



Interoperability for Birth Defects Surveillance: A Readiness Assessment Tool

THE **TASK**
FORCE
FOR
GLOBAL HEALTH



Public Health
Informatics Institute



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Disclaimer

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Objectives

Provide an overview of the “Interoperability for Birth Defects Surveillance: A Readiness Assessment” tool.



<https://phii.org/bds-assessment>

Premises

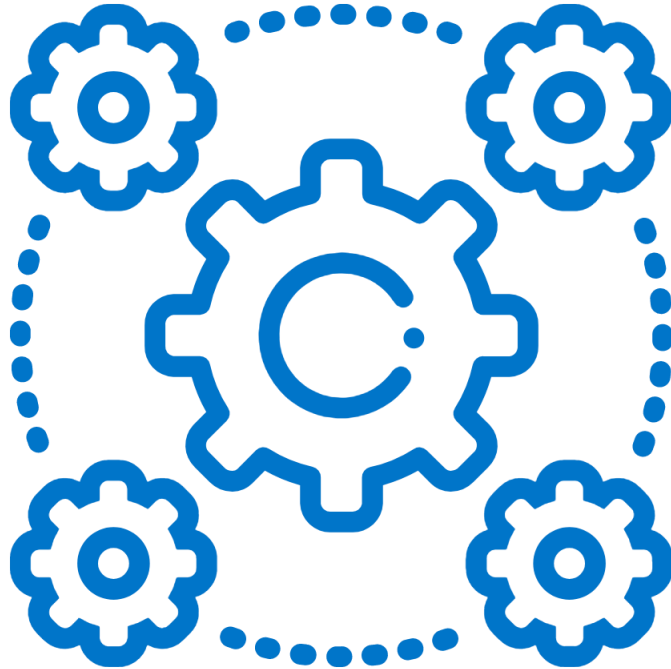
Information is critical to virtually every part of the health department.

Building and sustaining information capabilities needs to be done as a *program*.

Information *capabilities* are more important than ever.

Requires a commitment to business case development informed by data.

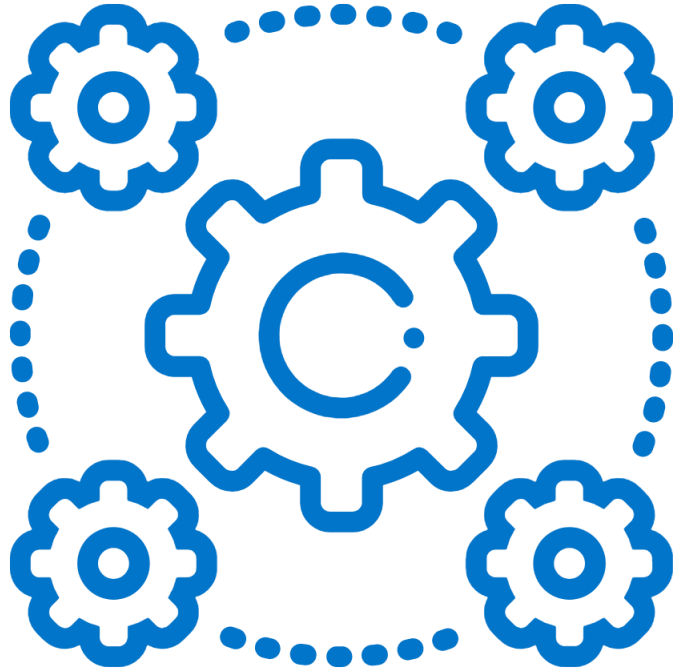
What is interoperability?



“The ability of different information systems, devices and applications (‘systems’) to access, exchange, integrate and cooperatively use data in a coordinated manner, within and across organizational, regional and national boundaries, to provide timely and seamless portability of information and optimize the health of individuals and populations globally.”¹

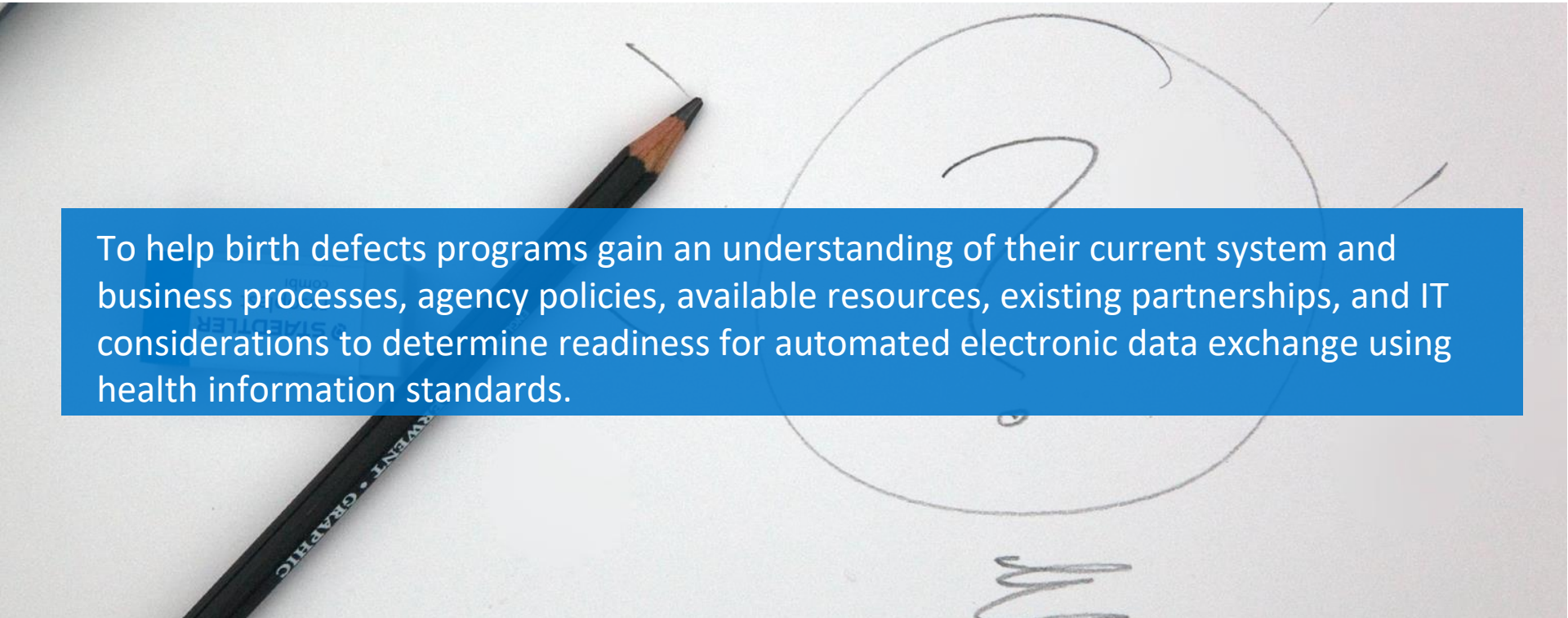
¹<https://www.himss.org/what-interoperability>

What is interoperability?



Health information technology that will enable “the secure exchange of electronic health information with, and use of electronic health information from, other health information technology without special effort on the part of the user.”²

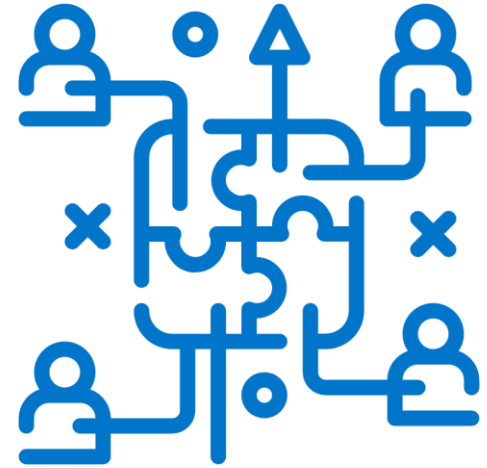
Purpose of the readiness assessment

A black pencil with a sharpened lead tip lies diagonally across the left side of a white surface. To the right of the pencil, a large, hand-drawn circle is visible, with a smaller, loopy scribble inside it. The background is a plain, light-colored surface.

To help birth defects programs gain an understanding of their current system and business processes, agency policies, available resources, existing partnerships, and IT considerations to determine readiness for automated electronic data exchange using health information standards.

Tips for the readiness assessment

Work on the readiness assessment as a team, including the birth defects program and others within the agency who are knowledgeable about the agency's information technology resources and data use and exchange policies.



Tips for the readiness assessment

Work through each section of the assessment and try to reach consensus on the score.



Tips for the readiness assessment

It's OK if the group may not know the answer to the question. This is an opportunity for additional outreach and investigation.



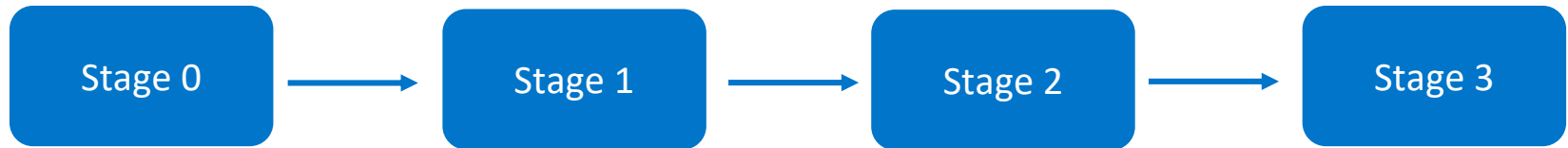
Tips for the readiness assessment

The conversations during the assessment are a valuable opportunity to collaborate with staff outside of your program.

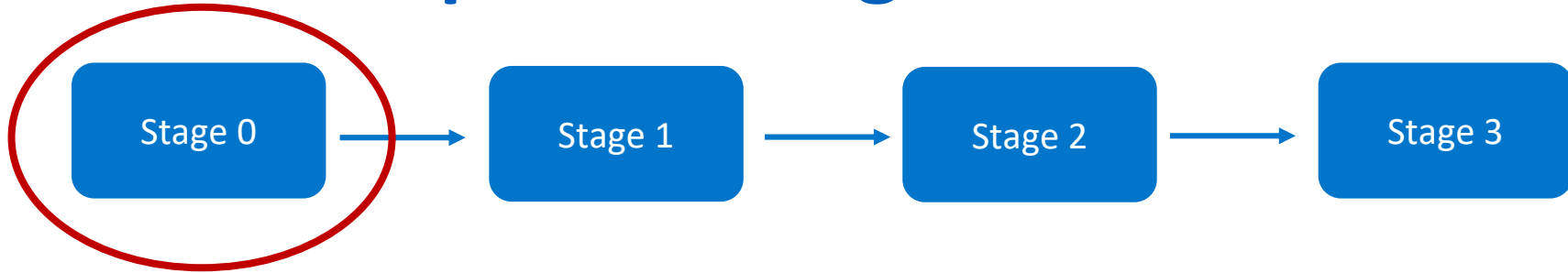


Capability Maturity Model™ (CMM)

Describes the progressive stages an organization advances through as it adopts a new process or practice.



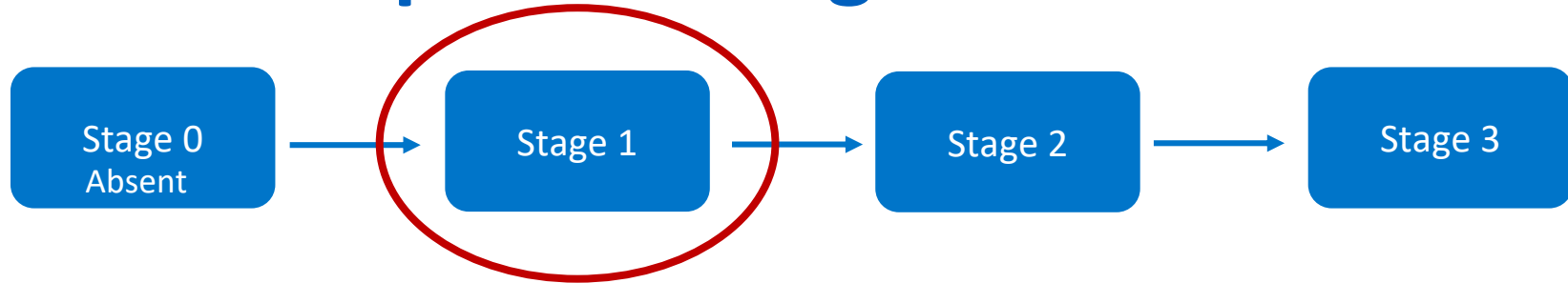
CMM response categories



Absent

No capability is evident; “starting from scratch.”

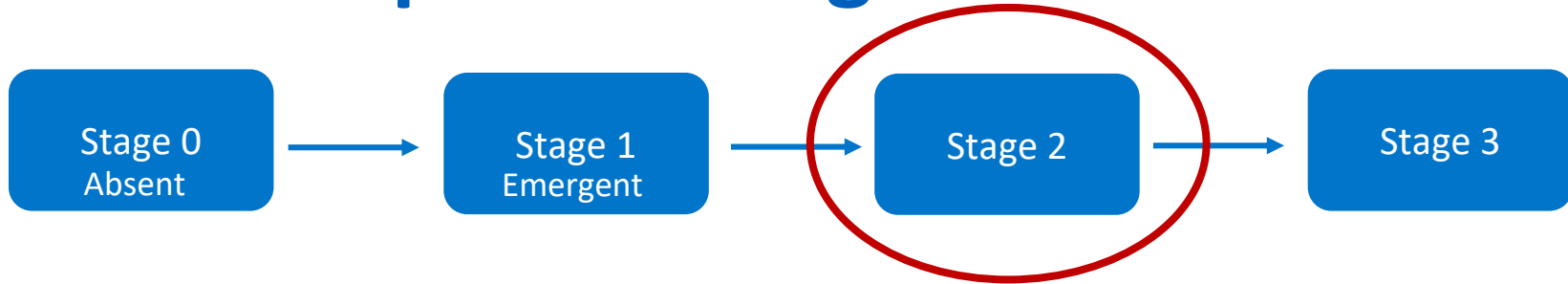
CMM response categories



Emergent

Capability is limited to isolated, ad hoc efforts or attempts at repeating successes from earlier initiatives.

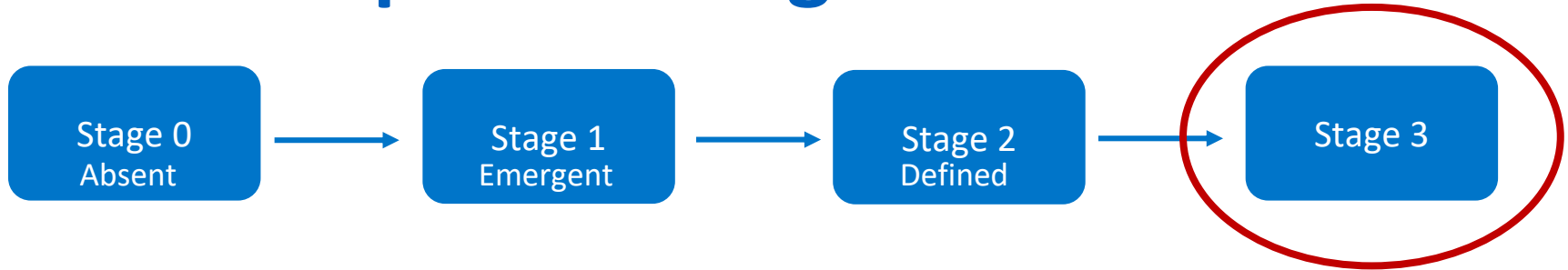
CMM response categories



Defined

Capability is demonstrated by systematic, ongoing efforts underway, but no overall method to measure progress or to ensure coordination.

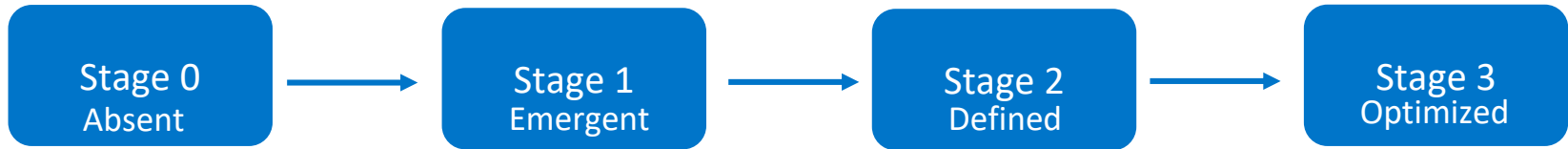
CMM response categories



Optimized

Capability is demonstrated by systematic, ongoing efforts underway with quality improvement activities to align results with guiding vision, strategies and performance metrics.

CMM response categories



Readiness for interoperability

1

Current system and business processes

The system and processes that the birth defects program uses to achieve its outcomes.

2

Leadership and resources

The birth defects program's health information strategy and access to human and financial support for information exchange.

3

IT infrastructure

Information technology resources the agency provides to the birth defects program supporting data use and exchange.



Readiness for interoperability

Technical

Non-technical

Current system and business processes

Current system and business processes

- 1** Does the birth defects program have the capability to electronically exchange data with partners?
- 2** Has the birth defects program completed an assessment that identifies existing or potential data exchange partners?
- 3** Has the birth defects program established data sharing agreements with other entities (e.g., healthcare providers, vital records)?
- 4** Has the birth defects program adopted procedures for data management and quality assurance?

Leadership and resources

Leadership and resources

1

Is your birth defects surveillance program subject to a governance process that guides information systems towards agency objectives?

2

Does the birth defects program have a documented informatics vision and strategy including goals, objectives and measures of success?

3

Has the birth defects program completed an assessment intended to describe your information assets and information needs, and how interoperability can improve your surveillance approach?

4

Does the birth defects program have a systematic, sustained approach to funding informatics strategy and/or activities?

Leadership and resources continued

5

Is the birth defects program aware of agency policies and procedures for confidentiality and informed consent that govern data transmitted electronically between electronic health records systems and agency systems?

6

Does the birth defects program have access to staff dedicated to leading, implementing and maintaining interoperability projects?

7

Does the birth defects program staff have opportunities for training on public health informatics or health information technology?

IT infrastructure

IT infrastructure

- 1** Does the birth defects program have a relationship with a centralized information technology (IT) unit or services provider (internal or external) to support achievement of informatics goals and objectives?
- 2** Is the birth defects program aware of agency project management procedures for information technology projects?
- 3** Does the birth defects program know of other programs within your agency that are currently using nationally recognized vocabulary, messaging and transport standards?

IT infrastructure

- 4 Does the birth defects program have access to IT testing environments for end users and program staff?
- 5 Does the birth defects program have access to agency-supported enterprise-level/cross-agency shared services such as a provider or facility registry, master patient index or message integration services to facilitate information exchange?

Readiness assessment tool walk through

Question 1.1 Data exchange capability

Does the birth defects program have the capability to electronically exchange data with partners?

- Level 0 The birth defects program has no capability to send, receive or process electronic messages with partners.
- Level 1 The birth defects program rarely sends and/or receives electronic messages; some manual effort is required to exchange and process the data.
- Level 2 The birth defects program routinely sends and/or receives electronic messages with partners; there is minimal manual effort required to exchange and process the data.
- Level 3 The birth defects program routinely sends and/or receives electronic messages and evaluates data exchange processes.

Key concepts

Data exchange partners refers to entities that send data to or receive data from the program in the course of conducting business or meeting reporting requirements. For the purpose of this assessment, consider partners both internal and external to the agency. **Capability** refers to the ability of the agency to exchange data with partners via standards based electronic messages.

Electronic exchange of data refers to the ability to send, receive and process data that are electronically transferred from one information system to another without manual intervention. Electronically processing information may refer to the ability to accurately match and merge records, reconcile differences and automate de-duplication processes. Generally, this does not include fax, email messages or manually importing static files into a system. Technical capabilities for electronic data exchange might include automated scripts for querying or extracting information from one system and securely transferring it to another via an HL7 message. Data sharing might require enabling legislation or cross-program data use agreements. In some cases, it may be technologically possible to exchange data internally, but policy or programmatic hurdles may exist.

Discussion prompts

- Are any existing data exchanges automated, or do they require significant human intervention? How many manual processes could be automated if sufficient support were available? How much of a priority would that be?
- Is there a high level of human interaction that is required for the data to become usable? Do the electronic messages received utilize established data code set standards, such as SNOMED-CT, LOINC, ICD-10? Do electronic messages received utilize standard message structures, such as HL7 v2 or CDA? Are there processes and policies in place that allow for the integration of data into agency applications? Are practices in place to return information to the sender if needed?
- Which programs in your agency currently receive electronic data from external partners? What standards are used for such exchanges?
- Is your program interested in receiving case reports or case notifications? These terms are defined in the glossary.

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Scoring

Current system and business processes worksheet

Question	Score	Notes/findings
Question 1.1 Data exchange capability		
Question 1.2 Data exchange partners		
Question 1.3 Existing data sharing agreements		
Question 1.4 Data management and quality assurance procedures		

Interpreting your score

If your scores are mostly zeroes and ones:

Prioritize planning activities such as assessments and identifying resources



Interpreting your score

If your scores are mostly twos:

Prioritize activities such as developing a plan and timeline for interoperability



PHII resources

Interoperability for Birth Defects
Surveillance: A Readiness Assessment Tool
<https://phii.org/bds-assessment>

Info-savvy health
department
<https://phii.org/infosavvy>

Public health informatics
profile
<https://phii.org/PHI-Toolkit>

Reframing public health
informatics: a
communications toolkit
<https://phii.org/informatics-communication-toolkit>

IIS migration toolkit:
guidance and tools for an IIS
technology transition
<https://phii.org/iis-migration-toolkit>

IIS procurement toolkit
<https://phii.org/iis-procurement-toolkit>

Data Modernization toolkit
<https://phii.org/DMIToolkit>

For additional resources, visit: <https://phii.org/resources>

Next steps

1 Finish the post-webinar survey

[Link in the chat](#)

2 Complete the readiness assessment

<https://phii.org/bds-assessment>

3 Reach out for support

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For more information, visit phii.org