

Protecting Our Forces Improving Vaccine Acquisition and Availability in the U.S. Military

Infectious diseases continue to pose a substantial threat to the operational capacity of military forces. The U.S. Army Medical Research and Materiel Command asked the Institute of Medicine (IOM) of the National Academies to review the process by which the U.S. military acquires vaccines to protect its warfighters from natural infectious disease threats. The resulting IOM Committee on a Strategy for Minimizing the Impact of Naturally Occurring Infectious Diseases of Military Importance: Vaccine Issues in the U.S. Military, convened in April 2000, reviewed aspects of the Military Infectious Diseases Research Program. In its report, the Committee makes nine recommendations aimed at improving the coordination of the entire gamut of activities—from identifying the need for protection against an infectious agent through product licensure and continued availability.

Historical Overview

Vaccines have served as a key mode of preventing infections among America's military forces since General George Washington ordered the systematic variolation of the Continental Army to protect the nascent nation's soldiers from smallpox. Infectious diseases have influenced the results of military campaigns throughout history and remain a substantial threat to the operational capacity of U.S. military forces for three distinct reasons: (1) recruits continue to train in groups under crowded conditions, increasing the risk of spread of infectious agents; (2) deployed warfighters, whether on combat or peacekeeping missions, continue to come into contact with pathogens against which they have no immunity;

and (3) warfighters, along with others, face an increasing risk of the intentional use of weaponized infectious agents.

Vaccine Acquisition

The committee found that the Department of Defense (DoD) vaccine acquisition process—which includes identification of infectious disease risks suitable for vaccine development, laboratory research, product development, clinical trials, specific vaccine licensure, and ongoing manufacturing compliance with regulatory requirements—is fragmented and complex. Poorly aligned acquisition processes and an inadequate commitment of financial resources—rather than uncleared scientific or technological hurdles—contribute to the unavailability of some vaccines that could protect military personnel, and, implicitly, the welfare and security of the nation.

Recommendations

Vaccines are often the most cost-effective way to protect individuals from infectious diseases, but their value is easily overlooked both within the civilian public health sector and within the military. The committee outlines ways in which DoD might strengthen its acquisition process and, therefore, improve vaccine availability. Recommendations, which include combining all DoD vaccine acquisition responsibilities under a single DoD authority, cover four broad aspects of the acquisition process: (1) organization, authority, and responsibility; (2) program and budget; (3) manufacturing; (4) and the regulatory status of special-use vaccines.

**COMMITTEE ON A STRATEGY FOR MINIMIZING THE IMPACT OF NATURALLY
OCCURRING INFECTIOUS DISEASES OF MILITARY IMPORTANCE:
VACCINE ISSUES IN THE U.S. MILITARY**

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