Health Mitigation Strategies and Challenges in Vulnerable Groups and Natives in Indonesia: A Literature Review

Aristo Tanadi, Ray Wagiul Basrowi

Occupational Medicine Master Program, Department of Community Medicine, Faculty of Medicine, University of Indonesia, Jakarta, Indonesia

*Corresponding author: Aristo Tanadi
E-mail: aristotanadi@gmail.com

Abstract

Introduction: Indonesia, like many other countries, has vulnerable groups and natives that are at higher risk for poor health outcomes due to social, economic, and health disparities. Health mitigation efforts targeting these groups are crucial to ensure equitable health outcomes in Indonesia. This literature review aims to assess the current evidence on health mitigation in vulnerable groups and natives in Indonesia.

Methods: We conducted a comprehensive search of the literature using databases such as PubMed, Scopus, and Google Scholar. We searched using a combination of keywords and controlled vocabulary terms related to vulnerable groups, natives, health mitigation, and Indonesia to identify relevant articles. We included articles published from 2013 to 2023 that focused on health mitigation in vulnerable groups and natives in Indonesia. We excluded articles that did not focus on vulnerable groups or natives, were not related to health mitigation, or were not based in Indonesia.

Results: Our search yielded 11 relevant articles, including both original research and review articles. The studies focused on a range of vulnerable groups and natives, including older adults, women, children, refugees, and transgender people. Most barriers that were faced were difficulty to access health care providers, financial constraints, lack of knowledge regarding certain health issues, and social and cultural factors. Most study found that community-based health interventions, such as providing health education and access to health services, were more likely to be effective in improving health outcomes among vulnerable groups in Indonesia.

Conclusion: In conclusion, this literature review highlights the need for continued efforts to mitigate health disparities in vulnerable groups and natives in Indonesia. Community-based health interventions and tailored health programs show promise, but cultural and social barriers to healthcare access must also be addressed to ensure equitable health outcomes.

Keywords: health mitigation, vulnerable groups, indigenous people, women, children, older people, challenges
Introduction

The health and well-being of vulnerable groups and native populations are important considerations for public health interventions and policies. In Indonesia, a country characterized by diverse ethnicities, cultures, and socioeconomic conditions, addressing the health needs of these populations is crucial to achieve equitable health outcomes. Vulnerable groups include indigenous communities, internally displaced persons, women, children, older adults, and marginalized populations such as transgender individuals. As stated by Kuran et al., vulnerable groups can be defined as particular groups of individuals within a nation who possess distinct attributes that increase their vulnerability to requiring humanitarian aid or facing exclusion from financial and social services. During a crisis, these groups would require additional assistance, necessitating the implementation of supplementary measures, such as enhanced capacity, as an integral component of the emergency stage of disaster management.

Theoretically, there are 2 types of vulnerability: (1) Consent-based vulnerability: applies to groups with limited capacity for consent, autonomy, and self-protection, potentially leading to increased burdens of participation. (2) Fairness-based vulnerability: this pertains to marginalized groups facing limited opportunities and freedom, such as economically disadvantaged individuals, older adults, and non-native English speakers. These groups are more susceptible to coercion and undue influence, leading to overrepresentation in research where their ability to decline participation is compromised. Conversely, other groups may be excluded from research due to concerns about their involvement and a protective stance. But as a lot of studies suggest that vulnerability is rather contextual, this 3 sources of vulnerability by Rogers, Mackenzie, and Dodds could also be considered:

1. Inherent vulnerability: refers to the inherent susceptibility of human beings, encompassing physical, emotional, and psychological aspects that make individuals vulnerable to injury, illness, and psychological conditions, as well as the risk of death. (e.g. pregnant women, children, older people)
2. Situational vulnerability: pertains to the contextual factors surrounding individuals, including social, economic, and political aspects that differ among individuals and can influence their inherent vulnerabilities (e.g. refugees, indigenous people)
3. Pathogenic vulnerability: relates to situational vulnerabilities arising from adverse social issues, such as oppression and injustice, resulting in vulnerabilities such as stigma and discrimination. (e.g. transgender, people with HIV)

These groups are prone to experiencing various health conditions throughout their lives and are likely to seek medical assistance from doctors’ offices, hospitals, mental health clinics, hospices, or other healthcare institutions. In the realm of community health research, these populations can contribute valuable insights, ideas, and information regarding health interventions and treatment acceptability. However, historically, vulnerable participants in health research were often exploited, leading to efforts to protect them that sometimes resulted in their exclusion. Nevertheless, there is growing recognition that including vulnerable groups in research respects their autonomy and allows them to make meaningful contributions in areas relevant to their lives. It is argued that these populations should have equal opportunities to express their perspectives on matters that affect them, despite the ongoing debate and questioning surrounding their vulnerability status.

This literature review aims to provide a comprehensive assessment of health mitigation strategies and challenges faced by vulnerable groups and natives in Indonesia. By synthesizing existing research, the review intends to identify key areas of concern, highlight successful interventions, and pinpoint gaps in knowledge to inform future research and policy development.

The unique social and cultural contexts in Indonesia contribute to the specific challenges faced by these populations. Factors such as poverty, limited access to healthcare services, cultural beliefs and practices, stigma, discrimination, and inadequate health infrastructure play significant roles in shaping health outcomes. Recognizing and addressing these factors is essential for the development of effective health interventions that are sensitive to the needs and realities of vulnerable groups and natives.

Through this literature review, we aim to synthesize and critically analyze the available evidence on health mitigation strategies and challenges in vulnerable groups and natives in Indonesia. By identifying gaps in
knowledge and successful interventions, this review will contribute to the existing body of research and provide valuable insights for policymakers, healthcare providers, and researchers working to improve the health and well-being of these populations.

In the following sections, we will describe the methodology used for the literature search and selection, present the findings from the selected studies, discuss the implications of the findings, and conclude with recommendations for future research and policy interventions.

**Methods**

The objective is to assess health mitigation strategies and challenges in vulnerable groups and natives in Indonesia. A comprehensive search strategy is developed to identify relevant studies. Multiple electronic databases, such as PubMed, Scopus, and Google Scholar, are searched using a combination of keywords and controlled vocabulary terms such as “vulnerable groups”, “natives”, “indigenous people”, “women”, “children”, “Indonesia”, “refugees”, “older people”, and “health mitigation”. Additionally, reference lists of included studies and relevant reviews are screened for additional sources. The search is limited to studies published in English from 2013 to 2023.

The inclusion and exclusion criteria are established to select studies that are relevant to the research question. Inclusion criteria may include studies conducted in Indonesia, involving vulnerable groups or natives, and focusing on health mitigation strategies or challenges. Exclusion criteria may exclude studies not related to the specific topic, studies not published in English, or not conducted in Indonesia.

A two-step study selection process is conducted. Firstly, titles and abstracts of the identified articles are screened based on the inclusion and exclusion criteria. Secondly, the full texts of potentially relevant articles are assessed for eligibility. The selected literatures are mostly cross sectional studies, qualitative researches, and review studies.

**Results**

Eleven studies within the inclusion and exclusion criteria are assessed in this study that are shown in details in Table 1. The target groups identified in the studies are older people, women (and pregnant women), children, people living in rural areas, people living in post-disaster era, refugees, and transgender women. Each groups have their own challenges to tackle in regards to health mitigation, with proposed and accomplished solutions also mentioned.

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<td>1.</td>
<td>Kadar, et al. (2013)</td>
<td>Ageing in Indonesia – Health Status and Challenges for the Future</td>
<td>Older people</td>
<td>Increased disease, both infectious and degenerative, and limited resources to implement effective strategies to support this group remain healthy and independent</td>
<td>- The DHO (District Health Office) must provide direction and enhance assistance to health care workers who provide services for older people in the community health centres - Supporting health care volunteers in the villages with access to ongoing training relating to caring for the older people will improve their skills and knowledge and ultimately health outcomes for this population group, as they live locally and know the community and the people</td>
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| 2.  | Rizkianti, et al. (2021) | Perceived Barriers in Accessing Health Care and the Risk of Pregnancy Complications in Indonesia | Women in Sumatra and Maluku-Papua | - Geographical- and transportation-related obstacles, including long-distance travel, lack of a vehicle, and inadequate infrastructure, are still major discrepancies in healthcare access, which may increase the risk of women delaying access to timely and appropriate health care, and subsequently ending up facing severe obstetric complications  
- Proportion of women in Aceh and North Sumatra reporting barriers in obtaining permission of their spouses was the highest among the 34 provinces  
- Tendency for home treatment | - Communities should lead the project by themselves, but an outside catalyst such as an NGO or other external agency is still required  
- Women were more active and played a greater role in the success of the project, which may be because the family's health is likely to be the responsibility of women  
- Local leadership capacity to motivate and encourage the villagers to take responsibility for their own health program was also reported to be important in the success of the intervention and ensuring its continuity |
- Local leadership plays an important role in the included villages, whether the processes learned during this study will be continued depends on the village leaders  
- Charity programs from the government have made them ‘spoiled’ and dependent on outside aid or charity | - Communities should lead the project by themselves, but an outside catalyst such as an NGO or other external agency is still required  
- Women were more active and played a greater role in the success of the project, which may be because the family's health is likely to be the responsibility of women  
- Local leadership capacity to motivate and encourage the villagers to take responsibility for their own health program was also reported to be important in the success of the intervention and ensuring its continuity |
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| 4.  | Indah (2019) | Community-based medical education: Exploring doctor-patient interactions in post-disaster Aceh, Indonesia | Post-disaster Acehnese people | - Interactions between doctors and disaster-affected patients have shown a lack of opportunities provided for patients to assert their opinions, ask questions, or participate in the decision-making process.  
- Issues of cultural difference | - Doctors to share power with their patients by incorporating concepts, such as community engagement, critical consciousness and cultural humility in the medical curricula.  
- Prioritise the recruitment of local medical students who already understand layers of global/macro culture, local culture and micro-culture, mainly as there is additional medical content for future doctors to learn; and ensure the medical education curriculum includes the three layers of culture as a core competency.  
- A particular format of CBME, such as home visits, has the potential to assist medical students in developing cultural awareness |
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| 5.  | Sujarwoto & Maharani (2022) | Sociodemographic characteristics and health access associated with COVID-19 infection and death: a cross-sectional study in Malang District, Indonesia | People live in villages in Malang district during COVID-19 pandemic | - Rural residents who live in other subdistricts must travel approximately 2–3 hours to reach referral hospitals. With very limited transportation available during the outbreak, infected villagers often were not taken to hospitals or were taken when already in a critical condition, placing them at higher risk of death  
- Limited number of health workers in most villages in Malang Regency, due to the fact that most health workers are concentrated in areas near the city centre  
- Lack of skills and experience in handling COVID-19 patients as health workers received no training in COVID-19 treatment at the beginning of the outbreak  
- Local authorities are struggling to control traditional gatherings within communities, which may cause further COVID-19 clusters in the future | - Community-based health-care is vital in supporting district governments in increasing COVID-19 awareness among villagers  
- Providing COVID-19 emergency transportation, even building emergency hospitals, is crucial as patients with COVID-19 from rural villages |
| 6.  | Fauk, et al. (2019) | Facilitators to Accessibility of HIV/AIDS-Related Health Services among Transgender Women Living with HIV in Yogyakarta, Indonesia | Transgender women with HIV in Yogyakarta, Indonesia | - There were perceived stigma towards HIV  
- Practically no reported challenges in this study, participants were emotionally supported by their community member to further HIV/AIDS-related health service accessibility | - Provided COVID-19 emergency transportation, even building emergency hospitals, is crucial as patients with COVID-19 from rural villages |
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| 7.  | Helmyati, et al. (2022) | Monitoring continuity of maternal and child health services, Indonesia | Women and children in Indonesia during COVID-19 pandemic | - Health ministry mandate to postpone services at integrated health posts from March to August 2020 (but still continue for areas with a high risk of COVID-19) led to delays in children’s health and growth monitoring  
- Parents’ fears about COVID-19, they did not want to bring their child to integrated health posts  
- Civil unrest in a district in Papua Province halted activities at integrated health posts  
- Shortages of human and financial resources | - Health workers or CHWs carried out home visits  
- Health workers created a group mobile phone chat with parents to monitor the health condition of children aged 0–59 months and share health information  
- Telemedicine  
- Appointment making  
- Special delivery rooms to handle delivering mothers with COVID-19 |
| 8.  | Endarti, et al. (2018) | Knowledge, Perception, and Acceptance of HPV Vaccination and Screening for Cervical Cancer among Women in Yogyakarta Province, Indonesia | Young women, adult women, and mothers in Yogyakarta | - Knowledge about cervical cancer, and HPV vaccination/screening was not quite high  
- The high cost of HPV vaccine and willingness to take HPV vaccination/screening | - Increasing literacy by focusing the aspects of knowledge with low level should be emphasized in the education material related to cervical cancer |
- Distance to health facility  
- Unskilled birth attendance  
- Access to prenatal care  
- Parents’ education (especially mothers’) | - Breastfeeding promotion, vitamin and mineral supplements, increased child immunization and health insurance coverage.  
- Adopting a nutrition-sensitive development planning across all sectors in the country |
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| 10. | Legido-Quigley (2020)<sup>17</sup> | Southeast Asian health system challenges and responses to the ‘Andaman Sea refugee crisis’: A qualitative study of health-sector perspectives from Indonesia, Malaysia, Myanmar, and Thailand | Refugees in South East Asia, including Indonesia | - Financial barriers: national health budgets were already strained and healthcare was perceived by many as a commodity to be prioritised for citizens  
- Juridico-political barriers: Migrant-exclusionary policies limit their access to essential medicines  
- Sociocultural barriers | - Regional cooperation: essential for developing solutions, because of the cross-border nature of migratory movements and the fact that policy development was reported as reactive at national level  
- Need for a change in perspective: promoting ongoing dialogue to facilitate understanding of refugees’ situations  
- Strengthening health systems: to incorporate refugee-inclusive policies and services that are responsive and sensitive to the rights and needs of refugees and asylum seekers  
- Addressing the social determinants of health: the need for refugee populations to access educational and employment opportunities in addition to health services  
- Including refugees/migrants into livelihood and economic opportunities |
| 11. | Herwansyah (2023)<sup>18</sup> | Barriers and facilitators to the provision of maternal health services at community health centers during the COVID-19 pandemic: Experiences of midwives in Indonesia | Pregnant women in Jambi | - Long distance to the CHCs  
- Fear of being infected with the COVID-19 among the midwives  
- Shortage of personal protective equipment | - Prioritization of COVID-19 vaccination to protect the midwives  
- Health insurance support |

**Discussion**

One of the prominent challenges that is mostly faced among the groups is the frustrating distance to health care provider, which is either geography related or because of the lack of transportation.<sup>7,11,16,18</sup> This finding has been consistent to previous studies in other parts of the world like in Canada and Brazil.<sup>19,20</sup> Various geographical condition in Indonesia, ranging from mountains and islands, has been a homework for the government, and as Rizkianti et al<sup>7</sup> suggests, the solution should involve the active participation of the health sectors, local administration, and communities is essential in addressing these obstacles and providing assistance to reduce delays in accessing healthcare services, which can be achieved by improving geographical access, ensuring
the availability of emergency transport, and integrating these efforts into local development initiatives. But more practical solutions such as providing home visit service and telemedicine have been proved helping the health service to be carried out to these people, with the effects of further studies should be conducted for their effectiveness. The authors of this review also agree that practical solutions would be more appropriate as we all could expect that most of the times, the challenges are contextual, unique compared to each situation. It is essential that policymakers, healthcare providers, and communities work collaboratively to develop and implement these solutions to effectively address the unique needs and challenges faced by vulnerable groups in order to achieve equitable and inclusive healthcare.

Another classic challenge that has been a tripping stone for these vulnerable groups is the limited financial and health related resources. These includes the lack of health care workers (HCW) (and related medical trainings in regards to certain population or condition (e.g. COVID-19 pandemic), poor health care and health related facilities (water source, sanitation), expensive vaccine, especially found in the awareness of HPV vaccination, and limited availability of personal protective equipment which could affect HCW in providing medical services. This particular problem needs careful attention from the policy makers, as it depends on the policies and budget allocation that they have been composing, including the involvement of national health coverage. Unique finding in relation to financial situation is that government charity programs have fostered a sense of dependence and reliance on external aid among vulnerable populations, especially in Dewi et al. study. To ensure the continuity of health mitigation in the community, Dewi suggests that it is important to maintain local leadership capacity to motivate and encourage the villagers to take responsibility for their own health program. According to Frimpong et al, vulnerable populations such as individuals aged 60 and above who are unemployed are particularly susceptible to experiencing financial hardships during crises like the COVID-19 pandemic. This can manifest in various ways, including job loss leading to a diminished ability to financially support older parents or relatives who rely on them for assistance, or those who depend on financial aid from non-profit organizations may face challenges in receiving support, as the financial resources of these organizations are significantly affected. This might as well could be pictured in other groups, as their conditions could influence their ability to look for jobs or any other financial assistance. Our thought in this kind of situation, and some might also suggest, might be pointed towards the awareness of the importance of emergency fund that the people and organizations could have prepared to tackle the financial challenge. Therefore, education and financial literacy are important keys that could be applied to anticipate the monetary burden in such extraordinary event like pandemic.

Socio-cultural issues has also been addressed in some population, especially between health care provider and patients, which amends the recommendation that physicians should promote shared decision-making with their patients by integrating principles like community engagement, critical consciousness, and cultural humility into medical training programs. It is crucial to prioritize the selection of medical students who possess a comprehensive understanding of global/macroculture, local culture, and micro-culture, as they well be equipped with the necessary knowledge to navigate diverse healthcare contexts. Furthermore, the medical education curriculum should incorporate these three layers of culture as essential competencies for future doctors. Among the refugees, integrating policies and services that prioritize the inclusion of refugees and asylum seekers, ensuring their rights and needs are acknowledged and met, tackling the social factors that influence health: by addressing the social determinants of health, such as access to education, employment, and other opportunities, facilitating the integration of refugees and migrants into livelihood and economic ventures, providing them with opportunities for self-sufficiency and economic stability, have also been proposed to solve the socio-cultural situation.

As mentioned in Rizkianti’s study, a population of pregnant women in Aceh and North Sumatra reported to have to seek permission of their husbands before receiving medical care. Meanwhile, as also studied in the report, in eastern Indonesia, home remedies and treatment are still popular. These obvious sociocultural related challenges, while being statistically not significant, could raise concern of treatment delay for those pregnant women who actually have serious, not to mention lethal, conditions that need immediate medical attention.

Among transgender people, it has been surprising to see little obstacle in accordance to gaining access to healthcare, especially in relation to HIV/AIDS.
related care. The study that is included in this review suggests that participants were already supported by their community member to further HIV/AIDS-related health service accessibility. This might also be influenced by the lack of stigma among Yogyakarta people towards transgender women, as explained by the author. Further studies in other areas in Indonesia should be conducted, as it might show different results due to different views about transgender people.

All evidence suggests that community-based health interventions can be effective in improving health outcomes among vulnerable groups and natives in Indonesia. These interventions can include providing health education, increasing access to healthcare services, and promoting healthy behaviors. However, cultural and social barriers to healthcare access, particularly for women and natives, remain a significant challenge. The evidence also suggests that addressing the specific needs of the vulnerable groups involved is crucial for effective health mitigation. Tailored health programs that account for cultural and socioeconomic factors may be more effective in improving health outcomes among these groups.

Strengths of this review include the utilization of a comprehensive search strategy involving multiple databases and appropriate search terms to capture a wide range of relevant literature on health mitigation in vulnerable groups and natives in Indonesia. The inclusion of diverse vulnerable groups, such as older people, women, children, refugees, and transgender individuals, allows for a comprehensive assessment of health mitigation strategies across different populations. The review also provides practical solutions and recommendations, including community-based interventions and shared decision-making, which have the potential to inform policy and practice. However, limitations of the review include potential language and publication bias due to the focus on English-language studies, the limited availability of relevant studies, and the heterogeneity of study designs, which may affect the ability to compare and synthesize findings. Awareness of these strengths and limitations is important when interpreting the findings and considering their implications.

Conclusion

In conclusion, the literature review highlights several key challenges and potential solutions in health mitigation for vulnerable groups and natives in Indonesia. The study identifies common barriers such as geographical distance to healthcare providers, limited financial and health-related resources, and socio-cultural issues. To address these challenges, the active involvement of health sectors, local administration, and communities is essential in improving geographical access, providing emergency transport, and integrating healthcare efforts into local development initiatives. Practical solutions like home visits and telemedicine have shown promise but require further investigation. Additionally, addressing financial constraints, ensuring adequate healthcare workforce and facilities, and reducing dependence on external aid are important considerations for policy makers. The importance of promoting shared decision-making and cultural competence in medical education is emphasized, along with the need to prioritize the inclusion and support of refugees and asylum seekers. The findings also reveal the lack of barriers faced by transgender individuals in accessing HIV/AIDS-related healthcare, possibly due to the support of their community and the absence of stigma in Yogyakarta. Overall, community-based interventions and tailored health programs that account for cultural and socioeconomic factors are crucial for improving health outcomes among vulnerable groups and natives in Indonesia.

References

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