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Seven Prevention Priorities of USPHS Scientist Officers

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The Commissioned Corps of the US Public Health Service (USPHS), one of America's seven uniformed services, comprises more than 6700 public health professionals whose mission is to protect, promote, and advance the health and safety of the nation. The Scientist Category, one of 11 professional USPHS categories, includes more than 300 doctoral-level scientists stationed at various state and federal agencies. Among USPHS scientists' varied work duties and responsibilities are activities related to the seven health priorities delineated in the National Prevention Strategy (NPS), a 2011 federal agenda developed by the Surgeon General–led National Prevention Council that aims to guide improvements in health and well-being in the United States.

Tobacco-Free Living

The NPS priority on tobacco-free living focuses on supporting comprehensive tobacco-free and other evidence-based tobacco prevention and control policies, expanding use of tobacco cessation services, and using the media to encourage people to live tobacco free.¹ USPHS scientists at the Food and Drug Administration (FDA) develop science-based regulations,

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review tobacco product submissions, and fund and conduct research to increase the scientific understanding of the health effects of tobacco products and nicotine delivery systems, such as e-cigarettes. USPHS scientist officers at the Centers for Disease Control and Prevention (CDC) collect and disseminate scientific data about the health effects of tobacco use and secondhand smoke exposure, and evaluate and promote effective interventions to reduce tobacco use. USPHS scientists at both agencies use various media channels and community outreach to educate the public on the harms of tobacco use and secondhand smoke exposure, and where to find assistance to quit tobacco use.

Preventing Drug Abuse and Excessive Alcohol Use

The NPS priority on preventing drug abuse and excessive alcohol use focuses on supporting state, tribal, local, and territorial implementation of alcohol control policies; encouraging youths not to drink alcohol or use other drugs; identifying alcohol and other drug abuse disorders early and providing brief intervention, referral, and treatment; and reducing inappropriate access to prescription drugs.¹ USPHS scientists conduct surveillance to understand and disseminate the associated health outcomes of drug overdose. These data are used in partnership with drug prevention coalitions to ensure the availability of education and treatment programs for active-duty military officers.

Healthy Eating

The NPS priority on healthy eating focuses on improving access to healthy foods, implementing nutritional standards, helping people make healthy choices, supporting policies and programs that promote breastfeeding, and enhancing food safety.¹ USPHS scientists work in this area includes policy evaluations of nutrition topics at the CDC, assessment of healthy food and beverage availability through the “Healthy Parks Healthy People US” initiative at the National Park Service, and food inspections to identify chemical and biological contamination before food becomes a consumer product at the FDA. When food-borne infections occur, USPHS scientist officers from multiple agencies may assist state health departments or lead investigations to stop an outbreak. Finally, USPHS scientists also create programs to educate and encourage healthy eating habits, including the Healthy Habits Program at Walter Reed National Military Medical Center, which targets obesity in children.

Active Living

The NPS priority on active living focuses on increasing physical activity by promoting community design that supports and facilitates physical activity, and on strengthening early-learning-center, school, and workplace programs that encourage individuals to engage in active living.¹ USPHS scientist officers have educated hundreds of uniformed service medical students on evidence-based methods for targeting physical activity in primary care settings and have evaluated the impact of body mass index measurements in school settings on students' physical activity levels, nutrition, and obesity rates. USPHS scientists also facilitate access to safe, affordable places for physical activity in their communities by

implementing and supporting Safe Routes to School, which works to improve the safety of walking and bicycling routes.

Injury- and Violence-Free Living

The NPS priority on injury-and violence-free living focuses on transportation safety, community and streetscape design, fall prevention, workplace safety, violence prevention, and education of individuals and families to prevent injuries and violence.¹ At the CDC, USPHS scientists conduct research and provide evidence to states regarding the efficacy of laws concerning child passenger safety seats, booster seats, and seat belts; oversee national surveillance systems that monitor intimate partner violence (National Intimate Partner Violence and Sexual Violence Surveillance System) and sexual violence and stalking (National Violent Death Reporting System) to help inform decisions by policymakers; and develop evidence-based materials such as Web site content, public service announcements, and social media messages to promote prevention strategies regarding falls, motor-vehicle crashes, and bullying. At the National Park Service, USPHS scientists have established a National Transportation Safety Program to prevent motor vehicle crashes—the leading cause of death in parks—on 10 000 miles of national park roads.

Reproductive and Sexual Health

The NPS priority on reproductive and sexual health focuses on improving reproductive and sexual health by providing people with information to make informed and healthy choices, and increasing access to and effective use of health care services.¹ USPHS scientists work on the Preconception Health and Health Care (PCHHC) initiative to expand routine surveillance and monitoring of PCHHC behaviors and outcomes and reduce disparities in birth outcomes.² USPHS scientist officers also have contributed to essential guidance documents, including revisions to the Institute of Medicine guidelines on gestational weight gain; adaptation of two internationally accepted cornerstones of family planning services and their updates—the World Health Organization's Medical Eligibility Criteria for Contraceptive Use^{3,4} and Selected Practice Recommendations for Contraceptive Use⁵—for use in the United States; and the revision of the federal Title X family planning program guidelines, which serve as the standard of care for providing family planning and related reproductive health services in the United States.

Mental and Emotional Well-Being

The NPS priority on mental and emotional well-being focuses on promoting positive early childhood development, facilitating social connectedness, and promoting the early identification of mental health needs and access to quality services.¹ Some of the activities in this area include surveillance and research on postpartum mental health at the CDC and design and implementation of a residential treatment program focused on posttraumatic stress disorder for uniformed service members at the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury.

Conclusions

In addition to the activities already described, the work of USPHS scientists often crosses multiple NPS priorities. For example, some USPHS scientists are clinical practitioners who provide direct patient support for tobacco-free living; alcohol and drug abuse intervention, referral, and treatment; and violence reduction. Specifically, USPHS scientists at the Federal Bureau of Prisons are involved with the Bureau Rehabilitation and Values Enhancement (BRAVE) Program, which aims for early identification of and appropriate clinical intervention for individuals with psychological disorders. Scientist officers' work at the CDC's National Institute for Occupational Safety and Health aligns with the NPS priority areas of injury- and violence-free living, reproductive and sexual health, and mental and emotional well-being by addressing the prevention of work-related injuries and violence, hazardous exposures, and stressors that affect psychological and physical health. Finally, USPHS scientists at the CDC's National Center for Health Statistics work on cross-cutting national health indicator projects, including Healthy People 2020, which span all NPS priorities.

The work we describe is only a portion of the contributions made daily by USPHS scientist officers. Scientist officers' daily duties are demonstrably diverse and span many facets of the seven priority areas of the NPS. To learn more about the USPHS Commissioned Corps and about becoming a scientist officer, visit www.usphs.gov.

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