

prevention will be considered. The proposed program must be described in detail, with objectives, competencies and how achieved in specified courses, curricula, recruitment, faculty and other program features. Institutions submitting proposed programs under this announcement that also have existing NIOSH-funded programs in safety/ergonomics and/or injury epidemiology must describe in detail how the proposed program differs from the existing program. In some instances, it may be necessary to replace the existing program funding with funding available under this announcement.

E. Program Requirements

In conducting activities to achieve the purpose of this program, the recipient will be responsible for the following activities that define the ERC and TPG programs to be conducted:

1. All Applicants are required to provide Measures of Effectiveness that will demonstrate the accomplishment of the various objectives of the grant. Measures must be objective/quantitative and must measure the intended outcomes. These Measures of Effectiveness shall be submitted with the application and shall be an element of evaluation.

2. ERC Applicants shall be an identifiable organizational unit within the sponsoring organization. Applicants must meet the following characteristics in order to be considered for an award. If the characteristics are not met, the application will be considered non-responsive and will be returned to the applicant without a review.

- a. Cooperative arrangements with a medical school or teaching hospital (with an established program in preventive or occupational medicine), a school of nursing or its equivalent, a school of public health or its equivalent, or a school of engineering or its equivalent. It is expected that other schools or departments with relevant disciplines and resources shall be represented and shall contribute as appropriate to the conduct of the total program, *e.g.*, epidemiology, toxicology, biostatistics, environmental health, law, business administration, and education. Specific mechanisms to implement the cooperative arrangements between departments, schools/colleges, universities, *etc.*, shall be demonstrated in order to assure that the intended interdisciplinary training and education will be engendered.

- b. An ERC Director who possesses a demonstrated capacity for sustained productivity and leadership in occupational health and safety education and training. The Director

shall oversee the general operation of the ERC Program and shall, to the extent possible, directly participate in training activities. A Deputy Director shall be responsible for managing the daily administrative duties of the ERC and to increase the ERC Director's availability to ERC staff and to the public.

- c. Program Directors who are full-time faculty and professional staff representing various disciplines and qualifications relevant to occupational safety and health who are capable of planning, establishing, and carrying out or administering training projects undertaken by the ERC. Each academic program, as well as the continuing education and outreach program, shall have a Program Director.

- d. Faculty and staff with demonstrated training and research expertise, appropriate facilities and ongoing training and research activities in occupational safety and health areas.

- e. A program for conducting education and training for four core disciplines: Occupational physicians, occupational health nurses, industrial hygienists, and occupational safety personnel. ERC core academic programs are intended to provide multi-level practitioner and research training. Core academic programs should offer masters degrees and, in research institutions, doctoral degrees. There shall be a minimum of five full-time students or full-time equivalent students in each of the core programs and a minimum of three full-time students or full-time equivalent students in each of the component programs, with a goal of a minimum of 30 full-time students (total in all of core and component programs together). ERCs are encouraged to recruit and train minority students to help address the under-representation of minorities among the occupational safety and health professional workforce. Although it is desirable for an ERC to have the full range of core programs, an ERC with a minimum of three academic programs of which two are in the core disciplines is eligible for support providing it is demonstrated that students will be exposed to the principles and issues of all four core disciplines. In order to maximize the unique strengths and capabilities of institutions, consideration will be given to the development of new and innovative academic component programs that are relevant to the occupational safety and health field, *e.g.*, ergonomics, industrial toxicology, occupational injury prevention, occupational epidemiology, health services research, and agricultural safety and health; and to innovative technological approaches to training

and education. ERCs must also document that the program covers an occupational safety and health discipline in critical need or meets a specific regional workforce need. Each core program curriculum shall include courses from non-core categories as well as appropriate clinical rotations and field experiences with public health and safety agencies and with labor-management health and safety groups. Where possible, field experience shall involve students representing other disciplines in a manner similar to that used in team surveys and other team approaches. ERCs should address the importance of providing training and education content related to special populations at risk, including minority workers and other sub-populations specified in the National Occupational Research Agenda (NORA) special populations at risk category.

- f. A specific plan describing how trainees in core and component academic programs will be exposed to the principles of all other occupational safety and health core and allied disciplines. ERCs that apply as a consortium (contracting with other institutional partners) generally have geographic, policy and other barriers to achieving this ERC characteristic and, therefore, must give special, innovative, attention to thoroughly describing the approach for fulfilling interdisciplinary interaction between students.

- g. Demonstrated impact of the ERC on the curriculum taught by relevant medical specialties, including family practice, internal medicine, dermatology, orthopedics, pathology, radiology, neurology, perinatal medicine, psychiatry, *etc.*, and on the curriculum of undergraduate, graduate and continuing education of primary core disciplines as well as relevant medical specialties and the curriculum of other schools such as engineering, business, and law.

- h. An outreach program to interact with and help other institutions or agencies located within the region. Programs shall be designed to address regional needs and implement innovative strategies for meeting those needs. Partnerships and collaborative relationships shall be encouraged between ERCs and TPGs. Programs to address the under-representation of minorities among occupational safety and health professionals shall be encouraged. Specific efforts should be made to conduct outreach activities to develop collaborative training programs with academic institutions serving minority and other special populations, such as Tribal Colleges and Universities, Historically Black Colleges and