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Public Health, Community Resilience, and Psychosocial Recovery after the 2025 Sumatra Floods and Landslides

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Editorial

The large floods and landslides that affected several regions in Sumatra toward the end of 2025 once again demonstrated how climate-related disasters intersect with public health, social vulnerability, and community wellbeing. Beyond the visible physical destruction, these events exposed gaps in preparedness, continuity of care, and psychosocial recovery — issues that deserve stronger and more sustained attention in disaster-prone contexts.

As of 29 December 2025, national disaster reports documented around 1,140 deaths, 163 people still missing, and nearly 400,000 residents displaced across districts in Aceh, North Sumatra, and West Sumatra. More than 160,000 houses and numerous public facilities — including schools, roads, bridges, and health centers — were damaged or destroyed (Tempo, 2025). The government estimated total reconstruction and recovery needs at approximately 51.82 trillion rupiah (≈USD 3.1 billion), with Aceh projected to absorb the highest share of long-term recovery costs. These figures illustrate not only the magnitude of the disaster, but also the depth of social and economic disruption faced by affected households.

Evidence from previous flood and landslide events shows that the emergency phase is often followed by a second wave of public-health risks, including infectious disease, malnutrition, and deterioration of chronic conditions (Fernandez et al., 2015; Kennedy et al., 2015; Patwary et al., 2024). Overcrowded evacuation shelters, compromised sanitation, and disrupted supply chains increase risks of respiratory and diarrheal illnesses, while interruptions to routine services affect people living with diabetes, hypertension, and severe mental disorders. Primary health-care facilities in several affected areas continued operating under considerable pressure, and many frontline workers were themselves disaster survivors, a reality highlighted in the disaster-health literature as both a source of community trust and occupational strain (Kennedy et al., 2015).

The psychosocial and mental-health dimension forms another important layer of impact. Systematic reviews and post-disaster studies in South and Southeast Asia consistently report elevated symptoms of anxiety, depression, and post-traumatic stress among survivors of floods, cyclones, and landslides, particularly among women, older adults, adolescents, and socio-economically vulnerable households (Keya et al., 2023; Miller et al., 2024; Philip & V, 2023). Mental-health outcomes are shaped not only by direct exposure, but also by prolonged displacement, livelihood loss, uncertainty about housing, and weakening of social support networks. In landslide-affected valleys and hillside settlements, sudden loss of relatives, neighbors, and community landmarks compounds grief and spiritual distress (Kennedy et al., 2015; Miller et al., 2024). These patterns highlight that the psychological consequences of disasters are cumulative and long-lasting, extending far beyond visible physical damage.

In many Sumatra communities, religious institutions, informal caregiving networks, and local volunteer groups played an important role during the initial recovery period. These community-based mechanisms can foster a sense of connectedness and shared coping, which has been identified as a protective factor in several post-disaster contexts (Keya et al., 2023; Philip & V, 2023). However, formal psychosocial programs and structured continuity of mental-health care remain uneven and are still often delivered as short-term outreach activities rather than as an integrated component of recovery planning (Keya et al., 2023; Patwary et al., 2024). Strengthening these informal supports through coordinated and sustained psychosocial programming is therefore essential to prevent widening gaps in post-disaster mental-health recovery.

Three strategic directions are therefore worth emphasizing.

First, disaster risk reduction needs to be more firmly anchored within primary healthcare and public-health preparedness. This includes safeguarding access to essential medicines for people with chronic and psychiatric conditions, maintaining minimum service capacity in local facilities, and strengthening post-disaster surveillance for communicable disease (Fernandez et al., 2015; Patwary et al., 2024). Investments in physical reconstruction should be accompanied by investments in service resilience.

Second, psychosocial and mental-health care should be incorporated across the entire disaster timeline, from preparedness and early response through long-term recovery. Evidence suggests that community-based approaches, psychological first aid, clear referral pathways, and ongoing follow-up can reduce long-term psychological morbidity when implemented consistently (Hermosilla et al., 2022). Community health workers, teachers, and religious leaders can serve as important bridges between households and formal services when appropriately trained and supported.

Third, resilience strategies should be inclusive and community driven. Groups with heightened vulnerability, including rural poor families, older adults, persons with disabilities, and those with pre-existing mental illness, should be explicitly mapped and prioritized within preparedness and recovery plans. Integrating social protection, livelihood recovery, and housing assistance with public-health and mental-health interventions may reduce the cumulative stress borne by disaster-affected households (Moyano et al., 2024).

The 2025 Sumatra floods and landslides should therefore be viewed not only as an environmental tragedy, but also as a critical learning moment for strengthening health-system resilience and psychosocial recovery in disaster-exposed regions. Reframing disaster management as a sustained public-health responsibility — one that protects dignity, continuity of care, and community wellbeing — will be essential to support affected populations today and to reduce vulnerability to future events.

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