Onboarding - Oregon Experience

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Outline

- Syndromic Surveillance and EVD-68
- Onboarding, what?
- Types of errors we’ve found
- Your turn!
- Discussion

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Public Health uses of syndromic systems

1. **Support situational awareness**
    - Track geographic spread, detect peak, identify high-risk groups
2. **Health event validation or verification**
    - Use ED visits to verify or refute suspicion of community-wide outbreak
    - Further characterize an outbreak
3. **Outbreak investigation**
4. **Detect or monitor individual cases of reportable diseases**

EV-D68:September 8, 2014

Morbidity and Mortality Weekly Report (*MMWR*)

MMWR

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Severe Respiratory Illness Associated with Enterovirus D68 — Missouri and Illinois, 2014

Weekly

September 12, 2014 / 63(36);798-799

Claire M. Midgley, PhD[1,2], Mary Anne Jackson, MD[3], Rangaraj Selvarangan, PhD[4], George Turabelidze, MD[5], Emily Obringer, MD[6], Daniel Johnson, MD[6], B. Louise Giles, MD[6], Ajanta Patel, MD[6], Fredrick Echols, MD[7], M. Steven Oberste, PhD[2], W. Allan Nix[2], John T. Watson, MD[2], Susan I. Gerber, MD[2] (Author affiliations at end of text)

On September 8, 2014, this report was posted as an MMWR Early Release on the MMWR website (http://www.cdc.gov/mmwr).

On August 19, 2014, CDC was notified by Children's Mercy Hospital in Kansas City, Missouri, of an increase (relative to the same period in previous years) in patients examined and hospitalized with severe respiratory illness, including some admitted to the pediatric intensive care unit. An increase

Initial reports

Children hospitalized with severe respiratory disease:

- 19 patients Kansas City, MO
- 11 patients Chicago, IL
- Ages 0-16 years (4-5 years average age)
- Majority had underlying history of asthma

l
http://www.cdc.gov/mmwr/preview/iimmwrhtml/mm6336a4.htm?s_cid=mm6336a4_w

Creating a query

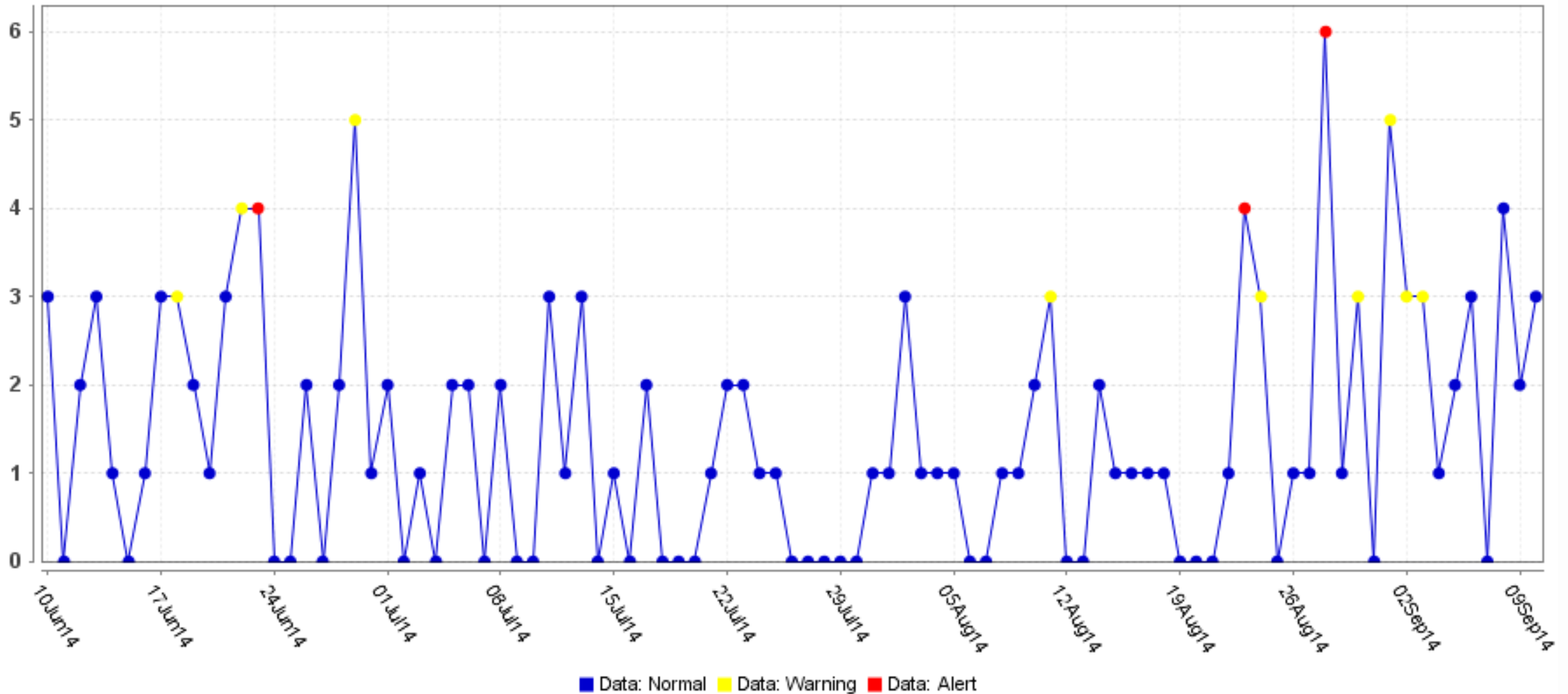
Age range: 0-17
Symptoms:

- shortness of breath
- respiratory syndrome (collection of hundreds of terms)
- wheezing
- asthma

Hospitals: All hospitals; Dornbechers and Randall's Children Hospital separately

Who needs to know if we find something: hospital infection control, local health department communicable disease nurses and health officers, preparedness (in anticipation of activating IMT)

What did we see?



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Why does it matter?

- EVD-68:
  - What % of patients are admitted to inpatient setting from ED? (A01 message type)
  - What's their primary reason for admission?

"No one else is asking for A01 messages and we're live in 38 jurisdictions across the U.S."
– Anonymous vendor, 2014

- Syndromic stream should be able to tell you this info, but if you haven't checked, it probably isn't.

Why does it matter?

- Chief complaint
  - Types of people who can enter into fields sent as "chief complaint"
    - Registration clerks
    - Triage nurses
    - Scribes
  - Names of "chief complaint" variables in EHRs
    - Chief complaint
    - Reason for visit
    - Registration note
    - Stated complaint
  - Frequency of use depends on variable!
  - ICD-9/10 codes, drop-down menu text, articulated patient's words – what do you want to see?

Chief complaint poll

Do you have a preference for how you receive chief complaint?

- Free text only
- Free text and some combo of drop down menu or coded diagnosis
- Drop down menu or coded diagnosis only
- No preference

Key players poll

Spectrum of involvement and key players in onboarding for syndromic:

- IT
- HIE
- Project Managers
- Epidemiologists

Who is the primary onboarding contact for your jurisdiction?

Onboarding poll

- Facility connects directly to health department (public health [PH] can see raw message file)
- Facility connects via an HIE (PH can see raw parsed data)
- Facility connects to BioSense front end directly (PH can see data only in BioSense)
- Facility connects to BioSense directly (PH can see data only in BioSense front end or in raw data lockers)
- Other

What process do you use in your jurisdiction?

Errors

Too little information

- Not able to send all patient message types
- Not able to send chief complaint
- Coding all race values as “other”

Too much information

- Sending identified patient info
- Sending all visit info across a health system

Wrong information

- Sending reports on test patients
- Mis-matching discharge disposition value sets
- Identifying ED visits as “Primary care”

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Syndromic surveillance in Oregon

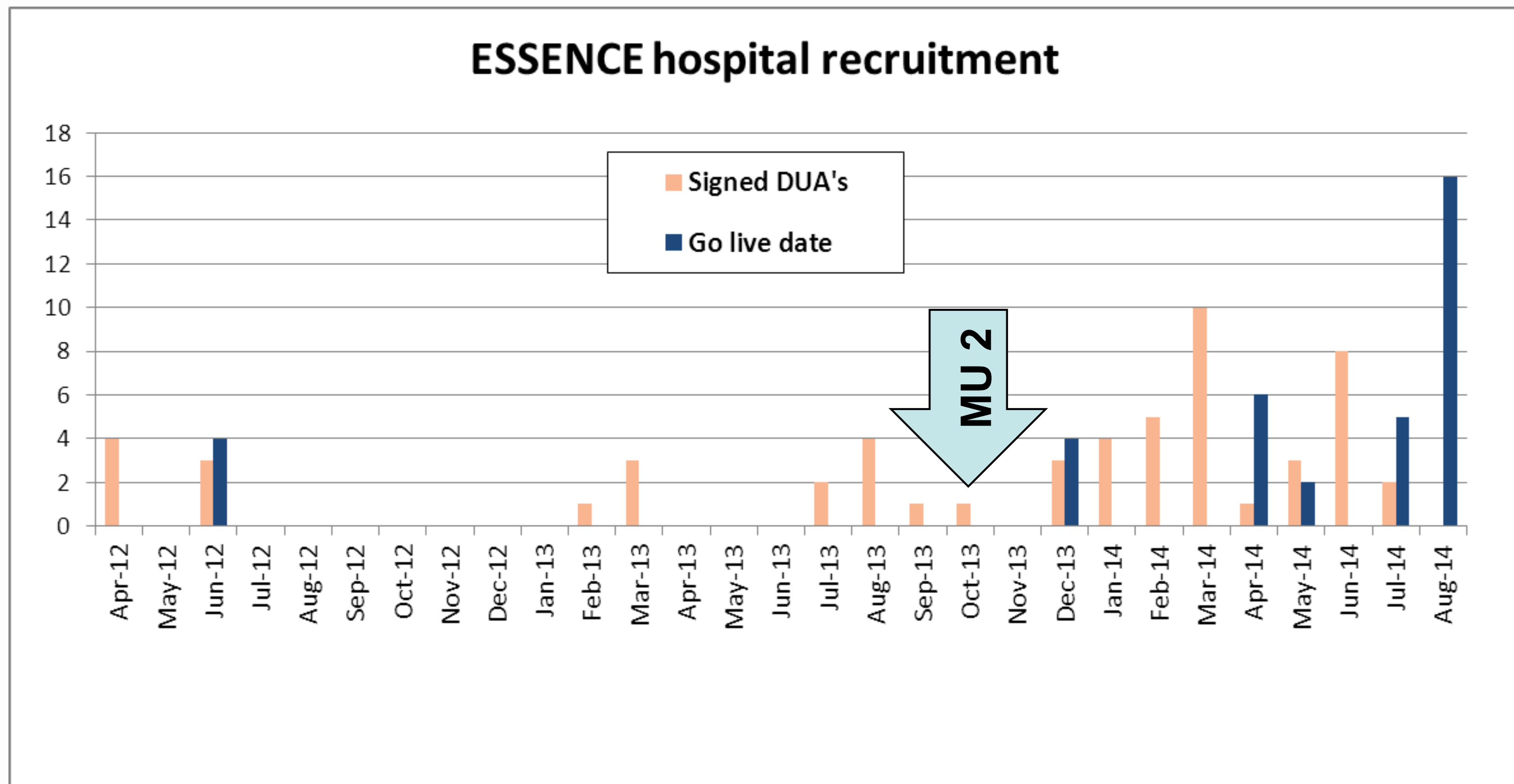
Er, rather, paid for by Oregon?

MU poll

How many jurisdictions are queuing facilities for onboarding for MU2 reporting?

- Like Oregon, we find ourselves putting facilities in a testing queue until we can get to them…
- We’re totally on top of this! No queue required!
- Um. No idea!

Meaningful Use drives participation



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Onboarding process

1. **Articulate what we need and how from hospitals the first time**
   – E.g., don't spend any time on account numbers if what you want are robust chief complaint fields
2. **Identify differences in individual hospital workflows and EHR instances**
   – E.g., some places don't discharge patients from ED into inpatient setting; others assign future visits for ED
3. **Check data for quality and content before approving for ongoing submission**
   – E.g., make sure they can create messages like their certification details
4. **Nip long-winded projects in the bud (anti-email campaign)**
   – E.g., Several months group long email correspondence which boils down to "Can someone else fix this?"

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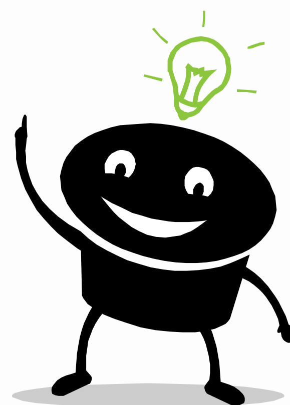
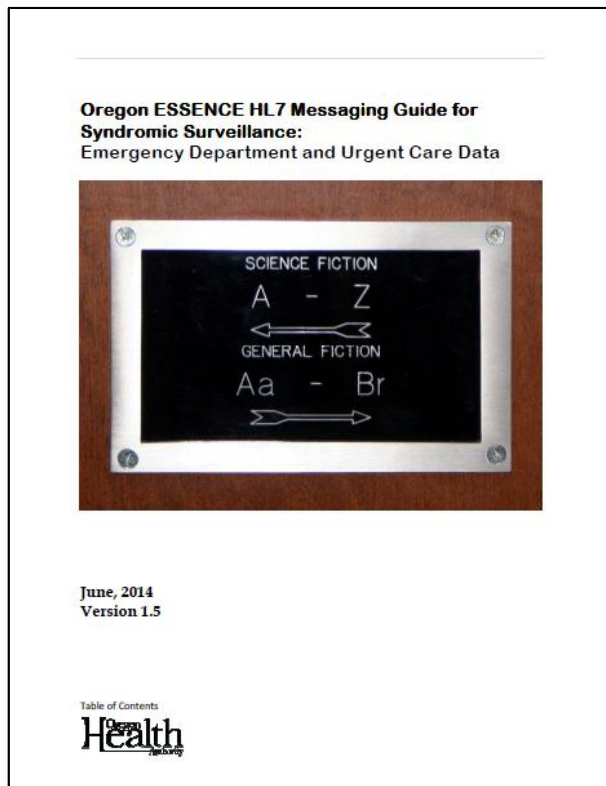


ONBOARDING

WOW, show me more!!!

Onboarding process

Articulate what we need and how from hospitals the first time



Oregon ESSENCE HL7 Messaging Guide for Syndromic Surveillance:
Emergency Department and Urgent Care Data

June, 2014
Version 1.5

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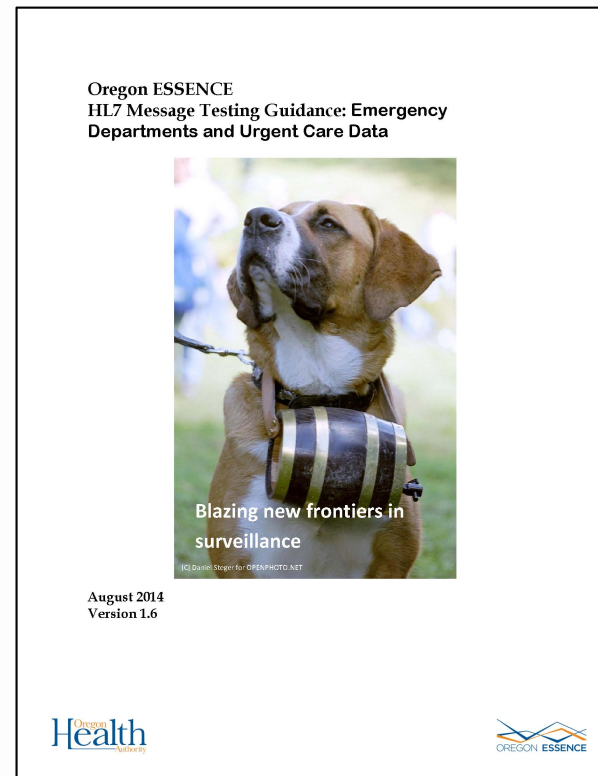

Oregon ESSENCE
HL7 Message Testing Guidance: Emergency Departments and Urgent Care Data

August 2014
Version 1.6

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Onboarding process

Identify differences in individual hospital workflows and EHR instances

Business process survey (part of the testing guide)

Clinical workflow

There are myriad variations in clinical workflows, some of which affect your ability to capture or send the fields we request. The information you provide below helps us understand the quality of the fields you are able to share.

21. Please describe when chief complaint (patient's reason for visiting ED) is assigned and by whom?

22. Is chief complaint captured as free text or is it captured from a drop down menu?

- ☐ Free text
- ☐ Drop down
- ☐ Both

Onboarding process

Check data for quality and content before approving for ongoing submission

- Ask for NIST tool reports for all 4 message types
- Run a SAS script and look at the handful of variables we're most interested in collecting and generate a simple frequency report

Onboarding process

Anti-email campaign

After the NIST tool and business process survey are completed, schedule a week of daily conference calls with facility and vendor to review data quality (SAS report review) with expectation of going live at the end of the week.

YOUR TURN!

Your turn!

- **Scenario: It's Sept 8th and your leadership is asking what you know about EVD-68 in your jurisdiction.**
  - Do you know if you are collecting admit messages (A01's) from your facilities?
  - Are you able to tell them right now the % of patients admitted from ED?

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Onboarding discussion

- Is onboarding a scalable process? Can we think about developing a template (toolkit) for jurisdictions to use at whatever level of data access they have?

- Where are the barriers in rolling out any such template?

Questions?

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