

Comparing IIS to NIS Coverage Assessments: A Cautionary Tale

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Overview

- Challenge to state immunization programs from multiple sources of immunization information
- AIRA guide as a tool to help explain differences
- Oregon experience with explaining differences
- A few lessons

Core of the Problem

- As IIS mature, used for more state and local coverage assessments.
- All sources of assessment data carry their own strengths and biases.
- Likely that comparing IIS-derived rate to other sources will show differences.
- Public, policy-makers, and media are easily confused by immunization rate disagreements
- State immunization programs need to be prepared to explain differences between sources.

Sources of Immunization Rates

A variety of non-IIS sources produce immunization rates:

- Medicaid programs (HEDIS, age 2 and 13)
- Healthplans & large clinic systems
- Schools (kindergarten entry/7th grade)
- Surveys
 - The 'Big' One, The National Immunization Survey (NIS), age 2 and 13-17.
 - Behavioral Risk Factor Surveillance Survey (BRFSS), adult & senior

NIS & NIS Teen

- The NIS and NIS-Teen are the most widely available sources of state-level immunization rates.
- Media likely to refer to NIS
- NIS features:
 - State-level surveys with provider follow-up for most measures
 - Continuously run since 1994
 - Phone survey for most of its history
 - Typically small sample size per state- often wide confidence intervals



COMPARING & COMMUNICATING VACCINATION COVERAGE ESTIMATES

From Immunization Information Systems,
the National Immunization Survey, and Related Assessments

● immregistries.org



AIRA IIS-NIS Guide

- Released on August 25th, 2017.
- Purpose of assisting in the interpretation and communication of NIS and IIS based coverage assessments.
- Large (63pg) comprehensive report.
- Nice summary material/slideshow available on AIRA website
http://repository.immregistries.org/files/resources/5a6688c70071a/nis-iis_webinar__january_2018.pdf

Guide Language

- Emphasis on providing plain-language interpretations of immunization rates
- Focus on communicating with
 - Senior leadership
 - Legislators
 - Media
- Scenario driven-
 - IIS rates $>$ NIS;
 - NIS $>$ IIS;
 - NIS \sim IIS.

IIS & NIS Comparisons- Oregon Basic Message

- Surveys as NIS-
 - Intended to generate point estimates with confidence intervals
 - Confidence intervals (CI) may be broad
 - Difficult to interpret differences between subgroups with wide CI
- IIS-
 - whole population data leads to minimal CI
 - Likely to have systemic biases (mobility/fragmentation/'junk')
 - Best at comparing subgroups based on likelihood ratios- cancels out much of the bias
 - Worse at generating point estimate rates

So What Happened in Oregon?

Mid-August of 2017-

- Call from reporter for largest newspaper in Oregon
- She wanted to know why the newest NIS Teen estimates looked different from the Oregon Immunization Program's IIS estimates
 - NIS-Teen Tdap for Oregon: 83%
 - OIP estimated Tdap rate: 92%
 - Oregon school 7th grade Tdap rate: 95%
- In line with the AIRA guide, we explained differences between sources.
- Thought it all went well...

Oregonian, August 24th, 2017

[HEALTH & FITNESS NEWS](#)

CDC reports low vaccination rate for Oregon

Updated Aug 24, 2017; Posted Aug 24, 2017

- Title is okay;
- Some quotes in article were a bit out of context;
- Issue seemed closed;



Next-

- Article was rewritten and put on the AP wire a few days later;
- Very jazzed up rewrite;

“State officials say the report is misleading because it is based off a small sample. Oregon Public Health Epidemiologist Steve Robison says....”

Oregon Officials Challenge Low Vaccination Rate Ranking

**A new federal report says Oregon's
vaccination rates are low in comparison
to the rest of the country.**

Aug. 28, 2017, at 12:53 p.m.



Dissemination



- AP story was widely used across Oregon media markets.
- Picked up by local tv channels.
- Also on national news feeds.

Finale- August 31st

- Asked onto popular public broadcasting noon talk show in Oregon, “Think Out Loud”.
- Chance to de-escalate and return to message.
- And when it seemed like there was no blood in the water....



Lessons Learned

- Reporters are looking for drama.
- Our stock messaging is not enough drama for media.
- Decision makers may not pay attention until media reports drama.
- Hard to predict where a story may go.
- Having ready messages, without conflict, can defuse drama.

Final Outcome

- Got a really cool mug.
- Standing invitation to return and talk about more exciting immunization topics.
- Might go back once the mug wears out....

