



# ALTERNATE FLU DATA SOURCES

By  
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# Outline

- ICD-9 to ICD-10 conversion experience
- Flu Near You

# Initial ICD Code Discussion Questions

- What level of experience, if any, do you have with ICD-9 or 10 codes?
  - Please describe the type of experience you have had with ICD-9 or 10 codes.

# ICD-9 TO ICD-10 CONVERSION EXPERIENCE

# Background

- Received requests on what ICD-10 codes should be used to capture influenza-like illness (ILI) data
- No list of ICD-10 ILI codes existed
- Need to research ICD-10 codes to provide a recommended list of codes that would capture ILI data

# Creation of Recommended ICD-10 Code List to capture ILI Data

- Compared ICD-9 codes
  - Three large health clinic systems ICD-9 code lists
  - “Code-based Syndromic Surveillance for Influenza-like illness by International Classification of Disease, Ninth Revision” by Nicola Mardsen-Haug, et al.
- List of commonly used ICD-9 codes created
- Seek the equivalent ICD-10 codes
  - <http://www.icd10data.com/Convert>

ICD-9 codes reported to be used by provider	Clinic #1	Clinic #2	Clinic #3
34.0	n	n	y
79.89	y	n	n
79.99	y	y	n
382	n	n	n
382.9	n	n	n
460	n	n	n
461.8	n	n	n
461.9	n	n	n
462	n	y	n

# Recommended ICD-10 Code List to capture ILI Data

- Narrowed the list of ICD-10 codes
  - Influenza codes
    - J09, J10, and J11
  - Combination of codes that meet ILINet ILI case definition
    - R50.9- Fever, unspecified
    - J06.0- Acute laryngopharyngitis
    - J02.9- Acute pharyngitis
    - R05- Cough
- Emailed list to health clinic systems

ILI ICD-10 diagnoses codes (each of these diagnoses count as 1 ILI)			
J10.00	Influenza due to other identified influenza virus with unspecified type of pneumonia		
J10.01	Influenza due to other identified influenza virus with the same other identified influenza virus pneumonia		
J10.08	Influenza due to other identified influenza virus with other specified pneumonia		
J10.1	Influenza due to other identified influenza virus with other respiratory manifestations		
J10.2	Influenza due to other identified influenza virus with gastrointestinal manifestations		
J10.81	Influenza due to other identified influenza virus with encephalopathy		
J10.82	Influenza due to other identified influenza virus with myocarditis		
J10.83	Influenza due to other identified influenza virus with otitis media		
J10.89	Influenza due to other identified influenza virus with other manifestations		
J11.00	Influenza due to unidentified influenza virus with unspecified type of pneumonia		
J11.08	Influenza due to unidentified influenza virus with specified pneumonia		
J11.1	Influenza due to unidentified influenza virus with other respiratory manifestations		
J11.2	Influenza due to unidentified influenza virus with gastrointestinal manifestations		
J11.81	Influenza due to unidentified influenza virus with encephalopathy		
J11.82	Influenza due to unidentified influenza virus with myocarditis		
J11.83	Influenza due to unidentified influenza virus with otitis media		
J11.89	Influenza due to unidentified influenza virus with other manifestations		
J09.X1	Influenza due to identified novel influenza A virus with pneumonia		
J09.X2	Influenza due to identified novel influenza A virus with other respiratory manifestations		
J09.X3	Influenza due to identified novel influenza A virus with gastrointestinal manifestations		
J09.X9	Influenza due to identified novel influenza A virus with other manifestations		
ILI ICD-10 diagnosis 'symptom' codes (patient must have a diagnosis in group A and group B to = 1 ILI)			
GROUP A		GROUP B	
R50.9	Fever, unspecified	J02.9	Acute pharyngitis
		J06.0	Acute laryngopharyngitis
		R05	Cough

# Lessons Learned from ICD-9 to ICD-10 Conversion

- Not all health systems use the same codes to identify ILI
  - Needed some standardization
- Acceptable to go back to the basics and rethink the process
  - Take into account the ILINet ILI Case Definition
  - Question if the ICD codes are capturing just ILI cases



# Lessons Learned from ICD-9 to ICD-10 Conversion

- Learning some of the acronyms used in coding
  - NOS- not otherwise specified
  - NEC- not elsewhere classified
- ICD-9 codes categories are broader than ICD-10
  - Nearly 5 times as many diagnosis codes in ICD-10-CM than in ICD-9-CM
- Refining and re-evaluating the list of ICD-10 ILI codes



# Post ICD Code Conversion Discussion Questions

- What do you think about the recommended ILI ICD-10 code list that has been developed?
  - Do you feel that this is a comprehensive list that would accurately capture ILI or influenza cases? or
  - Would there be any other conditions or combination of conditions that could possibly be added to the list?
  
- How could you use this information to improve influenza surveillance in your jurisdiction?

# Post ICD Code Conversion Discussion Questions

- Do you know of any healthcare providers that participate in your influenza surveillance program that pull ILI or influenza data using ICD-10 codes from their electronic health record system?
  - If yes
    - How many providers pull ILI or influenza data using ICD-10 codes?
    - Do you know what ICD-10 codes or combination of ICD-10 codes are being used to pull ILI or influenza data?
      - What are the ICD-10 codes or combination of ICD-10 codes being used?

# Post ICD Code Conversion Discussion Questions

- Have you received any requests from healthcare providers for a list of ICD-10 ILI or influenza diagnosis codes?
  - If so
    - How many requests have you had?
    - Have you developed your own ILI or influenza ICD-10 code list and shared it with the healthcare providers?
      - Please tell us about the list that you created.

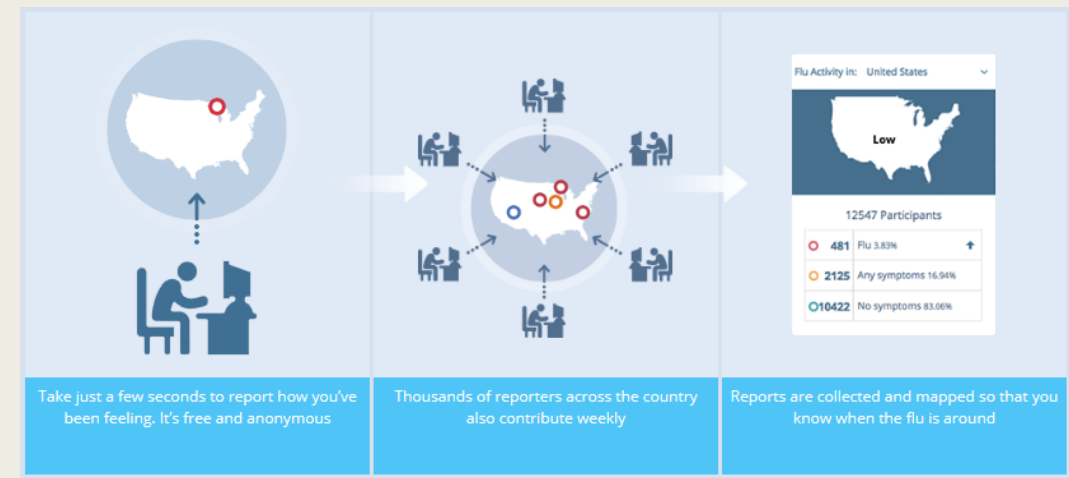
FLU NEAR YOU (FNY)

# Initial Flu Near You (FNY) Discussion Questions

- Have you heard of FNY before?
  - How did you hear about FNY?

# Overview

- FNY is a website and mobile application that allows individuals to report symptoms in real-time
  - Participation is voluntary from the general public
  - Takes a few seconds each week to report if a person has been healthy or sick
- Complements traditional surveillance systems
- Developed by epidemiologists at Harvard, Boston Children's Hospital and The Skoll Global Threats Fund
- Generates local and national views of influenza-like illness
- Website: <https://flunearyou.org/>



# Reporting of Symptoms



[Flu Map](#) [About](#) [News](#) [Press](#) [FAQ](#)

johnathan.ledbetter@... [Report](#)

## Health Report

Did you experience any additional symptoms since 08/01/2016?

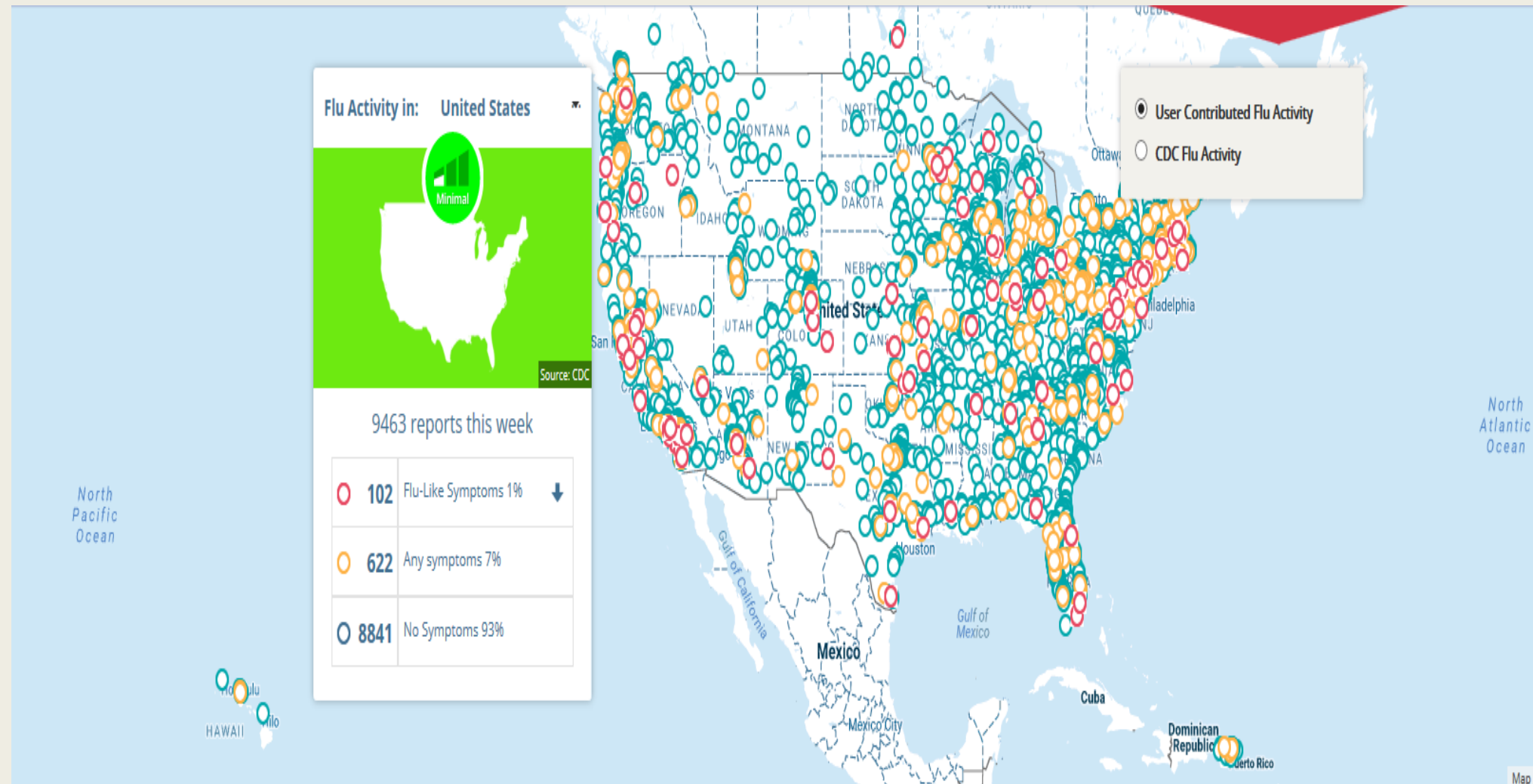
☐ I did not have any of the symptoms listed below

or

<input type="checkbox"/> Fever	<input type="checkbox"/> Cough
<input type="checkbox"/> Headache	<input type="checkbox"/> Sore throat
<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Body aches
<input type="checkbox"/> Fatigue	<input type="checkbox"/> Chills/night sweats
<input type="checkbox"/> Nausea or vomiting	<input type="checkbox"/> Shortness of breath
<input type="checkbox"/> Rash	<input type="checkbox"/> Eye pain
<input type="checkbox"/> Yellow skin/eyes	<input type="checkbox"/> Joint/bone pain
<input type="checkbox"/> Red Eyes	<input type="checkbox"/> Dark, tea-colored urine

Submit

# Map of Influenza-like Illness/Flu-like Symptoms Generated by Flu Near You



# Texas' Involvement

- Flu Near You (FNY) Workgroup approached CDC
  - Requested jurisdiction-level ILINet and virologic data from the 2009 H1N1 pandemic to the present
  - Benefits to Health Departments
    - Access to FNY reporting data for their jurisdiction to complement existing surveillance systems for 2015-2016 influenza season
    - Validation of the signal generated by FNY at the state level
    - All insights freely shared with state health departments
- TX DSHS granted permission for ILINet and virologic data use

# Post Flu Near You (FNY) Discussion Questions

- Could FNY data be used to complement other flu surveillance systems data that is collected in your jurisdiction?
  - Why or why not would you want to use FNY data?
  - How could FNY data be used to complement other flu surveillance systems data that is already collected?
- Would you be willing to incorporate any FNY data into your weekly influenza surveillance report, if you have a weekly flu surveillance report?
  - How would you incorporate FNY data into your weekly flu surveillance report?