

**Stony Brook University School of Medicine
Residency Program in General Preventive Medicine and Public Health**

**ACPM Competencies upon Completion of Training Program
and
General Clinical Competencies**

On completion of training the Stony Brook residency graduates may reasonably expect to have the following competencies:

Core Skills Common to all Content Areas

G1a. Communicate to target groups and to the media in a clear and effective manner, both orally and in writing, the levels of risk from potential hazards and the rationale for selected interventions

Communication reflects:

- a. In-depth understanding of the group to be addressed, including the group's perception of risk
- b. Current knowledge of subject and transmission of accurate information (i.e., factual correctness and statistical soundness)
- c. Appropriate approach, methodology, format, messages, language, and audiovisual aids
- d. Appropriate appearance and level of formality
- e. Clear delivery and organization of material
- f. Effective responses to audience questions and comments
- g. Effective consensus building, direction, and call to action
- h. Plans to evaluate outcome of communication
- i. Appropriate management of confidentiality issues

G1b. Communicate to health professionals in a clear and effective manner, both orally and in writing, the findings and the rationale for selected interventions

Communication reflects:

- a. In-depth understanding of the professional group to be addressed
- b. Current knowledge of subject and transmission of accurate information (i.e. factual correctness and statistical soundness)
- c. Appropriate approach, methodology, format, messages, language, and audiovisual aids
- d. Clear delivery and organization of material
- e. Effective responses to audience questions and comments
- f. Effective consensus building, direction, and call to action
- g. Plans to evaluate outcome of communication
- h. Preparation of materials for scholarly publications
- i. Appropriate management of confidentiality issues

G2. Demonstrate the ability to prioritize new or ongoing projects or programs according to their potential impact, as defined by objective, measurable criteria

This reflects:

- a. Accurate statement of current knowledge about the problem
- b. Sound design and methodology
- c. Evidence-based assessment of outcomes
- d. Development and use of appropriate prioritization model
- e. Consideration of all articulated criteria, e.g.:

1. Need for program
2. Fit with organization's jurisdiction, criteria, or mandate
3. Feasibility
4. Political realities
5. Resource constraints
6. Compatibility with goals of other relevant organizations
7. Absolute and relative costs in relation to benefits

G3. Use information technology for specific applications relevant to preventive medicine and public health

- a. Given the organization's options for automation, identify:
 1. Appropriate and inappropriate uses for computers
 2. Potential for networking and interface between system and user
- b. Be able to use computers for each of the following:
 1. Word processing
 2. Communications through the Internet
 3. Reference retrieval
 4. Statistical analysis and computations
 5. Graphics and spreadsheets
 6. Database management

G4. Interpret relevant laws and regulations relating to protection and promotion of the public's health

This reflects:

- a. Review of legislation of all relevant jurisdictions on a particular issue, identifying to whom responsibilities are authorized and whether resources for implementation are appropriated
- b. Identification of need for statutes and regulations and the process by which they are developed
- c. Identification and explanation of methods to assess laws and regulations germane to the resident's assignment
- d. Recommendation of courses of action when questions arise based on recognition of legal and regulatory options

G5. Identify ethical, social, and cultural issues relating to policies, risks, research, and interventions in public health and preventive medicine contexts

This reflects:

- a. Recognition of cultural diversity and its impact on community health issues
- b. Determination of risk as it relates to ethnic and cultural identification
- c. Development of a health program approach appropriate to and involving relevant groups that demonstrates awareness of:
 1. Organizational values
 2. Knowledge, attitudes, and behaviors related to health and disease
- d. Recognition of ethical issues related to interventions (including issues relating to gender)
- e. Conscientious use of human subjects review and informed consent, including sensitivity to individual rights

G6. Identify the processes by which decisions are made within an organization or agency and their points of influence

This reflects:

- a. Identification of organizational structure and its relevance to the decision-making process
- b. Identification of stakeholders and their interests

- c. Determination of decision-makers and their influence, perspectives on the issues, and style of decision-making
- d. Communication of findings to appropriate audiences

G7. Identify and coordinate the integrated use of available resources to improve the community's health

This reflects:

- a. Assessment of resources needed for a health program and methods to obtain resources not currently available
- b. Development of a plan for the health program negotiating with community elements and groups, and using consensus building and a team approach
- c. Coordination and implementation of the negotiated plan
- d. Evaluation of health program outcome through use of predetermined measurable criteria.

Biostatistics/Epidemiology

BE1. Characterize the health of a community

This reflects:

- a. Assembly and review of existing data, including census, vital statistics, health care/public health, and law enforcement
- b. Analysis and interpretation of information based on the above data
- c. Validation and justification of methods, noting limitations
- d. Review of relevant literature
- e. Further investigation as needed
- f. Reporting to community, including recommendations

BE2. Design and conduct an epidemiologic study

Study includes:

- a. Definition of problem
- b. Collection and review of background information
- c. Selection and application of appropriate data collection and management methods and biostatistical techniques
- d. Implementation of protocol as designed
- e. Interpretation of results
- f. Identification of study limitations
- g. Formulation and dissemination of conclusions and recommendations

BE3. Design and operate a surveillance system

Surveillance system reflects:

- a. Determination and documentation of rationale and feasibility of surveillance
- b. Operational definition of case and identification of appropriate data sources
- c. Use of appropriate surveillance tools (e.g. screening, lab reports, vital records)
- d. Analysis and use of data generated
- e. Evaluate the sensitivity and specificity of a surveillance system

BE4. Select and describe limitations of appropriate statistical analyses as applied to a particular data set

Description reflects:

- a. Identification and documentation of data set characteristics
- b. Appropriate use of statistical methods

BE5. Translate epidemiologic findings into a recommendation for a specific intervention to control a public health problem

Recommendation reflects:

- a. Demonstration of critical review of literature on a specific preventive medicine issue
- b. Identification of data on which findings were based
- c. Application of epidemiologic principles
- d. Identification of operational limitations and realities
- e. Development of practical intervention strategies
- f. Presentation of findings to decision-makers

BE6. Design and/or conduct an outbreak and/or cluster investigation

This reflects:

- a. Application of epidemiologic principles
- b. Identification of unusual occurrences of disease, injury, or other adverse health conditions
- c. Management of acute situation as appropriate
- d. Recommendation of control measures
- e. Communication of findings to appropriate audiences

Management and Administration

MA1. Assess data and formulate policy for a given health issue

Policy reflects assessment of:

- a. Need
- b. Interest of stakeholders (including but not limited to vested, public, and professional interest groups)
- c. Current scientific evidence
- d. Legal/regulatory requirements
- e. Resource constraints
- f. Costs and benefits

MA2. Develop and implement a plan to address a specific health issue or problem

Plan includes:

- a. Definition of issue or problem
- b. Needs assessment
- c. Goals and objectives with measurable outcomes
- d. Well-defined, realistic, measurable, and specific tasks and activities related to goals and objectives
- e. Proper involvement and consultation with responsible parties including implementation authority
- f. Accurate assessment of fiscal and personnel resources and time requirements
- g. Marketing plan developed and incorporated
- h. Evaluation strategy for the plan

MA3. Conduct an evaluation or quality assessment based on process and outcome performance measures

Evaluation reflects:

- a. Definition of appropriate performance measures to assess progress in achieving goals and objectives
- b. Where indicated, performance measures relate to health status and are conducive to epidemiologic

evaluation

- c. Performance measures are compared before and after the implementation of a plan or intervention
- d. Analysis should lead to meaningful conclusions and to recommendations for change, where indicated

MA4. Manage the operation of a program or project, including human and fiscal resources

This reflects appropriate use of:

- a. Organization documents (e.g. a table of organization) that specify responsibilities for accomplishing the program
- b. Human resource management, including personnel job classifications needed
- c. Budget management, including developing a line item budget that delineates human and other resources to be used
- d. Milestone tracking system or work plan that specifies time allocated to accomplish the program as well as the results of the effort
- e. Relationships between the organization and federal, state, and local public, private, and voluntary organizations with which the agency interacts

Clinical Preventive Medicine

CPM1. Develop, implement, and refine screening programs for groups to identify risks for disease or injury and opportunities to promote wellness

Development/implementation/refinement reflect:

- a. Characterizing the population to identify target conditions
- b. Assessing the utility of screening tools
- c. Assessing the screening programs using WHO or similar standards
- d. Assessing resources
- e. Creating structures (clinic staffing, etc.)
- f. Monitoring program effectiveness
- g. Reporting results appropriately

(Competency is reflected by application of Clinical Preventive Services Task Force Guidelines and other recognized guidelines)

CPM2. Design and implement clinical preventive services for individuals

Design and implementation reflect:

- a. Conducting risk assessment
- b. Providing screening and counseling services
- c. Providing chemoprophylaxis (immunization, prophylaxis for TB)

CPM3. Implement community-based interventions to modify or eliminate identified risks for disease or injury and to promote wellness

Implementation reflects:

- a. Characterizing the population to identify target conditions and effective interventions
- b. Assessing the effectiveness of interventions based upon behavioral, environmental, and occupational factors
- c. Monitoring groups to implement interventions
- d. Monitoring program effectiveness

CPM4. Diagnose and manage diseases/injuries/conditions in which prevention plays a key role

Diagnosing and managing reflect:

- a. Identification of diseases/injuries/conditions in which prevention plays a key role
- b. Diagnosing diseases/injuries/conditions in which prevention plays a key role
- c. Managing and referring diseases/injuries/conditions in which prevention plays a key role
- d. Preventing and controlling exposures to diseases/injuries/conditions in which prevention plays a key role

Occupational and Environmental Health

OE1. Assess individual risk for occupational/environmental disorders using an occupational and environmental history

Competent assessment reflects:

- a. Obtaining brief as well as comprehensive patient histories, accurately and with an emphasis on occupation and exposure
- b. Recognizing the potential relationship between patient symptoms and occupational and environmental exposures
- c. Identifying occupational/environmental illnesses and injuries with the appropriate use of consultants in related disciplines
- d. Reporting findings to affected individuals and appropriate organizations, advocating for the health and safety of patients and employees, as well as the interests of employers and other stakeholders
- e. Intervening to mitigate occupational and environmental risk, promoting health and safety of the patient, the workplace, and the community
- f. Evaluating the effectiveness of prescribed interventions

OE2. Identify occupational and environmental hazards, illness, and injuries in defined populations and assess and respond to identified risks

Identification and response reflect:

- a. Characterizing existing and potential occupational and environmental hazards within the defined population
- b. Recognizing the health effects of toxic chemicals and other occupational and environmental exposures
- c. Identifying sources and routes of environmental exposures and recommending methods of reducing environmental risk
- d. Evaluating the effectiveness of risk reduction methods
- e. Utilizing occupational and environmental information resources to conduct a literature search or to research the health effects of a chemical substance

General Clinical Competencies

Patient Care. Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health

Residents are expected to:

- a. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- b. Gather essential and accurate information about their patients
- c. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- d. Develop and carry out patient management plans
- e. Counsel and educate patients and their families
- f. Use information technology to support patient care decisions and patient education
- g. Perform competently all medical and invasive procedures considered essential for the area of practice
- h. Provide health care services aimed at preventing health problems or maintaining health

- i. Work with health care professionals, including those from other disciplines, to provide patient-focused care

Medical Knowledge. Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care

Residents are expected to:

- a. Demonstrate an investigatory and analytic thinking approach to clinical situations
- b. Know and apply the basic and clinically supportive sciences which are appropriate to their discipline

Practice-Based Learning and Improvement. Residents must be able to investigate and evaluate their own patient care practices.

Residents are expected to:

- a. Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- b. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- c. Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- d. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- e. Use information technology to manage information, access on-line medical information, and support their own education
- f. Facilitate the learning of students and other health care professionals.

Interpersonal and Communication Skills. Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates.

Residents are expected to:

- a. Create and sustain a therapeutic and ethically sound relationship with patients
- b. Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills
- c. Work effectively with others as a member or leader of a health care team or other professional group

Professionalism. Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

Residents are expected to:

- a. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supercedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and ongoing professional development
- b. Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- c. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

Systems-Based Practice. Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Residents are expected to:

- a. Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- b. Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- c. Practice cost-effective health care and resource allocation that does not compromise quality of care
- d. Advocate for quality patient care and assist patients in dealing with system complexities
- e. Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance