 people (more than 94 percent) would need immunity. This threshold is sometimes called the **herd immunity** threshold.
4 Most Effective Tools for Mitigating or Preventing Transmission of Disease

• Vaccines
• Safe food handling
• Good health practices: hand-washing, cleaning, cough etiquette
• Education and outreach
Vaccinations are required by state law

<table>
<thead>
<tr>
<th></th>
<th>Hepatitis B</th>
<th>DTaP/Td/Tdap*</th>
<th>Polio*</th>
<th>MMR (Measles, Mumps, Rubella)</th>
<th>Varicella (Chickenpox)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kindergarten – 5th Grade</strong></td>
<td>3 doses</td>
<td>5 doses</td>
<td>4 doses</td>
<td>2 doses</td>
<td>2 doses OR Healthcare provider verifies child had disease</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6th – 8th Grade</strong></td>
<td>3 doses</td>
<td>5 doses DTaP AND 1 dose Tdap</td>
<td>4 doses</td>
<td>2 doses</td>
<td>2 doses OR Healthcare provider verifies child had disease</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>9th – 12th Grade</strong></td>
<td>3 doses</td>
<td>5 doses DTaP AND 1 dose Tdap</td>
<td>4 doses</td>
<td>2 doses</td>
<td>Recommended, but not required**</td>
</tr>
</tbody>
</table>

**Note:**
- DTaP/Td/Tdap*: Diphtheria, Tetanus, Pertussis
- MMR: Mumps, Measles, Rubella
- Varicella: Chickenpox
- **Recommended, but not required**
School immunization exemptions for students in grades K-12, 1998 - 2015

After five years of decreasing exemption rates, the percentage of students with any exemption increased this year. The increase in overall exemptions is due to increases in medical exemptions.

- Any kind of exemption: 5.2% (0.2% change from last year)
- Non-medical exemptions: 4.5% (-0.1% change from last year)
- Medical exemptions: 1.0% (0.3% change from last year)

Washington State Department of Health
What Does the Vaccination Law Require?

• RCW 28A.210.060 Immunization Program - Purpose

“... necessary to protect the health of the public and individuals by providing a means for the eventual achievement of full immunization of school-age children against certain vaccine-preventable diseases.”
What Does the Vaccination Law Require?

• The legislature directed the Department of Social and Health Services to adopt rules.
  – RCW 28A.210.170
What Does the Vaccination Law Require?

• DSHS rules require vaccinations against the following diseases. WAC 246-105-030
  – Varicella (Chicken Pox), Diphtheria, Rubella (German Measles), Haemophilus influenzae type B disease (HiB), Hepatitis B, Measles, Mumps, Pneumococcal disease, Polio, Tetanus, and Whooping Cough (pertussis)
What Does the Vaccination Law Require?

- RCW 28A.210.060 Immunization Program - Purpose
- The legislature directed the Department of Social and Health Services to adopt rules.
- DSHS rules require vaccinations against specific diseases. WAC 246-105-030
- **Required immunizations are based on national immunization guidelines** WAC 246-105-040
Immunizations Required for Public School Attendance

- **RCW 28A.210.080(1).** Attendance conditioned on one of the three conditions:
  - full immunization
  - initiation of and compliance with a schedule of immunization, as required by rules of the state board of health, or
  - a certificate of exemption
Immunizations Required for Public School Attendance

- RCW 28A.210.080(1). Attendance conditioned on one of the three conditions:
  - **full immunization** = compliance with WAC 246-105-030 required schedule of immunizations and proof.
  - the initiation of and compliance with a schedule of immunization, as required by rules of the state board of health, or
  - a certificate of exemption
Immunizations Required for Public School Attendance

- RCW 28A.210.080(1). Attendance conditioned on one of the three conditions:
  - full immunization
    » WAC 246-105-050 Proof:
    » Certificate of Immunization Status (CIS)
    » Name, date of birth, type of vaccines administered, date of vaccination, proof of immunity, parent signature and date
  - the initiation of and compliance with a schedule of immunization, as required by rules of the state board of health, or
  - a certificate of exemption
Immunizations Required for Public School Attendance

RCW 28A.210.080(1). Attendance conditioned on:

- the initiation of and compliance with a schedule of immunization
  - a temporary immunization status where a child is not immunized against one or more preventable diseases required.
  - Must comply with the rules of the State Board of Health
  - Child is allowed to attend school provided that he or she makes satisfactory progress towards full immunization.
Immunizations Required for Public School Attendance

- RCW 28A.210.080(1). Attendance conditioned on one of the three conditions:
  - full immunization
  - the initiation of and compliance with a schedule of immunization
  - a certificate of exemption
    » must comply with WAC 246-105-050(2)
Immunizations Required for Public School Attendance

- **WAC 246-105-050 Certificate of exemption must contain:**
  - Name,
  - date of birth,
  - indication of the exemption (medical, religious, personal, or philosophical),
  - duration of exemption (if applicable), and
  - parent signature and date
Immunizations Required for Public School Attendance

• RCW 28A.210.080(1). Attendance conditioned on one of the three conditions:
  – full immunization
  – the initiation of and compliance with a schedule of immunization
  – a certificate of exemption: WAC 246-105-050
    » The type of exemption claimed changes the requirements
Immunizations Required for Public School Attendance

• WAC 246-105-050 The type of exemption claimed changes the requirements:
  • MEDICAL EXEMPTION:
    • signed and dated by a health care practitioner;
    • accompanied by a statement from health care provider stating that he or she provided the parent information about the risks and benefits of the exemption and vaccination
Immunizations Required for Public School Attendance

• WAC 246-105-050 The type of exemption claimed changes the requirements:
  • PERSONAL OR PHILOSOPHICAL:
  • signed and dated by a health care practitioner;
  • accompanied by a statement from health care provider stating that he or she provided the parent information about the risks and benefits of the exemption and vaccination
Certificate of Exemption

(forms available on the Department of Health Website)
Immunizations Required for Public School Attendance

- WAC 246-105-050 The type of exemption claimed changes the requirements:
  - RELIGIOUS:
    - accompanied by statement of religious membership and affirmation that the beliefs or teachings preclude medical treatment
    - (No doctor’s signature required)
Immunizations Required for Public School Attendance

- RCW 28A.210.080(1). Attendance conditioned on one of the three conditions:
  - full immunization
  - the initiation of and compliance with a schedule of immunization
  - a certificate of exemption: WAC 246-105-050

» NOTE: these conditions are not exclusive.
» The certificate of exemption may be combined with the certificate of immunization status
Vaccination Reporting Requirements

- RCW 28A.210.110(3)

File a written report of immunization status of children on forms prescribed by the Department of Health
Herd Immunity

- **Percentage of school students vaccinated for pertussis**
  - Mississippi: 99.7%
  - Colorado: 81%

- **Pertussis incidence: cases per 100,000 citizens**
  - Mississippi: 27.8
  - Colorado: 2.6

- **Colorado’s vaccination rate is “only” 19% lower than Mississippi’s...**
- **...their rate of pertussis is 1069% higher.**
Vaccination Records Retention

- The immunization forms for individual students must be held for the duration of the student’s attendance. RCW 28A.210.110(1)

- If you exclude a student from school, you must retain documents regarding the exclusion for 3 years after the student is excluded from school. RCW 28A.210.110(2)
Rate of Nonmedical Vaccine Exemptions By State
Percentage of kindergartners with nonmedical exemptions, 2012-13 school year

Note: Children with exemptions may still be vaccinated.
Source: Centers for Disease Control

Mother Jones
Plan for the Crisis

• Use the law!
• Use the mandatory vaccination and the reporting requirements to build the school’s immunity.
Plan for the Crisis

• Identify non-compliant students
  – Make sure that every student has a CIS or COE on file that cover all of the required vaccinations
Plan for the Crisis

• Identify non-compliant students

• Require Compliance
  – Provide notice of requirements
  – Opt out or get vaccinated
  – Set a date for compliance or exclusion from school
Reasons Parents Were Hesitant To Vaccinate

**Confidence**: Doubt the safety or efficacy of vaccines, or prefer traditional healing

**Convenience**: Vaccination is inconvenient, distant or costly.

**Complacency**: Vaccination is unimportant, or the risk of infection is low.

**Other**

<table>
<thead>
<tr>
<th>Country</th>
<th>Confidence</th>
<th>Convenience</th>
<th>Complacency</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>79%</td>
<td>6%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>69%</td>
<td>6%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>49%</td>
<td>16%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>36%</td>
<td>20%</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>33%</td>
<td>20%</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Heidi J. Larson, et. al: "Measuring Vaccine Confidence: Introducing a Global Vaccine Confidence Index"

Credit: Alyson Hurt/NPR
Plan for the Crisis

• Identify non-compliant students
• Require Compliance
  – You can’t do much to change confidence or personal opinion.
  – But you can tackle convenience and complacency.
    … Make it easy.
Plan for the Crisis

Require Compliance

• Partner with your local public health agency
Plan for the Crisis

Require Compliance

• Partner with your local public health agency
• Organize vaccine clinics
Plan for the Crisis

Require Compliance

• Partner with your local public health agency
• Organize vaccine clinics
• Vaccines for Children (VFC) Program
Plan for the Crisis

Enforce Compliance

WAC 392-380-050 allows schools to exclude a student from school if the student does not have proof of immunization or a certificate of exemption and gives the student prior written notice.
Plan for the Crisis

... what about teachers and staff?

• Be aware of their rights
• Make compliance easy
• Consider offering reasonable accommodations
• Be aware of other applicable laws
Plan for the Crisis

Consider your School Safety Plan

- Consider the possibility of an epidemic
- Who are your community resources?
- What training is available for pandemic preparedness?
Plan for the Crisis

Combat the risk factors by:

• Educating young students
• Reviewing safety practices in athletics, animal handling, and cleaning
How to recognize an infectious outbreak

Case: one individual with a particular disease
How to recognize an infectious outbreak

Outbreak: a localized epidemic covering a particular area and a particular disease
How to recognize an infectious outbreak

Epidemic: more cases of disease than expected in a given area or among a specific group of people over a particular period of time
Response Measures on the Continuum

Event or Crisis
Action
What can a school do?

• Decrease exposure
• Limit disruption of day to day learning
• Adapt to evolving knowledge and guidance
• Support individuals with disabilities who need accommodations and special services
Continuum of Responses

- Promote early treatment
- Advise students, teachers, and staff to stay home from school and school events
- Conduct active screening for illness a school
- Separate sick students and staff at school
- Increase social distances within the school environment
- Adapt attendance policies
- Consider school dismissals.
Food for thought

• Does your district have policies or written practices for infectious diseases?
• What are they?
• What do they include?
Further along the continuum: 
**Personnel Issues**
Can you require medical testing?

- The two-part test
  - Is it job-related?
  - Is it necessary?

...then what?
Further along the continuum: Personnel Issues
Stay home or come to work?

Can you send someone home?

What if they refuse to come to work?
Further along the continuum: What about students?

When do you send someone home?
Reporting and Privacy: What do you share? With whom? And when?

- HIPAA and FERPA
- Emergency disclosures
- Mandatory Disclosures
Coping with Worst Case Scenarios

There are laws and state-level guidance regarding the following:

• School shutdown
• Long-term absences
• School funding questions
• Homebound care
Conclusion

• Have an emergency plan
  – Make appropriate policies
  – Connect with local health agencies
• Prepare and avoid
  – enforce vaccination requirements
• Know how to react.
  – Who do you call?
Thank you!
Questions?

Emma O. Gillespie
Jinju Park

P: (206) 287-1775
Email: egillespie@pregodonnell.com
jpark@pregodonnell.com