

## Public Health Informatics Profile Toolkit



## Section I:

# Getting Started

Information systems are vital to public health work: they help practitioners collect, store and use important data that help drive public health outcomes. However, for years, public health agencies have faced challenges managing information flow in the digital era. The growing demand for enhanced electronic exchange with data and clinical partners creates a compelling business need for agencies to conduct a current state assessment of key information system capabilities to identify areas for improvement.

The Public Health Informatics Profile Toolkit provides tips, recommendations and resources to guide public health agencies in implementing a robust informatics department. It is intended to help uncover the requirements needed for current information systems to better support public health functions, to facilitate electronic exchange of information and to assist in planning efforts to modernize information systems to become more standards-based and interoperable.

There are many things to consider before starting an initiative like this, such as developing a project management plan, developing a business case to garner support for the project, identifying project stakeholders, and identifying the scope of the project. This section describes how to develop a broad conceptual overview of the project, and how to define the project scope and goals.

## Defining a conceptual view and project scope

Developing a conceptual view of the project in the form of a diagram or other graphic element can help clarify your agency's goals and project scope, and it can provide a visual tool for communicating those points to a broad audience. A framework assists the project by getting everyone on the same page about what the project entails or excludes. This view is often conveyed using a picture or figure. Developing a framework can be an iterative process and may take multiple versions before getting it right.

Defining the project scope upfront is also critical for developing a plan that is realistic and attainable, and defining the scope early assists when "scope creep" attempts to broaden the project beyond the original objectives. There are many stakeholders to consider, so making the scope manageable can be challenging. The key is to keep project parameters narrow.

- ✓ **1. Communicate visually.**  
Use pictures whenever possible to provide a visual interpretation for the project.
- ✓ **2. Show how parts connect.**  
Show how various components/elements are related to one another to ensure a common understanding among the project team and project stakeholders.
- ✓ **3. Be clear.**  
Keep it simple and include the key elements that should be conveyed.
- ✓ **4. Explore your options.**  
Will your assessment be conducted agency-wide? Will it be limited to systems that have electronic applications? Do the systems need to have a certain size or functionality? Consider the answers to questions like these first (see Section II).



**Data Partners**  
(Data Collection by Health Department)



Collecting Data



**Data Partners**  
(Data Recipients from Health Departments)

(Individual Level Data • Summary Data • Reports • Publications)



Sending Data



- Who do we collect data from?
- What data do we collect?
- How do we collect the data?
- What data is exchanged electronically now?
- Readiness/opportunities for electronic exchange

- What data gets stored, analyzed, utilized and managed?
- How is that data represented? Are national standards used?
- What are the future needs related to standards and electronic exchange capacities?

- Who do we send data to?
- What data do we send?
- How do we send the data?
- What data is exchanged now?
- Readiness/opportunities for electronic exchange

**Health Department Informatics Profile Conceptual Model (includes Infrastructure, Data Sets and Applications):** For purposes of this survey, the questionnaire will focus on applications, data input, data output and exchange capabilities of an information system.

✓ **5. Include stakeholders.**

Identify and engage key stakeholders – including sponsors and the project team – in defining your project scope. Brainstorming sessions can be useful for gathering input.

✓ **6. Maximize available resources.**

If resources are a constraint, consider what resources are available before broadening the project scope.

✓ **7. Start with priorities.**

Consider relevant factors such as agency priorities or relevant policy directions as a place to prioritize.

✓ **8. Take into account more than one stage.**

Consider multiple phases to your approach. For example, phase one may be to collect the most critical information, and phase two may be to collect information that is less urgent.

## Identifying key stakeholders

As with any project, it is important to identify key stakeholders and consider their desires and needs for the project. They can serve as important champions for the project if they are engaged early on, particularly if they are able to shape the project in the definition phase.

✓ **1. Remember your project scope.**

Consider the planned scope of the project and identify individuals across the organization that may have an interest in the project.

✓ **2. Communicate properly.**

Using the appropriate communication techniques is important throughout the entire project.

✓ **3. Customize messaging.**

Tailor messages to individuals if needed (see Section III).

✓ **4. Seek counsel.**

Ask for their help or support of the project.



## Defining goals for and managing a public health informatics profile assessment

Because there will be different levels of understanding among your various stakeholders about the need for a project like this, it is important to consider the following:

- Define parameters of project management;
- Describe the context and key drivers;
- Adequately and concretely describe the business case to justify the project (i.e., what problems will the profile help solve?);
- Develop a project charter; and
- Secure executive leadership sponsorship for the project.

Because a project like this may have significant scope and implications agency wide, it is critical to create a solid project charter that outlines important project management principles.

### Developing a project charter

The project charter is a vital tool that uses clear and concise language to describe the goals and initial project management plan to garner support for the project. It does not have to be long – many are just a few pages in length. However, they need to be detailed yet succinct.

Developing a charter includes building an effective project team, managing potential project risks, involving stakeholders and ensuring quality deliverables. Below are helpful tips for developing a project charter. For a sample, view our resources section.

- ✓ **1. Assign a leader.**  
Designate a lead project manager to oversee the project schedule, manage scope changes, identify and resolve issues and be a central point of contact for the project.
- ✓ **2. Ensure your scope is well-defined.**  
Clarify the scope of the project early on by considering the needs of the project sponsor as well as key stakeholders. The scope should be clear about what the project will or will not accomplish.
- ✓ **3. Plan out your project.**  
Develop a project management plan to use for overseeing the project once it is initiated.
- ✓ **4. Develop and implement a communications strategy.**  
Develop a communications plan to ensure all stakeholders are kept informed and engaged. For large projects, conduct a stakeholder analysis to identify your communications strategies for different groups based on their level of interest and their level of influence.
- ✓ **5. Take resources into account.**  
Be realistic about all the resources you will need, especially staff and time.

There are other common elements that should also be included in your charter:

- A solid business case, context, and drivers for the project (see below)
- Project constraints and assumptions: assumptions are project factors you assume to be real, and constraints are existing, immovable limitations on the project
- Cost and schedule estimates to as much reasonable detail as possible
- Project sponsor sign-off



## Exploring context drivers for interoperability and modernization of public health information systems

It is important to be able to articulate the context and drivers for the public health informatics profile assessment to various stakeholders with different perspectives. Some stakeholders will understand the need for the project early on, while others will need a little more convincing. For example, the context or rationale for planning and conducting your assessment may be the availability of new funds, to launch a new project, to respond to external pressures from data exchange partners, or to respond to new policies or regulations.

### Example drivers on a state and local level

- The desire and need for integrated and interoperable information at the state or local health department level to provide higher quality services and more timely information.
- The need for better electronic exchange with data partners and expectations of bi-directional exchanges with the clinical sector, allowing for improvements in overall clinical services to patients and population health.
- Organizational needs around project portfolio management and identifying agency priorities based on needs and prioritization of resources.

### Example drivers on a national level

Public health agencies are a critical partner in improving health outcomes. There is a demand for them to be able to exchange health information with the private sector when needed with stakeholders in the health, education and human services domains. Agencies should therefore be prepared to assess their information systems (particularly disease registries and immunizations registries) to be able to exchange health information with the private sector when needed.

- Achieving the vision of improvements in the quality, safety, and efficiency of health and health care through information and information technology, including a focus on population health with the desire that consumers, health care providers, and those responsible for population health will have ready access to timely, relevant, reliable and secure information.
- The expectation and use of exchange information electronically by promoting the use of standards.
- Consumers' increasing expectations for electronic government and thus driving public information system modernization.
- Consumers' desire to access their information.
- Decreasing levels of resources and the need for improving workflows in the public sector.
- Changing of the workforce and generational expectations for electronic information.
- Expectations for rapid, coordinated responses for natural and human created disasters and outbreaks.



## Making the business case

Once the context and drivers have been articulated and the key stakeholders have been identified, a business case can be made to justify why the project is an important part of a solution to the context, issues, and challenges you've just described.

### ✓ 1. Tie together the project's context and drivers.

Link the project to the context and drivers for the project; show how it will help solve problems.

### ✓ 2. Coordinate the goals of the project and your organization.

Ensure alignment of the project to the strategic direction of the organization by answering the question, "How will the project help achieve our strategic goals?"

### ✓ 3. Outline advantages for stakeholders.

Explain how the project will benefit key stakeholders.

