When Crisis Sparks Change: How the Cholera Emergency Response Strengthened Health System Resilience



Launch of OCV Campaign, Fangak County, Jonglei, January 2025

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Jonglei, 8 September 2025 - Health emergencies, while devastating, often mark turning points for building stronger public health systems. The cholera outbreak in Jonglei State and the Greater Pibor Administrative Area (GPAA) of South Sudan illustrates this clearly. By 07 Sept 2025, the outbreak had claimed 374 lives and affected over 17,575 individuals. Yet within the tragedy lay an opportunity: the response exposed systemic weaknesses that, once addressed, set the stage for a more resilient and responsive health system.

The coordinated effort—led by the Jonglei State Cholera Task Force under the Ministry of Health, with support from WHO and health partners—extended

far beyond containing the disease.

"We were fighting cholera,
but we were also building
something bigger—a system
that can respond faster and
better next time." said Mr Kai Kuol.

Director of Preventive Health Services in Jonglei "Rapid deployment and retraining of surveillance teams, establishment of cholera treatment centers, and large-scale oral cholera vaccination campaigns were carried out with unprecedented speed and coordination." Multisectoral coordination mechanisms were swiftly established and activated across all affected counties, running concurrently with the outbreak investigation.

This simultaneous approach significantly minimized delays and ensured that all response pillars, including the retraining of frontline health workers and county rapid response teams, were operational within the same week.

Compared to previous cholera outbreaks, this timely activation greatly enhanced the effectiveness and speed of the intervention. The response applied best practices with lasting benefits. This was made possible thanks to detailed resource mapping, restoration

of cold chain infrastructure, stronger medical supply chains, and effective risk communication with communities.

Such measures not only improved the immediate outbreak response but also strengthened local preparedness for future health crises.

The reinforcement of governance structures and community health networks further expanded access to care and built trust in health services. "This outbreak showed that emergency response, when backed by strong planning and collaboration, can be more than crisis management," said Dr Chol Thon, CHD Twic East County Jonglei State "It became a catalyst for change—reshaping how the health system adapts under pressure and proving that resilience can grow even in adversity."



1. Resource mapping: The foundation of an effective response

Managing any public health emergency starts with a clear picture of the landscape both the scale of the health impact and the resources available to address it. In Jonglei, the State Cholera Task Force launched a comprehensive resource-mapping exercise across the nine affected counties. The findings exposed critical gaps that had long gone unnoticed, allowing the task force and partners to target solutions more effectively.

On paper, many health facilities looked functional. The mapping revealed that isolation units were often missing, staff lacked proper training, and essential supplies were out of stock. By identifying these gaps early, the response was able to channel resources where they were needed most ensuring not only a stronger cholera response but also better access to essential health services.

With WHO's support, county health departments in Jonglei and GPAA rolled out large-scale training and capacitybuilding:



 $Technicians\ repairing\ flood-damaged\ cold\ chain\ fridge\ ahead\ of\ OCV\ campaign\ in\ Duk\ County$



 278 health workers trained to manage common conditions, including acute watery diarrhoea



 720 vaccinators and cold-chain assistants trained on safe vaccine handling and management



 150 rapid response team members trained on surveillance and health information management

The impact was immediate:



+28% increase in overall health service utilization in the first half of 2025



 County-level gains ranging from 14% to 21%



Pibor (+21%) and Ayod
 (+19%) saw the most significant improvements in consultations



 Weekly IDSR reporting improved from 78% to 86% "By turning data into action, resource mapping became more than a tool for crisis response—it strengthened the very backbone of health services in Jonglei and GPAA, setting a precedent for how emergencies can drive long-term health system resilience." Said Dr Aggrey Bategereza, WHO EPR Team, WHO South Sudan.



2. Cold chain restoration: A dual benefit for cholera and routine immunization

One of the most critical insights from the 2024 resource mapping exercise was the extensive damage inflicted on cold chain systems across health facilities due to flash floods. In the counties of Fangak, Pigi, Twic East, Duk, and Ayod, floodwaters submerged 21 health facilities and rendered 34 others inaccessible, severely disrupting immunization services for tens of thousands of children. Infrastructure—including refrigerators, solar batteries, panels, and inverters—was rendered non-functional, compromising the safe storage and delivery of vaccines.

In response to these challenges, the County Health Departments (CHDs), in collaboration with humanitarian partners and under the coordination of the State Cholera Taskforce, swiftly relocated health services to higher ground to maintain operational continuity. While some facilities remained partially functional, the taskforce initiated comprehensive preparedness measures for an Oral Cholera Vaccination (OCV) campaign.

A multi-agency technical team—comprising WHO, UNICEF, and Access for Humanity—was formed to assess the functionality of the cold chain systems. This assessment not only focused on infrastructure but also included evaluating antigen availability, thereby laying the groundwork for broader systemic improvements in vaccine delivery and storage.

Following the assessment, partners undertook targeted interventions to extract, repair, and replace damaged cold chain equipment. These efforts were instrumental in enabling the successful rollout of the OCV campaign and restoring routine immunization services. By rehabilitating critical infrastructure, the initiative helped reduce vaccination dropout rates and strengthened the resilience of the immunization system against future emergencies. The restoration of cold chain capacity also ensured that vaccines could be safely stored and administered, thereby protecting vulnerable populations from preventable diseases and reinforcing public trust in health services.



RRT conducting Cold chain readiness assessment in Akobo County, Jonglei State, February 2025

"By rehabilitating the cold chain, partners reduced vaccine dropout rates, improved community trust, and strengthened preparedness for future emergencies. What

began as a crisis response has now become a lasting investment in South Sudan's immunization system." Said Dr Reath Koang, the Director General for the State Ministry Health in Jonglei State



3. Strengthening the Medical Supply Chain: Beyond Emergency Needs

A buffer stock strategy was introduced to mitigate the impact of restocking delays, while standardized stock monitoring checklists were rolled out to improve inventory management. Health facilities were replenished with life-saving supplies such as oral rehydration salts (ORS), intravenous fluids, antibiotics for severe infections, and antimalarialsparticularly targeting vulnerable groups like pregnant women and children. These measures not only supported the cholera response but also enhanced the overall capacity of the health system to manage routine and emergency health needs

Health workers received training in supply chain monitoring and reporting, strengthening local capacity and reducing dependency on external actors. These improvements significantly reduced the frequency of stockouts and improved the reliability of service delivery, allowing health facilities to respond more effectively to both endemic diseases and emerging health threats.

The cholera response has catalysed a shift toward a more resilient and people-centred health system in Jonglei and GPAA. By transforming emergency logistics into sustainable supply chain practices, health authorities, with technical support from WHO, laid the foundation for a system that is better equipped to anticipate, absorb, and adapt to future shocks.

"The urgency of the cholera response accelerated the adoption of best practices in supply chain management, which had a ripple effect across the broader health system. Improved coordination between CHDs, humanitarian partners, and logistics teams led to more efficient procurement and distribution processes." Said Dr Akuot Bulabek, Tearfund LOT 9 HSTP Project Manager



CMA, an IP partner in Fangak, receiving WHO-donated assorted supplies for cholera response



Delivery of cholera response supplies to Twic East, January 2025



4. Risk communication & community engagement: Building trust and ownership

CHDs supported by the WHO Field Office, implemented risk communication and community engagement (RCCE) activities deeply rooted in community action. The multi-channel outreach strategy was complemented by the distribution of soap and water treatment chemicals, installation of public handwashing stations, and mobilization

of local volunteers to support hygiene promotion. Most notably, communities demonstrated remarkable ownership by raising funds from diaspora networks to procure cholera supplies locally—often bridging critical gaps before international aid could be mobilized. This proactive involvement not only accelerated the response but also reinforced the principle that communities are not just beneficiaries but active agents in public health.

The impact of this engagement extended far beyond the immediate cholera response. Informed and empowered communities became more receptive to health interventions, leading to improved uptake of services such as immunization, maternal care, and disease surveillance. The strengthened relationship between health authorities and communities laid the foundation for more responsive and accountable health service delivery. By embedding



Figure 6 Trained community volunteers conducting awareness on cholera prevention in Lankien Nyirol County, April 2025

RCCE into emergency response, the health system cultivated a culture of transparency, collaboration, and mutual trust key pillars of long-term resilience.

"A resilient health system is built not only on infrastructure

and resources but also on the trust and active participation of the communities it serves. In Jonglei State and GPAA, the cholera response demonstrated the transformative power of

sustained RCCE in strengthening health system resilience." Said Dr
Jetri Regmi, WHO Health Operations and
Technical Expertise.



5. Coordination and governance:

Strengthening leadership capacities



OCV pillar meeting, Jonglei State, January 2025

In Jonglei State and GPAA, the cholera outbreak response demonstrated how strategic coordination can evolve from a crisis management tool into a long-term governance asset. With technical support from WHO, State Health authorities and CHDs received targeted training in leadership and coordination, anchored in the Incident Management System (IMS). This structured approach enabled local health authorities to manage the outbreak with greater precision, ensuring timely resource allocation, streamlined communication, and harmonized partner engagement.

The introduction of IMS and other coordination catalysed a shift in how health governance is practiced at the subnational level. Response teams developed stronger planning and reporting capacities, while coordination meetings became platforms for joint decision-making and accountability. These mechanisms fostered transparency, improved stakeholder alignment, and built trust between communities, health authorities, and humanitarian partners. As a result, coordination was no longer seen as a reactive measure, but as a proactive governance tool that could be applied across a range of health priorities.

These coordination structures have been integrated into routine health programming, enabling faster responses to emerging threats such as malaria, measles, and malnutrition. The strengthened coordination also improved surveillance systems, enhanced data sharing, and facilitated more efficient deployment of medical supplies and personnel.

"What began as an emergency coordination effort has matured into a cornerstone of health system resilience. By embedding coordination into the fabric of health service delivery, local authorities have created a system that is not only more responsive to the needs of the population but also better equipped to withstand future emergencies." Said Dr Humphrey Karamagi, WHO Representative, South Sudan

Conclusion

What began as a reactive effort to contain a deadly outbreak evolved into a strategic initiative that strengthened the very foundations of the health system. The coordinated efforts of local health authorities, WHO, and implementing partners demonstrated that resilience is not merely about surviving a crisis it is about using the crisis as a springboard for innovation, collaboration, and systemic reform.

As South Sudan continues to navigate the challenges of climate change, displacement, and recurrent disease outbreaks, the lessons from Jonglei and GPAA offer a blueprint for national and regional health strategies. By embracing a mindset that sees emergencies as opportunities for growth, stakeholders can build a health system that is not only more resilient but also more equitable, inclusive, and trusted by the communities it serves.