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Providing Evidence of Data Collection

A Note to the Reader:

IQI Insights is a series of brief informational pieces from the AAAHC Institute for Quality Improvement. Our focus is on enhancing quality and safety through educational activities. In this series, we hope to provide you with the opportunity to learn more about basic issues and concepts associated with quality improvement in ambulatory health care. These short documents are not meant to provide in depth or complete information; however, we hope that they will increase your comfort with these topics and perhaps, lead you to seek additional information. We welcome your feedback.

Sincerely,

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Introduction

Providing evidence of data collection will help others understand the data (information) you actually collected for your quality improvement (QI) activity (AAAHC standard 5.II.B-4). This *IQI Insights* will address key issues related to providing evidence of data collection; however the AAAHC Institute for Quality Improvement's *IQI Insights* are not designed to address the breadth or detail associated with a topic.

How is Providing Evidence of Data Collection Different from Planning Data Collection?

At first glance, AAAHC standard 5.II.B-3 [1] and 5.II.B-4 (providing evidence of data collection), may seem very similar. However, while planning and providing evidence of data collection may seem to be very similar (if not identical), you may have to modify the specific plans you have developed to collect data. Here are some examples.

- You may have to redefine or further define the issue being addressed by your measurement (data collection). For example: you are interested in showing the number of findings discovered in colonoscopies versus sigmoidoscopies and you have used "upper bowel" to distinguish the former from the latter. You find out that interpretation of "upper" versus "lower" bowel varies by who is collecting data. You may have to re-measure and find out which means "proximal" and which means "distal." Another example may be mammography rates: you find that although providers are ordering mammograms, patients are not getting mammograms. This may indicate the need for a change in focus from ordering to patient compliance.
- The type of score you planned to use may require modification. You may start measuring on-time starts for visits or procedures by using a "yes/no" score. As you measure, it becomes clear that some providers may frequently start one to two minutes late, while others have much later starts, but not as frequently. You may decide you want to "weigh" how late the start is in order to acknowledge this issue.
- The target population of the measurement may change. You want to look at pediatric HPV immunization rates or proportion of cataract surgery patients who have had their periocular area prepared with povidone iodine. You soon realize that you are penalizing those who ask about allergies and do not give immunizations to or prepare eyes of patients with allergies to ingredients in the immunizations or povidone iodine. The target population needs to be changed to exclude patients with relevant allergies.
- The timing of measurement may have to be changed. You were hoping, over a three month period, to collect data for 25-35 patients per provider [2],
    - on the use of pre-operative testing of HbA1c for patients with a history of diabetes

    OR
    - HbA1c results within the 12 months on file for patients with a history of diabetes having a visit during the three months being studied.

  It becomes clear that you are not going to have even 15 patients per provider in 3 months. You may want to expand the measurement period to try to meet your sample goal.
- You may have to modify your choice of data source(s). You would like to know the range and average length of preventive care visit or knee arthroscopy with meniscectomy. You find that some providers include this information in the chart. However, it soon becomes clear that this is not a universal practice nor is the place in the chart predictable, so you may opt to provide a form that ensures all providers in the study report this information and it can be easily found.

Key Components in Describing the Data Actually Collected

The more information you can provide, the easier it is for someone who has not participated in the study to understand what you did for data collection and what actual information you collected. There are two examples that follow. These examples include the sort of information that will be helpful to some who was not involved in the study:

- The period of time you collected data ("data collection period").
- The number of visits or procedures, or patients or charts, etc. on which you collected data ("sample").
- How this number compares with *all* pertinent visits or procedures, or patients or charts, etc. (i.e., the proportion of the pertinent population from which you collected data) during the period of time you collected data ("population").

- What data you collected ("measure[s]"), from what source ("data source"), and how you recorded the data ("data collection tool"): a sample survey or data collection form, data collection instructions, instructions for chart abstraction, or a list of pertinent CPT or ICD-9 codes may begin to help explain this.
- Actual information you collected ("results").

In the examples, you will also see that the description of the data actually collected is just that—it does not include any conclusions about what the data mean.

Example 1: Use of Nationally Accepted Processes to Prevent Wrong Site Low Back Injections
Data collection period: We collected information from July to September 2010.
Sample: We collected the information on every third low back injection (CPT: 62311, 64483-4, 64490-5) patient seen by our 5 providers for at least 25 or more patients per provider; the total number of patients with documentation was 202 patients.
Population: There were 660 patients scheduled to have low back injections during the data collection period—54 patients cancelled, rescheduled, or did not get a low back injection, despite the original schedule for July to September. Four patients received anesthesia before the provider could mark the site.
Data collection tool: Forms were placed in each third patient's chart.
Data Source: Respective providers completed these forms.
Measures: Providers were instructed to fill in or check off:

- their own assigned ID (1-5)
- a sequentially numbered ID for each patient (1-25+)
- confirmation that at least one procedure with one of the appropriate CPTs was performed
- whether the "universal protocol" was followed, including:
  - ❑ the provider performing the injection marked the injection site,
  - ❑ *with* the participation (confirmation of patient identity, type of procedure, and location of procedure) of the patient or caregiver and
  - ❑ whether a time out (to identify the patient, procedure, and site) was performed in the procedure room.
- A section for any additional, relevant comments such as: "the patient was a 'no show' and the procedure did not occur" or the patient received IV anesthesia before the provider had a chance to confirm the site with the patient.

Results:
Overall:

Total # of completed patient forms	All 3 parts of "universal protocol"	Provider marked site + Time out	Time out only
202	48% (98)	36% (72)	16% (32)

By Provider:

Provider #	#1	#2	#3	#4	#5
Total # of completed patient forms	38	30	44	45	45
All 3 parts of "universal protocol"	84% (32)	67% (20)	50% (22)	31% (14)	22% (10)
Provider marked site + Time out	16% (6)	33% (10)	27% (12)	47% (21)	51% (23)
Time out only	0	0	23% (10)	22% (10)	27% (12)

Other information collected in the "comment" section: the nurse marked the site (28 cases); patient received anesthesia before provider could confirm site (4 cases); number of patients with procedures miscoded (12); number of patients who cancelled (20); number of patients who rescheduled (22).

Note: there are no conclusions here about any of the data collected.

Example 2: Administration of Flu Shots to Asthmatic Patients
Data collection period: We collected information from August 2009 to March 2010.
Sample: We collected the information on every asthmatic patient (ICD-9: 493.0) seen by our 2 providers for at least 25 or more patients per provider; the total number of patients with documentation was 58 patients. Eight patients were excluded from the sample because of issues (such as allergy, refusal to have the shot, already obtaining the shot, or emergency transfer necessary), which providers agreed were reasonable exclusions. Providers also agreed that "not enough time" or no reason listed for not giving the flu shot were not reasonable exclusions. So, the sample included in this QI activity was 50 patients.
Population: There were 58 asthmatic patients seen during the collection period.
Data collection tool: Forms were placed in the chart of every patient who had a history of asthma.
Data Source: Respective providers completed these forms.
Measures: Providers were instructed to fill in or check off:

- their own assigned ID (1-5)
- a sequentially numbered ID for each patient (1-25+)
- confirmation of the diagnosis of asthma
- and information on flu shot administration:
  - ❑ Yes, a flu shot was administered.
  - ❑ No, no reason given.
  - ❑ No, a flu shot was not administered—the patient has an allergy to eggs.
  - ❑ No, a flu shot was not administered—the patient refused to have a flu shot.
- A section for any additional, relevant comments such as: "the patient had already received a flu shot for this season at her local pharmacy" (2-excluded from) or "I didn't have time to do this" (3-included in denominator) or "the patient had to be transferred to an ER (1-excluded from denominator)."

Results:
Overall:

Total # of completed patient forms	Yes—flu shot administered	No—no reason given	No—didn't have time
50 (8 excluded from the denominator—see above)	84% (42)	10% (5)	6% (3)

By Provider:

Provider #	#1	#2
Total # of completed patient forms (8 excluded—see above)	25	25
Yes—flu shot administered	76% (19)	92% (23)
No—no reason given	16% (4)	0
No—didn't have time	8% (2)	8% (2)

Note: there are no conclusions here about any of the data collected.

Additional References and End Notes—*please note: references to web sites or products are not endorsements.*
[1] See the fall 2010 *IQI Insights* on collecting data.
[2] Landon BE, Normand ST, Blumenthal D, and Daley J. Physician Clinical Performance Assessment: Prospects and Barriers. *JAMA.* 2003. 290: 1183-1189.