WRAIR
Walter Reed Army Institute of Research
MILITARY HIV RESEARCH PROGRAM

U.S. Military HIV Research Program

At the Forefront of the Battle Against HIV

The U.S. Military HIV Research Program (MHRP) strengthens force readiness, protects deployed Service Members and preserves the battlefield blood supply by developing advanced HIV medical countermeasures and strategic global research capabilities.

Established in 1986, MHRP is part of the Walter Reed Army Institute of Research and maintains one of the U.S. military's most enduring global research footprints.

Mission Capabilities

Protecting Battlefield Blood Supply

MHRP and partners are researching and developing innovative bispecific antibody platforms for force protection and transfusion safety. HIV transmission risks in combat settings also include occupational (e.g., needlestick) or blast-related exposure to blood and tissue of people with HIV.

These bispecific antibodies can neutralize HIV with improved breadth and potency, and they can be used as both preventive and therapeutic countermeasures. They may be valuable tools for use in strategic geographies where HIV is highly endemic, especially in INDOPACOM and EUCOM.

Scan for a video to learn more about bispecific antibodies

Medical Countermeasure Development

- Conducts Phase 1-3 clinical trials of HIV prevention and therapy tools with Department of War (DoW) and Allied Partners.
- Leads innovation in immune countermeasure development and production in partnership with WRAIR's Pilot Bioproduction Facility.
- Developed the Army Liposome Formulation (ALF) adjuvants, a propriety product now used in DoW vaccine platforms and licensed out to interagency and industry partners.

A Legacy of HIV Vaccine Success
MHRP led the RV144 HIV vaccine clinical trial in Thailand that, for the first and only time, demonstrated a modest ability to protect against HIV infection, showing that an HIV vaccine is possible.

A Critical Defense Asset

- Protects warfighter medical readiness and safeguards battlefield blood supply
- Maintains a global research network vital to U.S. Indo-Pacific strategy and emergency response
- Preserves DoW scientific leadership against rising global biotechnology competitors
- Accelerates deployable medical countermeasures for operational environments
- Bolsters Global Health Security and secures bioresponse capability

Photo by Tyra Breaux

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Threat Surveillance

MHRP leverages its global research network to monitor regional HIV transmission dynamics and circulating virus subtypes in strategically important regions to inform countermeasure development.

Addressing the Rapidly Growing Philippines Epidemic

While HIV is declining globally, the Philippines stands in stark contrast, experiencing a 411% increase in daily incidence 2012-2023. The country is facing a mounting public health challenge with limited data on the virus' regional molecular epidemiology.

MHRP, in collaboration with the Armed Forces of the Philippines (AFP) and other partners, is conducting a study to characterize HIV viruses that are currently circulating in the Philippines, revealing findings that could inform both prevention and treatment strategies.

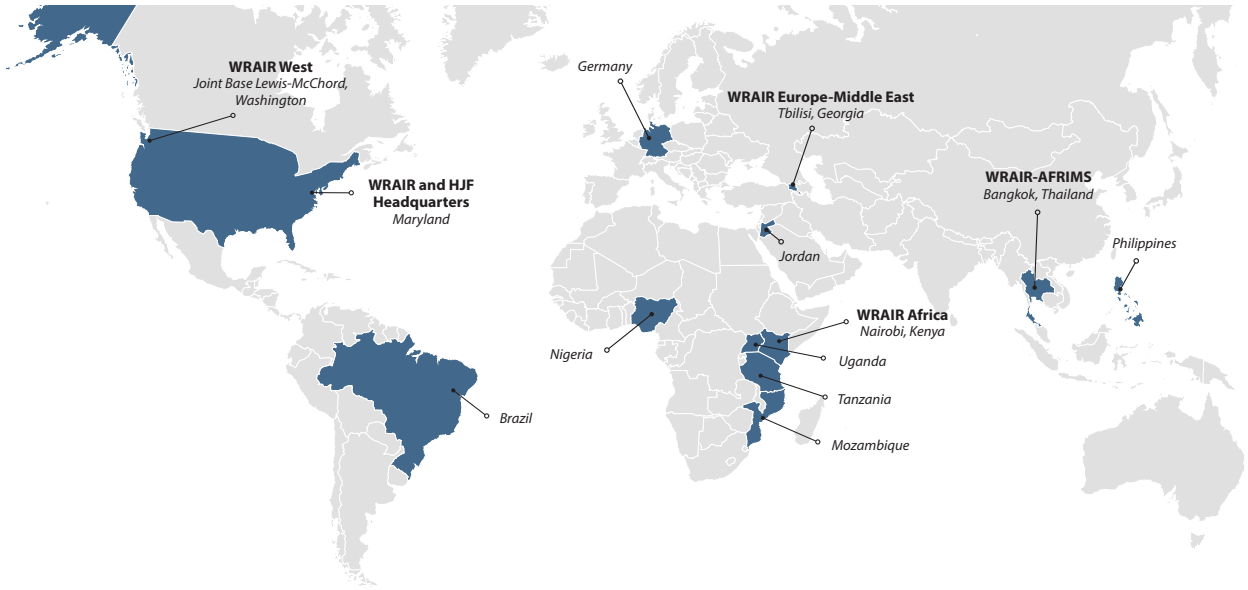
Gaining Insight into HIV Epidemic in Republic of Georgia

MHRP has launched its first study in the Eastern European country of Georgia to characterize HIV risks, molecular epidemiology and related infections.

A recent influx of people displaced by regional conflicts, such as the Ukraine war, could potentially impact the local HIV burden, and changes in HIV incidence and transmission can contribute to regional instability. MHRP's study will fill in public health knowledge gaps for the region and help inform prevention and treatment countermeasures.

Strategic Global Presence

MHRP supports a research network spanning strategically important regions in Sub-Saharan Africa, the Middle East, Europe and Southeast Asia to characterize regional HIV epidemiology and develop countermeasures. MHRP presence also helps maintain ready-to-launch biosurveillance and clinical trial research infrastructure capable of pivoting to respond to emergent infectious disease outbreaks.



President's Emergency Plan for AIDS Relief (PEPFAR)

MHRP implements PEPFAR-funded HIV prevention, care and treatment activities with both civilian and military populations in Kenya, Nigeria, Tanzania, Uganda and the Philippines. By leveraging PEPFAR's infrastructure for research and development, MHRP advances cost-efficient, mutually reinforcing countermeasure development and service delivery. Additionally, PEPFAR-linked facilities and labs support disease surveillance, providing the U.S. with early warning of emerging infectious disease threats.

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