Situation analysis: Health care services in selected communities in earthquake-affected areas of Mandalay and Sagaing, Myanmar

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On 28 March 2025, Myanmar experienced two major earthquakes of magnitudes 7.7 and 6.4 which severely impacted central regions, particularly Mandalay and Sagaing. Extensive infrastructure damage, including more than 300 health facilities, overwhelmed the health system's capacity to manage immediate trauma and heightened risks of disease outbreaks. Despite international humanitarian assistance, there are critical gaps in service access, rising burdens of communicable and non-communicable diseases (NCDs), and limited psychosocial support. This study aims to inform implementing partners in how they might tailor public health emergency responses to address urgent community health needs.

Key recommendations

Strengthening health care services

- Create formal administrative bodies and implement systematic household registration in camps.
- Establish clear referral pathways for obstetric emergencies, including transport support and ensure continuity of anti-natal care (ANC) and post-natal care (PNC) services.
- Continue comprehensive sexual and reproductive health (SRH) service provision, including gender-based violence services and care.
- Promote nutrition screening, referral, and community-based management of acute malnutrition.
- Enhance collaboration between the public and private sectors to improve immunisation coverage.
- Provide Psychological First Aid (PFA) training to frontline health workers and deploy mobile teams.
- Sustain health education interventions and community volunteer training for resilience building.
- Maintain water sanitation and hygiene (WASH) activities with gender-sensitive latrine infrastructure, lighting, and proper sewage systems.

Improving organizational and medical team coordination

- Expand diagnostic capabilities with rapid tests and basic imaging.
- Establish systematic referral systems with documentation and transport support.
- Monitor and secure medicine supply chains, especially for NCDs, to prevent treatment interruptions.
- Implement patient record systems and promote inter-clinic coordination.
- Address staffing gaps through rotation, mental health support, and training.
- Maintain regular coordination meetings, information sharing and develop robust data-sharing protocols.
- Plan clear exit strategies, including service handovers to other organisations or the public sector.
- Ensure regular reporting to public health authorities to support early warning and response system (EWARS) and epidemiological surveillance.

Methodology

A cross-sectional, situational analysis was conducted from 14-21 May 2025 across nine townships in government-controlled areas (eight in Mandalay, one in Sagaing). The study covered 64 camps with poor WASH and shelter infrastructure, increasing the risk of disease outbreaks. The study included health facilities serving displaced populations during emergencies. Data collection involved a desk review of 19 reports published by 12 organizations providing emergency support in the area (published 28 March to 1 May 2025), 64 key informant interviews, 124 community group discussions, 19 health facility assessments, 16 healthcare provider interviews, and 13 organisational assessments covering response activities, resources, service mapping, and health statistics.

Key findings

Desk review: Most reports were situational updates that covered the health sector (84.2%), WASH (68.4%), and shelter/non-food items (NFI) (52.6%). Data completeness was generally low, and none provided full details or referenced information. Significant gaps were noted in health-specific data, particularly in maternal and child health, infectious diseases, sexual reproductive health, and mental health. The review findings guided the refinement of data collection tools and informed site/service mapping strategies for the subsequent field survey.

Table 1. Proportion of reports mentioning earthquake response activities

Sectors for earthquake response activities	N=19 n (%)
Health	16 (84.2)
WASH	13 (68.4)
Shelter/ non-food items	10 (52.6)
Coordination and support	9 (47.4)
Nutrition	8 (42.1)
Multi-purpose cash assistance	7 (36.8)
Gender and protection	7 (36.8)
Humanitarian and conflict response	5 (26.3)
Education	4 (21)
Livelihoods	3 (15.8)

Responses are not mutually exclusive

Instructions on how to safely use emergency water supplies (left), and fly-proof toilets (right) in a camp for people displaced by the earthquakes. Image courtesy Zenith Quality Team

Public health response to the earthquakes

Data from 13 organizations show that most provided health services (84.6%), followed by WASH (61.5%), food (61.5%), and protection from violence (53.8%). Health services were operated as mobile clinics (68.4%), mainly run by NGOs, with 42.1% starting within the first week after the earthquakes. Services visited camps once a week with each visit an average of 5.5 hours. Integrated services included primary care, emergency care, reproductive, maternal newborn, child, and adolescent health (RMNCAH), mental health, referrals, and mobile outreach.

Operational structure and challenges

Organizations had each deployed an average of 2.6 medical teams and 12.9 staff, typically including doctors and nurses, but fewer pharmacists, community health workers, and mental health and psychosocial support counsellors, highlighting staffing gaps. Only 31.6% of facilities offered diagnostics, while 78.9% provided referrals. Most services were donor-funded (84.6%) and focused on mobile services across three townships.

Reporting practices

Reporting was mostly internal or partner-focused, with limited coordination with the WHO Health Cluster or government. All health facilities used at least one reporting format, with 68.4% familiar with disease prevention and control reporting forms, and 92.3% utilising those forms.

Reported illness and program interruptions

Participants reported skin infections (68.4%), respiratory infections (57.9%), diarrhoea (36.8%), and the common cold (31.6%) as leading illnesses among children under five. For those aged five and above, NCDs (94.7%) and skin infections (52.6%) were most common. Concerns were raised about potential disruptions to disease control programs for HIV, TB, NCDs, and immunization.

Coordination gaps and challenges

Qualitative interviews highlighted the need for a coordination body to strengthen collaboration among organizations. Medicine supply was inconsistent, and services were largely limited to primary care. Key challenges included coordination gaps, security risks, transport issues, staffing shortages, and complex reporting demands. These were addressed through local coordination, security-aware planning, better medicine management, and flexible reporting. Participants emphasized the importance of long-term interventions and comprehensive service mapping, including mental health support.

Emergency toilets and temporary water supply at the camp vent into the surroundings with improper waste management, leading to increased risk of infections. Image courtesy Zenith Quality Team

Camp conditions and health service assessment

Living conditions

Findings from 64 camps hosting more than 31,000 displaced people revealed significant health and living challenges. Due to limited health service availability and poor living conditions, the camps in Mandalay had a higher concentration of vulnerable populations and increased rates of non-communicable diseases. While most camps had some healthcare access and referral services (85%), overcrowding and poor sanitation increased the risk of infectious diseases.

Health service gaps

Immunization coverage across camps was uneven, with routine Essential Programme on Immunization services available in only 56%, though oral cholera vaccine was widely administered. NCDs like hypertension and diabetes were most common, especially in Mandalay. Mental health issues affected 40%, mainly women, yet only half accessed support services. Injury-related needs, including amputations, were reported in 8% of camps. Health education was more frequent in Sagaing (85.7%) than Mandalay (61.4%). While ANC and PNC coverage was generally high, many women had fewer than four ANC visits. Infant and young child feeding practices were mostly adequate, but food shortages and malnutrition remained, with 22.6% of screened children malnourished.

WASH services

Access to safe water was generally sufficient at the time of assessment, with bottled water, purifiers, and bore wells commonly used. However, many households did not treat drinking water. Latrine coverage and accessibility were better in Sagaing than Mandalay. Waste management was mostly adequate, though open sewage disposal was more common in Mandalay, while Sagaing relied more on public sewage systems.

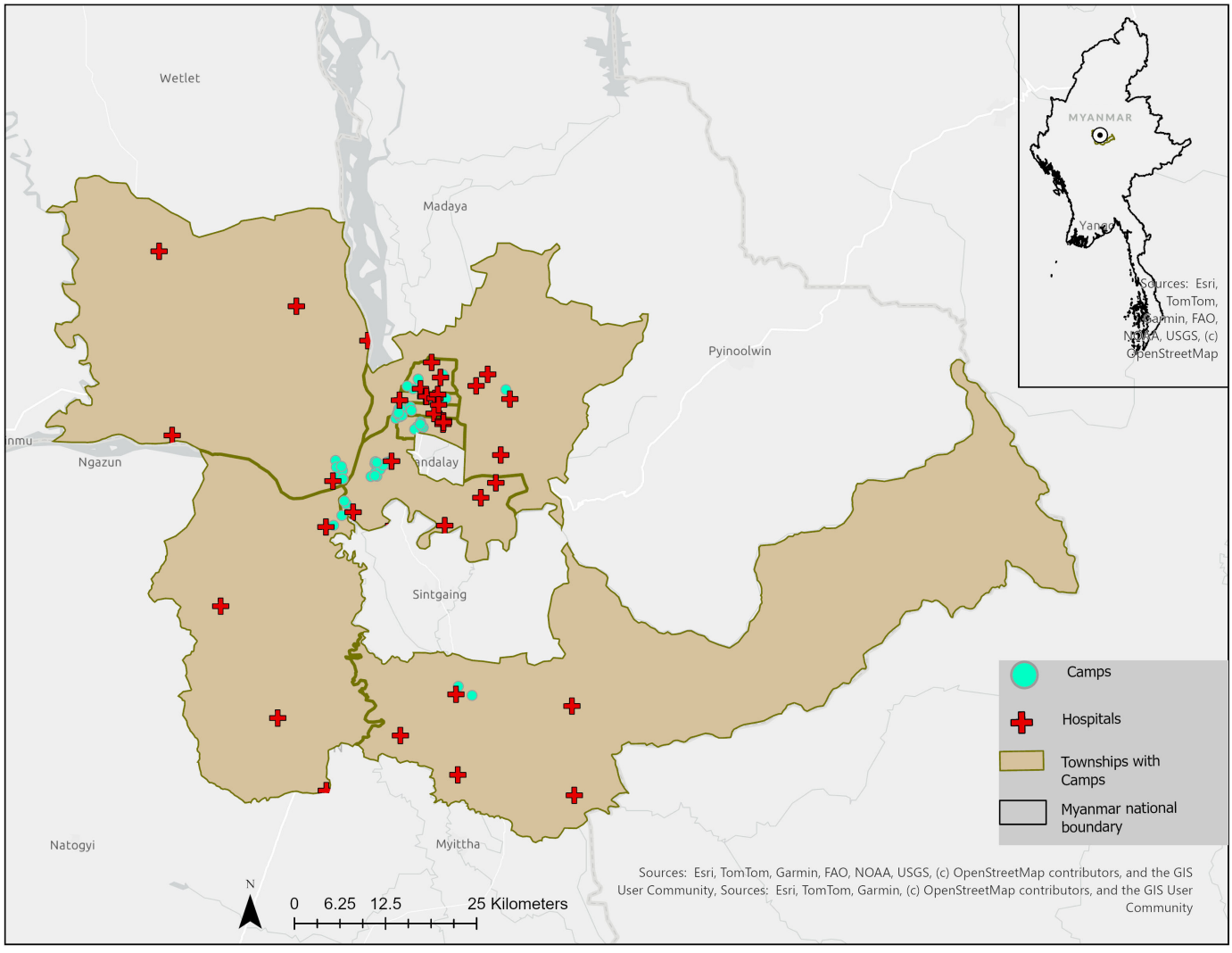

Figure 1. The location of the camps in different townships, Sagaing and Mandalay Regions

Conclusion

Displaced populations in earthquake-affected, government-controlled areas face serious health risks, unmet needs, and poor access to essential services. Humanitarian efforts are hindered by persistent challenges in coordination, service delivery, and timely information sharing. Addressing these issues requires sustained funding and carefully planned, resource-aware interventions to support both immediate response and long-term resilience.

Emergency shelters for people displaced by the earthquakes in Myanmar. Image courtesy Zenith Quality Team

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Cover image: Sagain Bridge, Myanmar, damaged during the earthquake. Image courtesy Zenith Quality Team