



AIRA

AMERICAN IMMUNIZATION
REGISTRY ASSOCIATION

Determining the Non- Vaccines for Children Provider Population

Takeaways from the IIS Data Analyst
Collaborative (IDAC)

February 2025

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February 20, 2025

The IIS Data Analyst Collaborative (IDAC)

The IIS Data Analyst Collaborative (IDAC) is a discussion-based collaborative for people who work with immunization data to connect on important and timely topics. IDAC happens quarterly on the third Thursday at 1 p.m. ET. There will be a different discussion topic every meeting. The goals for these collaboratives are to offer an opportunity to share and develop skills and insights, to help people who work with immunization data to connect and spark collaborations, and to create a supportive, engaged community of IIS data analysts.

Determining the Non-Vaccines for Children (VFC) Provider Population

Topics discussed during this IDAC session included the following:

- Comparing IIS and survey coverage rates from the National Immunization Surveys (NIS) or the Behavioral Risk Factor Surveillance System (BRFSS) to assess completeness in reporting:
 - Why are there differences between IIS coverage rates and survey coverage rates (NIS/BRFSS), and how can they be addressed?
- How can all-payor claims databases (APCDs) be used to identify the non-VFC provider population, and what are the challenges of using such data?
- How can homegrown surveys be leveraged to identify providers not reporting vaccinations to IIS?

Discussion takeaways

Comparing IIS and survey coverage estimates reveals that there is likely a gap in providers reporting to the IIS and that true coverage is somewhere in the middle of these estimates. It is a challenge to explain to wider audiences why these differences in estimates exist. APCDs can be used to identify non-reporting providers; however, sorting out administering versus billing providers on claims makes it challenging to identify non-reporters to contact. Working with the Healthcare-Associated Infections and Antimicrobial Resistance (HAI/AR) teams to survey long-term care facilities (LTCFs) is a fruitful activity to identify providers not reporting to IIS. This survey process revealed that many LTCFs were not aware of immunization reporting requirements to IIS, which required education. Additionally, many of the EHRs that LTCFs use do not have HL7 capabilities, so when they were onboarded to IIS, they were onboarded to the user interface for data entry.

Comparing IIS coverage to survey coverage rates

Survey coverage rates are generally higher than IIS coverage rates. IIS may have lower coverage rates because providers are not reporting to IIS or are reporting to the IIS but not all doses or because doses are administered to residents outside of the IIS jurisdiction. Surveys may overestimate coverage rates due to sampling error, self-report/social desirability bias (NIS Adult does not validate vaccinations), and/or selection bias.

The main concern for overestimation by these surveys is non-response bias; that bias does get corrected for, but it remains unclear how well. It can be expected that surveys will report higher coverage rates compared to the IIS and that true coverage rates are likely in the middle. An average, weighted average, or Bayesian average could be used to combine IIS and survey coverage estimates; however, the more advanced the method, the less public trust it could generate. Connecticut asked if anyone wanted to work together to generate discussion points to be used when describing the differences in coverage rates between IIS and surveys.

All-payor claims database

Connecticut requested all-payor claims data, which would contain any vaccination claims submitted. Providers that submitted a claim could be cross-checked with the IIS to determine if they reported the doses to the IIS.

Pros of this data set included that it's an independent source of information, it should be complete, and it was free to obtain (state asset).

However, not all claims were found to be in this data set. Medicare, self-insured employers/unions claims data, and Medicaid were excluded. Connecticut used standards for charging for vaccines and current procedural terminology (CPT) codes for administering vaccines to identify the claims for vaccines. When non-reported vaccines were identified, it was also difficult to parse out providers since there was no unique provider ID and a provider name text field had to be relied on to match clinic names in IIS. It was also difficult to identify a person to contact for onboarding.

Oregon assessed its all-payor claims data and also finds facility identification challenging. Often the facility name is the billing entity and is not necessarily the provider administering vaccines. Oregon focused on children and used CPT codes to find immunizations, well-baby, child, and some sick encounters to determine the universe of providers seeing children or providing routine care to children. The non-reporters Oregon identified tended to be small specialty practices.

Long-term care facilities survey

In Connecticut, the National Healthcare Safety Network (NHSN) had reports of nursing homes with high flu vaccine coverage, but their doses were not reported in the IIS. Working with the HAI/AR team was effective, as it has established relationships with these facilities. The HAI/AR team helped design the survey and provided contact information for the facilities. Facilities were asked if they administered doses, who the contact person responsible for administering and reporting of doses is, and what EHR they use. The survey identified many LTCFs that were not reporting doses, and they were referred to Connecticut's IIS team for training/onboarding. Additionally, many of

the non-reporting facilities' EHRs did not have HL7 reporting capabilities and were engaged via user interface. LTCFs are regulated by the state and tend to be nervous about not following directives, so it is straightforward to get these facilities to start reporting. Other non-reporting providers are being followed up on but only when the non-reporting is egregious.

Analyses for IIS Validation/Identifying Non-VFC Providers

Capture/recapture

Oregon is interested in a capture/recapture analysis to identify providers that are captured through the IIS, providers that are captured through APAC, and those which are captured by both. From this process, the number of providers not captured by either system can be estimated.