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Stakeholders' Perspectives on Child Healthcare Services under Rural Health Reform in Thailand: A Qualitative Study

Katemanee Moonpanane[1,2], PhD; Salisa Kodyee[1], MSN; Pimkanabhon Trakooltorwong[1], MSN; Kunnara Maneekunwong[1], MSN; Chompunut Sopajaree[3], PhD

[1]Department of Child and Adolescent Nursing, School of Nursing, Mae Fah Luang University, Chiang Rai, Thailand;
[2]Nursing Innovation Research and Resource Group, School of Nursing, Mae Fah Luang University, Chiang Rai, Thailand;
[3]Department of Maternity Nursing and Midwifery, School of Nursing, Mae Fah Luang University, Chiang Rai, Thailand

Corresponding Author:
Katemanee Moonpanane, PhD; Department of Child and Adolescent Nursing, School of Nursing, Mae Fah Luang University, Chiang Rai, 57100, Thailand
Tel: +66 53 916491; **Fax:** + 66 53 916887; **Email:** katemanee.moo@mfu.ac.th

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Abstract

Background: Children under 5 years old are a global health priority; however, healthcare services for this age group remain limited, especially in rural areas of Thailand. This study explores the perspectives of stakeholders responsible for child healthcare delivery in resource-constrained rural communities.

Methods: This study is a qualitative research using thematic framework analysis. Participants (N=45) including twenty parents, ten healthcare providers, five village health volunteers, five teachers, and five community leaders were recruited using purposive sampling. In-depth interviews and focus group discussions, lasting between 40 and 70 minutes, were performed to explore the participants' perspectives. Data were collected from February to November 2021. All interviews were transcribed and analyzed using NVivo software version 21.

Results: The research identified two themes, each with two sub-themes: 1) Structural limitations: disparity in the distribution of service and healthcare provider training and challenges in policy implementation, and 2) Opportunities to optimize childcare: fostering community ownership and multidisciplinary collaboration and strengthening family engagement.

Conclusions: This study revealed significant challenges and opportunities in delivering healthcare services to children in rural Thailand. The findings underscore the importance of coordinated interventions that enhance community involvement and strengthen family engagement.

Keywords: Child health, Health service, Health policy, Qualitative research

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Introduction

Providing increased healthcare services and education for children under five can result in a significant accumulation of human capital; increased productivity, income, and economic development; and the achievement of sustainable development goals.[1, 2] Specific interventions and healthcare promotion must ensure that children have a strong foundation and a healthy start in life during this critical period of growth and development, which will lead to improved health in adulthood.[3, 4]

In Thailand, the Ministry of Public Health (MoPH) has had the principal responsibility to provide universal healthcare coverage to promote the health of all Thai citizens and improve access to healthcare for over two decades.[5, 6] This scheme does not only focus on people with diseases but also aims to enable all children to grow and develop in a positive environment. Healthcare coverage for children encompasses counseling children and their parents on health promotion, conducting physical examinations, administering immunizations and basic care, preserving dental health, and assuring access to safe water and food.[7]

Previous studies have reported that investing in children's health and quality of life, especially in early childhood, has significant long-term benefits. Furthermore, there is mounting evidence that early-life environments impact various later-life outcomes, including health, nutrition, cognition, and mortality.[8] However, poverty and social exclusion still deprive many of Thailand's children from the critical nutrition, healthcare, education, and protection necessary for optimal development. This is particularly true for children in poor families, children who live in remote rural areas, children with disabilities, and migrant children. Recent studies focusing on early childhood health in rural areas of Thailand have reported rates of underweight, stunting, and wasting of 19.3%, 27.6%, and 7.4%, respectively.[9, 10] Research revealed that over half of these children continued to experience dental caries, with a mere 5.8% of preschool children receiving dental treatment.[11-13] Another study also highlighted a significant prevalence of infectious diseases among children, including pneumonia, dengue fever, and diarrhea, many of which could be effectively prevented through vaccination programs.[4, 8, 14]

Thailand implemented a healthcare decentralization policy, transferring authority from the MoPH to local government entities under the Ministry of Interior (MoI) to address these challenges. This shift in policy aimed to enhance local responsiveness in healthcare service delivery. By moving decision-making and control to local governments, the policy sought to tailor healthcare services to the specific needs of different communities. It also aimed to reduce bureaucratic delays and improve the efficiency of healthcare delivery by placing decision-making closer to the point of service. As part of this initiative, children's healthcare services were transferred to sub-district health promotion hospitals (SDHPHs), where they are now overseen by nurses and public health officers.[15] Community involvement in childcare is further emphasized through the activities of village health volunteers (VHVs) who provide basic healthcare services to children. These services include guiding the fundamental management of the child's illness and facilitating outreach and mobile activities under the SDHPH.[16, 17] The VHVs, school-teachers, and local governors are the second tier of the healthcare system, which offers additional services for children such as monitoring growth and development, providing educational materials, and granting child support funds.[18, 19]

The decentralization policies encompass expanding universal health coverage, strengthening the healthcare system's infrastructure and workforce, and promoting community health programs. These reforms collectively contribute to creating a more robust, equitable, and responsive healthcare system, aiming at effectively

meeting the diverse needs of Thailand's population. However, challenges in rural areas include infrastructure limitations, healthcare workforce shortages, and skilled professionals migration ("brain drain"). Poorly defined policies have also impeded effective responsibility transfers, leading to inefficiencies.[20-22] Previous research has largely focused on urban settings or national-level policy analysis, highlighting the potential benefits of decentralization but often overlooking the nuanced challenges faced by rural communities.[14, 15, 23] Existing literature lacks an in-depth exploration of local stakeholders' perspectives, particularly regarding child healthcare services for specific populations. To address these gaps, we have adopted a qualitative research approach, enabling us to delve into the complex, context-specific issues surrounding healthcare decentralization in rural areas. While quantitative studies offer valuable broad-scale data, they may miss the subtleties of local implementation challenges and the lived experiences of healthcare providers and community members. Therefore, this study was performed to explore stakeholders' perspectives on child healthcare services in regions under rural health reform in Thailand.

Materials and Methods

This study which used qualitative content analysis was conducted from February to November 2021 to explore child healthcare services in rural areas amidst ongoing health reforms. A district in northern Thailand was selected for this study due to its diverse population of general Thai residents and ethnic migrant minorities, which reflected the complexities of care delivery during the transition from the MoPH to the local government.

The study employed a purposive sampling strategy to recruit participants from various stakeholder groups, including parents, healthcare providers, and other stakeholders including teachers, VHVs, and community leaders/local governors. Coordination with nurse practitioners facilitated the recruitment process, ensuring that participants met specific criteria. These criteria included those having informed consent to participate in this study, parents who were primary caregivers for children under 5 years old, healthcare providers with over 5 years of experience in child healthcare services (ages 0-5) in the study area, and community leaders, VHVs, and teachers who had facilitated essential healthcare services for children (0-5) within their communities under the MoI; also, all participants were required to be able to communicate effectively in Thai language. Exclusion criteria for the study included participants who have resided in the study area for less than one year and limited experience in pediatric healthcare utilization and individuals with cognitive impairments that might hinder their ability to provide informed consent or participate meaningfully in the study.

In total, 45 participants were recruited, comprising 20 parents, 10 healthcare providers, 5 teachers, 5 VHVs, and 5 community leaders. Information about the study objectives, methods, risks, benefits, and the potential publication of the findings in academic journals and reports was explained to all participants. Informed consent was obtained from them. Participants had the option to provide consent either in writing or by providing a thumbprint, depending on their level of written literacy. Since this study was conducted in an area with a diverse population of general Thai residents and ethnic migrant minorities, translators were used to ensure an understanding in all processes. Furthermore, during the Focus Group Discussions (FGDs), bilingual team members assisted the participants who struggled with speaking Thai. By assisting each other in explaining, the participants quickly became acquainted with each other, resulting in widely enjoyable FGDs.

The data collection process began with semi-structured interviews conducted with participants to explore their perceptions related to the utilization and provision of

child healthcare services. The purpose of these interviews was to gain in-depth understanding and insights. Interview sessions with healthcare providers employed during this transitional period commenced the data collection process. Interviews lasted about 40-70 minutes. Examples of interview questions included: "Could you provide a description of your experiences with the healthcare services offered at the SDHPH?", "Could you tell us about the process of visit SDHPH?", and "Can you describe your most recent experience of taking your child to the hospital?" Following the individual interviews, FGDs were conducted at local municipal buildings to explore the participants' perspectives on child healthcare services and the ongoing rural health reform in greater depth. Each FGD comprised 5-8 members, grouped based on participants' homogeneous roles in childcare, involving either only parents or exclusively healthcare professionals. The discussions were conducted twice with parent groups and twice with healthcare providers. This intentional homogeneity facilitated richer discussions and a comprehensive understanding of the issues by ensuring that participants shared similar experiences and perspectives. Data collection continued beyond the initial point of theoretical saturation to ensure data saturation and enhance the credibility of the study. Audio recordings were then transcribed verbatim for detailed analysis.

This study employed thematic framework analysis, capitalizing on its strength in identifying recurring themes, to examine the qualitative data from interviews and FGDs. Prior to data collection, the researchers acknowledged and documented their key pre-assumptions to minimize their influence on the research process. This transparent approach aimed to mitigate researcher bias and enhance the trustworthiness of the findings. KM coded all transcripts and FGD notes using NVivo 12 software, initially identifying key concepts and emerging themes. A preliminary thematic framework was developed, comprising the core themes and sub-themes reflecting child healthcare issues. Data were then recoded using this framework, facilitated by NVivo 21, organizing them into a thematic matrix. Through iterative review, initial themes were refined, with any coding discrepancies resolved collaboratively. This process aimed to mitigate bias and ensure trustworthiness. The themes were subsequently analyzed alongside the existing literature, identifying data relationships and patterns to draw meaningful conclusions about rural child healthcare. This systematic and transparent approach aimed to ensure research validity and reliability. Data collection continued until saturation was reached.

This study adopted Lincoln and Guba's framework to enhance trustworthiness by emphasizing credibility, dependability, confirmability, and transferability.[24] Credibility was ensured through participants' prolonged engagement, fostering openness and accurate representation of experiences, along with participant verification and member checking, where seven participants validated or refined findings. Dependability was reinforced by a detailed audit trail and iterative coding by researchers KM and SK, ensuring consistency in the coding system. Confirmability was supported through the triangulation of data sources providing a comprehensive understanding of the phenomenon. Themes emerged from the data, further ensuring confirmability. Transferability was achieved by providing thick descriptions, allowing readers to assess the relevance of the findings to other contexts or situations, and enhancing the broader applicability of the results.

This study received approval from the Human Ethics Research Committee at Mae Fah Luang University (reference number: EC21002-19). Before participation, all individuals provided informed consent through a signed consent form. This form outlined the study objectives, potential risks and benefits, and confidentiality and anonymity measures, before voluntarily

deciding to participate and participants' right to withdraw at any point without any effects. The research adhered to the ethical principles established in the Declaration of Helsinki and all relevant research guidelines and regulations. Researchers verified that participants understood the information provided by making a trained translator available as needed.

Results

Forty-five participants from resource-constrained rural communities in Thailand were recruited for this study. The sample comprised parents (n=20; 12 Thai, 5 Akha, and 3 Tai-Yai), healthcare providers (n=10), teachers (n=5), and community leaders (n=5). Parental ages ranged from 22 to 49 years (30.4±7.42 years). All healthcare providers (mean age of 36.2±10.93), teachers (mean age of 32.6±7.50), and community leaders (mean age of 27.2±3.03) were Thai citizens. Additionally, five VHVs participated, with an age range of 29 to 52 years (mean age of 43.2±9.58). Participants' characteristics are displayed in Tables 1 and 2.

Analysis of interview transcripts yielded several factors shaping stakeholder perceptions of child healthcare services in rural Thailand under a decentralized policy framework. These perceptions coalesced into two themes, each encompassing two subthemes (Table 3), which collectively obstruct effective service delivery in these regions.

1. Structural Limitations

Disparities in healthcare service distribution and specialist availability pose significant challenges for delivering child healthcare in rural areas of Thailand. The healthcare mission transitioned from the MoPH to local governments under the MoI to address this challenge. However, the initial phases of this decentralization process revealed limitations including disparity in service distribution and healthcare provider training, and challenges in policy implementation

1.a. Disparity in Service Distribution and Healthcare Provider Training

Although the MoPH offers free services in primary healthcare settings, disparities persist in access and quality. Access to care continues to vary among different racial and ethnic groups.

Table 1: Characteristics of the parents

No	Age (years)	Sex	Marital status	Level of Education	Ethnicities	Healthcare schemes
1	22	Female	Married	Never attended	Akha	No healthcare insurance
2	29	Female	Married	Secondary school	Thai	Migrant health insurance scheme
3	42	Female	Married	Primary school	Akha	No healthcare insurance
4	33	Female	Married	Never attended	Tai-Yai	Migrant health insurance scheme
5	37	Female	Divorce/widow	Primary school	Tai-Yai	Migrant health insurance scheme
6	29	Female	Single	Secondary school	Thai	Migrant health insurance scheme
7	24	Female	Divorce/widow	Never attended	Akha	Migrant health insurance scheme
8	38	Female	Married	Secondary school	Thai	Migrant health insurance scheme
9	35	Female	Single	Secondary school	Akha	No healthcare insurance
10	38	Female	Married	Secondary school	Thai	Migrant health insurance scheme
11	25	Female	Married	Primary school	Thai	Migrant health insurance scheme
12	32	Female	Married	Secondary school	Akha	Migrant health insurance scheme
13	28	Female	Married	University degree	Thai	Migrant health insurance scheme
14	22	Female	Married	Primary school	Tai-Yai	Migrant health insurance scheme
15	24	Female	Married	Secondary school	Thai	Migrant health insurance scheme
16	25	Male	Married	University degree	Thai	Migrant health insurance scheme
17	27	Male	Married	Secondary school	Thai	Migrant health insurance scheme
18	26	Male	Married	Secondary school	Thai	Migrant health insurance scheme
19	23	Male	Married	Secondary school	Thai	Migrant health insurance scheme
20	49	Male	Married	Primary school	Thai	Migrant health insurance scheme

Table 2: Characteristics of healthcare providers, teachers, community leaders and village health volunteers

No	Age (years)	Sex	Marital status	Level of Education	Ethnicities	Healthcare schemes
Healthcare Providers						
1	22	Female	Single	University degree	Thai	Civil servant medical benefit scheme
2	38	Female	Married	University degree	Thai	Civil servant medical benefit scheme
3	41	Female	Single	University degree	Thai	Civil servant medical benefit scheme
4	47	Female	Married	University degree	Thai	Civil servant medical benefit scheme
5	30	Female	Single	University degree	Thai	Social security scheme
6	49	Male	Single	University degree	Thai	Civil servant medical benefit scheme
7	24	Male	Married	University degree	Thai	Social security scheme
8	22	Male	Married	University degree	Thai	Social security scheme
9	49	Male	Married	University degree	Thai	Civil servant medical benefit scheme
10	40	Male	Married	University degree	Thai	Civil servant medical benefit scheme
Teachers						
1	23	Female	Single	Secondary school	Thai	Social security scheme
2	31	Female	Single	University degree	Thai	Civil servant medical benefit scheme
3	33	Female	Single	University degree	Thai	Civil servant medical benefit scheme
4	44	Female	Married	University degree	Thai	Civil servant medical benefit scheme
5	32	Female	Single	University degree	Thai	Social security scheme
Community leaders						
1	23	Female	Single	University degree	Thai	Social security scheme
2	26	Female	Single	University degree	Thai	Social security scheme
3	31	Male	Married	University degree	Thai	Civil servant medical benefit scheme
4	29	Female	Married	University degree	Thai	Civil servant medical benefit scheme
5	27	Female	Single	University degree	Thai	Civil servant medical benefit scheme
Village health volunteers						
1	29	Female	Single	Secondary school	Thai	Migrant health insurance scheme
2	47	Female	Single	Secondary school	Thai	Migrant health insurance scheme
3	52	Male	Single	Primary school	Thai	Migrant health insurance scheme
4	38	Female	Single	Secondary school	Thai	Migrant health insurance scheme
5	50	Female	Single	Primary school	Thai	Migrant health insurance scheme

Table 3: Sub-themes and themes derived from data analysis

Sub-themes	Themes
Disparity in service distribution and healthcare provider training Challenges in policy implementation	Structural limitations
Fostering community ownership and multidisciplinary collaboration Strengthening family engagement	Opportunities to optimize childcare

Parents with lower incomes face hidden costs, such as transportation expenses and lost wages from missing work, which hinder healthcare utilization. Additionally, geographical barriers impact access to care for some populations. For example: *"The people in this area were a mix of Thais, ethnic minorities, and migrants from Myanmar and Laos. Due to their occupation, financial constraints, and unlawful circumstances, they cannot visit the hospital during the day. Typically, they mostly go to drug stores [for their healthcare needs] and only go to the hospital when they are in severe or life-threatening condition." (Healthcare provider 4)*

Healthcare providers were also asked to describe their roles and responsibilities before the transition of the health mission from the MoPH to the local government. All participants stated that this was the beginning of the mission. A participant said: *"We need more time to develop the child's health*

services because we have a small number of healthcare professionals--only one nurse and one public health officer. We also need to work with the local government by integrating our services into the mission." (Healthcare provider 5)

Another one said: *"We have been seeing more children with behavioral and developmental issues, but here is the problem: in rural areas, we do not have the expertise to help them. The nearest specialist clinic is hours away, and the journey is both difficult and expensive for our villagers. Many families simply cannot afford it." (VHV-7)*

1.b. Challenges in Policy Implementation

Transferring health missions from the MoPH to the local government is part of the decentralization policy. Despite the ongoing process, there are several obstacles in the other side's narrative. The healthcare providers stated that the local government has not prepared itself for the public health mission due to the lack of effective cooperation between the two organizations, especially at the beginning of the transfer process: *"Even though we live in the same district, we are new to the local government and its functions. When I realized we had to relocate to work for the local government, it became clear that the local government's unfamiliarity with its new responsibilities in health management has caused confusion and hindered effective implementation." (Healthcare provider 3)*

2. Opportunities to Optimize Childcare

The transfer of healthcare services from MoPH to a local setting has revealed complexities within the existing rural healthcare systems for the children. These complexities create barriers to effective service delivery. However, opportunities remain to optimize care within this current context. These opportunities include fostering community ownership and multidisciplinary collaboration and strengthening family engagement.

2.a. Fostering Community Ownership and Multidisciplinary Collaboration

Community ownership is crucial to driving the community child healthcare system. Generally, participants agreed that the community had an important ownership role in caring for children. Regarding the transfer of the health mission, the participants highlighted that the VHVs are a creative strategy to increase accessibility and build a child healthcare system at the community level. A participant said: *"Caring for children is the responsibility of all community members, not just the SDHPH. Even with healthcare services, it's not enough for our children… Effective child health outcomes require a collaborative approach involving communities, families, healthcare professionals, and VHVs. VHVs, as trusted community members, possess valuable knowledge of the local context and play a pivotal role in bridging the gaps between the healthcare system and the community. This collective effort emphasizes the shared ownership of child health and well-being." (Community leader/local governors 5)*

Working with different professional groups is significant for supporting and promoting child healthcare and promoting optimal health outcomes. One participant stated: *"We are working for the whole community in collaboration with healthcare providers, nurses, public health officers, teachers, and VHVs. The key part of the beginning steps is that we come from different backgrounds, but we can share our experiences to build the community health system for our children." (Healthcare provider 5)*

One teacher said: "The child's problems have changed; there are now many mental or psychological issues related to mobile phones. However, we are just beginning to build collaboration between specialists. We are currently working on contacting psychiatric doctors or occupational health professionals in the city, aiming to promote children's health holistically and prevent adverse circumstances." (Teacher 4)

2.b. Strengthening Family Engagement

Parents and family caregivers were asked how to raise their children and how healthcare services affect children's health. Most parents mentioned that health promotion and disease prevention are important and that the related activities must include the family to build sustainability. One of them stated:

"We are caring for our children firsthand. When nurses or teachers encourage us to become more involved in our children's care, we are eager to learn. This is especially crucial as it can be difficult to find a doctor. Learning from nurses and teachers helps us improve our parenting skills. Our goal is to raise healthy children, free from depression, aggression, or other illnesses." (Parent 3)

The study revealed that parents with less than secondary education and lower socioeconomic backgrounds faced difficulties in accessing and utilizing child healthcare services. These challenges were primarily due to insufficient information about available services and healthcare providers, as well as logistical issues such as transportation costs and time constraints. Parents suggested improvements, including enhancing communication and providing additional information. Implementing these suggestions would help ensure that families are better informed and more actively engaged in their children's healthcare. A parent said: *"I never know what to expect when I go to the SDHPH. The nurses seem overworked, handling several duties at once, and it appears that there is no dedicated physician available. It would be better for healthcare providers to take time to provide additional information via town hall broadcasting or in person by VHVs." (Parent 11)*

Discussion

This study elucidates the significant challenges in delivering child healthcare services in rural Thailand, which are in the same line with the issues encountered in other low- and middle-income countries. Our findings indicate that structural limitations exacerbate these challenges, contributing to service disparities, the lack of child healthcare experts in rural areas, and inefficiency in policy implementation during mission transfers. Despite progress in Thailand in enhancing healthcare equity through initiatives such as universal coverage and free lunch programs, disparities persist among vulnerable groups, including impoverished populations, non-Thai citizens, and those in remote areas.[25, 26] These observations are consistent with the research from Myanmar and rural areas in the United States, which attribute healthcare inequities to low health literacy, sociocultural barriers, geographic inaccessibility, and inadequate resource distribution.[27-30] Corroborating findings from Brazil, our study underscores the importance of prioritizing interventions for low-income and low-education populations in remote regions to address these challenges effectively.

Our findings highlight the growing complexity of child health issues, emphasizing the need for strategic investments in capacity building. This entails intensive training and collaboration with multidisciplinary teams, including healthcare providers, VHVs, and local stakeholders, to address disparities in service distribution. Evidence shows that tailored capacity-building initiatives, when implemented collaboratively, can positively impact the child health outcomes.[19] Consistent with studies from rural areas in the USA and Malawi, our results confirm that such investments can significantly reduce healthcare inequities and enhance child health outcomes.[31, 32]

A significant aspect of our research is its examination of the health system decentralization in Thailand, which aims to empower local communities in managing complex child health needs. However, our findings reveal significant implementation challenges during the early stages, including unclear processes and inadequate coordination across different levels of care. These challenges are in the same with research on decentralization in developed countries,

such as the United States, where effective governance and communication between organizations and levels have been identified as critical success factors.[33-36] Addressing the complex interplay between policy initiatives and practical realities in rural healthcare delivery requires targeted interventions to address systemic inequities. A collaborative approach, incorporating comprehensive training for healthcare providers, community leaders, and VHVs, offers a more sustainable and contextually appropriate solution to the persistent healthcare challenges in these underserved regions.[37]

Our study identified several promising opportunities to enhance rural child healthcare delivery in Thailand. A key factor is fostering family engagement and community ownership, adopting a multidisciplinary approach. These elements are essential for developing a more sustainable and culturally sensitive healthcare system. This finding aligns with the research on rural China, which highlights the importance of family-centered and collaborative care models in ensuring caregiver adherence to professional recommendations.[37] Additionally, successful examples of interprofessional coordination in Thailand, such as nurse practitioners collaborating with local authorities and educators on health promotion initiatives, illustrate best practices that integrate healthcare services with broader community development efforts. This approach supports holistic child well-being.[38]

Furthermore, our results underscore the need to cultivate positive provider attitudes and strengthen relational dynamics among healthcare workers, families, and community partners. Such factors are crucial for improving engagement and service utilization. While much of the existing literature focuses on clinical barriers, participants in our study highlighted the potential to enhance childcare by fostering an asset-oriented environment where children are genuinely valued. Collaborating with multidisciplinary teams and cultivating a sense of community ownership can further enhance service utilization and improve the quality of care for children in rural areas.[39-42]

Despite these valuable insights, notable limitations exist. The COVID-19 pandemic affected participant accessibility and healthcare service utilization patterns during the study period. The extraordinary circumstances of the pandemic may have influenced participant experiences and perspectives.

Conclusion

This study revealed significant challenges to equitable healthcare access for rural children in Thailand, primarily resulting from structural limitations such as disparities in service distribution and inadequacies in healthcare provider training. It also identified critical opportunities for improvement through fostering community ownership and promoting multidisciplinary collaboration.

The findings underscore the importance of coordinated interventions that enhance community involvement and strengthen family engagement. Policymakers could apply the findings to develop holistic, community-driven models to achieve equitable child health and well-being.

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Authors' Contribution

KM were responsible for the conceptualization and design of this study. The data collection was conducted by SK, PT & KM. The data analysis and interpretation were carried out by KM & CS. KM drafted the initial manuscript.

All authors critically reviewed and revised the manuscript, and approved the final version for publication. All authors take responsibility for the integrity of the data and the accuracy of the data analysis. The corresponding author attests that all listed authors meet authorship criteria and that no others meeting the criteria have been omitted.

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Conflict of Interest: None declared.

Declaration on the use of AI

The authors declare that no generative artificial intelligence tools were used in the preparation of this manuscript, including its text, images, graphics, tables, and their corresponding captions.

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