



AIRA

AMERICAN IMMUNIZATION
REGISTRY ASSOCIATION

Charting Your Course: A Data Quality Adventure

Simple Steps for IIS to Take to
Start Improving Their Data Quality

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How to Start: Identify Your IIS Trail Mascot

Ready to hit the trail? Take this quick eight-question quiz to discover your IIS trail mascot and get inspired for your data quality improvement journey. For each topic below, choose the response that best reflects your IIS. Add up your points at the end to reveal your furry companion and find the best path to start your adventure!

Circle Your Responses Below

1. Our jurisdiction's IISAR results indicate:

- Most areas are not meeting thresholds (1 pt)
- Several areas are not meeting thresholds (3 pts)
- Most areas are meeting thresholds (5 pts)
- We do not have access to our jurisdiction's IISAR results (0 pts)

5. Ongoing HL7 monitoring is:

- Not implemented (1 pt)
- In development or occasionally monitored (3 pts)
- Regularly monitored (5 pts)

2. Our jurisdiction's Data at Rest (DAR) results from the Aggregate Analysis Reporting Tool (AART) indicate:

- Most or many measures are unmet (1 pt)
- Several measures are unmet (3 pts)
- Most measures are met (5 pts)
- We have not participated in AIRA's DAR (0 pts)

6. Provider report cards are:

- Not available (1 pt)
- In development (3 pts)
- Available as a report or available within the IIS when providers log in (5 pts)

3. Our state's Vital Records feed:

- Does not connect to our IIS (1 pts)
- Gets incorporated into our IIS through manual methods (3 pts)
- Auto feeds to our IIS (5 pts)

7. Routine and influenza immunization data are:

- Not currently submitted to CDC (1 pt)
- In process or occasionally submitted to CDC (3 pts)
- Regularly submitted to CDC (5 pts)

4. How jurisdictions handle deduplication is an ongoing issue. Our jurisdiction:

- Has no procedures to address deduplication (1 pts)
- Is working on procedures to address deduplication (3 pts)
- Has procedures implemented to address deduplication (5 pts)

8. Current staffing resources to improve IIS data quality include:

- No staff or brand-new staff working on data quality (1 pt)
- Trained staff with limited opportunity to work on data quality due to competing priorities (3 pts)
- Trained staff with bandwidth to work on data quality (5 pts)

Total Points: _____

Feedback: trail mascot

Bear (0–10 points)



Your IIS mascot is a bear! Bears are known for their strength and resilience, but most are surprisingly shy and prefer to keep their distance. In the same way, your IIS might be powerful and well established, but your data quality processes may benefit from a little more interaction and attention. Just as there are eight species of bears—from the iconic grizzly to the icy polar bear—there are many types of data quality improvements to explore. Identifying which areas to prioritize—whether it's DAR participation, HL7 onboarding, or deduplication—is like choosing between honey or fish: both are essential, but the right choice depends on your current appetite. Before your team hunkers down to hibernate, make sure you're putting the right protocols in place to strengthen and sharpen your system's data.

Fox (11–25 points)



Your IIS mascot is the fox! Foxes are known for their sharp senses, quiet movements, and clever strategies—qualities that mirror your system's thoughtful approach to data quality. Just as foxes are skilled hunters, your IIS has likely developed a keen eye for spotting gaps and opportunities, and it regularly reviews reports and data to target areas for improvement. Found in forests, deserts, mountains, and even cities, foxes adapt to many environments—just like IIS that have built foundational data quality processes suited to their unique settings. But even the smartest fox can refine its tactics. By sharpening routines, strengthening validations, and staying alert to hidden issues, your IIS can transform cleverness into mastery and truly thrive in any terrain.

Goat (26–40 points)



Your IIS mascot is a mountain goat—sure-footed, experienced, and built for climbing challenging terrain. With well-established protocols and trusted routines, your system has the tools to navigate even the trickiest data quality slopes. Like a goat that confidently scales rocky cliffs, your team follows proven paths, regularly monitoring key priorities and sticking to what works. You participate consistently in assessments, using the results to pinpoint where improvements are needed. This steady, deliberate approach ensures that every step forward is grounded in insight and experience. While the foundation is strong, there's always another ledge to reach—and your IIS is well positioned to keep climbing toward even higher standards of data quality.

Convene Your Team

Now that you've identified your trail mascot, the teamwork begins! It's time to gather your litter, skulks, and herds, and use all available data (e.g., IISAR, DAR, CDC Routine IZ Data Quality Report, HL7 data) to start crafting your IIS-specific data quality goals. You'll want to include individuals whose roles intersect with or are impacted by data quality (e.g., IIS manager, data analyst/epi, data quality staff, HL7 onboarding staff, etc.). The text box below has a few questions to start the conversation.

General Discussion Questions

- What types of programmatic decisions are we trying to make?
- What's critically important to address?
- What are our jurisdiction's data quality goals?
- Where could we make progress with focused effort?
- Where's the low-hanging fruit?

Identify specific data quality goals

Once you've convened as a group to discuss high-level priorities, it's time to start refining those priorities into goals. Below are a few example goals to get you started. If none of these goals fit your needs, consider drafting your own.

- Reduce the overall number of existing duplicates in data at rest, as measured by comparing the number of active records in your IIS to the census-based population estimates.
- Reduce the number of records with non-name information in name fields.
- Update patient status fields for inactive and deceased patients.
- Develop a variety of training materials for IIS users to select from.
- Create or update a provider communication/outreach plan to specify methods for and frequency of engaging with providers and IIS users.
- Set up hierarchies of organizations and providers to better monitor incoming data quality.
- Create, use, and maintain standard operating procedures (SOPs) to address IIS data quality.
- Conduct IIS-based, targeted reminder/recall.
- Identify low-vaccinating providers and promote evidence-based vaccination strategies for improving immunization coverage levels.
- Conduct IIS-based coverage-level analysis and report rates to providers.
- Create a process for monitoring HL7 providers in production.

IIS DQ Resource Hub

Now that you have a few ideas for goals, it's time to start exploring what resources are available to help guide your efforts. Use AIRA's interactive [IIS DQ Resource Hub](#) to customize which resources you'll need to start your data quality journey. Select the path that best aligns with your goals or choose your own adventure.

Welcome to the IIS Data Quality Resource Hub

This interactive tool lets you navigate through a variety of resources focused on improving the quality of data in Immunization Information Systems (IIS). Whether you're looking to explore data quality through specific topics, data touchpoints, or the IIS Blueprint Characteristics, you can tailor your journey to suit your needs.

Ready to begin? Simply select a path below that aligns with your data quality goals. If you ever want to change your course or explore something new, just head back to the start and choose another route. Your data quality adventure is entirely in your hands!

If you'd benefit from some guidance about where to begin, please check out this short quiz and action plan to help you get started!

To explore how other IIS jurisdictions have used these resources to make lasting data quality improvements, use the [IIS Data Analyst Forum \(IDAF\)](#) to post questions and engage in conversations in real time. Don't have access to IDAF? You can request access by emailing "AIRA IDAF" to info@immregistries.org.

The resources in this tool were reviewed and vetted by AIRA and CDC in April 2025. While the publication dates on each individual resource may be much earlier, these are still the latest and most up-to-date guidance documents that we have.

Your mountain is waiting! Let's begin.



[Explore by IIS Blueprint Characteristics](#)

[Explore by Data Quality Topics](#)

[Explore by Data Touch Points](#)

[Full List of Data Quality Resources](#)

[View Your DAR Results](#)



Once you've got the right resources in hand, it's time to make a plan! Use the template on the next page to get started.

Sample Data Quality Action Plan Template¹

Goal						
Benchmarks for Success						
Action Steps	Persons Responsible	Date to Begin	Date Due	Resources Needed	Desired Outcome	Outcome

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