

Early Detection and Early Response to Acute Watery Diarrhea in North Waziristan, Pakistan

Background

North Waziristan, with a history of colonization, militant occupation, and displacement, remains one of Pakistan's most deprived and conflict-affected areas, particularly North and South Waziristan, once epicenters of militant violence. The challenging geographical and health service dynamics of the District, where in many areas no fully functional government health facilities exist, Pakistan Red Crescent Society (PRCS), supported by Norwegian Red Cross continue to deliver primary health care services. District health authorities rely heavily on PRCS supported facilities and volunteers for outbreak alerts, case verification, and response coordination.

The Community-Based Surveillance (CBS) program implemented by PRCS and supported by Norwegian Red Cross in District Orakzai, started in November 2025, in close collaboration with the Directorate of Health Services, Khyber Pakhtunkhwa, the Provincial Surveillance Officer with the Public Health Officer.

CBS volunteers received formal in-person training, followed by multiple online follow up and deep-dive sessions assigned to PRCS supported health facility and catchment area communities. Urdu case definitions for the 3 major epidemic prone diseases Acute Watery Diarrhea (AWD), Measles and Acute Flaccid Paralysis were aligned with Government Integrated Disease Surveillance and Reporting (IDSR) protocols.

Community Alert and Early Action

Village Zeba is a mountainous and underserved community located approximately 8 km from Dossali Primary Health Care Centre (PHCC).

On November 24th, 2025, a CBS Volunteer identified a sudden increase in suspected AWD cases that matched the CBS case definition. Approximately 15 suspected AWD cases were initially identified. This early

community alert triggered the first steps of the response.



Figure 1: village Zeba Community awareness session for men

The suspected cases were recorded and notified to the supervisor medical officer; alert escalation was initiated to PRCS District Office and District Health Office, confirmed the outbreak through investigation, and initiated an urgent response.

Intervention

With the support of Norwegian Red Cross, PRCS mobilized an outreach team for early treatment, in collaboration with the Dossali PHCC doctor, and the set up of a medical camp. The intervention focused on halting the spread of AWD in Zeba and surrounding villages.



Figure 2: The mobile medical team

PRCS volunteers used the Epidemic Control for Volunteers (ECV) toolkit to communicate the risks about AWD, to encourage informed decision-making and positive behavior change in Zeba and surrounding villages. Moderate to severe AWD patients particularly children under 5 were referred to PHCC Dossali.

During the short response, a total of 83 patients were treated, all patients received free medical treatment and 1 was referred to District Headquarters Hospital Miranshah. Volunteers were actively involved in house-to-house cases findings and referral to the mobile treatment camp.

The District Health Office played a crucial role in supporting the emergency response. On urgent request, the District Health Office supplied additional medicines to ensure uninterrupted treatment of AWD-affected patients and to assist in controlling the outbreak efficiently at field level.



Figure 4: water chlorination demonstrating sessions in Zeba

Impact

The rapid detection and set up of the medical camp were critical. Within a short time, the intervention not only contained the outbreak but also prevented further spread across the nearby villages; volunteers, health workforce and strong collaboration/coordination with the District Health Office worked towards containing the potential outbreak.

Conclusion

The case shows how active involvement of CBS volunteers, swift coordination between PRCS, District Health and rapid intervention has been key to prevent a large-scale outbreak. This story shows that, when community health systems, volunteers and the health system join forces, outbreaks can be stopped.

The Health Department has expressed strong commitment to working closely with PRCS and to continue delivering primary health care services in remote communities. CBS has further strengthened the existing disease surveillance system and significantly improved early detection and response to epidemics in underserved areas.