

# The Preventive Medicine Milestone Project

SANDRA G. DELGADO, MD, MPH, ON BEHALF OF  
THE MILESTONE WORKING GROUPS FOR  
GENERAL PREVENTIVE MEDICINE, AEROSPACE  
MEDICINE, AND OCCUPATIONAL MEDICINE

## Introduction

Preventive medicine is a medical specialty training residents in population health care. There are 3 subspecialties in preventive medicine: general preventive medicine/public health, aerospace medicine, and occupational medicine. The Preventive Medicine Milestones include shared competencies for all focus areas and some deeper competencies that are specific to the subspecialty category.

## Milestone Development History

The Preventive Medicine Milestone Project was led by Sandra Guerra Delgado, MD, MPH, then the preventive medicine residency program director for the Texas Department of State Health Services and the chairperson for the Program Directors Section of the American College of Preventive Medicine (ACPM). The Milestone working group was selected from a group of respected graduate medical education leaders across the country, representing each of the specialty areas. See the BOX for the members of the 3 Milestone working groups that, respectively, developed the educational Milestones for general preventive medicine, aerospace medicine, and occupational medicine.

The subsequent steps in vetting included review by residency program directors across the country (draft version distributed through a residency director listserv) and subsequent testing of the product in select residency programs (volunteers were solicited). Feedback was incorporated into the final document. The ACPM President Miriam Alexander, MD, MPH, was also consulted for final comments.

The final Milestone product was presented at the ACPM Residency Directors Workshop in February 2013 and the American College of Occupational and Environmental Medicine in April 2013. A hands-on demonstration of the Milestone tool uses sample case scenarios. An ACPM

### BOX PREVENTIVE MEDICINE MILESTONE DEVELOPMENT GROUPS

#### General Preventive Medicine Milestone Working Group

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#### Preventive Medicine Milestone Advisory Group

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committee subsequently drafted recommended resident evaluation tools for residency program directors to apply when using the Milestone document.

## Organization and General Features of the Preventive Medicine Milestones

The Preventive Medicine Milestone Project resulted in 16 Milestone sets that are shared by each of 3 preventive medicine specialties: 5 for patient care, 3 for medical knowledge, 3 for systems-based practice, 1 for practice-based learning and improvement, 2 for professionalism, and 2 for interpersonal and communication skills. Overall, general preventive medicine has 23, occupational medicine has 26, and aerospace medicine has 27 total Milestone sets.

The identity of preventive medicine as a specialty was at the forefront of the discussions within the Milestone working group. The definition of clinical care and patient care within

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the scope of preventive medicine reflects the ongoing debate within the specialty as a whole. “Patient care/clinical care” can be defined as the decision making that occurs after a hands-on, direct care with a stethoscope clinical interaction or it can be defined as care of a population through scientific evaluation of risks, environmental contributors to health, access to health care, and thwarting of health threats, for example. The debate was essential to ultimately develop Milestones that empowered programs to train residents in both definitions of clinical care.

The working groups deemed that new skills to be measured in the Preventive Medicine Milestone Project would be included only if the group considered these skills essential to the complete educational needs of the preventive medicine resident. Ideally, the Milestone project would be “cross-walked” to Accreditation Council for Graduate Medical Education (ACGME) competencies to enable programs to use the Milestone document as a tool to evaluate residents thoroughly in the competency areas the working group believed were clearly demonstrable and measurable. Several ACGME competencies were folded into 1 Milestone evaluation area.

The working group recognized the diversity of residency program structure, size, resources, and settings and sought to ensure the Milestone document was inclusive and applicable to all situations.

### **Establishing Milestone Validity, Utility, and Practicality**

The philosophy behind the development of the Preventive Medicine Milestones was to incorporate already existing, newly renovated competency metrics established by the ACGME for preventive medicine residency education in an effort to compliment, and not complicate, the work of residency training evaluation. This attribute of the Preventive Medicine Milestones and their development by specialty working groups with broad input from the stakeholder community promoted content validity for the finished Milestones. Future work is needed to assess the practicality, validity, and utility of the Milestones both for the assessment of residents’ progression toward readiness for independent practice in the specialty, and as 1 of a number of tools in the ACGME’s annual assessment of the educational effectiveness of preventive medicine residency programs.

### **Envisioned Practical Use in Evaluating Residents**

A benefit of the Preventive Medicine Milestones is that they will provide a consistent metric for program leaders to assess their residents’ progress toward readiness for unsupervised practice, as well as facilitate the identification and needed remediation of residents who fail to progress or fall

behind their peers. They will also allow preventive medicine to assess and improve the quality and relevance of their curricula and rotation experiences, which will be particularly useful given the wide range of experiences required for resident education in preventive medicine.

In the working groups’ discussion of the practical use of the Preventive Medicine Milestones in resident valuation, an overarching consideration was the observation of particular challenges facing preventive medicine residency programs. These were discussed during the development of the Milestones. The funding of programs is a significant variable in their ability to provide a variety of experiences for residents. Residencies in general preventive medicine frequently are the most fiscally challenged, and may be limited in the rotational experiences and evaluation methods they can offer their residents. Most of these programs are not funded through Medicare graduate medical education dollars, and depend on institutional funding, time-limited grants, or local partnerships, such as partnerships with the Veterans Administration. Many programs are staffed with part-time faculty. This makes it imperative that Milestone evaluations do not place an undue burden on faculty and demonstrate their value in resident assessment, review, and improvement of the curriculum, and in the assessment of the effectiveness of residency programs.

### **Recommendations for Competency Committee Composition and Functioning**

Formation of a Clinical Competency Committee (CCC) is a common program requirement effective July 1, 2014, for all preventive medicine training programs. CCCs for preventive medicine programs must have at least 3 members that may include the program director or other physicians and nonphysicians who teach and evaluate the trainees. Many of the preventive medicine programs include faculty located at varied sites (eg, public health offices, military installments, employee health offices) with a variety of backgrounds (eg, physicians, nonphysician researchers, public health officers). Each program will need to determine how to best utilize and organize this unique group of faculty.

The CCC will be required to evaluate the residents using the Milestones biannually. The CCC can utilize the various assessment tools used at each site. The Milestone working group offered suggestions as to what types of assessments may be useful in this endeavor. It is recommended that each program use the Milestones to evaluate current residents so that they can determine what other assessment tools they might need. Over time, some programs may discover that alternate scheduling is required to ensure that residents receive enough experience in any given area.

**Conclusion**

A guiding principle the Milestone working group used was to develop Milestones that would allow residency programs in preventive medicine to become more consistent in their training of residents. The group believed this fundamental

principle would allow residents to know what to expect from their preventive medicine residency, including consistency in core experiences, knowledge gained and ultimately skills they will gain for future practice in the specialty.

## Erratum

This corrects the authorship listing for the Preventive Medicine Milestones published in the 2014 *Journal of Graduate Medical Education* Supplement: Delgado SG. The Preventive Medicine Milestone Project. *J Grad Med Educ.* 2014;6(1 suppl 1):243–245.

Eric M. Wood, MD, MPH, of the University of Utah was a member of the Working Group that developed the Preventive Medicine Milestones.

The online version of the article has been corrected.