

### Availability of Funds

Approximately \$1,300,000 is available in FY 1995 to fund approximately 4 to 6 awards. It is expected that the average award will be \$271,000, ranging from \$216,000 to \$325,000. It is expected that the awards will begin on or about September 30, 1995, and will be made for a 12-month budget period within a project period of up to 3 years. (At least one behavioral science project will be included.) Funding estimates may vary and are subject to change.

Continuation awards within the project period will be made on the basis of satisfactory progress and the availability of funds.

### Purpose

The purpose of this cooperative agreement program is to utilize the special resources of the extramural community to assist in the implementation and evaluation of strategies for the prevention of occupational transmission of blood-borne and related pathogens among certain workers.

The control technology component will evaluate the effectiveness of engineering control or personal protective equipment in preventing occupational exposure to blood. Evaluation parameters include efficacy of exposure prevention, prevention effectiveness including cost analysis, and impact on patient care. A discussion of methodologies for conducting prevention effectiveness is presented in A Framework for Assessing the Effectiveness of Disease and Injury Prevention (CDC, Morbidity and Mortality Weekly Report, March 27, 1992, Volume 41, Number RR-3, pages 5-11). (For ordering a copy of A Framework for Assessing the Effectiveness of Disease and Injury Prevention, see the Section Where to Obtain Additional Information.)

The behavioral evaluation component of this cooperative agreement will assess the efficacy of one or more specific intervention(s) to affect organizational, social and/or individual health-care workers' behavior(s) to improve compliance with CDC recommendations and to generate data upon which to base recommendations for practical methods of increasing worker compliance.

### Program Requirements

In conducting activities to achieve the purpose of this program, the recipient will be responsible for the activities under A. (Recipient Activities), and CDC will be responsible for conducting activities under B. (CDC Activities).

#### A. Recipient Activities

From among the following activities, applicants should address the general activities and those areas that are within the interests and strengths of their organizations:

##### 1. General

a. Develop communication models for informing management and labor of the nature of the work hazards and for modifying attitudes and behavior.

b. Publish results of research in appropriate scientific literature.

##### 2. Blood-Borne Pathogen Control Technology

a. Develop a plan to evaluate the efficacy and effectiveness of specific types of control technologies including devices/personal protective equipment for prevention of blood exposures in a health-care workplace. This plan should include: (1) collection and analysis of data on needlestick/sharps injuries; (2) identification of new technologies to reduce needlestick/sharps injuries; (3) analysis of the impact of implementation of new technologies on the incidence, epidemiology and cost of needlestick injuries/blood exposures; and (4) determination of the relationships between exposures and devices/equipment. The plan may also include: (1) development of device/personal protective equipment selection and evaluation criteria; (2) evaluation of the decision analysis process for purchasing anti-needlestick devices and evaluation of cost-effectiveness; (3) collection and analysis of data regarding positive and negative aspects of user acceptance for devices; (4) evaluation of impact of placement/and use of devices/equipment such as in patient rooms and emergency vehicles; and (5) impact of user/worker involvement (e.g., focus groups) in the selection and evaluation of devices. The plan should include a detailed evaluation methodology.

b. Develop and maintain a data management system for the study.

##### 3. Behavioral

a. Develop, implement, and evaluate a plan that assesses one or more specific interventions to improve workers' compliance with specific infection control (IC) recommendations (e.g., hand washing, use of personal protective equipment, appropriate sharps disposal).

b. Develop a plan to evaluate one or more specific interventions by: (1) implementing the intervention(s) in a health-care work place; (2) quantifying its impact on an appropriate measurable outcome related to compliance with IC recommendations; and (3) using the

data to propose practical recommendations to increase workers' compliance with IC recommendations. The plan should include a detailed description of the evaluation methodology, including describing potential confounders/bias that might affect the data and addressing methods to account for these confounders/bias.

c. Develop and maintain a data management system for the study.

#### B. CDC Activities

1. Provide consultation and technical assistance in the conduct of the intervention evaluation, including input in the development of intervention design and review of raw and summary data.

2. Provide assistance on analysis, dissemination, presentation and publication of the data.

3. Provide scientific information related to the proposed research topics.

4. Meet periodically with recipient(s) to discuss progress, exchange information, and seek means of resolving problems which have arisen.

5. Assist in predicting hazards that may be associated with new technologies and new occupations and characterize changes that are occurring in health care settings and occupational safety and health.

6. Assist in determining the efficacy and effectiveness of intervention and in measuring the impact of prevention.

### Evaluation Criteria

The application will be reviewed and evaluated according to the following criteria:

#### 1. Understanding of Purpose and Objectives (15%)

Responsiveness to the objective of the cooperative agreement including: (a) applicants understanding of the objective of the proposed cooperative agreement, (b) relevance of the proposal to the objective, and (c) willingness to cooperate with CDC in the design, implementation and analysis of the project. The extent to which the applicant demonstrates knowledge and understanding of health-care settings and interventions described in this cooperative agreement.

In addition, applications targeting the behavioral component should specifically address: The extent to which the applicant demonstrates knowledge and understanding of health care settings and work behaviors/practices which influence compliance with infection control recommendations and need to develop specific practical interventions that will influence