Clinical Prevention And Population Health Curriculum Framework

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The Clinical Prevention and Population Health Curriculum Framework is a product of the Healthy People Curriculum Task Force convened by the Association for Prevention Teaching and Research. The project is supported by a grant from the Josiah Macy, Jr. Foundation of New York.

Executive Summary

The Clinical Prevention and Population Health Curriculum Framework is a product of the Healthy People Curriculum Task Force convened by the Association for Prevention Teaching and Research. The Task Force includes representatives of eight health professional education associations representing allopathic and osteopathic medicine, nursing and nurse practitioners, allied health, dentistry, pharmacy, and physician assistants. Its mission is to accomplish the Healthy People 2010 objective of increasing health promotion and disease prevention content in health professional education.

The Curriculum Framework provides a structure for organizing curriculum, monitoring curriculum, and communicating within and among professions. It is designed to provide guidelines for student education in the clinical health professions represented on the Healthy People Curriculum Task Force, but can be adapted by other health professions disciplines to suit their needs.

The Framework consists of four components:

1. Evidence-Based Practice
2. Clinical Preventive Services and Health Promotion
3. Health Systems and Health Policy
4. Population Health and Community Aspects of Practice

The full Curriculum Framework includes a total of 19 domains under the four components. Examples illustrate the types of materials that could fulfill each domain. The aim is to encourage each participating clinical health profession to review its curriculum recommendations and/or requirements and consider changes.

A variety of methods are recommended for teaching the materials and integrating them into degree programs including use of service-learning and problem-based learning as well as more traditional educational approaches. The Task Force also encourages innovative approaches to interprofessional education in clinical prevention and population health.

Each clinical profession should address the methods used to evaluate students and to ensure their levels of competency. The Task Force recommends that each profession systematically determine whether appropriate items in the Curriculum Framework are included as part of its standardized examinations for licensure and certification and for program accreditation.

The name Clinical Prevention and Population Health has been carefully chosen to include individual and population-oriented preventive efforts as well as the interactions between the two. It is recommended that all participating clinical health professions utilize the title Clinical Prevention and Population Health when referring to this area of curriculum.

Evidence-Based Practice

1. Problem Description - Descriptive Epidemiology
   - Burden of disease, e.g., morbidity and mortality
   - Course of disease, e.g., incidence, prevalence, and case-fatality
   - Determinants of health and disease, e.g., genetic, behavioral, socioeconomic, environmental, health care (access and quality)
   - Distribution of disease, e.g., person, place, and time
   - Sources of data, e.g., vital statistics, active and passive public health surveillance

2. Etiology, Benefits and Harms - Evaluating Health Research
   - Study designs, e.g., surveys, observational studies, randomized clinical trials
   - Estimation - magnitude of the association, e.g., relative risk/odds ratio, attributable risk percentage, number-needed-to-treat, and population impact measures
   - Inference, e.g., statistical significance test and confidence intervals
   - Confounding and interaction - concepts and basic methods for addressing
   - Quality and presentation of data, e.g., accuracy, precision and use of graphics

3. Evidence-Based Recommendations
   - Assessing the quality of the evidence, e.g., types and quality of studies and relevance to target population
   - Assessing the magnitude of the effect, i.e., incorporating benefits, harms, and values
   - Grading of the recommendations, i.e., combining quality of the evidence and magnitude of the effect

4. Implementation and Evaluation
   - Types of prevention, e.g., primary, secondary, tertiary
   - At whom to direct intervention, e.g., individuals, high risk groups, populations
   - How to intervene, e.g., education, incentives for behavior change, laws and policies, engineering solutions
   - Evaluation, e.g., quality improvement and patient safety, outcome assessment, reassessment of remaining problem(s)

Clinical Preventive Services and Health Promotion

1. Screening
   - Assessment of health risks, e.g., bio-psycho-social, environment
   - Approaches to testing and screening, e.g., range of normal, sensitivity, specificity, predictive value, target population
   - Criteria for successful screening, e.g., effectiveness, benefits and harms, barriers, cost, acceptance by patient
   - Clinician-patient communication, e.g., patient participation in decision-making, informed consent, risk communication, advocacy, health literacy
   - Evidence-based recommendations
   - Government requirements, e.g., newborn screening

2. Counseling for Behavioral Change
   - Approaches to behavior change incorporating diverse patient perspectives, e.g., counseling skills training, motivational interviewing
   - Clinician-patient communication, e.g., patient participation in decision making, informed consent, risk communication, advocacy, health literacy
   - Criteria for successful counseling, e.g., effectiveness, benefits and harms, cost, acceptance by patient
   - Evidence-based recommendations

3. Immunization
   - Approaches to vaccination, e.g., live vs. dead vaccine, pre vs. post exposure, boosters, techniques for administration, target population, population-based immunity
   - Criteria for successful immunization, e.g., effectiveness, benefits and harms, cost, acceptance by patient
   - Clinician-patient communication, e.g., patient participation in decision-making, informed consent, risk communication, advocacy, health literacy
   - Evidence-based recommendations
   - Government requirements

4. Preventive Medication
   - Approaches to chemoprevention, e.g., pre vs. post exposure, time limited vs. long term
   - Criteria for successful chemoprevention, e.g., effectiveness, benefits and harms, barriers, cost, acceptance by patient
   - Clinician-patient communication, e.g., patient participation in decision-making, informed consent, risk communication, advocacy, health literacy
   - Evidence-based recommendations

5. Other Preventive Interventions
   - Approaches to prevention, e.g., diet, exercise, smoking cessation
   - Criteria for successful preventive interventions, e.g., effectiveness, benefits and harms, barriers, cost, acceptance by patient
   - Clinician-patient communication, e.g., patient participation in decision-making, informed consent, risk communication, advocacy, health literacy
   - Evidence-based recommendations

Health Systems and Health Policy

1. Organization of Clinical and Public Health Systems
    - Clinical health services, e.g., continuum of care – ambulatory, home, hospital, long-term care
    - Public health responsibilities, e.g., public health functions (IOM); 10 essential services of public health
    - Relationships between clinical practice and public health, e.g., individual and population needs
    - Structure of public health systems

2. Health Services Financing
    - Clinical services coverage and reimbursement, e.g., Medicare, Medicaid, employment based, the uninsured
    - Methods for financing health care institutions, e.g., hospitals vs. long-term care facilities vs. community health centers
    - Methods for financing public health services
    - Other models, e.g., international comparisons
    - Ethical frameworks for health care financing

3. Health Workforce
    - Methods of regulation of health professionals and health care institutions, e.g., certification, licensure, institutional accreditation
    - Discipline-specific history, philosophy, roles and responsibilities
    - Racial/ethnic workforce composition including underrepresented minorities
    - Interdisciplinary health professional relationships
    - Legal and ethical responsibilities of health care professionals, e.g., malpractice, HIPAA, confidentiality
    - The role of public health professionals
    - Interprofessional activities

4. Health Policy Process
    - Process of health policy making, e.g., local, state, federal government
    - Methods for participation in the policy process, e.g., advocacy, advisory processes, opportunities and strategies to impact policy
    - Impact of policies on health care and health outcomes including impacts on vulnerable populations and eliminating health disparities
    - Consequences of being uninsured or underinsured
        - Ethical frameworks for public health decision-making

Population Health and Community Aspects of Practice

1. Communicating and Sharing Health Information with the Public
   - Methods of assessing community needs/strengths and options for intervention, e.g., community-oriented primary care
   - Media communications, e.g., strategies for using mass media, risk communication
   - Evaluation of health information, e.g., websites, mass media, patient information (including literacy level and cultural appropriateness)

2. Environmental Health
   - Sources, media, and routes of exposure to environmental contaminants, e.g., air, water, food
   - Environmental health risk assessment and risk management, e.g., genetic, prenatal
   - Environmental disease prevention focusing on susceptible populations

3. Occupational Health
   - Employment-based risks and injuries
   - Methods for prevention and control of occupational exposures and injuries
   - Exposure and prevention in health care settings

4. Global Health Issues
   - Roles of international organizations, e.g., WHO, UNAIDS, NGOs, private foundations
   - Disease and population patterns in other countries, e.g., burden of disease, population growth, health and development
   - Effects of globalization on health, e.g., emerging and reemerging diseases/conditions, food and water supply
   - Socio-economic impacts on health in developed and developing countries

5. Cultural Dimensions of Practice
   - Cultural influences on clinicians' delivery of health services
   - Cultural influences on individuals and communities, e.g., health status, health services, health beliefs
   - Culturally appropriate and sensitive health care

6. Community Services
   - Methods of facilitating access to and partnerships for physical and mental health care services, including a broad network of community-based organizations
   - Evidence-based recommendations for community preventive services
   - Public health preparedness, e.g., terrorism, natural disasters, injury prevention
   - Strategies for building community capacity

Recommended Resources

U.S. Preventive Services Task Force

The U.S. Preventive Services Task Force (USPSTF) is the leading independent panel of private-sector experts in prevention and primary care. The USPSTF conducts rigorous, impartial assessments of the scientific evidence for the effectiveness of a broad range of clinical preventive services. Its recommendations are considered the "gold standard" for clinical preventive services. USPSTF recommendations have formed the basis of the clinical standards for many professional societies, health organizations, and medical quality review groups. Previous editions of the Guide to Clinical Preventive Services have been used widely in undergraduate and post-graduate health professions education as a key reference for teaching preventive care.
http://www.ahrq.gov/clinic/USpstfix.htm

The Guide to Community Preventive Services

The Task Force on Community Preventive Services develops guidance on which community-based health promotion and disease prevention interventions work and which do not work, based on available scientific evidence. The Community Guide is a credible resource for evidence-based Task Force recommendations and findings about what works to improve public health.
http://www.thecommunityguide.org

Launch of Original Framework in the *American Journal of Preventive Medicine*

"Clinical Prevention and Population Health: Curriculum Framework for Health Professions"
(Am J Prev Med 2004;27(5):417–422)
http://www.aptrweb.org/resources/publications.html#AJPMArticles

Prevention Education Resource Center

The Prevention Education Resource Center (PERC) is the on-line repository for prevention and population health education materials. PERC promotes collaboration across health care disciplines, clinical and public health professions, and academic institutions by facilitating the exchange of teaching resources and connecting educators.
http://www.teachprevention.org

Association for Prevention Teaching and Research

The Association for Prevention Teaching and Research (APTR) is the professional organization for the academic medical and public health community dedicated to prevention research and interprofessional education. APTR advances population-based and public health education, research and service by linking and supporting members from across the academic prevention community.
http://www.aptrweb.org

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