

UC San Diego

SCHOOL OF MEDICINE

EDUCATIONAL PLANNING TOOL: *Designing a Continuing Medical Education (CME) Activity*

This planning tool has been designed to lead you through the educational planning process and facilitate the collection of information required to complete the UC San Diego CME accreditation application.

CME activities sponsored by UC San Diego are meant to foster the continuing professional development of physicians and other healthcare providers. CME activities must address educational needs defined by at least one professional practice gap (the difference between current and optimal practice), with the intent of changing physician competence, performance and/or patient outcomes.

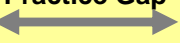
Effective design of a CME activity requires understanding the professional practice gaps which need to be addressed, generating specific measurable learning objectives to bridge the gaps and meaningful evaluation to demonstrate the resulting practice improvements. *The major reason for planning your CME activity should be to close the gap(s) you have identified.*

A few questions to stimulate the planning process may be:

- What has changed in your practice over the past year and would therefore merit educational interventions?
- Have there been areas where quality indicators would suggest that a focused departmental improvement is appropriate?
- Is there breaking research in your area that physicians would find medically relevant to their practice and quality of care of their patients?
- Are there core competencies related to your profession that would be worth reinforcing and updating?

EDUCATIONAL PRACTICE GAPS / NEEDS ASSESSMENT

The planning process begins with a needs assessment to identify practice gaps. A gap can be defined as the “difference between current and optimal practice.”

CURRENT/ACTUAL STATE		OPTIMAL/IDEAL STATE
What learners know and do	Practice Gap 	What learners should know and do

EXAMPLE:

What is the current/actual state?

Despite the fact that prophylactic mechanical and pharmacologic interventions have been shown to decrease the rate of VTE (venous thromboembolism) only one-third of all patients at risk for VTE who are appropriate candidates receive such therapy.

What is the optimal/ideal state?

All eligible patients should receive prophylaxis.

What are the gap(s) this activity is attempting to address?

Two-thirds of eligible patients do not receive in-hospital VTE prophylaxis but should.

Using the process described above, clearly state the practice gap(s) this activity will address.

The second step is to determine *why the gap(s) exists* and whether they are based on a lack of knowledge or competence, or are due to sub-optimal physician behavior (did the physician do something wrong or fail to do something). An effective needs assessment should identify why the professional practice gap(s) exists and what improvements in practice are needed to close the gap.

Is the need related to...

Giving physicians new knowledge?
Giving physicians new abilities/strategies?
Helping physicians modify their practice?

This would be a gap in...

Knowledge
Competence*
Performance

*Competence: being able to apply knowledge, skills, and judgment in practice (knowing how to do something)

EXAMPLE:

Lack of Knowledge: Clinicians are unaware of benefits or methods of prophylactic mechanical and pharmacologic interventions, which have been shown to decrease the rate of VTE.

Lack of Competence: Clinicians are unable to implement prophylaxis in different clinical settings, or lack the ability to counsel patients, or work in teams and advocate for organizational change.

Lack of Performance: Systematic improvements may be needed to elicit and increase use of prophylactic mechanical and pharmacologic interventions (such as electronic reminders, preprinted orders, etc.).

Select all that apply	Why does the practice gap exist and what are the underlying educational needs?	
<input type="checkbox"/>	Lack of Knowledge	
<input type="checkbox"/>	Lack of Competence	
<input type="checkbox"/>	Lack of Performance	

The third step is to indicate what sources and kinds of information (needs assessment data) you used to identify the gap(s) and determine the cause of the gap(s).

Note that at least two different sources must be used, such as patient care indicators; quality improvement data; scientific evidence from literature; opinion from clinical or scientific experts; information from the general public, the media and/or other environmental sources; observed data from local or national databases; and/or surveys from past participants or prospective learners. Whenever possible, quality improvement and/or patient safety data should be included as a component of the needs assessment. You will be required to provide supporting documentation for all sources selected.

Select all that apply	Source	Examples
<input type="checkbox"/>	ACGME Competencies	www.acgme.org
<input type="checkbox"/>	County, State and Federal Sources	APHA, www.apha.org
<input type="checkbox"/>	Expert Faculty Opinion	Summary of notes; minutes of meetings; list of expert names and summary of recommendation(s)
<input type="checkbox"/>	Focus Groups	Summary of meeting minutes discussing information related to areas of educational need/topics of interest
<input type="checkbox"/>	Institute of Medicine (IOM)	www.iom.edu
<input type="checkbox"/>	Literature Review	Abstracts, full journal articles, government-produced documents describing educational need and physician practice gaps.
<input type="checkbox"/>	Medical Chart Review	Audit reports; chart reviews

<input type="checkbox"/>	Morbidity and Mortality Data	www.cdc.gov/mmwr/
<input type="checkbox"/>	National Practice Guidelines	NIH, www.guideline.gov
<input type="checkbox"/>	New Medical Knowledge	Description of new procedure, technology, treatment, etc.
<input type="checkbox"/>	Patient Safety Data	Description of the safety goal and current data statistics
<input type="checkbox"/>	Prior Activity Feedback	Summary of requests or surveys showing information related to areas of educational need/topics of interest
<input type="checkbox"/>	Quality Improvement Data	AHRQ, www.ahrq.gov
<input type="checkbox"/>	Research Findings	PubMed, http://www.ncbi.nlm.nih.gov/pubmed/
<input type="checkbox"/>	Other (please describe)	Association or Foundation sites regarding the topic area

The final step in the practice gap analysis/identification of needs is to summarize your data and provide a short description of the needs assessment process you performed. You will want to provide an overview of **where** you retrieved your data, **what** information was extrapolated, and **how** it was analyzed and synthesized. This commentary will be reviewed to ensure that the identified gap is clearly supported by the data sources selected.

EXAMPLE:

Almost all hospitalized patients have at least one risk factor for VTE and approximately 40% have three or more risk factors. Without thromboprophylaxis, the incidence of objectively confirmed, hospital-acquired DVT is approximately 10-40% among medical or general surgical patients and 40-60% following major orthopedic surgery. It is estimated that of the more than seven million patients discharged from 944 American acute care hospitals, postoperative VTE was the second most common medical complication, the second most common cause of excess length of stay, and the third most common cause of excess mortality and excess charges. The mortality, acute and long-term morbidity, and resource utilization related to preventable VTE strongly supports effective prevention strategies, especially for moderate- and high-risk patients. Finally, a vast number of randomized clinical trials over the past 30 years provide irrefutable evidence that primary thromboprophylaxis reduces DVT and pulmonary embolism (PE), and that fatal PE is prevented by thromboprophylaxis. PE is the most common preventable cause of hospital death, and its prevention is the number one strategy to improve patient safety in hospitals. Routine use of thromboprophylaxis reduces adverse patient outcomes while, at the same time, decreasing overall costs. The substantial clinical evidence is, that if appropriately used, thromboprophylaxis has a desirable benefit-to-risk ratio and is cost-effective.

Despite the overwhelming research trials and guidelines published in the past two decades, adherence to these evidence-based strategies and recommendations has been low in the US and internationally. Several reviews have shown that recommendations from clinical practice guidelines have only been moderately effective in changing clinical practice.

Suggestions for ways to improve adherence to guideline recommendations by physician users include more education, increasing exposure to the guidelines, simplifying the guidelines and making them clearer to the practicing health care provider. This activity will attempt to educate

DESIRED OUTCOME(S)

All CME activities should strive to **increase competence, improve physician behavior and/or patient outcomes**. The major reason for planning your CME activity should be to close the gap(s) you have already identified. The activity's desired results should link back to the cause of the practice gap(s). Note that while increased knowledge is an acceptable need for the activity, knowledge alone is not considered by the current accreditation system to be a sufficient outcome. At a minimum, the goal of the activity should be improved competence. *Only include desired outcomes that you actually plan to evaluate and monitor.*

Increased Competence: Giving physicians new abilities/strategies.
 Improved Performance: Helping physicians modify their practice.
 Improved Patient Outcomes: Providing tangible improvements in overall health and patient outcomes as measured by reviews of clinician practices.

EXAMPLE:

Competence: The ability to identify patients eligible for prophylaxis, the ability to counsel patients, or ways to advocate for organizational change.

Performance: Screening more eligible patients and administering prophylactic treatments.

Patient Outcomes: Decreased rates of VTE or death.

Select all that apply	Considering the practice gaps identified, what is the desired outcome of the activity? What improvement is needed to close the gap?	
<input type="checkbox"/>	Increased Competence	
<input type="checkbox"/>	Improved Performance	
<input type="checkbox"/>	Improved Patient Outcomes	

LEARNING OBJECTIVES

When you have identified the practice gap(s), educational need(s), and the desired outcome(s) for the activity, it is time to develop learning objectives. **Visualize the learning objectives as “stepping stones” that enable you and your faculty to take the learner from the identified educational need(s) to the desired outcome(s).**

Learning objectives must be measurable and written from the perspective of what you expect the learner to do in the practice setting with the information you are teaching. As such, objectives should contain action verbs and criteria that help activity planners evaluate whether the gap(s) was closed (i.e., whether the activity helped increase competence, improve physician behavior and/or improve patient outcomes). Verbs that are commonly used but should be avoided include: know, learn, understand and appreciate.

When writing your objectives, consider the following:

- *Do objectives define a concrete, observable, measurable behavior you expect learners to exhibit?*
- *Do objectives logically lead to accomplishing the final desired outcome?*

Typical activities list approximately 1-2 learning objectives per practice gap, or 3-4 learning objectives per overall activity.

EXAMPLE:

Upon completion of this activity, participants should be able to:

- Describe and implement current guidelines for VTE prophylaxis
- Perform an effective problem-focused history and physical examination for evaluation of eligibility for VTE prophylaxis
- Describe and implement systems which have been shown to increase selection accuracy
- Improve rates of implementation for VTE prophylaxis

**Based on the identified gap(s) and the desired result,
what are the learning objectives of the activity?**

CONTENT

Similarly, **the content of the CME activity should reflect the premises outlined in the learning objectives and the need to close the identified gap.** CME planners should direct instructors to address the need identified (i.e., the cause that is responsible for the gap in optimal care). Faculty may be actively involved in the process of content creation; however, they should never lose sight of what the planners are trying to achieve (i.e., helping the learner close the identified gap by addressing the need to increase competence, improve behavior and/or improve patient outcomes).

OTHER FACTORS TO CONSIDER IN THE PLANNING PROCESS

Other important factors to consider when designing your activity are discussed below. Note that information related to each of the following factors will be collected on the accreditation application.

Evaluation Tools/Outcomes Measurement

In order to determine whether the identified gap(s) has been closed, the CME activity must be evaluated. Similarly, the evaluation methodology must match the type of gap(s) that was initially identified. For example, an activity designed to change the behavior of a physician should not be limited to a post-activity survey that only asks whether participants were satisfied with the quality of the handout materials.

Educational Methodology

The educational methodology should reflect the gap(s) identified, the evaluation methodology chosen, as well as the desired results, learning objectives, and the content chosen. Whenever possible, adult learning principles (as well as the physician learning and change process) should be taken into account when selecting appropriate educational methodology. For example, what type of activity will it be (i.e., live activity, enduring material, internet, performance improvement, internet point of care, etc.) and why? What will be the educational design of the activity (e.g., presentation, case-based, round table, simulation, etc.)? Is the educational format appropriate to the setting, your objectives, and your desired result(s)?

Target Audience

By clearly identifying the specific target audience for the proposed CME activity, you will be able to plan a learning process that will enable the learners to close the identified gap(s). You should specify both the general type of health professional that you want to target (i.e., physicians, nurses, pharmacists, etc.) as well as the specific type of learner within those broad categories (i.e., primary care physicians, infectious disease specialists, neurologists, transplant surgeons, etc.).

Instructors/Faculty

Faculty should be selected only after the content has been chosen and the educational methodology has been determined. You should select faculty who are best prepared to teach the activity that you have planned. Criteria that may be useful when selecting instructors might include: demonstrated expertise in the content area selected; ability to communicate effectively with the target audience; and willingness to meet the educational needs that the planning committee has identified. In the end, the instructors and authors should understand what the purpose of the CME activity is (i.e., to improve competence, influence behavior, and/or to improve patient outcomes).

Barriers

CME activities should give consideration to the system of care in which the learner will incorporate new or validate existing learned behaviors. What potential barriers do you anticipate the learner may encounter when trying to close the identified gap(s)? How can you address those in the activity delivered?

Physician Attributes/Competencies

The American Board of Medical Specialties (ABMS) and Accreditation Council for Graduate Medical Education (ACGME) have determined that there are six critical competencies (patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills,

professionalism, and systems-based practice) that physicians must master in order to provide optimal clinical care. Similarly, the Accreditation Council for Continuing Medical Education (ACCME) has determined that all CME activities should address/incorporate core competencies/guidelines as determined by national or specialty society guidelines, credentialing boards, or other sources of national priority.

Potential Partners and Allies

Closing the identified gap(s) may be a daunting task. Thus, it is prudent to consider whether other groups or organizations are working on the same issue. If so, joining forces with them may help you accomplish your common goal of closing the identified gap(s). Working with other groups may increase access to scarce resources, improve efficiency, and produce synergistic partnerships. Importantly, these potential partners may be internal or external to your organization or unit.

Non-Educational Strategies

Numerous research studies have shown that CME interventions can increase competency, influence physician behavior, and/or improve patient outcomes. These findings were confirmed in a 2007 report by the Agency for Healthcare Research and Quality [Evidence Report / Technology Assessment; Number 149: AHRQ, 2007]. Nevertheless, education of health professionals is only one strategy that should be used to improve patient safety and healthcare quality. Importantly, there are many non-educational strategies that may play a crucial role in improving quality. This is especially true when one considers the gaps that can best be addressed with “system-level” interventions. As such, identification of non-educational strategies may help close the identified gap(s). Examples of non-educational strategies include patient reminders, order sets, computer decision support systems, guidelines, etc.