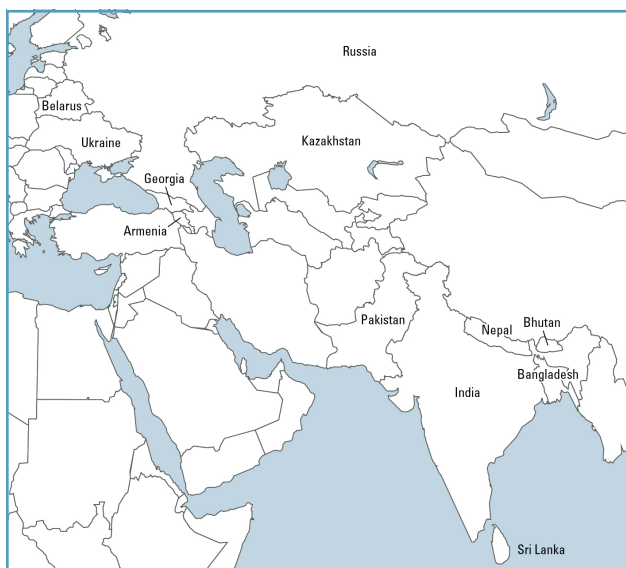


NIAID International Research Activities FY 2020 South and Central Asia Region

About NIAID

The National Institute of Allergy and Infectious Diseases (NIAID), part of the U.S. National Institutes of Health (NIH), conducts and supports basic and clinical research to better understand, treat, and prevent infectious, immunologic, and allergic diseases. For more than 60 years, NIAID research has led to new therapies, vaccines, diagnostics, and preventive strategies that have improved the health of millions of people in the United States and around the world.

Figure 1. Countries With NIAID-Funded Research



Research Priorities

NIAID research priorities in this region include HIV/AIDS, tuberculosis (TB), and malaria, as well as HIV co-infections, filariasis, and leishmaniasis. Other areas of research interest include cholera, amebiasis, leprosy, emerging or re-emerging viral diseases, and antimicrobial resistance (AMR). One of the most important and successful collaborations in this region has been the Indo-U.S. Vaccine Action Program (VAP).

Regional Projects

NIAID supported 71 research projects in 12 South and Central Asian countries in fiscal year (FY) 2020 (Figure 1). Total NIAID international health research funding in South and Central Asia was \$34.6 million.

Countries With NIAID-Funded Research

Armenia	Georgia	Pakistan
Bangladesh	India	Russia
Belarus	Kazakhstan	Sri Lanka
Bhutan	Nepal	Ukraine

Selected Special Events

NIH Visitors

- Drs. Vladimir Berezin and Naylia Klivleyeva, Research and Production Center for Microbiology and Virology, Kazakhstan
- Serum Institute of India (SII), India

Meetings

- 31st Indo-U.S. VAP Joint Working Group Meeting between India's Department of Biotechnology (DBT) and NIAID, India
- Candidate Vaccine Advisory Committee virtual meeting with India's DBT, Indian Council of Medical Research, and NIAID
- Department of Bioethics at the NIH Clinical Center and India's DBT virtual collaboration on "Ethics in Clinical Research"

Selected NIAID Regional Programs

The Centers of Excellence for Influenza Research and Response (CEIRR) study the natural history, transmission, and pathogenesis of influenza and provide an international research infrastructure to address influenza outbreaks. Although CEIRR is primarily focused on influenza, the network also studies SARS-CoV-2 and other emerging viruses of pandemic potential.



The Centers for Research in Emerging Infectious Diseases (CREID) network is a coordinated group of emerging infectious disease research centers. Multidisciplinary teams of investigators will conduct pathogen/host surveillance, study pathogen transmission, examine pathogenesis and immunologic responses in the host, and develop reagents and diagnostic assays for improved detection for important emerging pathogens and their vectors.

HIV/AIDS Clinical Trials Networks study critical questions related to HIV and AIDS through the AIDS Clinical Trials Group (ACTG), HIV Prevention Trials Network (HPTN), International epidemiology Databases to Evaluate AIDS (IeDEA) Consortium, International Maternal Pediatric Adolescent AIDS Clinical Trials (IMPAACT) Network, International Network for Strategic Initiatives in Global HIV Trials (INSIGHT), and Microbicide Trials Network (MTN).

The **Indo-U.S. Joint Program on HIV/AIDS and STI Prevention Research** focuses on HIV/AIDS therapeutics (including for cervical cancer patients with HIV), HIV-TB comorbidity, and immunology.

The **Indo-U.S. Vaccine Action Program (VAP)** is a 35-year-old bilateral program that involves U.S. and Indian scientists in collaborative, jointly funded research focused on human immunology and vaccine-related research on diseases including dengue fever, TB, and Zika virus. Lead partners of the program are NIAID and India's Department of Biotechnology.

The **International Centers of Excellence for Malaria Research (ICEMR)** conduct research to enhance malaria prevention and control in endemic regions of Africa, Asia, the Pacific Islands, and Latin America. In India, there are two ICEMRs: India ICEMR, Besant Nagar Community in Chennai, India, and South Asia ICEMR, Panaji City, in Goa, India.

The **International Centers for Excellence in Research (ICER)** program conducts sustained research activities involving U.S. and local scientists. In India, an NIAID ICER is located in Chennai, within the National Institute for Research in Tuberculosis (NIRT) of the Indian Council of Medical Research.

The **International Collaborations in Infectious Disease Research (ICIDR)** program supports the study of tropical medicine and emerging infectious diseases research.

The **NIAID TB Portals** is a multinational collaboration for TB data sharing and analysis to advance TB research. Participating countries from the South and Central Asia region include Georgia, India, Kazakhstan, and Ukraine.

Selected NIAID-Supported Science Advances

- Researchers at Aga Khan University (Pakistan) collaborated with partners from the United World Antiviral Research Network (UWARN) to start surveillance for arboviruses and emerging viruses, including SARS-CoV-2 variants.
- Collaborators from the IeDEA Consortium conducted a longitudinal cohort study to evaluate the association between pretreatment body mass index (BMI) and immune recovery, virological failure, and cardiovascular disease (CVD) risk among people with HIV. High pretreatment BMI was associated with better immune reconstitution and CVD risk factor development in a cohort of Asian people with HIV.
- Researchers from the NIAID ICER and the NIRT in India studied the distinct cytokine profiles between newly diagnosed diabetic individuals with TB (TB-NDM) and known diabetic individuals with incident TB (TB-KDM). Data revealed considerable heterogeneity in the immunological underpinnings of TB-diabetes comorbidity and suggest that TB-NDM exhibits a characteristic profile that is both biochemically and immunologically distinct from TB-KDM.

The **Tropical Medicine Research Centers (TMRCs)** support tropical medicine research in disease-endemic countries. Two of the seven centers are located in South Asia (India, Sri Lanka).

NIAID Office of Global Research (OGR)

OGR facilitates and coordinates NIAID's international activities and collaborative research programs. OGR works closely with other NIH Institutes and Centers, offices and agencies of the U.S. Department of Health and Human Services, and numerous foreign government agencies.

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