# The requirements traceability matrix: align with CDC's Functional Standards

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# Disclaimer

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# Agenda

1. Requirements Traceability Matrix (RTM) Background
2. Using the RTM to address IPOM 2022 Chapter D Activity 3a
3. RTM Development Process
4. IIS Functional Model
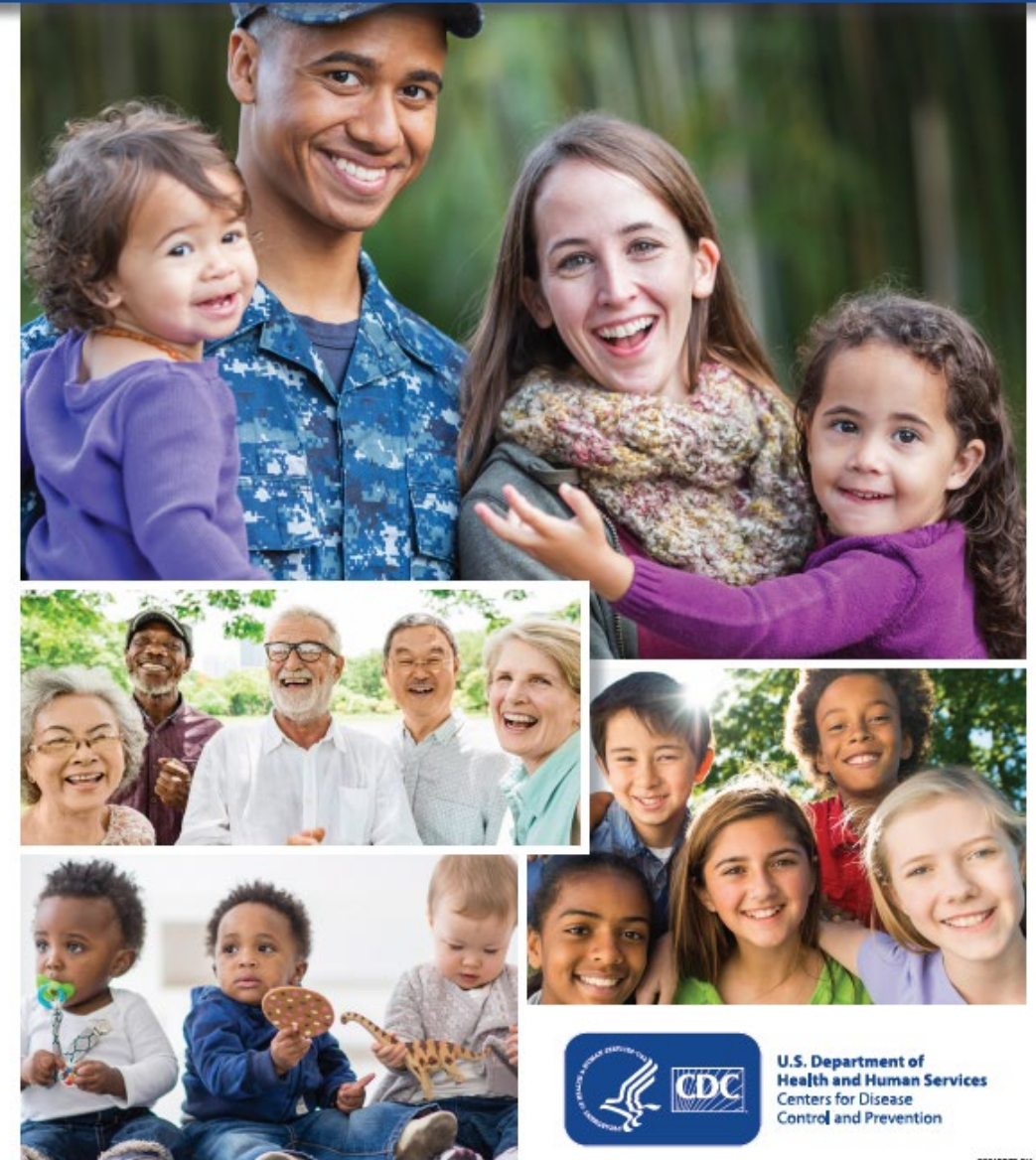5. RTM Live Demo
6. Additions to the RTM

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# RTM Background

Jurisdictions need detailed requirements for developing a Request for Proposal whether they are transitioning to a new platform or are looking to add specific functionality their IIS needed to support their program.

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# Use the RTM to Address D3a



**Strategy D3: Adhere to industry information technology standard practices.**

D3a: Evaluate IIS capabilities and determine the steps needed to modernize, including optimizing for scalability and performance, minimizing systems downtime, and ensuring uninterrupted immunization data flow in alignment with CDC requirements. If applicable, collaborate with other platform users to establish collective (consortium) priorities for modernization and a plan to jointly fund them.
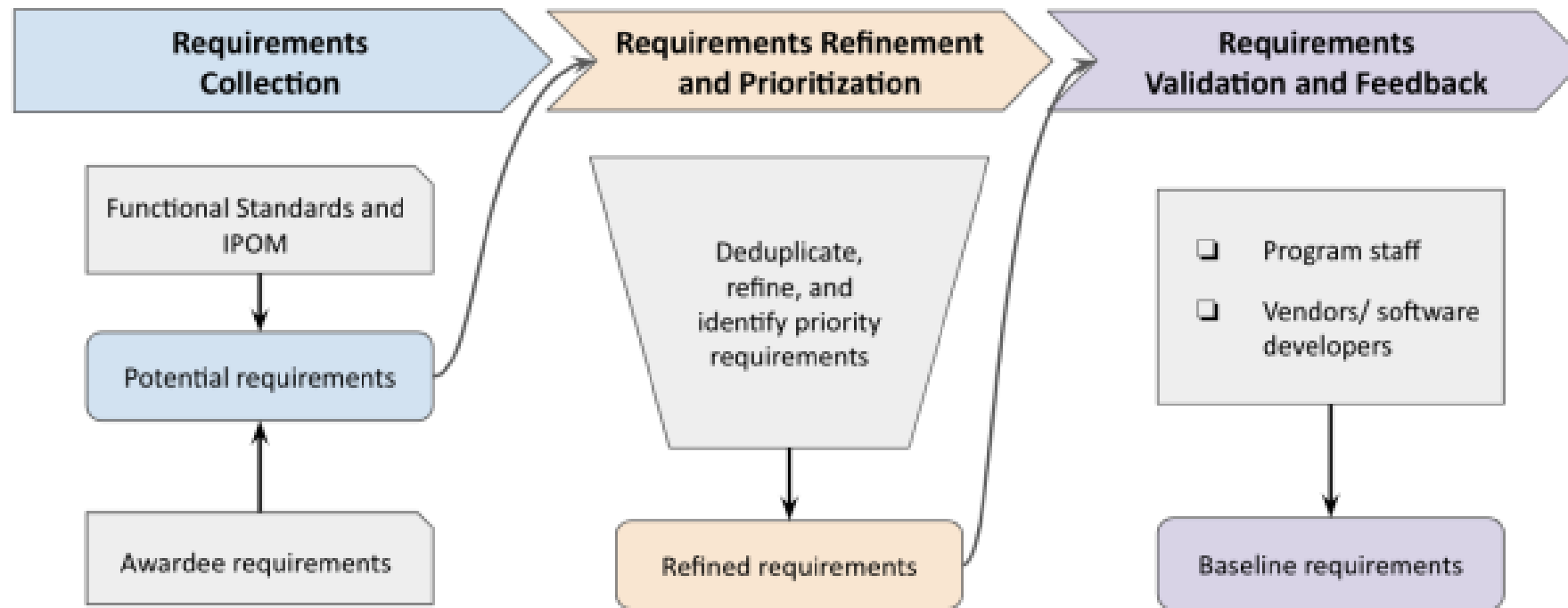
# Use the RTM to Address D3a

**Suggested Activity:** Compare IIS capabilities with the Immunization Information System (IIS) Baseline [Requirements Traceability Matrix (RTM)](#) and develop a plan to evaluate and prioritize differences.

**Measure (Compliance):** The IIS has a documented list of gaps between current IIS capabilities and the IIS RTM, a prioritized list of enhancements, and a timeline for implementing the enhancements.

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# RTM Development Process

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# The IIS Functional Model provides a framework for the individual RTM requirements



## Immunization Information System (IIS) Functional Model

The IIS Functional Model presents a framework and terminology for conveying and communicating the core functions, capabilities and attributes of IIS. These systems, whether as a single integrated IIS or as a set of interoperable modules, support public health immunization programs in achieving the **CDC IIS Functional Standards**\* and in providing trusted data and information to improve clinical immunization practice, increase vaccination and reduce vaccine-preventable disease.

The model also serves as a companion and index to the **IIS Baseline Requirements Traceability Matrix (RTM)**, which provides detailed requirements across IIS functions, capabilities and attributes. The RTM and other requirements tools can be found at **phii.org/iis-requirements**.

### IIS Core Functions and Capabilities

These functions and capabilities represent core functionality of IIS. Refer to the **IIS Baseline RTM** for descriptions and functional requirements associated with each.

| Administer System | | Manage Organizations & Facilities | | Manage Users | |
|---|---|---|---|---|---|
| • Hierarchy configuration<br>• System configuration | • User roles & permissions<br>• System alerts | • Organization/facility search<br>• Add, edit, inactivate organization/facility | • VFC/vaccine program enrollment<br>• Organization/facility outreach | • User search<br>• Add, edit, inactivate user | • Authentication & authorization<br>• Password management |

| Support Interoperability | | Ensure Data Quality | | Evaluate & Forecast | |
|---|---|---|---|---|---|
| • Onboarding<br>• Interfaces | • Data exchange | • Patient matching & deduplication | • Vaccination event matching & deduplication | • Clinical decision support<br>• Reminder/recall | • Coverage reports |

| Manage Patient & Immunization Records | | Manage Vaccine Inventory | | Provide Data Access | |
|---|---|---|---|---|---|
| • Patient search<br>• Add, edit patient demographics<br>• Patient status<br>• Patient consent | • Add, edit patient immunization<br>• Print/export record<br>• Mass vaccination | • Vaccine inventory search<br>• Add, edit vaccine inventory<br>• Vaccine ordering<br>• Review/approve order<br>• Vaccine decrementing | • Vaccine inventory reconciliation<br>• Vaccine transfer<br>• Vaccine wastage<br>• Vaccine expiration | • Standard reports<br>• Print/export reports | • Ad hoc queries & reports<br>• Consumer access |

### IIS Attributes

These attributes represent the technical characteristics of an IIS necessary to support immunization programs and stakeholders. Refer to the **IIS Baseline RTM** for descriptions and non-functional requirements associated with each.

| Performance Efficiency | Usability | Reliability | Security | Maintainability | Portability |
|---|---|---|---|---|---|
| • Time behavior<br>• Resource utilization<br>• Capacity | • Operability<br>• User error protection<br>• Accessibility | • Availability<br>• Fault tolerance<br>• Recoverability | • Confidentiality<br>• Non-repudiation<br>• Accountability<br>• Authenticity | • Analyzability | • Adaptability<br>• Installability |

\* **https://www.cdc.gov/vaccines/programs/iis/func-stds.html**

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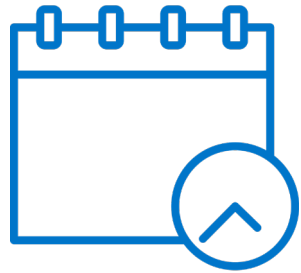
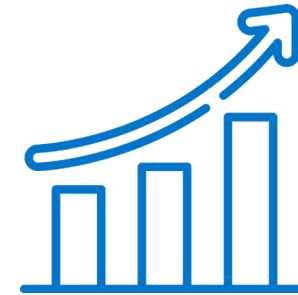# RTM live demo

# Additions to the RTM

**Vaccine redistribution**

**View/schedule vaccine appointments**

**Transfer vaccine without pre-approval**

**Public dashboards**

**Verifiable digital vaccine credential**

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# Questions?

Contact us at [iis@phii.org](mailto:iis@phii.org)!

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