

A Competency-Based Approach to Expanding the Cancer Care Workforce

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Like nursing, many health care professions are experiencing significant workforce shortages, including social work, public health, pharmacy, medicine, basic science, and other allied health disciplines. Simultaneously, the aging population is creating an increased demand for health care services. At the intersection of these trends are vulnerable patient populations such as older adults experiencing chronic disease and cancer. C-Change, a coalition of cancer organizations, rec-

ognized these trends and has embarked upon several initiatives to address shortages in the cancer workforce. In addition to recruitment efforts targeting students to choose health careers, the Cancer Core Competency Initiative aims to bolster the basic cancer care knowledge and skills of the general health workforce. This article serves as an introduction to the initiative, including the project development methods, competency definitions, and future implementation plans. Subsequent col-

umns will delve into specific aspects of the core curriculum with continuing nursing education offerings.

State of the Cancer Workforce and Nation's Health

Figure 1 highlights the magnitude of the supply issues facing the general and cancer health workforce as well as some of the demand issues facing the health and demographics of the U.S. population. Each major health discipline is facing a notable shortage

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Figure 1.
Health Workforce Supply and Healthcare Demand

Supply

- Demand for RNs is projected to exceed supply by 400,000 to 800,000 by 2020 (Buerhaus et al., 2000).
- Approximately 60% of the 185,000 RNs who have joined the workforce since 2002 are over age 50 (Buerhaus et al., 2006).
- Oncology care is delivered increasingly in outpatient settings and oncology nursing experts are being decentralized within the acute care setting (Satryan, 2001).
- Entry of new oncologists into the workforce has remained fairly constant at 400-500 per year (ASTRO, 2004).
- Approximately 60% of oncologists and oncology nurses surveyed reported inadequate staffing (Buerhaus et al., 2001).
- The social work labor force is older than most professions and occupations, with nearly 30% of licensed social workers over age 55 (National Association of Social Workers, 2006).
- The average age of a public health worker is 47 years; many public health agencies currently face a 20% vacancy rate (American Public Health Association, 2007).
- Radiation therapy vacancy rates average 18.3% (ASTRO, 2004).
- Radiation therapy practices across the country are currently in need of approximately 2.6 health care professionals per practice (ASTRO, 2004).
- Cancer registrar vacancies remain difficult to fill in some regions of the country and demand for registrars is estimated to grow 10% in the next 15 years (National Cancer Registrars Association, 2006).

Demand

- Cancer is the second most common cause of death by disease claiming the lives of more than half a million people per year (American Cancer Society, 2007).
- Cancer rates are expected to increase as baby boomers age (CDC, 2000).
- The lifetime probability of developing cancer is 1 in every 2 men and 1 in every 3 women (National Cancer Institute, 2005).
- Five-year cancer survival rates have risen to 64% for adults (CDC, 2005).

in supply that is projected to worsen. Simultaneously, an aging population is at greater lifetime risk for cancer and has achieved higher survival rates, so overall cancer prevalence is expected to grow. In the next 15 years, Medicare beneficiaries with cancer are estimated to double while the number of nursing vacancies is estimated to exceed 1.1 million (U.S. Department of Health and Human Services, 2002). When viewed together, the quality and quantity of the cancer care demanded will likely fall short due to supply limitations unless significant interventions are enacted.

The following observations set the stage for C-Change to define an approach to this prob-

lem: (a) the cancer health workforce needs are universal and widespread across discipline, continuum of care, and geography; (b) recruitment and retention needs are often very local or regional in nature; (c) ongoing quality management and continuing education are prerequisites to keep pace with scientific developments and social complexity of cancer; (d) the workforce development pipeline spans issues of education, training, licensing, recruitment, and retention; and (e) health workforce problems and solutions are not unique to cancer, but are felt more intensely in the context of an aging population. With these observations in mind, the solution to these

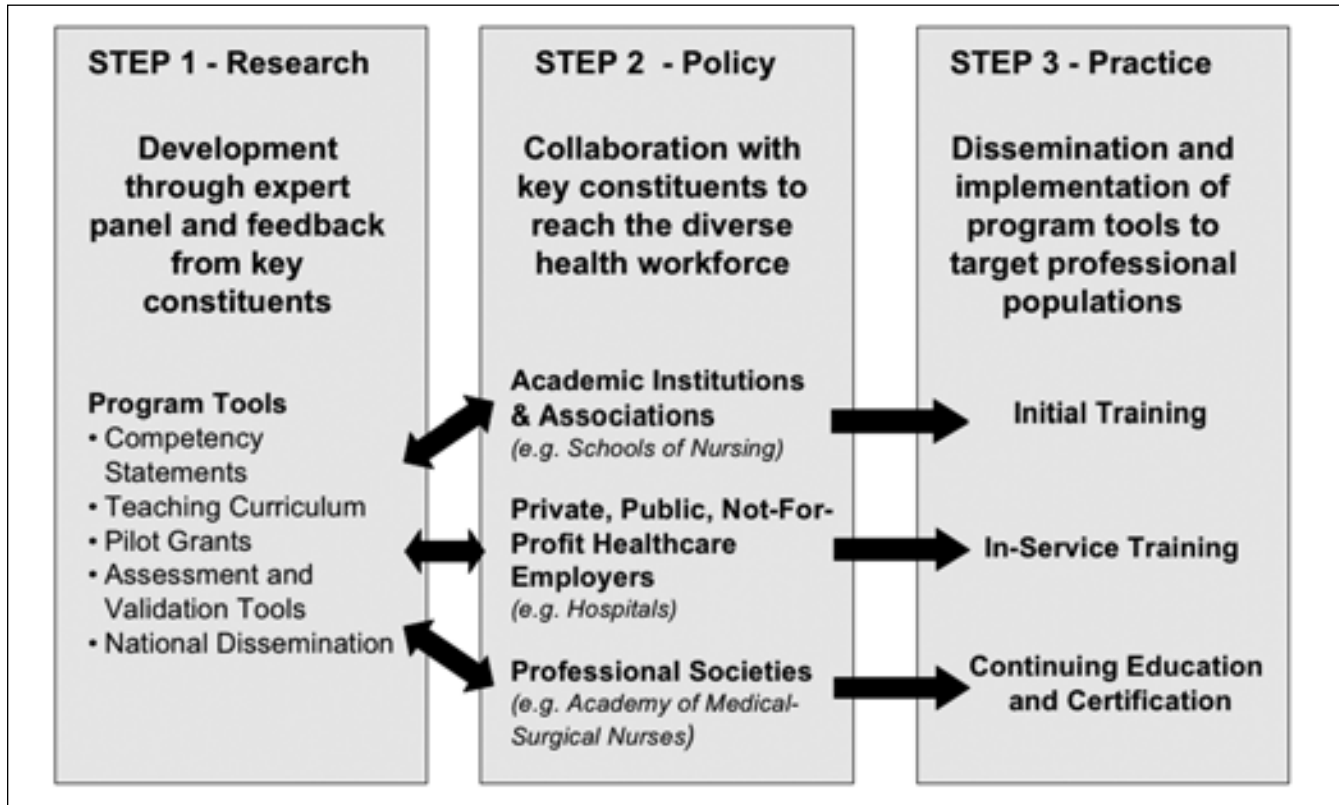
challenges requires a multidimensional, scalable and flexible, dynamic, and sustainable solution that embraces generalists and specialists.

Organizations, such as the Oncology Nursing Society, the American Society for Clinical Oncology, the Association of Oncology Social Workers, and the American Society for Therapeutic and Radiation Oncology (ASTRO), have major initiatives in progress to assess, recruit, and retain more cancer specialists. While oncology specialists are the obvious caretakers of patients with cancer, they are not available equally to the population in need of services. Of the nearly 2 million registered nurses in the United States, only 21,000 (approximately 1%) are oncology certified. While efforts to increase the specialty workforce will continue, expanding the development pipeline for specialists requires a long-term investment. The current crisis also dictates the need for short-term action. Through a focused competency intervention with non-oncology specialists, surge capacity could be created in the short term. Recognizing that an adequate quantity and quality of health professionals are necessary to assure quality access to cancer care, C-Change developed a multi-pronged approach to a multi-dimensional problem, the *Cancer Core Competency Initiative*.

Context for Multidisciplinary Collaboration

C-Change was well positioned to tackle this cancer workforce issue due to the very nature of its composition, drawing members from public, private, and not-for-profit organizations concerned with cancer issues across the continuum of research, practice, and policy. The mission of this not-for-profit organization is to leverage the expertise and resources of its membership to eliminate cancer as a public

Figure 2.
Cancer Core Competency Project Development



health problem at the earliest possible time. Practically speaking, the organization convenes multi-sector leaders to accelerate and focus the cancer agenda, tackling issues that they cannot affect alone.

The Cancer Workforce Team of C-Change aimed to build a “National Cancer Corps” with the surge capacity to meet the needs of an aging and increasingly diverse population. As noted previously, the team launched several recruitment initiatives including a *Careers in Cancer Speakers Kit* (Smith, 2005) and a *Summer Internship Program* to promote health and cancer career choices. A cancer career summer internship Web portal will go live in 2007. Being careful not to duplicate the efforts of the oncology professional organizations, C-Change identified the opportuni-

ty to strengthen the cancer knowledge and skills of the non-oncology health workforce as another means to improve the quality of cancer care.

From Science to Policy to Practice

Defining core competencies is a widely recognized approach to developing and maintaining key knowledge and skills in the workforce. This practice has occurred in the fields of epidemiology, emergency preparedness, public health, and other non-health related industries as a means to define minimum standards of quality and expand capacity. Defining the core competencies needed by all members of the general health workforce is the first step toward expanding the cancer workforce. Specifically, the *Cancer Core Competen-*

cies are intended for health care professionals who have generalized knowledge of cancer and are able to initiate the continuum of cancer care from prevention and screening through palliative care, to assure the continuum of services to cancer patients and their families. Figure 2 illustrates how this notable undertaking to define core competencies in cancer was constructed. The *research* phase entailed the development of competency definitions. With these standards, related teaching and assessment tools will be created to strengthen the skills and expand the necessary surge capacity of health care professionals.

Through the leadership of an expert panel, feedback from various professional constituents, and the technical assistance of a consulting team from Columbia

and Emory Universities, C-Change has defined a set of core workforce competencies. The competency statements were derived from an extensive review of the health literature. The bibliography of this effort can be found online (<http://cpmnet.columbia.edu/dept/nursing/research/ResCenters/chphsr/currProjects.html>). The review also encompassed the “gray literature” of resources published by professional associations and other authoritative sources via Web sites and other media intended for general use. After several rounds of review and refinement, the competency statement development was completed.

While representatives of key constituents have been involved directly or consulted during the research phase, additional efforts will be pursued to expand the scope and number of collaborators from academic, health care delivery, and professional organizations. These organizations determine *policy* that affects various segments of the health workforce through their direct control over initial training curricula, in-service programs, and continuing education or certification opportunities, respectively.

To facilitate the transition to frontline *practice*, C-Change will sponsor three to five grants and work collaboratively with pilot sites to implement the competencies during 2007. By implementing the program in different settings, the competencies can be evaluated not only for the relevance of the desired skill set, but also for the feasibility to implement them across the continuum of care and various disciplines. Evaluation efforts will reveal the influence of the program on professional competency and attitudes toward cancer and cancer care. Based upon these pilot experiences, C-Change will pursue national dissemination of this program through academic,

health care, and professional institutions, as well as through comprehensive cancer control coalitions in 2008.

Introduction to the Cancer Core Competencies Initiative

With an ever-expanding knowledge base that allows for the detection, diagnosis, and treatment of cancers, and a fast-growing population, the *Cancer Core Competency Initiative* aims to build our collective capacity for effective care and treatment through development of a National Cancer Corps. At the heart of this Cancer Corps are all members of the general health workforce, who can be equipped with the basic knowledge and skills necessary to meet the basic needs of patients with cancer and thus are in a position to expand the impact of oncology specialists.

These core competencies and the soon-to-be-available curriculum resources have been developed for several uses:

- Integrating cancer competencies into basic training curricula by academic institutions preparing physicians, nurses, and other health professionals.
- Integrating cancer competencies into continuing education programs and licensing requirements by health professional societies.
- Integration of cancer competencies into work-site training programs offered by employers of health professionals.

Tiers of Caregivers

In cancer care and prevention, the complete workforce consists of professionals from a variety of disciplines, working interactively to assure the continuity of health care, including prevention, assessment, diagnosis, treatment, and monitoring. The functions of health care professionals in cancer range across three tiers of service:

Tier 1. Health care workers who provide general services supportive of the infrastructure for the delivery of services

Tier 2. Health care professionals who have generalized knowledge of cancer and are able to initiate the continuum of cancer care from prevention and screening through palliative care, to assure the continuum of services to cancer patients and their families

Tier 3. Oncology specialists who have the advanced, specialized knowledge needed to diagnose the condition, determine the treatment regimen, and evaluate the disease processes for cancer patients

The C-Change *Cancer Core Competency Initiative* focuses on Tier 2. Tier 2 professionals, by virtue of their numbers and distribution, provide the greatest opportunity to reach the general population as well as patients and families with cancer.

Tier 2 includes licensed, registered, or certified members of health professions who have not specialized in cancer and whose scope of practice includes face-to-face contact with patients and their families. The regular activities performed by Tier 2 health professionals incorporate some or all of the following, based on the professional education and licensing requirements of the individual profession:

- Diagnosing or prescribing privileges (independent or collaborative) (MD, DDS, DO, APN, PA, and PharmD).
- Developing, implementing, and evaluating care (RN, RDH, PT, OT, and RT).
- Counseling and educating patients or families (psychologist, BSW/MSW, RD, and health educator).

Figure 3 illustrates the difference between the level of compe-

Figure 3.
Cancer Competencies for Non-Oncology Specialists

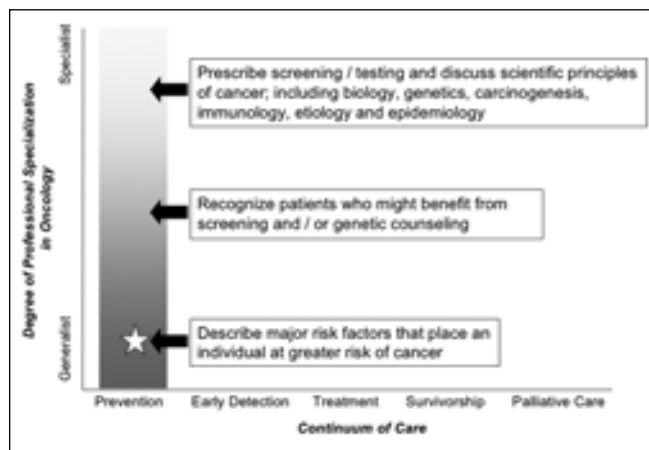
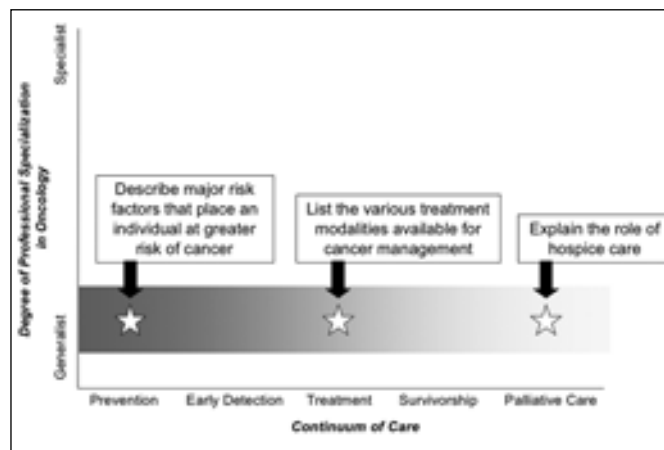


Figure 4.
Cancer Competencies for Non-Oncology Specialists



tency expected from an oncology specialist compared to a generalist within the realm of cancer prevention. Figure 4 illustrates the range of competencies expected from a generalist across the continuum of care.

Competencies

Competency statements have become the basic building blocks for workforce development in many settings.

- Competencies focus on the tasks or functions that a person should be able to do or perform. For this reason, every competency statement includes a single active verb. This is a more robust approach than some of the prior descriptive methods (for example, identifying areas of needed knowledge without indication of how the knowledge is applied, or listing knowledge, skills, and abilities without identifying how they integrate into behavior).
- Competency statements are a flexible resource because they can be written at a high level, describing a general area of performance, or at a very detailed level, indicating

what must be performed at the end of a single section within a curriculum.

The competency statements presented in this document are best described as “above the midpoint” in the degree of detail (see Figure 5). For full application, each competency included here requires further division into sub-competencies, although as a general description of expectation, several statements may be grouped into a single broad area of activity.

Other key standards are integral to providing cancer care, but they are not repeated in this document. In addition to the competencies presented here, two in particular have relevance:

- *Cultural competence* – the process by which individuals and systems respond respectfully and effectively to people of all cultures, languages, classes, races, ethnic backgrounds, religions, and other diversity factors in a manner that recognizes, affirms, and values the worth of individuals, families, and communities, and protects and preserves the dignity of each. An additional set of competencies in this area is forthcoming and will

be linked to this document.

- *Evidence-based prevention* – the implementation of preventive services that are documented to be of value for the age/gender of the individual. The U.S Preventive Services Task Force is considered the most authoritative standard for such services, and should be consulted for the most recent guidance in prevention.

Applying the Competencies

Because functions of the many health professionals included in Tier 2 often overlap, the competencies are presented as a single set. The application or demonstration of any one competency, however, is shaped by the legal and professional scope of practice of the individual. For example, the general competency, “manage symptoms of the cancer patient,” will be performed differently by:

- A physician, who may prescribe specific medications.
- An occupational therapist, who may assist a patient in developing new approaches to activities of daily living.
- A psychologist facilitating an understanding of new limits in physical activity.

The result should be both a short-term increase and sustainable capacity for cancer care, with improved outcomes for all who receive care.

Complete management of symptoms may not be within the scope of practice of any one profession. Any Tier 2 professional will take some actions individually, make referrals to other members of the care team, and collaborate with oncology specialists.

As a further example, a symptom management educational program will have to be designed with both context and recipient of care in mind.

- A physician competency might include much more information about pharmacology and dosage calculations.
- An occupational therapist competency, for those working primarily with outpatients, might include assessment of fatigue and modification of activities.
- A psychologist competency, for those working with families, might include more detailed approaches to understanding self-image during therapy.

These differences in application do not change the competency itself, though the subcompetencies will vary, as do the educational approaches and curriculum resources.

Some confusion may arise because many of the competencies overlap with expectations of an oncology specialist. For example, “explain screening test” is a competency that every Tier 2 professional should master. The explanation should be accurate, and reflect the best current information concerning utility of a specific test. The degree of detail and manner of explanation, however, will differ across Tier 2 pro-

fessionals; the explanation given by a social worker will likely differ from that of a family practitioner in the degree of anatomical and physiological information included. The oncology specialist would be expected to provide an equally accurate, but probably much more detailed explanation of the same test, particularly if working with a survivor who has already experienced one or more cancers.

Likewise, the single set of competencies can be applied to any age of cancer patient, although adaptation will be required. The phrase “age-appropriate” is included in many of the competencies; this requires the practitioner to consider, for example, the vocabulary appropriate to answering questions, or differing expectations of response to interventions, depending on the age of the patient and family.

Expected Outcome

State cancer coalitions, caregiving institutions, and discipline-specific educational programs must decide the degree to which some or all of these competencies are already included in basic professional education, continuing education, or care. Application decisions will require setting priorities among the competencies, or selecting a focus on a key discipline or setting. The result should be both a short-term increase and sustainable capacity for cancer care, with improved outcomes for all who receive care. ■

References

American Cancer Society. (2007). *Facts and figures 2007*. Retrieved February 10, 2007, from http://www.cancer.org/docroot/STT/content/STT_1x_Cancer_Facts_Figures_2007.asp

American Public Health Association (APHA). (2007). *Strengthening the public health workforce*. Retrieved February 10, 2007, from <http://www.apha.org/NR/rdonlyres/0E0166BC-2D70-4352-9FC1-98DF8520861E/0/PublicHealthWorkforceFactSheet.pdf>

American Society for Therapeutic and Radiation Oncology (ASTRO). (2004, August 28). Grants, internet helping improve oncology workforce shortage. *Cancer/Oncology News*. Retrieved February 10, 2007, <http://www.medicalnewstoday.com/medicalnews.php?newsid=12598>

Buerhaus, P., Donelan, K., DesRoches, C., Lamkin, L., & Mallory, G. (2001). State of the oncology nursing workforce: Problems and implications for strengthening the future. *Nursing Economic\$, 19*(5), 198-208.

Buerhaus, P., Donelan, K., Ulrich, B.T., Norman, L., & Dittus, R. (2006). State of the registered nurse workforce in the United States. *Nursing Economic\$, 24*(1), 6-12.

Buerhaus, P., Staiger, D.O., & Auerbach, D.I. (2000). Implications of an aging registered nurse workforce. *The Journal of the American Medical Association, 283*(22), 2948-2954.

Centers for Disease Control and Prevention. (2005). *Morbidity and Mortality Weekly Report, 53*, 528.

Centers for Disease Control and Prevention. (2000). *United States cancer statistics; 2000 incidence report*. Atlanta: Author.

National Association of Social Workers (NASW). (2006). *Assuring the sufficiency of a frontline workforce: A national study of licensed social workers*. Retrieved February 10, 2007, from http://www.socialworkers.org/resource_s/workforce/files/nasw_swcassuring_3.pdf

National Cancer Registrars Association (NCRA). (2006). *Frontline workers I cancer data management: Workforce analysis study of the cancer registry field*. Alexandria, VA: Author.

National Cancer Institute (NCI). (2005). *DevCan: Probability of developing or dying of cancer software*. Version 6.0 Statistical Research and Applications Branch. Bethesda, MD: Author.

Satryan, M. (2001). The oncology nursing shortage and its impact on cancer care services, Association of Community Cancer Centers. *Oncology Issues, 16*(1), 21-23.

Smith, A.P. (2005). Misery finds collaborative company: Addressing the health workforce shortage through a multidisciplinary approach. *Nursing Economic\$, 23*(5), 261-264.

U.S. Department of Health and Human Services (2002). Nurse Reinvestment Act of 2002. Retrieved March 7, 2005, from <http://bhpr.hrsa.gov/nursing/reinvesttext.htm>

Figure 5.
Cancer Core Competency Definitions

DOMAIN I: CONTINUUM OF CARE

Within the context of the professional discipline and scope of practice, a health care professional should:

A. Prevention and Behavioral Risks

1. General

- a. Incorporate evidence-based cancer prevention guidelines in professional practice.
- b. Incorporate the shared decision-making process into cancer risk-reduction counseling.
- c. Explain the continuum of comprehensive cancer care: prevention, early detection, treatment, survivorship, and palliative care.
- d. Refer individuals to resources for cancer prevention, screening, and management of precancerous conditions.
- e. Describe evidence-based early detection guidelines based upon risk factors.

2. Tobacco

- a. Describe the effects of tobacco use from inhaled tobacco, spit tobacco, and second-hand exposure.
- b. Incorporate the five A's of tobacco intervention (ask, advise, assess, assist, and arrange) into practice.
- c. Refer individuals to tobacco cessation programs.
- d. Describe the psychological and physiologic symptoms of nicotine withdrawal.
- e. Name the available treatment options/interventions that can be employed to facilitate smoking cessation.
- f. Assess an individual's adherence to a tobacco cessation plan.

3. Ultraviolet Rays

- a. Describe the risks associated with natural UVA and UVB rays.
- b. Describe the risks associated with tanning booths.
- c. Assess individuals' degree of sun exposure.
- d. Describe the characteristics of skin cancer lesions in order to identify patients for referral to dermatologist.
- e. Counsel individuals on skin protection including the avoidance of sun exposure and use of sun protection.
- f. Identify patients for referral to dermatologist.

4. Diet and Exercise

- a. Describe the association between cancer and diet, physical activity, and obesity.
- b. Assist individuals with developing a diet plan that is consistent with their cultural and economic environments.
- c. Refer individuals for assistance with modifying their dietary risk factors.
- d. Assist individuals with developing a physical activity plan that is consistent with their physical abilities.
- e. Refer individuals for assistance in developing a physical activity plan based upon their physical abilities and risk factors.

5. Sexually Transmissible Diseases

- a. Describe the association between cancer and human immunodeficiency virus, human t-lymphotropic virus, human papilloma virus, and hepatitis B and C.
- b. Describe the vertical transmission of STD viruses.

B. Screening and Early Detection

1. General

- a. Explain the benefits and risks of screening tests.
- b. Explain the possible findings from a screening test.
- c. Refer individuals for further assessment based upon screening test results.
- d. Perform an individualized cancer risk assessment based upon a comprehensive health history and current health status, including genetic risk factors.
- e. Refer individuals to resources for cancer screening and risk assessment.
- f. Identify clinical and genetic counseling resources.
- g. Coordinate referrals with the financial and geographic needs of the individuals.
- h. Explain the role of diagnostic examinations in the identification of suspected cancer.

2. Oral

- a. Describe the characteristics of early oral lesions.
- b. Refer individuals to a dental professional for a complete oral examination.
- c. Describe the risk factors for the development of oral cancer lesions.
- d. Educate individuals about the importance of a complete oral examination.

3. Skin

- a. Refer for full-body skin examinations.

4. Breast

- a. Describe the methods of breast cancer detection, including breast self-examination, clinical breast examination, and mammography.
- b. Perform a clinical breast examination.
- c. Refer for follow up assessment.

5. Cervical and Uterine

- a. Describe the importance of pelvic screening exams.
- b. Describe the process of performing a pelvic examination and cervical smear examination.
- c. Perform a pelvic examination including obtaining cervical specimens.
- d. Refer for colposcopy and biopsy of cervical tissue.

6. Colorectal

- a. Explain the importance of colorectal screening.
- b. Describe the procedures for conducting colorectal cancer screening.
- c. Perform a fecal occult blood test.
- d. Refer for colonoscopy based upon age and other risk factors.

**Figure 5. (continued)
Cancer Core Competency Definitions**

<p>DOMAIN I: CONTINUUM OF CARE (continued)</p> <p>7. Prostate</p> <ol style="list-style-type: none"> a. Explain the importance of screening for prostate cancer. b. Describe the procedures employed in prostate cancer screening. c. Explain the advantages and disadvantages of PSA testing. d. Explain the utility of digital rectal examinations. e. Perform digital rectal examination. f. Refer patients for prostate cancer screening. <p>8. Testicular</p> <ol style="list-style-type: none"> a. List the benefits of testicular self-examination. b. Discuss the appropriate age to begin performing testicular self-examination. c. Explain the procedures for self-testicular examinations. d. Teach individuals how to perform a testicular self-examination. <p>C. Treatment</p> <p>1. General</p> <ol style="list-style-type: none"> a. Access cancer treatment information specific to cancer location and type. b. Describe the available cancer treatment modalities. c. Identify clinical findings that may represent clinical emergencies. d. Describe options to manage disease and treatment-related symptoms. e. Manage disease and treatment-related symptoms. f. Refer for treatment of disease and treatment-related symptoms. g. Provide emotional support to patients. h. Refer for mental health services. <p>D. Survivorship</p> <p>1. General</p> <ol style="list-style-type: none"> a. Define cancer survivorship. b. Assess that resources for cancer services and insurance coverage are consistent with current recommendation. c. Assist patients and families in navigating the health care system following cancer treatment. d. Guide patients with cancer and their families toward support systems and groups. e. Provide ongoing health services that meet age and gender recommendations. f. Recognize the importance of survivorship in a long-term cancer care plan at the conclusion of active treatment. g. Manage continuing and late effects of cancer and cancer treatment. h. Describe the surveillance recommendations for the detection of recurrence and second primary cancers. i. Refer patients to resources for the detection of recurrence and second primary cancers. j. Refer survivors to rehabilitation services. 	<ol style="list-style-type: none"> k. Provide support for cancer survivors and their families and caregivers as they cope with daily living, including lifestyle, employment, school, sexual relationships, fertility issues, and personal intimacy. l. Advocate for pain and symptom management throughout the course of survivorship. <p>E. Palliative and End-of-Life Care</p> <p>1. General</p> <ol style="list-style-type: none"> a. Define palliative and end-of-life care. b. Assess that resources for palliative and end-of-life care and insurance coverage are consistent with current recommendations. c. Refer patients to community palliative and end-of-life care and support resources. d. Explain the role of hospice care. e. Manage symptoms of the cancer patient. f. Incorporate end-of-life comfort strategies for the dying cancer patient. <p>2. Pain Management</p> <ol style="list-style-type: none"> a. Explain how cancer pain differs from other types of pain. b. Describe the methods used to diagnosis cancer pain throughout the progression of the disease. c. Differentiate between acute and chronic pain symptoms. d. Describe the characteristics used to assess cancer pain: frequency, intensity, and site. e. Perform a cancer pain assessment. f. Explain the different treatment options for cancer pain. g. Perform a pain-related history taken during a physical examination. h. Manage cancer-related pain and analgesic side effects. <p>DOMAIN II: BASIC CANCER SCIENCE</p> <p>Within the context of the professional discipline and scope of practice, a health care professional should be able function in the following competency areas:</p> <p>A. Incorporate General Cancer Knowledge into Professional Practice</p> <p>1. Implement ways to keep cancer knowledge current.</p> <ol style="list-style-type: none"> a. Review the literature for new information regarding screening techniques. b. Participate in professional cancer education opportunities. <p>B. Describe the Biologic Attributes of Cancer Etiology</p> <ol style="list-style-type: none"> 1. Distinguish cancer facts from cancer myths. 2. Explain the relationship between cancer and genetics. 3. Explain the immunologic response to cancer and its treatment.
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Figure 5. (continued)
Cancer Core Competency Definitions

DOMAIN II: BASIC CANCER SCIENCE (continued)	DOMAIN III: COLLABORATION AND COMMUNICATION
<p>C. Reference the Cancer Epidemiology and Risk-factor Data for Individuals and Specific Communities</p> <ol style="list-style-type: none"> 1. Access cancer epidemiologic data for specific communities. 2. Describe the utility of cancer clinical data and cancer population-based data including those collected through cancer and tumor registries. 3. Apply epidemiologic principles of sensitivity and specificity to cancer screening recommendations. <p>D Discuss Complementary and Alternative Therapies</p> <ol style="list-style-type: none"> 1. Assess patient and family beliefs regarding complementary and alternative therapies. 2. Explain the role of complementary and alternative therapies in cancer treatment. 3. Refer the patient, family, and caregivers to licensed complementary therapists and alternative medicine practitioners and information sources. 4. Describe the potential side effects and possible interactions among complementary therapies, alternative medicines, and other prescribed treatments. <p>E. Support Participation in Clinical Trials</p> <ol style="list-style-type: none"> 1. Define a cancer clinical trial. 2. Describe the clinical trial process beginning with informed consent. 3. Describe the oncology specific rationale for community-based clinical trials. 4. Adhere to a clinical trial protocol. 5. Assist patient in adhering to clinical trial protocol. <p>F. Adhere to the Data Collection Standards in Reporting Cancer Cases to Hospital, State, and National Tumor Surveillance Registries</p> <ol style="list-style-type: none"> 1. Define the purpose and requirements of cancer registries. 2. Describe the role of tumor surveillance registries. 3. Describe the importance of complete, accurate, and timely data collection in cancer tumor registries. 4. Interpret cancer data using basic epidemiologic principles. 5. Categorize cancer incidence by age, gender, ethnicity, and geography. 6. Categorize cancer mortality rates by age, gender, ethnicity, and geography. 	<p>Within the context of the professional discipline and scope of practice, a health care professional should be able function in the following competency areas:</p> <p>A. Participate Within an Interdisciplinary Cancer Care Team</p> <ol style="list-style-type: none"> 1. Define interdisciplinary care. 2. Describe the contribution of each professional perspective in the development of a cancer care plan. 3. Consider the financial implications for recommended cancer care. 4. Refer patients to an oncology social worker for financial guidance and resource navigation. 5. Consider the resource challenges of the agency in implementing a treatment plan. <p>B. Incorporate Psychosocial Communication Strategies in Conveying Cancer Information</p> <ol style="list-style-type: none"> 1. Refer patients to mental health, psychosocial, and support services. 2. Recognize the signs and symptoms of cancer related depression and anxiety. 3. Explain the management of depression and anxiety in patients with cancer. 4. Explain the useful coping mechanisms following a cancer diagnosis. <p>C. Incorporate Cross-Cultural Communication Strategies in Conveying Cancer Information</p> <ol style="list-style-type: none"> 1. Identify cultural subgroups in a given patient population. 2. Define culture-specific beliefs and practices. 3. Communicate cancer care information that is sensitive to religious and spiritual beliefs and practices. <p>D. Describe Common Ethical and Legal Issues in Cancer Care</p> <ol style="list-style-type: none"> 1. Adhere to HIPAA policies, procedures, and regulations. 2. Access institutional and other ethics resources. 3. Advocate for the use of advanced directives, including the right to refuse care. 4. Justify the need for informed consent in cancer research. <p>E. Incorporate Communication Strategies That Encourage the Process of Grieving</p> <ol style="list-style-type: none"> 1. Consider personal death awareness and cumulative loss as it applies to the practice of oncology. 2. Assist oncology team members with the coping strategies over the death of patients with cancer. 3. Develop a roster of coping resources for assisting family and other cancer care providers. 4. Suggest resources that help professionals cope with the death of patients with cancer.



Answer/Evaluation Form: A Competency-Based Approach to Expanding the Cancer Care Workforce

This test may be copied for use by others.

COMPLETE THE FOLLOWING:

Name: _____

Address: _____

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AMSN Member Expiration Date: _____

Registration fee: **Complimentary CNE provided as an educational service by C-Change (www.c-changetogether.org).**

Objectives

This continuing nursing educational (CNE) activity is designed for nurses and other health care professionals who are interested in and affected by the cancer health care workforce. For those wishing to obtain CNE credit, an evaluation follows. After studying the information presented in this article, the nurse will be able to:

1. Discuss the state of the cancer workforce and the nation's health.
2. Define the "National Cancer Corps" designed by the C-Change Cancer Workforce Team.
3. Describe the *Cancer Core Competency Initiative*.

Answer Form:

1. If you applied what you have learned from this activity into your practice, what would be different?

CNE Instructions

1. To receive continuing nursing education credit for individual study after reading the article, complete the answer/evaluation form to the left.
2. Photocopy and send the answer/evaluation form along with a check or credit card order payable to **AMSN** to *MEDSURG Nursing*, CNE Series, East Holly Avenue Box 56, Pitman, NJ 08071-0056.
3. Test returns must be postmarked by April 30, 2009. Upon completion of the answer/evaluation form, a certificate for 1.4 contact hour(s) will be awarded and sent to you.

This independent study activity is co-provided by **AMSN** and **Anthony J. Jannetti, Inc. (AJJ)**.

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Anthony J. Jannetti, Inc. is a provider approved by the California Board of Registered Nursing, Provider Number, CEP 5387.

This article was reviewed and formatted for contact hour credit by Dottie Roberts, MSN, MACI, RN, CMSRN, OCNS-C, **MEDSURG Nursing** Editor; and Sally S. Russell, MN, RN, CMSRN, AMSN Education Director.

Evaluation	Strongly disagree		Strongly agree		
2. By completing this activity, I was able to meet the following objectives:					
a. Discuss the state of the cancer workforce and the nation's health.	1	2	3	4	5
b. Define the "National Cancer Corps" designed by the C-Change Cancer Workforce Team.	1	2	3	4	5
c. Describe the <i>Cancer Core Competency Initiative</i> .	1	2	3	4	5
3. The content was current and relevant.	1	2	3	4	5
4. The objectives could be achieved using the content provided.	1	2	3	4	5
5. This was an effective method to learn this content.	1	2	3	4	5
6. I am more confident in my abilities since completing this material.	1	2	3	4	5
7. The material was (check one) ___new ___review for me					
8. Time required to complete the reading assignment: ___minutes					

I verify that I have completed this activity: _____

Comments
