

Provide technical and logistical support to assess population immunity to poliovirus in high-risk, historically endemic regions (Sero-survey) in Afghanistan

Project Information

- ◆ **Department:** Public Health Programs
- ◆ **Unit:** Polio and Immunization

Objectives

To assess seroprevalence of neutralizing antibodies against poliovirus types 1, 2, and 3 and seroprevalence of antibodies against antigens for multiple additional diseases among children under 15 years in the East Region of Afghanistan

REGIONS OF WORK

The serosurvey will be conducted in Afghanistan's East and South Regions including Torkham border

BENEFICIARIES

The project's main beneficiaries are the children under 15 in Afghanistan east region, health authorities and policy makers, global health community and local communities.

PROJECT PHASES

This project involves two phases as the following:

Phase I – Preparation Phase:

- Develop the study design, determine sample size, and create data collection tools.
- Obtain ethical approvals and engage local authorities.
- Conduct a pilot test to refine survey methodology and tools.

Phase II - Implementation Phase:

- Conduct field data collection, including blood sample collection and administering questionnaires.
- Perform laboratory analysis to assess immunity levels.
- Analyze data to identify immunity gaps and understand WPV1 persistence.
- Share findings with Afghan health authorities and global health partners for actionable insights.

PROJECT DESCRIPTION

EMPHNET will provide technical and logistical support Agha Khan University (AKU) in Pakistan to conduct a serosurvey in Afghanistan's Eastern Region to evaluate immunity levels against poliovirus among children under 15. Persistent wild poliovirus type 1 (WPV1) cases in the area suggest potential immunity gaps despite regular vaccination campaigns. By analyzing blood samples from three age groups across eight key districts, the study will identify immunity coverage and gaps related to poliovirus types 1, 2, and 3, as well as other vaccine-preventable diseases. The results will help refine immunization strategies, address areas of low immunity, and support the region's efforts to achieve polio eradication.

This project represents a continuation of activities initiated in Year 1, focusing on assessing population immunity levels to inform immunization strategies in Afghanistan. The Year 2 cycle will concentrate on completing data collection in the Southern region while building on the baseline data collected in the Eastern region during Year Four.

Project Start and End Date	02/1/2024 – 07/31/2027
Funded by	Centers for Disease Control and Prevention (CDC)

Currently . . .

- Successfully completed data collection in the Eastern region, including Torkham border areas.
- Baseline information and insights on population immunity levels have been generated.
- Lessons learned from this year will inform the methodology and monitoring approach in the Southern region.

What is next . . .

- Recruit four independent monitors for Southern region data collection.
- Complete serosurvey activities across the targeted Southern provinces.
- Conduct quality control and monitoring throughout the data collection process.
- Analyze data and prepare reports on immunity gaps and zero-dose trends.
- Plan and conduct readiness workshop (October).
- Plan and conduct dissemination workshop (October-November).
- Provide technical assistance to EPI and support zero-dose investigations.
- Generate evidence-based recommendations for interventions to improve immunization coverage and reduce zero-dose children.

OUTCOMES BY NUMBERS

3100 samples collected from the east region including Torkham border

EMPHNET Information: Eastern Mediterranean Public Health Network (EMPHNET) works at achieving its mission by responding to public health needs with deliberate efforts that allow for health promotion and disease prevention.

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