



Measure Factory Validation Guide

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Validation and Measure Refinement Overview

Review of Phase 1 and Phase 2

During **Phase 1** and **Phase 2** of implementation, Dimensional Insight works with your organization to develop a plan for extracting data from your source system and creating a feed to Measure Factory.

Dimensional Insight runs Measure Factory, producing data marts with calculated measures, which supply a set of standard dashboards. Dimensional Insight also performs high-level validation of the standard measures, called *counts and amounts* validation. During this type of validation, total values of measures are compared against the source system to ensure that all the necessary data is passing from your source system to Measure Factory, and that the standard measure calculations are as expected. For example, the Total Admissions measure is validated against the total number of inpatient accounts in the source system.



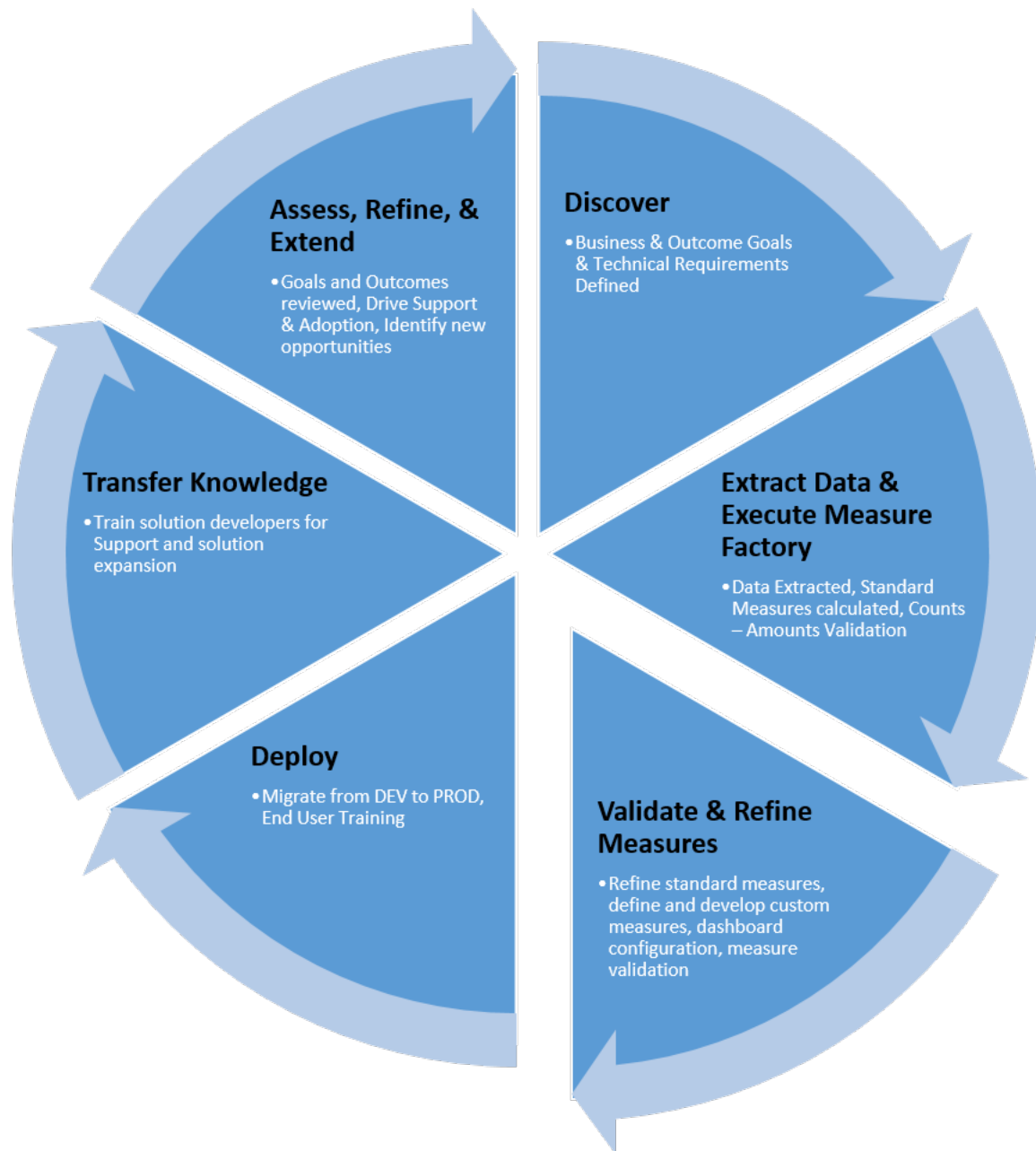
Phase 3: Validation and Measure Refinement

During **Phase 3** of implementation, your organization works collaboratively with Dimensional Insight to complete four key activities:

1. Reviewing the Measure Master
2. Generating source system reports
3. Verifying measure definitions and dashboards
4. Validating measure values

Measure Factory

You perform some of this work with the assistance of a Dimensional Insight consultant and subject matter expert, but other times you work independently, following up with Dimensional Insight as needed.



Phase 3 Objectives

- Review the standard measures that appear on dashboards, and determine their relevance to your organization's business goals.
- Verify and validate standard measure definitions and values.
- Define custom measure definitions, and obtain additional source system data as

needed.

This includes validating custom measure values, and modifying your dashboards.

Keys to Success

In order to be successful during this phase of implementation, you must identify the appropriate internal resources to support the tasks described here.

Consider the following:

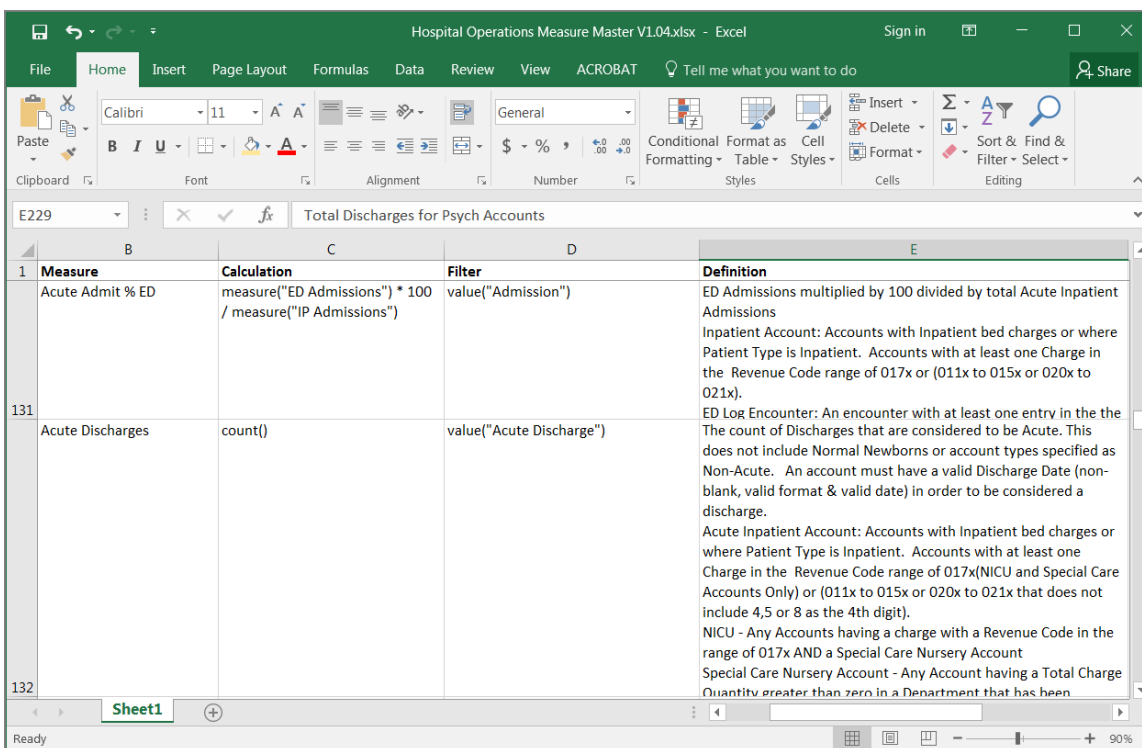
- Do you have a data steward identified for each of the standard measures? Do these members of your organization know your current measure definitions, and can they make informed decisions about custom measure definitions?
- Do you have the technical resources to supply source system reports? Do the owners of these reports understand the logic or calculations used to generate your organization's measures?
- Have you identified the personnel that will benefit from technical and process training during this phase, so that they can facilitate ongoing solution support and future enhancements?

Task 1. Reviewing the Measure Master

What is involved in this work? The Measure Master is an Excel spreadsheet that contains information about the standard measures provided by Dimensional Insight. You review the Measure Master so that you're prepared to discuss your organization's requirements during your working sessions with Dimensional Insight. You also use the Measure Master to determine the resources—including source system reports—that you need in order to be successful during validation.

As you review, consider the following:

- Are the measure definitions supplied by Dimensional Insight the same as the definitions that your organization uses?
- Does your organization use measures that are not in the Measure Master?
- Which measures have the highest priority for your organization?
- Which source system reports provide information about these measures?



	B	C	D	E
	Measure	Calculation	Filter	Definition
1	Acute Admit % ED	measure("ED Admissions") * 100 / measure("IP Admissions")	value("Admission")	ED Admissions multiplied by 100 divided by total Acute Inpatient Admissions Inpatient Account: Accounts with Inpatient bed charges or where Patient Type is Inpatient. Accounts with at least one Charge in the Revenue Code range of 017x or (011x to 015x or 020x to 021x).
131	Acute Discharges	count()	value("Acute Discharge")	ED Log Encounter: An encounter with at least one entry in the The count of Discharges that are considered to be Acute. This does not include Normal Newborns or account types specified as Non-Acute. An account must have a valid Discharge Date (non-blank, valid format & valid date) in order to be considered a discharge. Acute Inpatient Account: Accounts with Inpatient bed charges or where Patient Type is Inpatient. Accounts with at least one Charge in the Revenue Code range of 017x(NICU and Special Care Accounts Only) or (011x to 015x or 020x to 021x that does not include 4,5 or 8 as the 4th digit). NICU - Any Accounts having a charge with a Revenue Code in the range of 017x AND a Special Care Nursery Account Special Care Nursery Account - Any Account having a Total Charge Quantity greater than zero in a Department that has been

When does this work take place? Perform this work prior to beginning your working sessions with Dimensional Insight.

Who performs this work? The Measure Master should be reviewed by operational experts who are familiar with your organization's measures and the source system reports

that track them. Depending on your organization, this might include an IT professional, finance specialist, or members of the decision support group.

If the person responsible for generating source system reports is not required to review the Measure Master, make sure they work with the group that completed the review when determining which reports to generate for validation.

Task 2. Generating Source System Reports

What is involved in this work? In your organization's reporting systems, generate reports for use during validation. Most of the time, you generate the same reports that you use for presenting daily and monthly statistics, either operationally or to executives.

Dimensional Insight works with your organization to determine an appropriate month of data to include in the reports. Each report must include at least one complete month of data, from three to six months prior to the day you begin validation. For example, if validation is scheduled to begin in December, generate reports that display data from the previous June, July, August, or September. This ensures that the data is complete, and not being updated within the source system during validation.

You should generate enough reports that you can validate all the measures in the Measure Dictionary. When choosing which reports to generate, consider the following:

- The measures that each report tells you about.
- The date or event that is associated with each measure.

For example, the Total Admissions measure is associated with the date of admission, also known as the *Admit Date*, whereas the Total Discharges measure is associated with the *Discharge Date*.

For a complete list of standard Dimensional Insight measures, their definitions, and associated dates, see the Measure Master.

When does this work take place? Be sure that the appropriate reports have been generated in preparation for your working sessions with Dimensional Insight.

Who performs this work? Typically, the person who generates source system reports is the same person who is responsible for validation. Depending on your organization, this might be an IT professional, finance specialist, or an operational expert.

This person might need to work with the group responsible for reviewing the Measure Master to determine which reports to generate.

Task 3. Verifying Measure Definitions and Dashboards

What is involved in this work? There are two things you need to verify:

- That the measure definitions supplied by Dimensional Insight are the same as the definitions your organization uses.

If the definitions are different, you specify the changes to be made so that your organization's requirements are met. At this time, you also identify any additional measures to be created.

- That the Measure Factory dashboards display information that is meaningful to your organization.

After this work is complete, a Dimensional Insight consultant makes the necessary changes.

When does this work take place? You verify dashboards and measure definitions during your working sessions with Dimensional Insight. Typically, you can complete this work during the sessions, though you might continue to communicate with Dimensional Insight as consultants make changes.

The time it takes to make the changes depends on their complexity. Simple changes can often be made during the sessions, but more involved changes might take several days to complete, depending on the complexity of the business rules, and whether additional data needs to be extracted from your organization's source system.

Who performs this work? Relevant members of your organization verify measure definitions and dashboard content with the assistance of a Dimensional Insight consultant, subject matter expert, and, optionally, project manager. Dimensional Insight recommends that your organization's project manager also be present for part of this work.

Dashboard to verify	Personnel to include
Census	<ul style="list-style-type: none"> • IT professional • Patient access representative • Finance specialist • Clinical patient flow representative
Inpatient	<ul style="list-style-type: none"> • IT professional • Patient access representative • Finance specialist • Operating Room expert
Outpatient	<ul style="list-style-type: none"> • IT professional • Patient access representative • Finance specialist • Emergency Department expert
Outcomes	<ul style="list-style-type: none"> • IT professional • Clinical or quality expert

Task 4. Validating Measure Values

What is involved in this work? During validation, you verify that the values in the Measure Dictionary are what you expect, by comparing them against the values in your organization's source system reports. You validate values for each measure in the Measure Dictionary.

When does this work take place? You begin validation during your working sessions with Dimensional Insight, after being given access to your organization's Measure Factory DivePort. When the sessions are over, you continue validation on your own, and work remotely with a Dimensional Insight consultant and subject matter expert to resolve any discrepancies you encounter. The complete validation process usually takes four to six weeks.

Who performs this work? A delegate from your organization—typically, an IT professional, finance specialist, or operational expert—performs validation, in combination with a Dimensional Insight consultant and subject matter expert.

To validate:

1. Make sure you have access to the source system reports that were generated prior to validation.
2. Log on to your organization's Measure Factory DivePort.
3. On the home page, click **Measure Dictionary**.

The **Measure Dictionary** page opens.

4. Identify the measure that you want to validate.

You can validate measures in any order, but it is a good idea to wait until Dimensional Insight has completed the changes that your organization requested, before you validate measures whose definitions need to be modified.

5. Click the measure you want to validate, and select **Analysis**.

The **Analysis** page opens.

6. In your source system reports, identify the appropriate content to use for validation.

For example, if you are validating the **Total Admissions** measure and you have a report with an entry for **Total Admissions**, use that entry to validate.

7. In the report that you are using to validate, note the value for a complete month of data, three to six months prior to the current month.

For example, if the current month is December, choose the value for the previous June, July, August, or September. You do this to ensure that the data is complete, and not being updated within the source system as you validate.

8. On the **Analysis** page, adjust your view so that the data meets the same criteria as in the report:
 - a. In the **Year-Month** QuickView, select the year and month that you noted in the report.

The screenshot shows the 'Analysis' page with two dropdown menus: 'Facility' (set to 'All Values (4)') and 'Admit Year-Month' (set to 'All Values (58)'). The 'Admit Year-Month' dropdown is open, displaying a list of dates from 2015-01 to 2015-10. The date 2015-08 is highlighted. Below the dropdowns, there is a search bar and a table with columns 'Admit Location', 'Total Admissions', and 'Rate No'. The 'Total' row shows a value of 94,06.

- b. If the report shows data for only one facility, select it in the **Facility** QuickView.
Otherwise, leave **All Values** selected.
9. Compare the **Total** value on the **Analysis** page to the value in the source report.

Measure: Total Admissions

Search:

Admit Location	Total Admissions	% Total
Total	1,096	100.0%
CER	108	9.9%
GC IR	2	0.2%
GER	313	28.6%
HER	122	11.1%
LER	43	3.9%
LW 1 CARDIAC DECISION	2	0.2%

10. Do one of the following:
 - If the number on the **Analysis** page is the same as the number in the source report, the measure has been validated successfully.

In the *Measure_Validation_Workbook.xlsx* spreadsheet, note that the measure has been validated, and use the previous steps to validate the next measure in the Measure Dictionary.

- If the number on the **Analysis** page is not the same as the number in the source report:

- a. On the **Measure Dictionary** page, click the measure and select **Definition**.

Verify whether the definition in the Measure Dictionary is the same as the definition that your organization uses. Discrepancies can occur if the definition in the Measure Dictionary has not yet been modified to match your organization's definition.

- b. In the *Measure_Validation_Workbook.xlsx* spreadsheet, document the discrepancy.

In the **Comments** column, specify whether the discrepancy occurred because the definition in the Measure Dictionary is different from the definition that your organization uses.

- c. Communicate the issue to Dimensional Insight, and work with a consultant or subject matter expert to finish validating the measure.

11. Repeat this process for each measure, until you have validated all the measures in the Measure Dictionary.

Check your work to ensure that you have validated the most up to date version of each measure in the Measure Dictionary, including any additional measures that your organization requested.