

1 Program Requirements for Residency Education in Preventive Medicine

2 I. Introduction

3 A. Definition

4 Preventive Medicine is the specialty of medical practice that focuses on the health of individuals,
5 communities, and defined populations. Its goal is to protect, promote, and maintain health and well-
6 being and to prevent disease, disability, and death. Preventive medicine specialists have core
7 competencies in biostatistics, epidemiology, environmental and occupational medicine, planning
8 and evaluation of health services, management of health care organizations, research into causes
9 of disease and injury in population groups, and the practice of prevention in clinical medicine. They
10 apply knowledge and skills gained from the medical, social, economic, and behavioral sciences.
11 Preventive medicine has three specialty areas with common core knowledge, skills, and
12 competencies that emphasize different populations, environments, or practice settings: aerospace
13 medicine, occupational medicine, and public health and general preventive medicine.
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15 1. Aerospace medicine focuses on the health of the operating crews and passengers of air
16 and space vehicles, together with the support personnel who are required to operate such
17 vehicles. Segments of this population often work and live in remote, isolated, and
18 sometimes closed environments under conditions of physical and psychological stress.

19 2. Occupational medicine focuses on the health of workers including the ability to perform
20 work; the arrangements of work the physical, chemical, biological, and social environments
21 of the workplace, and the health outcomes of environmental exposures. Practitioners in this
22 field diagnose, treat and prevent morbid conditions caused by environmental exposures and
23 stressors. They recognize that work and the environment in which work is performed can
24 have favorable or adverse effects upon the health of workers as well as of other
25 populations; that the nature or circumstances of work can be arranged to protect worker
26 health; and that health and well-being at the workplace are promoted when workers'
27 physical attributes or limitations are accommodated in job placement.

28 3. Public health and general preventive medicine focus on promoting health, preventing
29 disease, and managing the health of communities and defined populations. These
30 practitioners combine population-based public health skills with knowledge of primary,
31 secondary, and tertiary prevention-oriented clinical practice in a wide variety of settings.

32 B. Objectives and Components of the Residency Educational Process

33 The objective of preventive medicine is to develop in physicians the competencies requisite to the
34 practice of preventive medicine in the recognized specialty areas. The main components of the
35 residency educational process are:

- 36 1. definition of specific educational goals in terms of competencies, skills and knowledge,
37 expressed in behavioral, measurable terms;
- 38 2. assessment of the incoming resident relative to the specific educational goals;
- 39 3. design and provision of educational experiences through which specific educational goals
40 may be achieved;
- 41 4. documentation of provision of educational experiences and the attainment of educational
42 goals in terms of interim and overall outcome Measures; and

43 5. use of periodic performance Measures to determine the quality of the educational
44 experience, the clinical competence of the individual resident, as well as the quality of the
45 program.

46 C. Residency Structure

47 Residencies may be accredited for lengths of from 1 to 3 years, with the following general objectives
48 associated with each period of accreditation:

- 49 1. Three years: attainment of basic general clinical competencies, the academic competencies
50 in preventive medicine, and preventive medicine practice competencies.
- 51 2. Two years: academic and practice competencies.
- 52 3. One year: practice competencies

53 Programs accredited for more than 1 year may accept residents, and are also accredited for any
54 appropriate combination of shorter periods, eg, a program accredited for a two-year training
55 program, may accept a resident with an MPH for a one-year practicum experience.

56 Programs with a status of full accreditation may pursue combined training programs. Programs
57 seeking to integrate preventive medicine training with other Accreditation Council for Graduate
58 Medical Education (ACGME) accredited training (combined programs) must meet all preventive
59 medicine requirements. Programs must also meet all requirements as specified by both certifying
60 boards of the integrated residencies.

61 II. Residency Design

62 A. General

- 63 1. Identification of specialty area

64 Residencies must identify the specialty area of preventive medicine of the residency, the
65 period of desired length of accreditation (one, two or three years), and the planned number
66 of residents in each year.

67 *Documentation Requirement.* The appropriate form must be completed and supplied in advance of
68 a planned site visit.

69 *Measure:* Accurately completed form.

- 70 2. Change in training period

71 The length of residency training for a particular resident may be extended by the program
72 director if that resident needs additional training. If the extension is for only 6 months or
73 less, the program director must notify the Residency Review Committee (RRC) of the
74 extension and must describe the proposed curriculum for that resident and the Measures
75 taken to minimize the impact on other residents. Any changes in rotation schedules should
76 be included in the notification. Approval must be obtained in advance from the RRC if the
77 extension is greater than 6 months.

- 78 3. Educational goals overview

79 The program must prepare a written overview statement outlining the educational goals of
80 the program with respect to knowledge, skills, and competencies to be acquired by

81 residents during the training period. This statement must be distributed to residents and
82 members of the teaching staff.

83 *Documentation Requirement.* The written overview statement outlining the educational goals of the
84 program with respect to knowledge, skills, and competencies of residents to be acquired during the
85 training period must be supplied in advance of a planned site visit.

86 *Measure:* Covers core and appropriate specialty area goals and competencies. Content is
87 preventive medicine. Depth and breadth are commensurate with the selected specialty area.
88 Indicates how the knowledge, skills, and competencies are to be met.

89 4. Program schedule

90 Prepare a written schedule of activities for each resident during the accredited length of the
91 residency that demonstrates the provision of knowledge, skills, and competencies, including directly
92 supervised clinical care, outlined in the educational goals. The residency program must specify a
93 minimum set of competencies that each resident must acquire prior to completion of the program.
94 This statement must be distributed to residents and members of the teaching staff.

95 *Documentation Requirement.* The written schedule must be submitted in advance of a planned site
96 visit.

97 *Measure:* The statement provides a coherent approach to provision of an overall resident
98 experience that will create the opportunity for the resident to acquire the knowledge, skills and core
99 and specialty area competencies during the accredited length of the residency.

100 5. Resident support

101 Salaries and benefits of individual residents must comply with the institutional requirements for
102 funding of residents. (Institutional Requirements II.C.)

103 6. Grievance process

104 The program must insure that a grievance process is in place at all training locations that comply
105 with the Institutional Requirements I.C. (Institutional Agreements) and II.F. (Conditions of Resident
106 Employment). A written statement describing the grievance process for each training site must be
107 available for review at the time of the site visit.

108 *Documentation Requirement.* Appropriate policies included in institutional agreements for all
109 training sites.

110 *Measure:* Policies are accurate and comply with the Institutional Requirements.

111 B. Resident Qualifications

112 1. Entering the clinical phase

113 The resident must have received a degree from a Canadian or ACGME-accredited school of
114 medicine or osteopathy or a foreign medical school and successfully completed parts I and II of the
115 United States Medical Licensing Examination (USMLE) or, prior to 1996, its equivalent.

116 2. Entering either the academic or practicum phases

117 The entering resident must have completed training in an ACGME-accredited clinical year (12
118 months) with a minimum of 6 months of direct patient care. Direct patient care is the provision of
119 preventive, diagnostic, and therapeutic interventions to patients.

120 3. Entering the practicum phase only

121 a. The entering resident must have completed an ACGME-accredited clinical year and have
122 an MPH or other appropriate post-graduate degree. The MPH or other appropriate post-
123 graduate degree must be accredited by the Council on Education in Public Health (CEPH)
124 or other appropriate post-graduate accrediting body.

125 b. If the resident has not been awarded an MPH or other appropriate post-graduate degree,
126 then each of the four core subjects biostatistics, epidemiology, environmental and
127 occupational health, and health services organization and administration must have been
128 obtained through at least 40 contact hours for each course in an academic setting. The
129 resident must complete the accredited MPH, or other appropriate post-graduate degree,
130 prior to the end of the residency program.

131 c. The entering resident must have completed training in an ACGME-accredited clinical
132 year (12 months) with a minimum of six (6) months of direct patient care. Direct patient
133 care is the provision of preventive, diagnostic and therapeutic interventions to patients.

134 *Documentation Requirement:* The program maintains and makes available for site visitor
135 inspection a file for each resident (the resident file) that contains copies of certificates and
136 academic institution records to document the specified requirements. Copies of these
137 documents must be submitted to the RRC on request.

138 *Measure:* Resident files contain the appropriate documentation.

139 4. Other trainees may enter into the program who does not have an ACGME-accredited clinical
140 year if the following conditions are met:

141 a. The trainees are not counted as residents by the program in RRC submissions.

142 b. The program director provides to the trainee a written statement that the trainee is not
143 eligible to sit for the certifying exam in preventive medicine. The trainee must sign to
144 acknowledge this statement.

145 c. The number of additional trainees must not dilute the educational resources of the
146 program to the extent that current program residents cannot achieve required
147 knowledge, skills, and competencies.

148 C. Program Director

149 1. Qualifications:

150 The entire residency program must be under the supervision of one physician, the program
151 director, who is certified by the American Board of Preventive Medicine (ABPM) in the
152 appropriate specialty area of preventive medicine or has suitable qualifications and experience
153 as determined by the Residency Review Committee.

154 The program director must have the following:

- 155 a. Clinical, educational, and administrative experience
- 156 b. License to practice medicine in the state where the institution that sponsors the program
157 is located (Certain federal programs are exempted.)
- 158 c. Appointment in good standing to the medical staff of an institution participating in the
159 program

160 *Documentation Requirement:* The curriculum vitae (CV) of the program director must be
161 submitted in advance of a site visit, when program directors change, and on the request of the
162 RRC.

163 *Measure:* Documentation in the CV that the requirements are met.

164 2. Program director responsibilities

165 The program director is responsible for and must be able to demonstrate the provision of the
166 following:

- 167 a. Supervision of residents to achieve the objectives of the educational goals of the
168 residency and educational plans of the residents.
- 169 b. Counseling of residents in the academic phase in the selection of assignments,
170 services, or elective courses that will assist the resident in achieving the skills and
171 knowledge needed in the resident's practicum experiences and intended fields of
172 practice in preventive medicine.
- 173 c. Selection of residents for appointment to the program in accordance with institutional
174 and departmental policies and procedures.
- 175 d. Selection, development, and supervision of the faculty and other program personnel at
176 each institution participating in the program.
- 177 e. Supervision of residents for applicable patient care and practicum experiences through
178 explicit written descriptions of supervisory lines of responsibility. Patient care
179 responsibilities include gradual assumption of clinical responsibility under direct
180 supervision for a variety of clinical problems and preventive encounters. Such
181 guidelines must be communicated to all members of the program staff. Residents must
182 be provided with prompt, reliable systems for communication and interaction with
183 supervisory physicians.
- 184 f. Provision of information that describes the program's accreditation status, educational
185 objectives, and structure to each applicant, or in the event of a major change to each
186 resident.
- 187 g. Implementation of fair procedures, as established by the sponsoring institution,
188 regarding academic discipline and resident complaints or grievances.
- 189 h. Review of the interinstitutional agreements with participating institutions annually and for
190 scheduling updates as needed to ensure currency.
- 191 i. General administration of the program, including those activities related to the
192 instruction, supervision, counseling, evaluation, and advancement of residents.
- 193 j. Maintenance of records related to program accreditation.
- 194 k. Preparation and submission of documentation required by the RRC.

195 *Documentation Requirement:* Written plans, policies, evaluations, and other applicable program
196 communications (letters, memos etc.)

197 *Measure:* Program files contain the required documentation.

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D. Faculty

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1. Faculty qualifications and time commitment

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Faculty and/or practicum supervisors must be assigned to provide the knowledge, skills, direct clinical supervision, and competencies as outlined in the educational goals of the program, and specific assignments must be indicated in each resident's educational plan. Faculty must have documented qualifications to provide the appropriate knowledge, skill or competency to which they are assigned.

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Documentation Requirement: A matrix must be provided showing faculty assignments to provide appropriate knowledge, skills, and competencies. CVs must demonstrate appropriate qualifications.

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Measure: Program files contain matrices and CVs that document faculty qualifications appropriate to provide the knowledge, skill or competency to which they are assigned.

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2. Faculty responsibilities

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a. All members of the faculty must demonstrate a strong interest in the education of residents and support of the goals and objectives of the program through provision of appropriate knowledge, skills direct clinical supervision, or competencies. Faculty must also demonstrate a commitment to their own continuing education and participation in scholarly activities.

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b. The responsibility for establishing and maintaining an environment of inquiry and scholarship rests with the teaching staff. While not all members of a teaching staff must be investigators, the staff as a whole must demonstrate broad involvement in scholarly activity. This activity should include the following:

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1. Active participation of the teaching staff in discussions, rounds, and conferences in a manner that promotes a spirit of inquiry and scholarship. Scholarship implies an in-depth understanding of basic mechanisms of normal and abnormal states and the application of current knowledge to practice.

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2. Participation in journal clubs and research conferences.

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3. Active participation in regional or national professional and scientific societies, particularly through presentation at the organizations' meetings and publication in their journals. Participation in research, particularly in projects that are funded following peer review and/or result in publication or presentations at regional and national scientific meetings.

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4. Offering of guidance and technical support (e.g., research design, statistical analysis) for residents involved in research.

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5. Provision of support for resident participation in scholarly activities.

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6. Active participation in the review of residents and of planning and review of the residency program.

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Documentation Requirement: Minutes of planning meetings; logs of journal club, rounds, or case conference attendance; membership on thesis committees; updated CVs for faculty and staff that document continuing education, meeting attendance, and publications.

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Measure: Program documents attesting to faculty contributions to program planning, review, and resident education.

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E. Sponsoring Institution

The sponsoring institution must maintain office and laboratory space and access to computer facilities. A collection of basic reference texts and periodicals in preventive medicine and public health must be maintained. Residents must be provided with office facilities and support services during assigned duty hours. Funds must be provided for residents for travel to appropriate professional meetings.

Measure: Facilities and support are provided.

Documentation Requirement: Facilities and support are documented at the time of the site visit.

1. For programs offering training in basic clinical competencies

The institution's Graduate Medical Education Committee should approve the program. In addition to the preventive medicine residency, there must be at least one Accreditation ACGME-residency at the same institution that provides direct patient care.

Documentation Requirement: The program has on file and available to the program director documentation of an ACGME-accredited program that provides direct patient care.

Measure: The program has on file and available to the site visitor current documentation of approval of the clinical year by the institution's Graduate Medical Education Committee (GMEC).

Measure: Records documenting GMEC review and approval of clinical year

2. For programs offering training in core preventive medicine knowledge (academic phase)

Core preventive medicine knowledge is offered through a course of study leading to the degree of Master of Public Health or other appropriate post-graduate degree. The MPH or other appropriate post-graduate degree must be accredited by the CEPH or other appropriate post-graduate accrediting body.

The sponsoring institution must provide an environment of inquiry and scholarship in which residents have structured research opportunities to participate in the development of new knowledge.

Documentation Requirement: Accreditation documentation. A description of the sponsoring institution must include a statement of its research activities and how participation in these is available to the resident.

Measure: Research opportunities are available to the resident. The accreditation is documented.

3. For programs offering training in competencies of preventive medicine practice (practicum phase)

a. Aerospace medicine

1. The year of acquisition of competencies in aerospace medicine practice must be accomplished in an institutional setting where operational aeromedical problems are routinely encountered and aerospace life support systems are under active study and

275 development.

276 2. Laboratory facilities should be equipped to provide simulated environments in which the
277 effects of and adaptation to extreme conditions of temperature, barometric pressure,
278 acceleration, weightlessness, and psychological stress can be studied.

279 b. Occupational medicine

280 Acquisition of practice competencies in occupational medicine must be accomplished in
281 institutions that provide comprehensive occupational health services to defined work groups,
282 including regular and frequent presence in the work sites served.

283 c. Public health and general preventive medicine

284 The sponsoring institution may be an academically affiliated institution, an academically-
285 affiliated healthcare organization, or a government public health agency.

286 1. If the sponsoring institution is an academic institution, or an academically-affiliated
287 health care organization, it should have resources for developing a comprehensive
288 graduate program in preventive medicine. An affiliation must be established with a
289 governmental public health agency to ensure appropriate public health practice and
290 research opportunities.

291 2. If the sponsoring institution is a health agency, it should offer a comprehensive
292 experience in community or public health. To ensure an appropriate didactic
293 component, affiliations must be established with a medical school or a school of public
294 health.

295 Measure: Appropriate affiliation agreements clearly documenting these requirements.

296 Documentation Requirement: Affiliation agreements are current and to the RRC and site visitor.

297 4. Support departments

298 The support departments of the sponsoring institutions, such as medical records and the
299 medical library, must contribute to the education of residents in accordance with the *Essentials*
300 *of Accredited Residencies in Graduate Medical Education*.

301 Documentation Requirement: The site visitor report must address the availability of medical
302 records and medical reference materials.

303 Measure: Medical records and medical reference materials are available to the resident and
304 faculty.

305 5. JCAHO accreditation

306 The Joint Commission on Accreditation of Health Care Organizations (JCAHO) must accredit all
307 participating hospitals.

308 Documentation Requirement: Programs must have on file and readily available for site visitor
309 inspection available a copy of current accreditation of all participating hospitals by JCAHO.

310 Measure: Required documents are current.

311 F. Facilities and General Support

312 The residency program and its affiliates must maintain adequate facilities, including office and
313 laboratory space and access to computer facilities. Residents should have convenient access to
314 the Internet and other online resources, and when available, the electronic medical information
315 system of participating health care institutions.

316 A collection of basic reference texts and periodicals in preventive medicine and public health
317 shall be maintained. Access to support services must be provided. Residents must be provided
318 with adequate office facilities during assigned duty hours. All residents must be provided funds
319 for travel to designated professional meetings.

320 *Documentation Requirement*: The program must supply in advance of a site visit a description of
321 facilities and general support available to the resident.

322 Measure: The facilities and general support adequately support resident education.

323 G. Library

324 Residents must have ready access to medical reference materials, either at the institution where
325 the residents are located or through arrangement with convenient nearby institutions. Library
326 services should include the electronic retrieval of information from medical databases and an
327 on-site reference librarian. There must be access to an on-site library or to a collection of
328 appropriate texts and journals in each institution participating in a residency program. On-site
329 libraries and/or collections of texts and journals must be readily available during nights and
330 weekends.

331 *Documentation Requirement*: A description of availability of medical reference materials to
332 residents must be supplied prior to a site visit.

333 Measure: the resident has the ability to access adequate medical reference materials, eg,
334 reference texts and journal articles.

335 H. Participating Institutions and Training Sites

336 1. Individual phases or parts of the training program may be offered at participating
337 institutions; the participating institutions must meet all requirements of the Institutional
338 Requirements, I.C.1-5.

339 The participating institution must provide experiences through which the appropriate
340 knowledge, skills, and competency based experiences may be acquired consistent with
341 the overall educational objectives of the residency.

342 a. A faculty or staff member at each participating institution or training site must be
343 designated to assume responsibility for

344 1. The day-to-day activities of the program at that institution.

345 2. supervision of residents to achieve the objectives of the educational goals of the
346 residency and educational plans of the residents as appropriate to the participating

- 347 institution.
- 348 3. direct supervision of residents to ensure applicable patient care and practicum
349 experiences through explicit written descriptions of supervisory lines of responsibility.
350 Such guidelines must be communicated to all members of the program staff. Residents
351 must be provided with prompt, reliable systems for communication and interaction with
352 supervisory physicians.
- 353 b. The responsible faculty or staff member and the residents assigned to the participating
354 institution must coordinate all activities with the program director.

355 2. The reciprocal commitments of the residency program and the participating institutions must
356 be explicit in a written agreement or contract, to include the following:

- 357 a. The educational objectives of the affiliation experience, and the knowledge, skills, and
358 competency experiences to be provided
- 359 b. The scope of the affiliation with placement locations noted
- 360 c. The resources, including space, support services, and clinical facilities of the affiliate,
361 that will be available to the residents
- 362 d. The duties and responsibilities the residents will have in the affiliate
- 363 e. The relationship that will exist between residents and staff of the residency program and
364 the affiliate
- 365 f. The supervisory relationship and identified supervisor who shall be qualified by
366 certification or equivalent experience in the area, as determined by the program director.
367 There must be active participation by the residents at the affiliated site, and resident
368 supervision on-site must be performed by a physician or appropriately qualified health
369 professional. Supervisors must directly assess clinical development.
- 370 g. Procedures for academic discipline and handling of resident complaints or grievances

371 *Documentation Requirement:* Copies of these written agreements or contracts must be provided
372 to the RRC in advance of a site visit.

373 *Measure:* Written agreements or contracts demonstrate that each affiliated institution can
374 provide a well-planned, relevant educational opportunity for the resident. The program director
375 and the supervisor at the participating institution must sign these agreements.

376 III. Educational Objectives

377 A. Competencies, Skills and Knowledge

- 378 1. The program director and teaching staff must prepare a list of specific competencies,
379 skills and knowledge that they are prepared to deliver to residents through the training
380 program. Competency acquisition must be evaluated through the use of clearly defined
381 performance indicators.
- 382 2. Residents in the same program may be in different “tracks” that have a different method
383 or approach to training. Programs are encouraged to seek innovative ways to deliver
384 and fund GME, however, the entire program will be assessed by the RRC – no tracks
385 can be accredited separately.

386 *Documentation Requirement:* The program must submit a cross-referenced list of specific
387 competencies, skills, and knowledge, including faculty assignments, available through the
388 program. Performance indicators for the assessment of competency acquisition must be
389 specified and tracked for each resident.

390 *Measure:* The content is preventive medicine. Depth and breadth are adequate and
391 commensurate with the selected specialty area. Performance indicators are specified and
392 documented for the competencies.

393 B. Educational Courses, Rotations and Activities

394 The program director and teaching staff must prepare a matrix of educational courses, rotations,
395 supervised clinical experiences, and other educational activities available through the residency
396 by which a resident will have the opportunity to acquire the specific competencies, skills and
397 knowledge. This matrix must be cross-referenced to the knowledge, skills, and competencies.
398 Ongoing activities that provide an opportunity for group faculty-resident interaction, such as
399 weekly didactic series, journal club, grand rounds, etc, are essential.

400 *Documentation Requirement:* A list of courses, rotations, and activities cross-referenced to the
401 list of competencies, skills, and knowledge must demonstrate how educational objectives are
402 met. Descriptions of each course, rotation and activity must be submitted to the RRC prior to a
403 site visit. The institution providing each course, rotation, or activity must be specified.

404 *Measure:* The cross-referenced list documents the program provides courses, rotations and
405 activities corresponding to the program's knowledge, skills, and competencies list.

406 C. Incoming resident assessment

407 Each incoming resident must be assessed as to his/her knowledge, skills, and competencies in
408 relationship to the educational goals for the residency program. This assessment may take the
409 form of a self-assessment, in-service exam, structured interview, or other method that assesses
410 knowledge, skills, and competencies. This assessment is used by the program director and
411 faculty to guide the development of an individualized educational plan for each resident.

412 *Documentation Requirement:* The program must have a written assessment (self-assessment,
413 in-service exam, structured interview, or other method) of incoming resident skills, knowledge,
414 and competencies in the program files.

415 *Measure:* The assessment is specific to the educational objectives for the residency program,
416 and must be included in the educational plan for each resident.

417 D. Educational Plan

418 1. The residents, in collaboration with the program director and teaching staff, must prepare a
419 written educational plan that directs the acquisition of a core set of competencies, skills and
420 knowledge appropriate to the objectives of individual residents, based on the residents'
421 assessments. The educational plan will detail the courses, rotations and activities to which they
422 will be assigned to achieve the designated skills, knowledge and competencies during their
423 residencies.

424 *Documentation Requirement:* The program must have a written educational plan on file for each
425 resident prior to a site visit.

426 *Measure:* The educational plan documents each resident's baseline skill, knowledge and
427 competency inventory, the resident's individual educational objectives, and the courses,

428 rotations, and activities schedules that will provide the opportunity for each resident to meet the
429 educational objectives.

430 2. The assigned activities must be organized into a structured schedule prior to each year of
431 residency experience. A record of courses, rotations, and activities attended must be completed
432 at the close of each year.

433 Residencies that offer 2 or 3-year programs may create schedules that concurrently integrate
434 courses, rotations, and activities, that incorporate the following criteria:

- 435 a. Adequate time is available to complete each objective.
- 436 b. The sequential acquisition of knowledge, skills, and competencies is clinical,
437 academic/didactic, practicum.
- 438 c. The practicum experiences may be concurrent with academic experiences, but may not
439 precede didactic experiences.
- 440 d. Resident hours on duty in a clinical setting shall be scheduled and monitored to avoid
441 excessive stress and fatigue. Residents must have a keen sense of personal
442 responsibility for continuing patient care and must recognize that their obligation to
443 patients is not automatically discharged at any given hour of the day or any particular
444 day of the week.
- 445 e. Resident care in the clinical setting must be directly supervised.
- 446 f. In no case should a resident go off duty until the proper care and welfare of patients
447 have been ensured and until responsibilities to the community and public have been
448 fulfilled.
- 449 g. Duty hours and night and weekend call for residents must reflect the responsibility for
450 patients and provide for adequate patient care.
- 451 h. Residents must not be required regularly to perform excessively difficult or prolonged
452 duties. When averaged over any 4-week period, residents should spend no more than
453 80 hours per week in all duties. Residents at all levels should, on average, have the
454 opportunity to spend at least 1 day out of 7 free of hospital duties and should be on call
455 no more often than every third night. There should be adequate opportunity to rest and
456 sleep when on call for 24 hours or more. There should be adequate backup so that
457 patient care is not jeopardized during or following assigned periods of duty. Patient care
458 quality and education continuity must be ensured through assignment of progressive
459 responsibility.
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461 *Documentation Requirement:* The program must submit the educational plans for all current
462 residents and the final completed schedules for residents who have completed the program
463 since the prior site visit.

464 *Measure:* Resident schedules show progressive responsibility.

465 Current residents: Documents the learning goals for an individual resident in terms of
466 competencies, knowledge, and skills. Documents creation of a schedule that includes courses,
467 rotations, and activities conducive to the accomplishment of the learning plan.

468 Former residents: Documents completion of an educational program in preventive medicine.

469 E. General Clinical Competencies

470 The acquisition of basic clinical competencies will require an ACGME-accredited clinical year
471 (12 months) with (6) months of direct patient care. The following competencies must be
472 obtained by all residents by the time they graduate. (These competencies may also be acquired

473 during academic and practicum training of the residency program and should be incorporated
474 where applicable):

- 475 1. Patient care: The residency program must ensure that its residents, provide
476 appropriate, effective, and compassionate clinical care.
- 477 2. Clinical Knowledge: The residency program must ensure that its residents possess
478 knowledge in established and evolving biomedical and clinical science domains and
479 apply it to clinical care.
- 480 3. Practice-based learning and improvement: The residency program must ensure that its
481 residents are able to investigate, evaluate, and improve their patient care practices.
- 482 4. Interpersonal skills and communication: The residency program must ensure that its
483 residents can develop appropriate interpersonal relationships and communicate
484 effectively with patients, their patients' families, and professional colleagues.
- 485 5. Professionalism: The residency program must ensure that its residents, demonstrate
486 the fundamental qualities of professionalism.
- 487 6. Systems-based practice; The residency program must ensure that its residents are
488 aware that health care is provided in the context of a larger system and can effectively
489 call on system resources to support the care of patients.

490 *Documentation Requirement:* Resident schedules and incoming resident assessment.

491 *Measure:* Resident schedules, incoming resident assessment, and program files document
492 rotations and activities that document a total of 12 months of clinical experience.

493 F. Academic Competencies - Preventive Medicine Knowledge Content Areas

494 1. Core knowledge content areas
495 The program must address in adequate depth and breadth the competencies, skills, and
496 knowledge that underlie the practice of preventive medicine, i.e.:

- 497 a. Health services administration
- 498 b. Biostatistics
- 499 c. Epidemiology
- 500 d. Clinical preventive medicine
- 501 e. Behavioral aspects of health
- 502 f. Environmental health

503 2. Aerospace medicine knowledge content areas

- 504 a. History of aerospace medicine
- 505 b. The flight environment
- 506 c. Clinical aerospace medicine
- 507 d. Operational aerospace medicine
- 508 e. Management and administration

509 3. Occupational medicine knowledge content areas

- 510 a. Disability management and work fitness
- 511 b. Workplace health and surveillance
- 512 c. Hazard recognition, evaluation and control
- 513 d. Clinical occupational medicine
- 514 e. Regulations and government agencies
- 515 f. Environmental health and risk assessment
- 516 g. Health promotion and clinical prevention
- 517 h. Management and administration
- 518 i. Toxicology
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- 520 4. Public health and general preventive medicine

521 The knowledge content areas for public health and general preventive medicine, while similar to
 522 those of the core content areas, emphasize more in-depth knowledge in each area.

- 523 a. Health services administration, public health practice, and managerial medicine
- 524 b. Environmental health
- 525 c. Biostatistics
- 526 d. Epidemiology
- 527 e. Clinical preventive medicine

528 *Documentation Requirement:* Resident schedules, resident academic records, rotation and
 529 course descriptions, academic transcripts.

530 *Measure:* The academic courses cover the knowledge areas listed above.

531 G. Preventive Medicine Competencies

532 The attainment of advanced preventive medicine practice competencies requires a sequence of
 533 continued learning and supervised application of the knowledge, skills, and attitudes of
 534 preventive medicine in the specialty area. The resident must assume progressive responsibility
 535 for patients and/or the clinical and administrative management of populations or communities
 536 during the course of training.

537
 538 The resident shall acquire the following competencies:

- 539 1. Core Preventive Medicine Competencies
- 540 a. Communication, Program and Needs Assessment
- 541 1. communicate clearly to multiple professional and lay target groups, in both written and
- 542 oral presentations, the level of risk from hazards and the rationale for interventions and
- 543 2. conduct program and needs assessments and prioritize activities using objective,
- 544 measurable criteria such as epidemiological impact and cost-effectiveness
- 545 b. Computer applications relevant to preventive medicine
- 546 Residents shall be able to use computers for word processing, reference retrieval,
- 547 statistical analysis, graphic display, database management, and communication.
- 548 c. Interpretation of relevant laws and regulations

549 Residents shall be able to identify and review relevant laws and regulations germane to
 550 the resident's specialty area and assignments

- 551 d. Identification of ethical, social, and cultural issues relating to public health and
552 preventive medicine contexts:
- 553 Residents shall be able to recognize ethical, cultural, and social issues related to a
554 particular issue and develop interventions and programs that acknowledge and
555 appropriately address the issues.
- 556 e. Identification of organizational and decision-making processes
- 557 Residents shall be able to identify organizational decision-making structures,
558 stakeholders, style and processes.
- 559 f. Identification and coordination of resources to improve the community's health
- 560 Residents shall be able to assess program and community resources, develop a plan for
561 appropriate resources and integrate resources for program implementation.
- 562 g. Epidemiology and Biostatistics
- 563 Residents shall be able to
- 564 1. characterize the health of a community,
565 2. design and conduct an epidemiological study,
566 3. design and operate a surveillance system,
567 4. select and conduct appropriate statistical analyses,
568 5. design and conduct an outbreak or cluster investigation, and
569 6. translate epidemiological findings into a recommendation for a specific intervention.
- 570 h. Management and Administration
- 571 Residents shall be able to
- 572 1. Assess data and formulate policy for a given health issue,
573 2. Develop and implement a plan to address a specific health problem,
574 3. Conduct an evaluation or quality assessment based on process and outcome
575 performance Measures,
576 4. Manage the human and financial resources for the operation of a program or project.
- 577 i. Clinical preventive medicine
- 578 1. develop, deliver and implement, under supervision, appropriate clinical services for both
579 individuals and populations and
580 2. evaluate the effectiveness of clinical services for both individuals and populations.
- 581 j. Occupational and environmental health
- 582 Residents shall be able to assess and respond to individual and population risks for
583 occupational and environmental disorders
- 584 *Documentation Requirement: Resident schedules, rotation descriptions, interinstitutional*
585 *agreements.*
- 586 *Measure: Adequate depth and breadth is provided.*

- 587 2. Aerospace medicine competencies
- 588 Specialty training for the physician in aerospace medicine must provide for the attainment of
589 competencies relevant to the diagnosis, prevention, and treatment of disorders associated with
590 the unique aerospace environments and with the adaptive systems designed to enhance
591 performance and support life under such conditions.
- 592 a. Manage the health status of individuals working in all aspects of the aerospace environment.
- 593 1. Adequate supervised time in direct clinical care of aerospace medical problems must be
594 provided to assure competency in managing aerospace and general medical problems
595 in aerospace personnel.
- 596 2. The resident is expected to develop and apply medical standards and grant exceptions
597 and to facilitate prevention, early diagnosis, and treatment of health hazards.
- 598 3. *For programs with a training track in space medicine:* The resident is expected to
599 perform all activities of a crew surgeon for a space flight; develop and apply medical
600 care standards and programs, evaluate the physiologic effects of spaceflight on
601 crewmembers, and conduct and evaluate longitudinal studies on astronauts.
- 602 b. Promote aerospace passenger health, safety, and comfort
- 603 The resident is expected to acquire skills to educate passengers and physicians about the
604 hazards of flight with certain medical conditions and to serve as passenger advocates to
605 promote flight safety.
- 606 c. Facilitate optimum care of patients transported in the aerospace environment
- 607 The resident is expected to identify appropriate patients for aeromedical transport and to provide
608 guidance for safe aeromedical transport of patients with common medical problems.
- 609 d. Apply human factors/ergonomic concepts in the aerospace environment
- 610 The resident will acquire skills to advise in the development of air and space flight equipment,
611 biomedical equipment, and vehicles for flight and space flight; techniques for enhancing
612 performance; and techniques of crew resource management
- 613 e. Promote aerospace operational safety and mishap prevention
- 614 The resident will acquire skills to provide appropriate safety information and education; and to
615 conduct the medical aspects of any mishap investigation including recommendations to prevent
616 recurrences.
- 617 f. Interpret, integrate, and/or perform aeromedical research.
- 618 Resident will acquire skills to effectively conduct aeromedical research into health, safety,
619 human factors, and biomedical engineering aspects of the flight environment.
- 620 *Documentation Requirement:* Resident schedules, rotation descriptions, interinstitutional
621 agreements.
- 622 *Measure:* Adequate depth and breadth is provided.

- 623 3. Occupational medicine competencies
- 624 Residents must be able to perform the following tasks.
- 625 a. Manage the health status of individuals who work in diverse work settings.
- 626 1. Adequate supervised time in direct clinical care of workers, from numerous employers
627 and employed in more than one work setting, must be provided to ensure competency in
628 mitigating and managing medical problems of workers.
- 629 2. Residents must be able to assess safe/unsafe work practices and to safeguard
630 employees and others, based on clinic and worksite experience.
- 631 b. Monitor/survey workforces and interpret monitoring/surveillance data for prevention of
632 disease in workplaces, and to enhance the health and productivity of workers.
- 633 Active participation in several surveillance or monitoring programs, for different types of
634 workforces, is required to learn principles of administration and maintenance of practical
635 workforce and environmental public health programs. Residents must plan at least one
636 such program.
- 637 c. Manage worker insurance documentation and paperwork, for work-related injuries that
638 may arise in numerous work settings.
- 639 Residents should first learn worker insurance competencies under direct supervision of
640 faculty and demonstrate competency to “open,” direct, and “close” injury/illness cases.
- 641 d. Recognize outbreak events of public health significance, as they appear in clinical or
642 consultation settings.
- 643 1. Residents should understand the concept of sentinel events, and know how to
644 assemble/work with a team of fellow professionals who can evaluate and identify
645 worksite public health causes of injury and illness.
- 646 2. Residents must be able to recognize and evaluate potentially hazardous workplace and
647 environmental conditions, and recommend controls or programs to reduce exposures,
648 and to enhance the health and productivity of workers.
- 649 3. Reliance on toxicologic and risk assessment principles in the evaluation of hazards must
650 be demonstrated.
- 651 e. Report outcome findings of clinical and surveillance evaluations to affected workers as
652 ethically required. Advise management concerning summary (rather than individual)
653 results or trends of public health significance.
- 654 *Documentation Requirement:* Resident schedules, rotation descriptions, interinstitutional
655 agreements.
- 656 *Measure:* Competencies, skills and knowledge relevant to preventive intervention in the
657 workplace are addressed in workplace settings. The resident has the opportunity to demonstrate
658 constructive participation in comprehensive programs to prevent occupational injury and illness

659 and maintain worker health. Clinic settings demonstrate bridging from clinical activities to
660 effective preventive intervention in the workplace.

661 4. Public health and general preventive medicine competencies

662 Residents in public health and general preventive medicine must attain competencies in public
663 health, clinical preventive medicine (as appropriate to the specific program), epidemiology,
664 health administration, and managerial medicine.

665 a. Public health practice

666 At least 1 month must be spent in a rotation at a governmental public health agency and must
667 include participation in at least one of the following essential public health services:

- 668 1. Monitoring health status to identify community health problems
- 669 2. Diagnosing and investigating health problems and health hazards in the community
- 670 3. Informing and educating populations about health issues
- 671 4. Mobilizing community partnerships to identify and solve health problems
- 672 5. Developing policies and plans to support individual and community health efforts
- 673 6. Enforcing laws and regulations that protect health and ensure safety
- 674 7. Linking people to needed personal health services and ensuring the provision of health
675 care when otherwise unavailable
- 676 8. Ensuring a competent public health and personal health care workforce
- 677 9. Evaluating the effectiveness, accessibility, and quality of personal and population-based
678 health services
- 679 10. Conducting research for innovative solutions to health problems

680 b. Clinical Preventive Medicine

- 681 1. Residents shall acquire an understanding of primary, secondary and tertiary preventive
682 approaches to individual and population-based disease prevention and health promotion
- 683 2. Residents shall be able to develop, implement, and evaluate the effectiveness of
684 appropriate clinical preventive services for both individuals and populations

685 c. Epidemiology

686 Residents shall design and conduct health and clinical outcomes studies

687 d. Health administration

- 688 1. Residents shall design and use management information systems.
- 689 2. Residents shall plan, manage, and evaluate health services to improve the health of a
690 defined population using quality improvement and assurance systems.

691 *Documentation Requirement:* Resident schedules, rotation descriptions, interinstitutional
692 agreements.

693 *Measure:* The resident demonstrates competency in public health agency administration and
694 public health program planning and implementation, as well as managerial medicine
695 competencies.

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IV. Evaluations

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The program director and faculty must annually evaluate the utilization of the resources available to the program, the contribution of each institution participating in the program, the financial and administrative support of the program, the volume and variety of patients available to the program for educational purposes, the performance of members of the faculty, and the quality of supervision of residents.

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A. Courses, rotations and activities

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1. Written method of evaluation. The program will evaluate in writing, the provision of and individual resident participation in assigned courses, rotations and activities. The method will evaluate achievement of competency, skill and knowledge objectives from the perspectives of both the resident and the faculty.

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Documentation Requirement: The program will submit a written description prior to the site visit of the method by which the program director and the resident will document resident participation in assigned courses, rotations, and activities as well as acquisition of skills and knowledge and demonstration of competencies.

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Measure: Evaluation method provides for documentation by the supervisor and the resident of resident participation in learning experiences, the skills and knowledge acquired, and the competencies demonstrated.

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2. Faculty and residents will use the evaluation method to evaluate the courses, rotations, and activities of each resident on at least a semiannual basis.

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Documentation Requirement: The program will maintain and make readily available to site visitors copies of evaluations by both the residents and the faculty of courses, rotations, and activities for the prior 5 years. Evaluation of residents in the academic phase will be the responsibility of the sponsoring institution and will include a transcript or equivalent document provided to each resident. The evaluations for each resident must be available for review by the individual resident.

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Measure: Documents for each resident for each experience that learning opportunities were provided, skills and knowledge were acquired and competencies were demonstrated.

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B. Summary resident evaluation

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The program director, with participation of the faculty, shall evaluate resident progress where educational goals in writing at least semiannually. Where progress toward the goals deviates significantly from the plan or factors affecting education are identified, counseling or corrective actions must be documented.

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Fair procedures, as established by the sponsoring institution, and in compliance with the ACGME Institutional Requirements regarding academic discipline and resident complaints or grievances, must be implemented.

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Faculty should monitor resident stress, including mental or emotional conditions inhibiting performance or learning and drug- or alcohol-related dysfunction. Program directors and teaching staff should be sensitive to the need for timely provision of confidential counseling and psychological support services to residents. Training situations that consistently produce undesirable stress on residents must be evaluated and modified.

737 The evaluations must be reviewed with the resident formally and in a timely manner. Where
738 appropriate, interim evaluation is encouraged.

739 *Documentation Requirement:* These evaluations must be on file for the prior 5 years and readily
740 available to the site visitor.

741 *Measure:* Documents that resident has been supplied feedback on progress against plan on
742 acquisition of knowledge, skills, and demonstration of competencies. Final evaluation
743 documents completion of learning plan.

744 C. Program Evaluation

745 1. Residents

746 Residents shall annually provide written evaluation of the educational program based on
747 completion of a written questionnaire. This evaluation shall be provided to the program director.
748 An additional confidential evaluation shall be provided to the chair of the residency advisory
749 committee (RAC).

750 *Documentation Requirement:* Written evaluations by each resident of the program must be
751 maintained on file for the prior 5 years, be noted in the RAC minutes, and be readily available to
752 the site visitor.

753 *Measure:* Documents that each resident has provided annual feedback to the program on the
754 program structure, factors considered conducive to acquisition of skills and knowledge and
755 demonstration of competencies, activities planned but not provided, and suggestions for
756 program enhancement.

757 2. Faculty - Residency Advisory Committee

758 The RAC shall be consist of faculty, external members, practicum supervisors, and at least one
759 resident representative. A majority of the members must have their primary affiliation outside
760 the sponsoring institution. Members must be certified in preventive medicine or knowledgeable
761 about specialty training in preventive medicine. The RAC chair must be a physician. The
762 program director must serve in an ex-officio capacity.

763 The RAC must meet at least semiannually.

764 The mission of the RAC is to promote a residency training experience that is aligned with
765 preventive medicine practice. The RAC, as an external body, complements the graduate
766 medical education committee (GMEC) which serves to evaluate and support the residency from
767 within the sponsoring institution.

768 The functions of the RAC are to advise and assist the program director to

- 769 a. Develop and update a written residency mission statement that describes goals and
770 objectives,
- 771 b. Develop educational experiences and practicum rotations,
- 772 c. Provide new or emerging knowledge, skills or competencies that may influence the
773 content or conduct of preventive medicine education,
- 774 d. Review the GMEC review of the residency program,
- 775 e. Review confidential and written resident evaluations of the program and make
776 recommendations for changes,

- 777 f. Review the program director evaluation of individual residents, and
778 g. Provide an annual report to the institution through the Chair .

779 *Documentation Requirement:* Minutes document the functions of the RAC.

780 *Measure:* Minutes are available in the program files that document the activity of the RAC and
781 faculty/member participation.

782 D. Resident Progression and Program Completion

783 The program director and faculty must document completion of courses, rotations, and activities
784 and must certify that residents completing the program have fulfilled all established
785 requirements of their educational plan. This final evaluation must be part of the resident's
786 permanent record and must be maintained by the institution.

787 Although a person may have entered a practicum phase with an incomplete academic phase,
788 that person may not be certified as having completed the practicum phase in the absence of a
789 transcript certifying that all the requirements for the Masters of Public Health or other appropriate
790 post-graduate degree have been completed.

791 *Documentation Requirement:* This documentation must be readily available for site visitor
792 review.

793 *Measure:* Documents status in and/or completion of the educational plan by each resident.
794 Documents that a resident completing the practicum has achieved the planned competencies.

795 E. Resident Summary

796 The residency must maintain a database of all residents participating in the program and their
797 professional status for 5 years.

798 1. The program must monitor the percentage of entering residents who take the certifying
799 examination of the American Board of Preventive Medicine (ABPM). A minimum of 50
800 % of entering residents must take the certifying exam averaged over any five (5) year
801 period.

802 2. Of those residents taking the certifying examination, a minimum of 50% must pass the
803 certifying examination averaged over any 5 year period.

804 *Documentation Requirement:* Prior to the site visit the program must provide documentation of
805 the residents participating in the program, their professional status, the percentage taking the
806 certifying examination and the percentage passing the certifying examination.

807 *Measure:* 50% of entering residents must take the certifying examination of the ABPM, and of
808 those taking the examination, 50% must pass.

809 F. Institutional report of program director: 810

811 The program director, and the chair of the RAC, must provide to the director of graduate medical
812 education, or equivalent, at the institution an annual written report of the residency quality. The
813 program director, and chair of the RAC, must provide a written plan of corrective actions for any
814 recommendations received from the director of graduate medical education.

815 *Documentation Requirement:* Reports and plans for corrective actions written since the prior site
816 visit must be readily available to the site visitor.

817 *Measure:* Recommendations are acted upon by the residency program director.

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