



Appendix A: Workbook

Please note that this version of Appendix A can be edited electronically. Readers are encouraged to download a copy of that version of the workbook and use it to take notes as they review the guide.

Detailed information on each of the following topics can be found within the guide at the corresponding section number and title.

Selecting Your Evaluation Team

Consider including team members with core expertise in the areas of technical implementation, health care operations, clinical care, research methodology, project management, and health care consumer (patient) perspective to assist in achieving a successful HIE project evaluation.

Describing Your HIE Project

Provide a description of your HIE project that you are evaluating. This may come directly from the HIE strategic plan, project plan, proposal, or similar documents outlining the vision, mission, goals, and objectives of the HIE project.



Identifying Your HIE Project Stakeholders

Identify the stakeholders involved including all of the organizations accessing the HIE as well as funding sources, patients, and any other groups interested in and impacted by the HIE.

Articulating Your HIE Project Goals and Objectives

Articulate the goals and objectives of your HIE project. Also consider which of the HIE project goals support the value and mission of the stakeholder organizations.

Assessing the Value of HIE

It is critical to demonstrate to stakeholders that your HIE project provides value, especially by offering financial and clinical benefits. Consider the project's positive effects, such as increased revenues, decreased costs, and improvements in patient safety and quality of care.



Defining Evaluation Goals and Objectives

Document your evaluation goals, then operationalize what you want to accomplish by defining your evaluation objectives (measurable steps and deadlines).

Identifying Potential Evaluation Measures

Select a set of evaluation measures that you may use in assessing your HIE project. These measures will be prioritized later in the process.

Designing the Evaluation Study

Design the evaluation that you will use to collect and analyze data in order to produce each measure. Consult Section 4, “Designing the Evaluation Study” in the guide for a discussion of types of evaluations and research designs, as well as evaluation planning resources that describe approaches and methods.



Identifying Data Sources

Identify potential data sources for your measures, and investigate what technology would be used by these sources in order to generate the associated measures.

Prioritizing Candidate Evaluation Measures

Evaluate each potential measure that you identified in Section 4, “Identifying Potential Evaluation Measures” to narrow down to a set of candidate measures before you assess their feasibility and relative cost.

Next rank each measure in the order of importance to your stakeholders.

1. Very Important:

2. Moderately Important:

3. Not Important:



You should also determine which measures are feasible for you to evaluate.

Feasible:
Feasible With Moderate Effort:
Not Feasible:

Based on the ratings you have assigned to your measures, use the following quadrant analysis table to group your measures by importance and feasibility.

QUADRANT ANALYSIS TABLE

		Feasibility Scale		
		1-Feasible	2-Feasible With Moderate Effort	3-Not Feasible
Importance Scale	1-Very Important			
	2-Moderately Important			
	3-Not Important			

Using the results of the quadrant analysis table, create a short list of primary measures to evaluate.

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Considering the Impact of Data Collection Strategies on Relative Cost and Feasibility

Refine your data collection strategy by considering commonly used study designs (prospective and retrospective) and data collection methods (both qualitative and quantitative), and their relative cost implications.

Developing Your Evaluation Plan Based on Selected Measures

Document how you will evaluate each of the final measures you identified, and have your proposed methodology reviewed by methodological experts. In developing your plan, you can use the following template to help you outline the details.

Document for each measure	Final evaluation measures			
	Measure 1	Measure 2	Measure 3	Measure 4
Briefly describe the HIE project.				
Describe the HIE intervention and the intended impact.				
What questions do you want to ask to evaluate this impact? These will likely reflect the expected impact (either positive or negative) of your intervention.				
What will you measure to answer these questions?				
How will you collect the required data?				
How will you design your study? For a quantitative study, you might consider what comparison group you will use. For a qualitative study, you might consider whether you will make observations or interview users.				
Analysis:				
• For quantitative methods: What types of statistical analysis will you perform on your data?				
• For qualitative methods: What analysis will you conduct using qualitative data?				
Sample size:				



Document for each measure	Final evaluation measures			
	Measure 1	Measure 2	Measure 3	Measure 4
<ul style="list-style-type: none"> For quantitative methods: Estimate the number of observations needed to demonstrate that the measure has changed statistically. 				
<ul style="list-style-type: none"> For qualitative methods: Determine the appropriate sample size needed to reach conclusions regarding the measure. 				
How would the answers to these questions inform future decisionmaking about the HIE project and/or HIE system implementations?				
What is the planned timeframe for evaluating the measure?				
Responsibilities:				
<ul style="list-style-type: none"> Who will take the lead for the evaluation for the measure? 				
<ul style="list-style-type: none"> Who will be responsible for the data collection? 				
<ul style="list-style-type: none"> Who will lead the data analysis? 				
<ul style="list-style-type: none"> Who will present the findings? 				
<ul style="list-style-type: none"> Who will draft a summary of the findings? 				
Estimate the cost for evaluating each measure. Take into consideration planning, meetings, travel, analysis, consultation time with a methodologist (e.g., statistician, qualitative researcher, survey methods expert), and time to prepare a final report or a summary of your findings, if necessary.				

Completing Your Draft Evaluation Plan

Based on your work to this point, you have everything you need to draft an evaluation plan for your HIE project. In addition to evaluation approaches, your plan should have some discussion regarding budget considerations that shows you have taken costs and available staffing resources into consideration.



Checking Your Evaluation Budget

Prior to finalizing your evaluation plan, you should review the costs associated with implementing it as currently drafted. By conducting this review, you should determine if there are ways to reduce the costs of by including or excluding some of the selected measures in your evaluation plan.

Finalizing Your Evaluation Plan

After you have reviewed your evaluation budget and the costs associated with implementing your study design, data collection, and data analyses activities, you may need to revise the evaluation plan to accommodate your available evaluation budget. Define any changes that you plan to incorporate into your plan.