Appendix 1: **Gaps, Needs Assessments, Objectives, Desirable Physician Attributes, and Outcomes**

What’s a **Gap**?

A **Gap** is the difference between current practice (what *is*) and the ideal, evidence-based practice (what *should be*).

Isn’t that the same as a **Needs Assessment**?

No. A **Needs Assessment** is the supporting data showing the existence of the **Gap**. You can use a **Needs Assessment** to identify **Gaps**, or you can identify a **Gap** and then do a **Needs Assessment** to show how big the **Gap** is.

The **Needs Assessment** looks at individual practices that might be improved in order to make the **Gap** smaller.

**The Gap is Broad.**

Example: The 30-day mortality rate for heart attack patients in Southwest Michigan is higher than the national 30-day mortality rate.

**The Needs Assessment is Narrow.**

Example: A retrospective study of discharge orders showed that, despite hospital protocol, they did not always include an aspirin regimen. A survey of hospital staff also indicated that discharge orders are not always clearly explained to patients. A retrospective study of follow-up appointments showed a high number of no-shows; there was a strong correlation between these missed appointments and increased mortality.

So how does that relate to **Objectives**?

The narrow points identified in the **Needs Assessment** show us what we might be able to focus on in a CME activity.

E.g. The **Needs Assessment** identified these three deficiencies: 1) Incomplete discharge orders, 2) Poor communication of discharge orders to patients, 3) Poor showing to post-discharge follow-up appointments. We can turn them into **Objectives**: Upon completion of this activity, physicians should be able to 1) provide complete discharge orders as indicated by hospital policy and 2) clearly communicate discharge orders to their patients.
But wait! What happened to #3?

Decreasing the number of no-shows at follow-up appointments isn’t something that can really be addressed in a CME activity, so we’ll have to address this problem another way, using a Non-Educational Strategy.

This means the Objectives for the CME activity are: Upon completion of this activity, physicians should be able to 1) provide complete discharge orders as indicated by hospital policy and 2) clearly communicate discharge orders to their patients.

Needs and Objectives should always go hand in hand.

And this is different from Desirable Physician Attributes how?

Desirable Physician Attributes are national standards that all practicing physicians should have. (See Appendix 2 for a table of the most commonly used Desirable Physician Attributes.) By achieving the Objectives you’ve identified for your CME activity, physicians should also have improved in one of these areas.

e.g. Using our example, physicians who attended this activity should have improved in the area of Patient Care and Interpersonal and Communication Skills (ACGME/AAMC).

On your application, you should indicate both the Desirable Physician Attribute(s) as well as the source (IOM, ACGME, ABMS, etc.). There are more Desirable Physician Attributes than those listed in Appendix 2. If you are focusing on a very specific specialty, you might want to look at that Board’s competencies for their Desirable Physician Attributes.

So then, what are Outcomes?

Outcomes are the measure of what was achieved at the CME activity. There are seven levels of achievement:

1 – Participation

2 – Satisfaction

3 – Knowledge (either declarative or procedural)

4 – Competence

5 – Performance

6 – Patient Health

7 – Community Health
In the past, it was okay for CME activities to achieve levels 1-3. Today, we want CME to do more. We want to reach an **Outcomes** level of at least 4.

**Objectives** are what we want to happen. **Outcomes** are how we measure what has happened. We use the **Objectives** to identify what we want to measure in our **Outcomes** assessment.

e.g. **Objectives**: Upon completion of this activity, physicians should be able to 1) provide complete discharge orders as indicated by hospital policy and 2) clearly communicate discharge orders to their patients...

...become **Outcomes**: 1) Discharge orders include all indicated medication orders. 2) Patients better understand their discharge orders.

**So how do we measure Outcomes?**

There are multiple ways that we can measure whether or not **Outcomes** have been achieved. We can do Pre and Post Tests. We can do surveys that ask physicians whether or not they have changed their practice.

Surveys aren’t the best way to measure **Outcomes**. Depending on the design of your activity, we may follow-up with you in 3, 6 or 12 months. We know what the initial status was because that was in your **Gap** and **Needs Assessment**. We may ask to see what that data looks like now. Again, depending on the design of your activity, this may mean we’re able to measure **Outcomes** at levels 5, 6, or 7.

**But isn’t this data confidential? What about HIPAA?**

This data is for internal use only so that we can measure the impact of a CME activity on a physician, hospital, or the community at large. We will never ask for PHI.

If you’re concerned about confidentiality, there are many topics addressed in CME activities that might be related to data reported to the US Department of Health and Human Services. These data are publicly available on the HHS Hospital Compare website and should be acceptable measures for both planning a CME activity (**Gaps & Needs**) and while doing an **Outcomes** assessment after the activity is over.

**What if the Outcomes assessment shows no improvement?**

That’s okay. That just means that we need to use a different strategy to address the **Gap**. It doesn’t mean that physicians didn’t learn anything at your activity. Most likely, it means that there are some **Barriers** that are preventing physicians from putting what they learned into action. This is a good time to do a physician survey to ask them what these **Barriers** are so that we can determine whether we need to use a different type of educational format or use **Non-Educational Strategies** such as posters, brochures, or emails to reinforce the needed change.
It probably isn’t possible to completely eliminate a *Gap*. The goal is to improve and to continue to look for new ways to minimize *Gaps*.
## Appendix 2: Desirable Physician Attributes

Standards for Desirable Physician Attributes can be found in multiple sources. Some of these sources have overlapping standards. In your application, you should indicate both the source(s) as well as the Attribute(s).

<table>
<thead>
<tr>
<th>Source</th>
<th>IOM</th>
<th>ACGME/AAMC</th>
<th>ABMS MOC</th>
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<tbody>
<tr>
<td><strong>Provide patient-centered care</strong> – identify, respect, and care about patients’ differences, values, preferences, and expressed needs; relieve pain and suffering; coordinate continuous care; listen to, clearly inform, communicate with, and educate patients; share decision making and management; continuously advocate disease prevention, wellness, and promotion of healthy lifestyles, including a focus on population health</td>
<td><strong>Patient care</strong> that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health</td>
<td>Evidence of professional standing such as an unrestricted license, a license that has no limitations on the practice of medicine in that jurisdiction</td>
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<tr>
<td><strong>Work in interdisciplinary teams</strong> – cooperate, collaborate, communicate, and integrate care in teams to ensure that care is continuous and reliable</td>
<td><strong>Medical knowledge</strong> about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences, and the application of this knowledge to patient care</td>
<td>Evidence of a commitment to lifelong learning and involvement in a periodic self-assessment process to guide continuing learning</td>
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<tr>
<td><strong>Employ evidence-based practice</strong> – integrate best research with clinical expertise and patient values for optimum care, and participate in learning and research activities to the extent feasible</td>
<td><strong>Practice-based learning and improvement</strong> that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care</td>
<td>Evidence of cognitive expertise based on performance on an examination. That exam should be secure, reliable, and valid. It must contain questions on fundamental knowledge, up-to-date practice-related knowledge, and other issues such as ethics and professionalism</td>
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<tr>
<td>Apply quality improvement – identify errors and hazards in care; understand and implement basic safety design principles such as standardization and simplification; continually understand and measure quality of care in terms of structure, process, and outcomes in relation to patient and community needs; design and test interventions to change processes, systems of care, with the objective of improving quality of care</td>
<td>Interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals</td>
<td>Evidence of evaluation of performance in practice including medical care provided for common/major health problems (e.g. asthma, diabetes, heart disease, hernia, hip surgery) and physicians’ behaviors such as communication and professionalism, as they relate to patient care.</td>
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<td>Utilize informatics – communicate, manage, knowledge, mitigate error, and support decision making using information technology</td>
<td>Professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population</td>
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<td>Systems-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system for health care and the ability to effectively call on system resources to provide care that is of optimal value</td>
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There are more Desirable Physician Attributes than those listed here. If you are focusing on a very specific specialty, you might want to look at that Board’s competencies for their Desirable Physician Attributes.