

# Community-based Research Education in Eastern Kentucky

## CREEK

### Building Community Capacity to Control Cancer and Other Chronic Illnesses



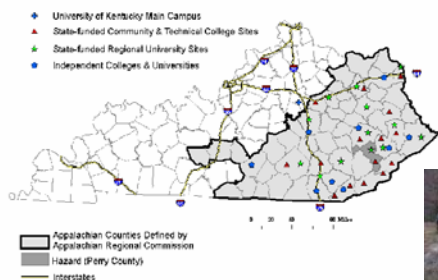
#### The Need

Cancer mortality rates in the United States are generally going down, but the nation will probably not meet the Healthy People 2010 Goals for Cancer because certain vulnerable populations continue to bear a greater cancer burden. The National Cancer Institute (NCI) defines these "special populations" as groups at a higher than average risk of death, disease and disability. The groups include people with low incomes, older Americans, African Americans, Hispanics, Native Americans, other ethnic populations, and rural Americans. The relatively high rate of poverty in these populations—cutting across race, ethnicity and geography—is perhaps the most important barrier to their participation in cancer control efforts.

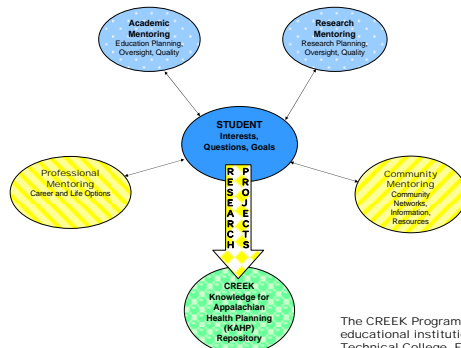
Rural Americans tend to be older, poorer, less educated, and more likely to be uninsured than their urban counterparts. Rural communities have higher rates of chronic illness and disability, have less contact and fewer visits with physicians, and generally lower levels of preventive care, including cancer screening. Rural areas suffer from systemic infrastructure gaps: lack of public transportation, fewer community services, and shortages of health professionals and services. These gaps contribute to difficulties achieving effective control of cancer and other chronic diseases, including diabetes, hypertension and heart disease.

All of these risk factors are particularly evident in the largely rural and 99% white population of eastern Kentucky where cancer is among the most important health problems and where mortality rates for other chronic diseases also exceed the national averages. Cigarette smoking rates for adults and young people in Appalachian Kentucky are the highest in the country, leading not only to the highest mortality for lung cancer and other pulmonary disease, but to the higher incidence of heart disease. Obesity and lack of physical activity are important factors in the elevated chronic disease rates, and screening rates for cervix, breast and colon cancer are below national levels, resulting in higher stages at the time of diagnosis and treatment and in higher mortality rates.

#### Higher Education Sites in Appalachian Kentucky



#### CREEK Mentoring Model



#### Consortium

The CREEK Program is developing an expanding consortium of regional educational institutions (initially involving Hazard Community and Technical College, Eastern Kentucky University, and the University of Kentucky) to develop a unique educational program that blends a person-oriented academic program and a community-based mentoring and support system for the career development of program participants, allowing them to remain in their local communities. Our intent is to "grow our own" research personnel from eastern Kentucky communities based on our belief that these individuals, with academic training, will be able to tap their contextual knowledge to conduct high-quality community-based participatory research.

CREEK emphasizes behavioral and social sciences because achieving and maintaining good health in rural underserved communities in eastern Kentucky depends primarily on human behavior. Sociology, anthropology, geography, psychology and social work are among the disciplines students are encouraged to pursue. A career development ladder from community college through graduate school has been established with academic, research, community and professional mentoring available at each rung on the ladder. The CREEK Program is designed to be an adjunct to, and an enhancement of, the defined curricula in the students' disciplinary studies for as many years as the student's educational program lasts. A distinctive feature of the first-year program is an integrative seminar with three topical modules in each 16-week semester. Each module focuses on subjects important to the pursuit of community-focused research: health issues, Appalachian social structure, qualitative research, population science, community-based participatory research and health policy. Working with members of the community, students focus on community issues related to the prevention, detection, diagnosis and treatment of cancer, as well as survivorship and the quality of care along the cancer continuum. This approach also serves as a model for dealing with behavioral aspects of other chronic diseases important in this area, including diabetes, hypertension and heart disease.

#### Tools of Research

Research experiences are an important part of each module in CREEK first-year courses. In subsequent years, students take on increasing individual research responsibilities, supported by course instructors and mentors, and in the third and fourth years they pursue projects of particular interest to them. As the program expands, another feature will be the development of teams of undergraduate and graduate students from all levels in the program addressing selected common issues. Both academic and community mentors are available to all students, and advisory groups from involved communities, as well as from academia, plus selected national consultants, help maintain focus within the program. Scholarship aid is sought for students in all levels of the program.



CREEK Founder  
Gilbert H. Friedell, MD

#### The CREEK Approach

The issue of health disparities is primarily a societal one, not a medical one. To achieve a meaningful reduction in the incidence and morbidity of cancer—and of diabetes, hypertension and heart disease—there must be individual behavior change on the part of both lay people and health professionals. Such change will not happen without the active support of the community to create awareness of the need for individual behavior change, and to encourage and support it. As Friedell has said, "If the problem is in the community, the solution is in the community." We believe that the Community-based Research Education in Eastern Kentucky (CREEK) program is a means to identify solutions through increasing the capacity of rural communities to address their own cancer-related and other health disparities. We believe that health disparities can only be addressed effectively by people who are of, as well as from, the community and have added skills as change agents.

CREEK endeavors to develop such knowledgeable change agents in eastern Kentucky, providing them with the capability of understanding and conducting behavioral science research. This program takes into account the demographic, socioeconomic and cultural realities of the region, but in its basic structure we believe the program could be replicated in other communities with similar health disparities.



#### Curriculum



#### Outcomes

- Expansion to an expected cohort of 20 students in fall, 2006.
- Involvement in community-based research projects.
- Training of students in protection of human subjects and preparation to serve on research teams.
- Development of four-year curriculum.
- Funding for projects using CREEK research assistants.
- Submission of proposals using CREEK research personnel.
- Financial support from the National Cancer Institute, Appalachian Cancer Control Network, Appalachian Regional Commission, Good Samaritan Foundation, and Cancer Research and Prevention Foundation.
- Funding to develop CREEK Research Clearinghouse and to expand educational consortium.
- Commitments by faculty, research mentors, community mentors.
- Sponsorship of Spring Colloquium in Appalachia March 29 to April 1, 2006 with Elizabeth J. Clark, Ph.D., Executive Director, National Association of Social Workers and expert in health disparities.

#### CREEK Research Clearinghouse

The CREEK Research Clearinghouse (CRC) was established in 2006 to maintain awareness of health-related research activities in eastern Kentucky in a central facility, to have a repository and clearing house for the products of research by CREEK students, faculty and associates, to coordinate research opportunities for CREEK students, and to have an employment resource for CREEK students. We intend it to become a center for community-based participatory research in eastern Kentucky, with strong links to the University of Kentucky and to regional academic centers.