

IMPLEMENTING RAPID NEEDS ASSESSMENT TO IMPROVE HUMANITARIAN AID DISTRIBUTION FOLLOWING THE 2025 FLASH FLOOD IN PADANG CITY, INDONESIA: A COMMUNITY SERVICE EXPERIENCE

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Abstract

Humanitarian aid is one of the most critical components of disaster response. However, relief distribution during the emergency phase is frequently driven by donor availability rather than by the actual needs of affected communities. Consequently, while essential supplies such as food and drinking water are often adequately provided, personal necessities that directly influence dignity, hygiene, and daily living remain insufficient. Rapid Needs Assessment (RNA) is recommended as a systematic approach to identify priority needs and improve the effectiveness of humanitarian interventions. This community service program aimed to implement a Rapid Needs Assessment before humanitarian aid distribution for victims of the 2025 flash flood in Padang City, Indonesia. The program was conducted during the emergency response period following the flash flood on 26 November 2025. A collaborative team of university lecturers and members of the Indonesian Medical Association (IDI) Padang Branch conducted field observations and semi-structured interviews with affected households at evacuation sites. Information on assistance already received and unmet priority needs was collected and used to guide the procurement and distribution of relief items. Most affected households had already received temporary shelter, food, and clean water. However, essential personal items—including towels, baby supplies, underwear, blankets, prayer equipment, umbrellas, and raincoats—remained insufficient. Implementing Rapid Needs Assessment enabled the humanitarian team to provide targeted assistance, complement existing relief efforts, minimize duplication, and address overlooked needs. Rapid Needs Assessment improved the relevance and effectiveness of humanitarian aid distribution. Collaboration between higher education institutions and professional organizations offers a practical model for evidence-based community service in disaster response.

Keywords: *community service; disaster response; flash flood; humanitarian aid; rapid needs assessment*

INTRODUCTION

Indonesia is one of the world's most disaster-prone countries due to its geographical location, tropical climate, and complex geological characteristics. In addition to earthquakes, volcanic eruptions, and tsunamis, hydrometeorological disasters—including floods, flash floods, landslides, and extreme weather events—have become increasingly frequent over the past decade. Climate variability, rapid urbanization, watershed degradation, and land-use changes have further increased the intensity and frequency of these disasters, posing significant challenges to disaster risk reduction and emergency response systems (Taufiq Al Ashfahani Qodrifuddin *et al.*, 2022; Bagus santoso *et al.*, 2024).

Flash floods represent one of the most destructive hydrometeorological hazards because they occur suddenly, develop rapidly, and often result in extensive physical damage, displacement of affected populations, disruption of essential services, and increased public health risks. Unlike seasonal flooding, flash floods frequently provide little time for evacuation, making immediate emergency response and humanitarian assistance essential during the first hours following the disaster. The quality and timeliness of humanitarian interventions during this phase strongly influence the wellbeing, safety, and recovery of affected communities (Putri *et al.*, 2018; Cressendo *et al.*, 2023; Sastra, 2025).

West Sumatra Province has repeatedly experienced flash floods, locally known as *galodo*, owing to its mountainous topography, high annual rainfall, and numerous river systems originating from the Bukit Barisan mountain range. These geographical characteristics make many districts and urban areas vulnerable to sudden flooding during periods of intense rainfall. Beyond infrastructure damage, flash floods often create multiple humanitarian challenges, including displacement, interruption of healthcare services, limited access to clean water and sanitation, increased risk of communicable diseases, and psychological distress among survivors (Bisnis.com, 2025; BPBD Kota Padang, 2025).

On 26 November 2025, a severe flash flood affected several areas of Padang City following prolonged heavy rainfall. The disaster inundated residential neighborhoods, damaged houses and public infrastructure, disrupted transportation networks, and forced many families to evacuate to temporary shelters. In response, the local government declared an emergency response period and mobilized multiple stakeholders, including governmental institutions, healthcare providers, humanitarian organizations, community volunteers, and professional associations, to support rescue operations and emergency relief (Portal Resmi Kota Padang, 2025; Tim FK Universitas Baiturrahmah, 2025).

During the initial emergency phase, humanitarian assistance rapidly arrived from numerous governmental and non-governmental organizations. Most donated items consisted of ready-to-eat meals, bottled drinking water, clothing, and other general relief supplies. While this overwhelming public response reflected strong community solidarity, previous disaster experiences have demonstrated that the abundance of donated goods does not necessarily translate into comprehensive fulfillment of survivors' needs. Humanitarian aid frequently becomes concentrated on a limited range of commodities, resulting in oversupply of certain items while essential personal necessities remain unavailable.

International humanitarian standards emphasize that effective disaster response should be driven by evidence rather than assumptions. The Sphere Humanitarian Charter and Minimum Standards in Humanitarian Response identifies needs assessment as the cornerstone of humanitarian action, ensuring that interventions are relevant, equitable, and responsive to the priorities of affected populations. Similarly, the World Health Organization and the International Federation of Red Cross and Red Crescent Societies recommend rapid assessment as an essential activity during the early emergency phase to support evidence-based decision making and efficient allocation of limited humanitarian resources (Bosmans *et al.*, 2022; Hakimifar *et al.*, 2022).

Rapid Needs Assessment (RNA) is a structured process for collecting essential information within a short period after a disaster to identify priority needs, available resources, existing assistance, and service gaps. The primary objective of RNA is not merely to quantify disaster impacts but to generate actionable information that guides immediate humanitarian interventions. By identifying unmet needs before aid procurement and distribution, humanitarian organizations can reduce unnecessary duplication, improve logistical efficiency, optimize resource utilization, and ensure that assistance preserves the dignity and wellbeing of disaster survivors (Bosmans *et al.*, 2022; Hakimifar *et al.*, 2022).

Although the concept of needs-based humanitarian assistance has been widely promoted internationally, its implementation in community service activities remains relatively limited in Indonesia. Many humanitarian initiatives continue to prioritize rapid distribution without conducting systematic field assessments, potentially reducing the effectiveness of relief efforts. Consequently, documenting practical experiences that integrate Rapid Needs Assessment into community-based disaster response is important for strengthening evidence-informed humanitarian practices (Yadav *et al.*, 2019; Bosmans *et al.*, 2022).

As part of the university's commitment to community engagement under the Tri Dharma of Higher Education, a team of lecturers collaborated with the Indonesian Medical Association (IDI) Padang Branch to provide humanitarian assistance during the emergency response to the 2025 Padang flash flood. Rather than immediately distributing donated goods, the team first conducted a Rapid Needs Assessment through direct observation and interviews with affected households in evacuation areas. Survivors were asked about assistance already received and essential items that remained unavailable (Lian, 2019; Humas FKUnbrah, 2025a, 2025b).

The assessment demonstrated that food supplies, drinking water, and temporary shelter had been adequately provided by governmental agencies and humanitarian organizations. However, several important personal necessities—including towels, baby care supplies, underwear for women, men, and children, blankets, prayer equipment, umbrellas, and raincoats—had received considerably less attention despite their importance for personal hygiene, comfort, protection, and dignity during displacement. Based on these findings, humanitarian assistance was specifically procured to address these unmet needs before being distributed to disaster survivors.

This community service article describes the implementation of Rapid Needs Assessment as an evidence-based strategy for humanitarian aid distribution

during the emergency response to the 2025 flash flood in Padang City. The program illustrates how collaboration between higher education institutions and a professional medical organization can enhance the effectiveness, efficiency, and relevance of humanitarian assistance while promoting a people-centered approach to disaster management. The experience is expected to serve as a practical model for future community service initiatives and disaster response programs in Indonesia and other disaster-prone settings.

METHODS

This community service program employed a descriptive implementation approach using RNA as the primary strategy for planning humanitarian aid distribution following the flash flood that affected Padang City, West Sumatra, Indonesia, on 26 November 2025. The activity was carried out during the emergency response period through a collaboration between lecturers from the Faculty of Medicine, Universitas Baiturrahmah, and the Indonesian Medical Association (IDI) Padang Branch. The program aimed to identify the actual needs of disaster survivors and ensure that humanitarian assistance was distributed based on evidence rather than assumptions.

The program began with coordination among the community service team, IDI Padang Branch, local authorities, and community representatives to determine the affected locations and organize field activities. A Rapid Needs Assessment was then conducted at evacuation sites through direct observation and semi-structured interviews with affected households. The assessment focused on identifying the assistance that survivors had already received, their remaining unmet needs, and vulnerable family members requiring priority attention. This approach enabled the team to obtain first-hand information regarding the immediate conditions and priorities of the affected community.

The information collected during the assessment was reviewed descriptively to identify recurring unmet needs and establish priorities for humanitarian intervention. Relief items were selected based on the frequency of reported needs, their urgency for daily living, and the extent to which they had not been adequately provided by other humanitarian organizations. This process ensured that the assistance complemented existing relief efforts while minimizing duplication of donated goods and optimizing the use of available resources.

Based on the assessment findings, humanitarian supplies were procured and distributed directly to disaster survivors with the support of volunteers from IDI Padang Branch and local community representatives. The distributed items primarily included towels, baby care supplies, underwear for women, men, and children, blankets, prayer equipment, umbrellas, and raincoats. The implementation process was documented through field observations, interview notes, photographs, and distribution records, which were analyzed descriptively to evaluate how the RNA contributed to improving the relevance and effectiveness of humanitarian aid distribution.

RESULT AND DISCUSSION

Implementation of Rapid Needs Assessment (RNA)

The RNA was conducted immediately before humanitarian aid distribution. Instead of directly delivering donated goods, the team first visited evacuation shelters to understand the actual conditions experienced by disaster survivors. Interviews revealed that governmental agencies, humanitarian organizations, community groups, and volunteers had responded rapidly during the early emergency phase. Consequently, most households had already received emergency food supplies, bottled drinking water, and temporary shelter.

Despite this positive response, survivors consistently reported shortages of several essential personal items required for daily living during displacement. These unmet needs were largely overlooked because many humanitarian organizations understandably prioritized food assistance during the initial response.

The assessment demonstrated that collecting information directly from survivors substantially improved the understanding of priority needs and enabled the humanitarian team to complement rather than duplicate existing relief efforts (Humas FKUnbrah, 2025b; Sastra, 2025).

Existing Assistance Received by Survivors

Table 1. Humanitarian Assistance Already Received by Disaster Survivors

Category	Status
Temporary shelter	Available
Ready-to-eat meals	Available
Drinking water	Available
Basic food supplies	Available
Emergency medical services	Available

The majority of interviewed households reported receiving the following assistance before the implementation of this community service program (table 1). These findings indicated that basic survival needs had largely been addressed through coordinated emergency response efforts from government agencies and humanitarian organizations.

Identification of Unmet Needs

Although basic needs had been fulfilled, the Rapid Needs Assessment identified several important items that had not yet been adequately distributed. Several respondents explained that clothing donations were generally available; however, underwear and personal hygiene items were rarely included because they are highly personal and generally cannot be donated as used items. Likewise, blankets and prayer equipment were insufficient despite being essential for maintaining comfort and psychosocial wellbeing during temporary displacement (table 2)

Table 2. Priority Unmet Needs Identified During Rapid Needs Assessment

Category	Identified Need
Personal hygiene	Towels
Infant care	Baby supplies
Women's necessities	Women's underwear and clothes
Men's necessities	Men's underwear and clothes
Children's necessities	Children's underwear and clothes

Thermal protection	Blankets
Religious needs	Prayer garments (<i>mukena</i>), sarongs, prayer mats
Weather protection	Umbrellas and raincoats

Procurement Based on Assessment Findings and Distribution

Following the assessment, the community service team prioritized procurement of humanitarian supplies that directly addressed the identified gaps rather than purchasing items already abundantly available. The procurement strategy emphasized complementing existing humanitarian assistance instead of duplicating ongoing relief efforts. This approach optimized the use of available financial resources while ensuring that aid responded to actual community priorities.

Following the procurement process, humanitarian assistance was distributed directly to affected households in collaboration with volunteers from the IDI Padang Branch and local community representatives. The distribution was guided by the verified findings of the Rapid Needs Assessment to ensure that assistance reached beneficiaries according to their priority needs. The relief packages included towels, baby care supplies, underwear for women, men, and children, blankets, prayer garments (*mukena*), sarongs, prayer mats, umbrellas, and raincoats. Community representatives also assisted in verifying the list of beneficiaries, thereby promoting equitable distribution, improving transparency, and minimizing duplication of humanitarian assistance (Hakimifar *et al.*, 2022; Humas UNP, 2025).

Community Response

Beneficiaries expressed appreciation for receiving items that had previously been unavailable despite the arrival of substantial humanitarian assistance from multiple organizations. Many survivors reported that personal items such as towels, underwear, and blankets were urgently needed because they directly affected comfort, hygiene, and dignity during prolonged stays in evacuation shelters. Families with infants particularly appreciated the provision of baby supplies, while elderly survivors highlighted the importance of blankets and rain protection.

Overall, the implementation of Rapid Needs Assessment enabled humanitarian assistance to become more responsive to survivor priorities and strengthened community confidence in the humanitarian response process. The implementation of RNA in this community service program was consistent with internationally recognized humanitarian principles and the Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations in Disaster Relief. Rather than distributing aid solely based on donor preferences or assumptions, the team first conducted a systematic assessment to identify the actual priorities of disaster survivors. This approach reflects the humanitarian principles of humanity, impartiality, and accountability by ensuring that assistance was provided according to the severity and nature of needs without discrimination. In addition, the Sphere Handbook emphasizes that humanitarian interventions should be informed by timely and participatory needs assessments to ensure that limited resources are allocated effectively and that assistance respects the dignity, safety, and rights of affected populations (D'Ardenne *et al.*, 2016; Yadav *et al.*, 2019; Bagus santoso *et al.*, 2024).

The findings of the Rapid Needs Assessment demonstrated that while food, drinking water, and temporary shelter had already been adequately provided by other organizations, several essential personal items remained unavailable. By using the assessment results to guide procurement and distribution, the community service team complemented existing humanitarian efforts instead of duplicating assistance, thereby improving the efficiency and relevance of the response. This practice also strengthened coordination among stakeholders and promoted responsible use of humanitarian resources. Consequently, the implementation of RNA not only enhanced the quality of aid distribution but also demonstrated adherence to internationally accepted ethical standards for disaster response through evidence-based, beneficiary-centered, and needs-driven humanitarian action.

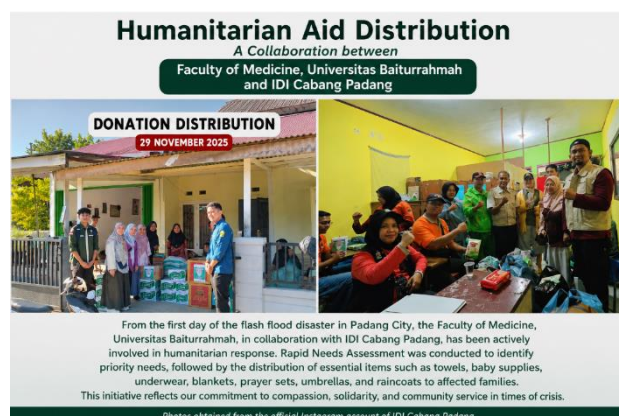
CONCLUSION

The implementation of Rapid Needs Assessment (RNA) before humanitarian aid distribution improved the relevance and effectiveness of disaster response by identifying the actual unmet needs of survivors of the 2025 flash flood in Padang City. The assessment enabled the humanitarian team to complement existing relief efforts, minimize duplication of assistance, and prioritize essential personal items that had not been adequately provided. This community service program demonstrates that integrating evidence-based needs assessment into humanitarian interventions, through collaboration between the Faculty of Medicine, Universitas Baiturrahmah and the Indonesian Medical Association (IDI) Padang Branch, can enhance the quality, equity, and efficiency of disaster relief and should be considered a standard practice in future emergency response activities.

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APPENDICES



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