Dedikasi Sosial : Jurnal Pengabdian Masyarakat
Volume 02, No 1, June 2026
Page : 15-30
E-ISSN : 3109-1830
DOI : https://doi.org/10.64126/dedikasisosial.v2i1.58

Integrated Post-Flood Health Services for Disaster-Affected Communities in Aceh

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Received: 02 June 2026; Revised: 13 June 2026; Accepted :18 June 2026; Published : 30 June 2026

Abstract
Flood disasters can severely disrupt access to essential healthcare services, particularly in vulnerable communities where health facilities and infrastructure are damaged. In November 2025, Tropical Cyclone Senyar caused extensive flooding in Pidie Jaya Regency, Aceh, resulting in disruption of healthcare access in Blang Awe Village. This community service program aimed to restore access to essential health services through an integrated post-disaster health intervention consisting of general health screening, maternal and child health (MCH) services, and medical circumcision. A participatory action approach was implemented from February 1–20, 2026, involving collaboration between the Faculty of Medicine, Universitas Syiah Kuala, Pidie Jaya District General Hospital, village authorities, and community health workers. The intervention included health screening, antenatal care (ANC), health education, and medical circumcision. Program outcomes were evaluated based on service achievement, community participation, stakeholder feedback, and perceived benefits. A total of 97 participants underwent health screening, identifying a high burden of non-communicable diseases, including hypertension (45%) and hypercholesterolemia (55.6%). ANC services were provided to 11 pregnant women with high-risk conditions identified, including suspected gestational diabetes and mild hypertension. Medical circumcision was successfully performed for eight school-aged children without complications. The program met its targets and received positive feedback from community stakeholders, indicating strong acceptance and perceived benefits. This integrated intervention successfully addressed healthcare gaps following flood-related disruption of health infrastructure by supporting continuity of essential services, improving early detection of health risks, and strengthening community resilience. Long-term sustainability requires strengthening local health worker capacity, referral systems, and integration into primary healthcare services.

Keywords: Aceh, Community Service, Disaster Health, Maternal Health, Medical Circumcision

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1. INTRODUCTION

Indonesia is located in the tropical region, crossed by the equator. It lies at the junction of tectonic plates and the Pacific Ring of Fire, making it highly vulnerable to wet hydrometeorological disasters such as floods, extreme weather, landslides, tidal waves and coastal erosion, as well as dry hydrometeorological disasters such as droughts and forest and land degradation (Rosyida et al., 2024). This unique geographical and geological position places Indonesia among the countries most frequently exposed to natural disasters globally, with millions of residents affected each year (Dartanto, 2022). According to BNPB data, there were 245 natural disaster incidents in Indonesia during December 2025, with approximately 99.59% of these disasters being

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hydrometeorological in nature, with floods accounting for 62.86%, followed by extreme weather, landslides, tidal waves and coastal erosion, and volcanic eruptions (BNPB, 2025).

Tropical Cyclone Senyar in November 2025 triggered severe flooding in the Aceh region(Wasis, 2025). In Pidie Jaya Regency, the cyclone caused severe damage to public facilities and had a significant impact. A total of 222 villages were affected, with a total population of 26,825 households and varying levels of damage and manifestations of the disaster's impact across regions(Pemkab Pidie Jaya, 2025). One of the most severely affected areas was Blang Awe Village, which sustained extensive damage to road infrastructure and a complete lack of public transportation, effectively severing the community's access to healthcare facilities. The closure or physical damage to Posyandu (Integrated Health Posts) and Pustu (Sub-Health Center) facilities in the affected areas forced pregnant women and other vulnerable groups to seek alternative healthcare services that were significantly farther away or considerably more expensive (Okeke et al., 2024). On the other hand, the emergence of infection risks within remaining healthcare facilities, combined with the shortage of healthcare personnel due to the reallocation of resources for emergency response operations, further exacerbated the situation. These conditions represent a serious disruption of access to basic health services, with the potential to substantially increase the risk of health complications among vulnerable populations (Doocy et al., 2013).

The program partner, Posyandu Melur in Blang Awe Village, Meureudu District, Pidie Jaya Regency was directly and severely affected by this disaster. A pre-intervention field assessment conducted through interviews with the village chief revealed deeply alarming conditions. The Posyandu building itself had been destroyed by the flood, eliminating the community's primary venue for routine health services. The nearest Puskesmas (Community Health Center) was approximately 5 kilometers away; however, severely damaged road conditions and a near-total lack of accessible transportation made this distance effectively insurmountable for most residents. Consequently, a significant number of pregnant women were unable to attend Antenatal Care (ANC) sessions.

Post-flood disease burden was substantial, with a high incidence of acute respiratory infection, diarrhea, and skin infections reported throughout the community, consistent with an increase in environmentally related diseases attributable to sanitation problems and limited access to clean water(Dinas Kesehatan Aceh, 2025). Additionally, eight children were awaiting circumcision. A procedure that holds significant importance for both hygiene and cultural-religious reasons in the predominantly Muslim community of Aceh (Drain et al., 2006). Given the Acehnese tradition of performing circumcision in anticipation of the holy month of Ramadan. At

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the institutional level, the village PKK group, comprising approximately 10 active cadres, continued to function but required strengthening in technical capacity, role distribution, and documentation to sustain community-based health programs.

These field conditions reveal a critical and compounded gap between the community's healthcare needs and the services available to them. The destruction of the Posyandu, geographic isolation, a severe shortage of health personnel, and low health literacy collectively created a situation in which routine preventive care, maternal monitoring, and elective medical procedures became entirely inaccessible. This is consistent with broader evidence that floods not only destroy physical infrastructure but also severely compromise public health systems, water quality, food security, and livelihoods (Alderman et al., 2012; Du et al., 2010). Vulnerable population groups, including the elderly, pregnant women, and young children, are disproportionately affected during the post-disaster recovery phase. Elderly individuals are more susceptible to cardiovascular complications exacerbated by disaster-related physiological and psychological stress (Fernandez et al., 2002). Pregnant women face dramatically increased risks due to interrupted or absent Antenatal Care (ANC) services, raising the likelihood of undetected complications such as pre-eclampsia and gestational diabetes (Harville et al., 2010; WHO, 2016). Consequently, many pregnant women chose to remain at home without medical monitoring, ultimately increasing the risk of morbidity and mortality for both the mother and the fetus(Sahoo et al., 2021).

Although various disaster response efforts have been undertaken by government and non-governmental organizations, the implementation of truly integrated health services at the community level following a disaster remains chronically inadequate, particularly in resource-limited and geographically isolated areas (Ahmadi et al., 2018; Andayani & Ishak, 2020). The concept of integrated health service delivery in post-disaster contexts reflects a shift from fragmented, single-disease responses toward comprehensive, community-centered approaches. This model is increasingly recognized as both more efficient and more effective, as it reduces the burden on health workers, maximizes community engagement, and addresses the multidimensional health vulnerabilities that disasters create (Becker et al., 2008).

In response to the specific conditions identified in Blang Awe Village, an Integrated Medical Intervention was designed and implemented with three concurrent service pillars: (1) general health screening for the early detection of non-communicable diseases among adults and the elderly; (2) maternal and child health monitoring, including targeted ANC services and health education for pregnant women; and (3) medical circumcision services for children awaiting this procedure. The novelty of this program lies in its simultaneous delivery of these three service components within a single community visit to a disaster-affected, resource-limited setting — an approach

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that distinguishes it from the single-disease or single-target responses commonly deployed in post-disaster contexts. By integrating these pillars, the program sought to maximize health impact per deployment, reduce the burden on the sole available health worker, and address the full spectrum of health needs that had accumulated since the disaster. This model directly supports the World Health Organization's Emergency Medical Teams (EMT) framework, which advocates for comprehensive, community-centered responses in humanitarian settings (World Health Organization, 2021a), and aligns with the Sustainable Development Goals (SDGs), particularly Goal 3, "Good Health and Well-being" (Venkatesh, 2022). It is anticipated that this activity will meaningfully contribute to improving the community's health status and accelerating the comprehensive recovery of health services disrupted by the flood disaster.

2. METHOD

This community service program used a Participatory Action Research (PAR) approach to involve community stakeholders in identifying health problems, planning interventions, implementing them, and evaluating outcomes. An initial assessment was conducted through discussions with village authorities to identify health needs following the flood disaster. Blang Awe Village, with a population of 1,146 residents, experienced disruptions of healthcare services due to the complete damage of the Posyandu facility and limited resources. Access to primary healthcare services. The program was developed collaboratively with village authorities, Family Welfare Empowerment (PKK) members, and community health cadres to address the identified health needs. The implementation team consisted of five medical students from the Faculty of Medicine, Universitas Syiah Kuala, supported by clinical supervisors from Pidie Jaya District General Hospital. The implementation was divided into three systematic and interconnected phases:

Phase 1: Preparation and Situation Assessment.

The initial phase involved comprehensive field surveys and structured data collection to accurately identify community health needs in the aftermath of the flood disaster. This phase began with a rapid health needs assessment using structured observation tools and informal interviews with community leaders, village health workers (kader Posyandu), and local government officials. The assessment identified priority health concerns, estimated the size and demographic composition of the target population, and mapped the physical locations and conditions of existing — and destroyed — health facilities.

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Following the needs assessment, the team coordinated with the local village (Gampong) government apparatus and the Pidie Jaya District Health Department to establish a temporary health post (pos kesehatan darurat) to replace the destroyed Posyandu facility. The site selection was based on accessibility for elderly and pregnant women, availability of clean water, and the structural integrity of the building used. Sterilization of the medical examination area and preparation of all equipment, particularly for surgical procedures including circumcision, were carried out methodically during this phase. All surgical instruments were sterilized using standard autoclave protocols, and infection prevention and control (IPC) measures were implemented in accordance with WHO guidelines (World Health Organization, 2021b).

Phase 2: Implementation of Integrated Interventions.

The main implementation phase consisted of three specific and parallel medical service areas, each designed to address a distinct yet interconnected health need within the community:

a. *General Health Services:* This service component provided comprehensive health screenings for all community members who attended the temporary health post. Screenings included blood pressure measurement with calibrated digital sphygmomanometers, random blood glucose (BG) testing with glucometers, and total cholesterol assessment with point-of-care cholesterol test strips. Participants with abnormal findings received individualized care. Medical consultations with supervising physicians and medications, including antihypertensives, oral hypoglycemic agents, and statins, were distributed to those with confirmed diagnoses. Health education sessions were also conducted on topics such as dietary modification, physical activity, medication adherence, and recognizing warning signs of cardiovascular events (Kemenkes RI, 2021a).

b. *Maternal and Child Health (MCH):* Antenatal care (ANC) services were provided by trained midwives and supervised medical staff for all identified pregnant women in the village. Each consultation followed the standard 10T ANC protocol recommended by the Indonesian Ministry of Health, encompassing weight and height measurement, blood pressure monitoring, fundal height measurement, fetal heart rate auscultation, tetanus toxoid immunization status review, nutritional supplementation (iron and folic acid), laboratory screening for anemia and proteinuria, birth preparedness counseling, and referral for cases requiring specialist evaluation (Kemenkes RI, 2020). Special attention was given to screening for indicators of pre-eclampsia and gestational diabetes mellitus, given the known association between disaster exposure and increased risk of these conditions (Harville et al., 2010).

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c. *Medical Circumcision:* Surgical circumcision procedures were performed for school-aged male children by qualified medical personnel. The team employed the electrocautery (laser-assisted) method, which offers several clinical advantages in resource-limited settings, including minimal intraoperative bleeding, reduced operative time, and lower postoperative infection rates compared to conventional surgical methods (Krill et al., 2011). Given the compromised sanitation conditions prevalent in flood-affected areas, the selection of this technique was clinically and practically appropriate. All procedures were performed under local anesthesia, and post-procedural wound care instructions were provided to parents and caregivers in both written and verbal formats.

Phase 3: Monitoring and Evaluation

The evaluation phase was conducted using a qualitative participatory approach to assess program implementation, outcomes, and sustainability. The program success indicators included the achievement of planned health services, community participation in activities, perceived benefits of the intervention, and the potential for future continuation of the program. These indicators were assessed through direct observation, activity documentation, and semi-structured interviews with village government representatives, who served as key stakeholders. The observation and documentation were used to evaluate the Implementation process and service delivery, while interviews explored community acceptance, program relevance, perceived benefits, implementation challenges, and recommendations for improvement. The evaluation findings were then discussed in a reflection session with the implementation team and community representatives as part of the participatory action cycle.

3. RESULTS DISCUSSION

3.1. General Health Services and Demographic Profile

The health screening program successfully engaged 97 participants from Blang Awe Village across the service period. The demographic distribution and clinical findings are comprehensively summarized in Table 1. The age distribution of participants revealed a predominantly middle-aged and elderly population, with 34% aged over 60 years (elderly), 33% in the 45–59 years age bracket (middle-aged), and 33% in the adult age group of 18–44 years. This distribution is characteristic of rural communities in Aceh, where younger adults often migrate to urban centers for economic opportunities, leaving a higher proportion of older residents in villages (BPS Aceh, 2023).

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Table 1. Distribution of General Health Screening Results (n=97)

Clinical Parameter	Category	Frequency (n)	Percentage (%)
Age Group	Elderly (>60 years)	33	34
	Middle-aged (45-59 years)	32	33
	Adults (18-44 years)	44	33
Blood Pressure	Hypertension	53	45
	Normal	53	55
Cholesterol Level	Hypercholesterolemia (>200 mg/dL)	54	55.6
	Normal	43	44.4

The clinical findings revealed a strikingly high burden of non-communicable diseases (NCDs) within this post-disaster community. Hypertension was identified in 45% of participants, while hypercholesterolemia (total cholesterol >200 mg/dL) was present in 55.6% of those screened. These figures substantially exceed the national prevalence rates reported in the 2018 National Basic Health Research (Kemenkes RI, 2019), which estimated hypertension at 34.1% and hypercholesterolemia at 28.8% in the adult Indonesian population (Badan Penelitian dan Pengembangan Kesehatan, 2019). The elevated prevalence observed in this study likely reflects a combination of pre-existing chronic disease burden compounded by disaster-related physiological stressors, including sleep deprivation, psychological trauma, dietary disruption, and physical exertion associated with evacuation and recovery activities (Fernandez et al., 2002; Ohta et al., 2003).

The clinical trend observed in this study aligns with a substantial body of literature documenting the exacerbation of cardiovascular risk factors following exposure to natural disasters. Ohta et al. documented a significant increase in blood pressure among elderly individuals in the months following the Great Hanshin Earthquake in Japan, attributing this to heightened sympathetic nervous system activation and disruption of routine antihypertensive medication use. Similarly, Kronenberg et al. (2008) reported elevated cholesterol levels in populations displaced by hurricanes, linking this to stress-induced dysregulation of lipid metabolism and changes in dietary patterns (Kronenberg et al., 2010). In the context of Blang Awe Village, where access to regular medications was severed by infrastructure damage,

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many participants with pre-existing hypertension or dyslipidemia were probably managing their conditions without pharmacological support at the time of the intervention, further elevating their clinical risk profiles. Equally significant is the psychological dimension of cardiovascular risk in post-disaster populations. Post-traumatic stress, anxiety, and depression — all highly prevalent following flood disasters — are independently associated with elevated blood pressure and adverse lipid profiles through neuroendocrine pathways involving cortisol and catecholamine release (Jia et al., 2010). Comprehensive post-disaster health programs should therefore integrate mental health support alongside physical health screening to address the full spectrum of disaster health impacts (North, 2007).


Figure 1. General health screening


Figure 2. Medicine distribution

The village head expressed appreciation for the program, particularly because the activity successfully facilitated community access to medical doctors and free medication through collaboration with local health authorities. This support was considered valuable, as the community had experienced limited access to healthcare services following the flood disaster.

3.2 Maternal and Child Health (MCH)

The MCH intervention component provided Antenatal Care (ANC) services to 11 pregnant women identified within the community. This figure likely underrepresents the true number of pregnant women in the village, as infrastructure damage and mobility restrictions would have prevented some from accessing the temporary health post. Among the 11 women who received ANC, the screening process identified several clinically significant high-risk conditions. Mild hypertension was detected in multiple participants, raising concern for the development of pre-eclampsia — a potentially life-threatening complication that requires vigilant monitoring and timely referral (Mol et al., 2016). Most critically, one participant was identified with a random blood glucose level of 231 mg/dL, strongly suggestive of gestational diabetes mellitus (GDM), warranting immediate referral to a specialist facility for confirmatory testing and management.

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The significance of these findings cannot be overstated in the post-disaster context. In normal circumstances, the Indonesian ANC program mandates a minimum of six antenatal visits distributed across the three trimesters of pregnancy (Kemenkes RI, 2020). The destruction of Posyandu facilities and the disruption of midwife services following the flood almost certainly resulted in extended periods without any clinical monitoring for these women. This gap in surveillance creates a dangerous environment in which serious complications such as pre-eclampsia, eclampsia, GDM, and Intrauterine growth restriction can develop and progress undetected (Harville et al., 2010; WHO, 2016). Studies examining the effects of natural disasters on maternal health outcomes have consistently documented increases in adverse events, including preterm birth, low birth weight, and maternal hypertensive complications, in areas where ANC continuity is disrupted (Hammad et al., 2023; Mendrinos et al., 2026).

The provision of iron and folic acid supplementation, birth preparedness counseling, and clear referral pathways to Pidie Jaya District General Hospital for high-risk cases represents a critical safety net for these vulnerable women. The active involvement of trained midwives on the intervention team ensured that ANC services were delivered in accordance with professional clinical standards despite the resource-limited setting. This finding reinforces the recommendation of the Sphere Handbook that reproductive health services, including ANC, be established as a priority component of the Minimum Initial Service Package (MISP) in any humanitarian response (Sphere Association, 2018).

Figure 3. Antenatal Care (ANC)

The village midwife provided positive feedback regarding the maternal health service activity. The intervention was perceived as beneficial because it supported the continuation of antenatal care services that had been disrupted after the destruction of the Posyandu facility and limited healthcare capacity. The availability of portable ultrasound equipment and nutritional support for pregnant women and children helped

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maintain essential maternal and child health services during the post-disaster recovery period.

3.3 Medical Circumcision for Children

The medical circumcision service completed procedures for eight school-aged male children. In the Acehnese cultural and religious context, circumcision (sunat) is not merely an elective procedure it is a deeply embedded religious obligation and social rite of passage for Muslim males (Situmorang, 2003). The postponement of circumcision due to disaster-related circumstances can cause significant psychological distress for children and families, while the performance of circumcision under non-sterile, informal conditions which sometimes occurs when families seek alternative providers poses serious health risks, including infection, hemorrhage, and complications of inadequate anesthesia (WHO, 2009).

The use of the electrocautery method in this intervention was a deliberate and clinically sound choice for the post-disaster context. Unlike the conventional clamp or dorsal slit methods, electrocautery achieves simultaneous tissue cutting and hemostasis, resulting in a virtually bloodless operative field (Krill et al., 2011). This property is particularly valuable in an area with compromised sanitation, where the risk of wound infection is substantially elevated. The absence of intraoperative or immediate postoperative bleeding in all eight procedures confirmed the suitability of this technique. Post-procedural follow-up at 48 hours and 7 days post-surgery found no cases of wound infection, dehiscence, or other complications, affirming the safety and effectiveness of the approach even under field conditions. The eight procedures performed may appear modest in number; however, they represent a meaningful contribution to a community where access to formal medical circumcision facilities had been entirely disrupted. Furthermore, by performing circumcisions within the community rather than requiring families to travel to distant urban facilities, the program removed significant economic and logistical barriers, making the procedure accessible to families of all socioeconomic backgrounds.

Figure 4. Circumsission

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The village secretary also expressed positive feedback regarding the medical circumcision program. The activity was considered beneficial because families faced difficulties accessing circumcision services after the disaster due to damaged infrastructure and competing priorities during recovery. The provision of free circumcision services reduced barriers for families and supported an important cultural practice in the Acehnese community before Ramadan.

3.4 Discussion of Impact

The integration of these three service components-general health screening, MCH monitoring, and medical circumcision-successfully addressed the multidimensional "healthcare voids" that emerged as a direct consequence of the destruction of Blang Awe Village's healthcare infrastructure. The program's design reflects an understanding that health needs in post-disaster communities are not singular or sequential but are simultaneous and interconnected (Becker et al., 2008). By providing all three services concurrently from a single, accessible location, the program maximized community uptake, minimized the burden on participants, and enabled clinical cross-referrals between service components.

This integrated model also served as a critical community-level epidemiological surveillance mechanism, providing data on the local burden of NCDs, the status of maternal health, and unmet need for pediatric medical procedures. These data-which would otherwise be absent in the immediate post-disaster period-are essential for informing the longer-term health system recovery planning of local government and health authorities (Akselrod et al., 2023). The high prevalence of hypertension and hypercholesterolemia identified in this screening should directly inform the priorities of community health center (Puskesmas) services as they resume operations, ensuring that NCD management is embedded within the recovery response from the outset (Kemenkes RI, 2021b).

The program also demonstrated the critical value of effective multi-stakeholder collaboration. The active partnership between Universitas Syiah Kuala Faculty of Medicine, Pidie Jaya District General Hospital, and the Blang Awe Village government created a synergistic operational structure that allowed academic resources and clinical expertise to be deployed rapidly and effectively within the community. This model aligns with the growing international consensus on the importance of university-community partnerships in building community health resilience (Becker et al., 2008). Future KKN (community service) programs in disaster-affected areas should formalize such partnership structures at the planning stage, establishing clear roles, communication channels, and referral pathways prior to field deployment.

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The positive feedback from village stakeholders indicated that the intervention was perceived as beneficial in addressing limitations in healthcare access following the flood disaster. The availability of general health screening services, medical doctors, and free medication was considered valuable by the village head, as the community had difficulty accessing healthcare due to disrupted facilities. In addition, the maternal health service program was appreciated by the village midwife because it supported the continuation of antenatal care activities that had been limited after the destruction of the Posyandu facility. The provision of portable ultrasound services and nutritional support for pregnant women and children helped maintain essential maternal and child health monitoring during the recovery period. Furthermore, the circumcision program was positively received by the village secretary because it helped reduce barriers for families who faced difficulties accessing circumcision services.

After the disaster, while also supporting an important cultural practice in the Acehnese community before Ramadan. These findings suggest that community-based health interventions tailored to local needs can improve acceptance, strengthen community participation, and support the restoration of essential health services in disaster-affected areas. These findings collectively indicate that post-disaster health recovery programs must not be limited to the restoration of physical infrastructure. The simultaneous and proactive management of chronic disease burden, continuous maternal health surveillance, and access to essential pediatric procedures are equally indispensable components of a complete and humane recovery response (Doocy et al., 2013; Sphere Association, 2018).

4. CONCLUSION

This community service program demonstrated the feasibility and effectiveness of implementing an integrated health intervention in flood-affected communities where access to routine healthcare services was disrupted. Through collaboration between academic institutions, healthcare providers, and local authorities, the program successfully delivered essential health services, including non-communicable disease screening, maternal health monitoring, and preventive care during the post-disaster recovery period. The achievement of program targets and high community satisfaction indicated positive acceptance and perceived benefits of the intervention, as well as early identification of health risks and improved community awareness. The sustainability of this intervention requires strengthening community capacity through the involvement of village health workers, the establishment of effective referral systems, and integration with existing primary healthcare services. This collaborative and community-based approach can serve as a practical model for maintaining essential healthcare delivery, strengthening community resilience, and supporting long-term health recovery in other

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disaster-prone areas.

5. ACKNOWLEDGEMENTS

The authors would like to express their gratitude to the Director and the medical team at Pidie Jaya Regional General Hospital for their clinical support and cooperation. We would also like to express our gratitude to the local authorities and residents of Blang Awe Village, Meureudu sub-district, for their active participation and cooperation during this community service program.

6. REFERENCE

Ahmadi, S., Khankeh, H., Sahaf, R., Dalvandi, A., Hosseini, S. A., & Jalilvand, S. (2018). Health Needs of Older Adults After Natural Disasters: A Systematic Literature Review. *Trauma Monthly*, *23*(4). https://doi.org/10.5812/traumamon.60622

Akselrod, S., Banerjee, A., Collins, T. E., Acharya, S., Artykova, N., Askew, I., Berdzuli, N., Diorditsa, S., Eggers, R., Farrington, J., Jakab, Z., Ferreira-Borges, C., Mikkelsen, B., Azzopardi-Muscat, N., Olsavszky, V., Park, K., Sobel, H., Tran, H., Vujnovic, M., … Allen, L. N. (2023). Integrating Maternal, Newborn, Child Health and Non-Communicable Disease Care in the Sustainable Development Goal Era. *Frontiers in Public Health*, *11*, 1183712. https://doi.org/10.3389/fpubh.2023.1183712

Alderman, K., Turner, L. R., & Tong, S. (2012). Floods and Human Health: a Systematic Review. *Environment International*, *47*, 37–47. https://doi.org/10.1016/j.envint.2012.06.003

Andayani, H., & Ishak, S. (2020). Manajemen Pelayanan Kesehatan pada Pengungsi Pasca Bencana. *Jurnal Kedokteran Nanggroe Medika*, *3*(3), 23–29.

Becker, J., Johnston, D., Lazrus, H., Crawford, G., & Nelson, D. (2008). Use of Traditional Knowledge in Emergency Management for Tsunami Hazard: A Case Study from Washington State, USA. *Disaster Prevention and Management*, *17*(4), 488–502. https://doi.org/10.1108/09653560810901737

BNPB. (2025). *Info Bencana Data dan Informasi Kebencanaan Bulanan Teraktual* (Vol. 6, Issue 1).

BPS Aceh. (2023). *Statistik Daerah Provinsi Aceh*.

Dartanto, T. (2022). Natural Disasters, Mitigation and Household Welfare in Indonesia: Evidence From a Large-Scale Longitudinal Survey. *Cogent Economics \& Finance*, *10*(1), 2037250. https://doi.org/10.1080/23322039.2022.2037250

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Page : 15-30
E-ISSN : 3109-1830
DOI : https://doi.org/10.64126/dedikasisosial.v2i1.58

Dinas Kesehatan Aceh. (2025). *POSKO HEOC (Health Emergency Hari Ke-34*.

Doocy, S., Daniels, A., Murray, S., & Kirsch, T. D. (2013). The Human Impact of Floods: a Historical Review of Events 1980-2009 and Systematic Literature Review. *PLoS Currents*, *5*. https://doi.org/10.1371/currents.dis.f4deb457904936b07c09daa98ee8171a

Drain, P. K., Halperin, D. T., Hughes, J. P., Klausner, J. D., & Bailey, R. C. (2006). Male Circumcision, Religion, and Infectious Diseases: an Ecologic Analysis of 118 Developing Countries. *BMC Infectious Diseases*, *6*(1), 172. https://doi.org/10.1186/1471-2334-6-172

Du, W., FitzGerald, G. J., Clark, M., & Hou, X.-Y. (2010). Health Impacts of Floods. *Prehospital and Disaster Medicine*, *25*(3), 265–272. https://doi.org/10.1017/S1049023X00008141

Fernandez, L. S., Byard, D., Lin, C.-C., Benson, S., & Barbera, J. A. (2002). Frail Elderly as Disaster Victims: Emergency Management Strategies. *Prehospital and Disaster Medicine*, *17*(2), 67–74. https://doi.org/10.1017/s1049023x00000200

Hammad, M., Foster, A. M., Aissaoui, A., Clark, E., Elamurugan, K., Rajendra, K. L., El Mowafi, I. M., & Kobeissi, L. (2023). Exploring the Feasibility of Establishing a Core Set of Sexual, Reproductive, Maternal, Newborn, Child, and Adolescent Health indicators in Humanitarian Settings: Results From a Multi-Methods Assessment in Jordan. *Reproductive Health*, *20*(1), 56. https://doi.org/10.1186/s12978-023-01589-w

Harville, E., Xiong, X., & Buekens, P. (2010). Disasters and Perinatal Health:a Systematic Review. *Obstetrical & Gynecological Survey*, *65*(11), 713–728. https://doi.org/10.1097/OGX.0b013e31820eddbe

Jia, Z., Tian, W., Liu, W., Cao, Y., Yan, J., & Shun, Z. (2010). Are the Elderly More Vulnerable to Psychological Impact of Natural Disaster? A Population-Based Survey of Adult Survivors of The 2008 Sichuan Earthquake. *BMC Public Health*, *10*, 172. https://doi.org/10.1186/1471-2458-10-172

Kemenkes RI. (2019). *Laporan Riskesdas 2018 Nasional*. Badan Penelitian dan Pengembangan Kesehatan.

Kemenkes RI. (2020). *Pedoman Pelayanan Antenatal Terpadu*.

Kemenkes RI. (2021a). *Buku Informasi Cegah dan Kendalikan Penyakit TidakMenular (PTM)*.

Dedikasi Sosial : Jurnal Pengabdian Masyarakat
Volume 02, No 1, June 2026
Page : 15-30
E-ISSN : 3109-1830
DOI : https://doi.org/10.64126/dedikasisosial.v2i1.58

Kemenkes RI. (2021b). *Gerakan Perilaku Hidup Bersih dan Sehat dalam Data Riset Kesehatan Dasar*. https://ayosehat.kemkes.go.id/gerakan-perilaku-hidup-bersih-dan-sehat-dalam-data-riset-kesehatan-dasar

Krill, A. J., Palmer, L. S., & Palmer, J. S. (2011). Complications of Circumcision. *The Scientific World Journal*, *11*, 2458–2468. https://doi.org/10.1100/2011/373829

Kronenberg, M. E., Hansel, T. C., Brennan, A. M., Osofsky, H. J., Osofsky, J. D., & Lawrason, B. (2010). Children of Katrina: Lessons Learned About Postdisaster Symptoms and Recovery Patterns. *Child Development*, *81*(4), 1241–1259. https://doi.org/10.1111/j.1467-8624.2010.01465.x

Mendrinos, A., Loyd, E., Jagger, M., Comer, C. C., & Gohlke, J. M. (2026). The Effect of Flooding on Low Birthweight and Preterm Birth: a Systematic Review and Meta-Analysis. *BMC Public Health*, *26*(1). https://doi.org/10.1186/s12889-026-26521-2

Mol, B. W. J., Roberts, C. T., Thangaratinam, S., Magee, L. A., de Groot, C. J. M., & Hofmeyr, G. J. (2016). Pre-eclampsia. *Lancet (London, England)*, *387*(10022), 999–1011. https://doi.org/10.1016/S0140-6736(15)00070-7

North, C. S. (2007). Epidemiology of Disaster Mental Health. In *Textbook of Disaster Psychiatry*. Cambridge University Press.

Ohta, Y., Araki, K., Kawasaki, N., Nakane, Y., Honda, S., & Mine, M. (2003). Psychological Distress Among Evacuees of a Volcanic Eruption in Japan: A Follow-Up Study. *Psychiatry and Clinical Neurosciences*, *57*(1), 105–111. https://doi.org/10.1046/j.1440-1819.2003.01086.x

Okeke, S. R., Okeke-Obayemi, D. O., Njoroge, M. R., & Yaya, S. (2024). Collateral Damage: The Overlooked Reproductive Health Crisis in Conflict Zones. *Reproductive Health*, *21*(1), 198. https://doi.org/10.1186/s12978-024-01941-8

Pemkab Pidie Jaya. (2025). *KABUPATEN PIDIE JAYA _ Berita Rekapitulasi Dampak Bencana dalam Surat Pernyataan Bencana Nomor_ 300*.

Rosyida, A., Aziz, M., Firmansyah, Y., Setiawan, T., Pangesti, K. P., I., F. K., & Assaudi, B. (2024). *Data Bencana Indonesia 2024*.

Sahoo, K. C., Negi, S., Patel, K., Mishra, B. K., Palo, S. K., & Pati, S. (2021). Challenges in Maternal and Child Health Services Delivery and Access during Pandemics or Public Health Disasters in Low-and Middle-Income Countries: A Systematic Review. *Healthcare (Basel, Switzerland)*, *9*(7). https://doi.org/10.3390/healthcare9070828

Dedikasi Sosial : Jurnal Pengabdian Masyarakat
Volume 02, No 1, June 2026
Page : 15-30
E-ISSN : 3109-1830
DOI : https://doi.org/10.64126/dedikasisosial.v2i1.58

Situmorang, A. (2003). *Adolescent Reproductive Health in Indonesia* (Issue September).

Sphere Association. (2018). *The Sphere Handbook : Humanitarian Charter and Minimum Standards in Humanitarian Response.*

Venkatesh, G. (2022). A Brief Analysis of SDG 3 – Good Health and Well-being – and its Synergies and Trade-offs with the other Sustainable Development Goals. *Problemy Ekorozwoju*, *17*(2), 140–147. https://doi.org/10.35784/pe.2022.2.15

Wasis, B. (2025). *Dampak Siklon Senyar Terhadap Kerusakan Tanah, Longsor dan Banjir di Sumatera*.

WHO. (2009). *Male Circumcision Under Local Anaesthesia* (Vol. 3).

WHO. (2016). *WHO Guideline on Antenatal Care*.