# Exploring the Drivers of Home Births: Perspectives, Risks, Benefits, and Policy Implications in Zamboanga Sibugay, Philippines

Marichu B. Modillas<sup>1)</sup>, Dave L. Oliva<sup>1)</sup>, Lynne Leah M. Opada<sup>1)</sup>, Randy Ian F. Gallego<sup>2)</sup>

¹)Department of Nursing, College of Arts and Sciences, Mindanao State University – Buug Campus, Buug, Zamboanga Sibugay, Philippines ²)College of Health Sciences, Mindanao State University-Main Campus, Marawi City, Lanao del Sur, Philippines

Received: 24 January, 2024; Accepted: 28 March, 2024; Available online: 16 May, 2024

#### **ABSTRACT**

**Background:** The persistence of home births in the Philippines remains conspicuous, despite the enforcement of policies discouraging this practice and the prevailing concerns about its safety. This research aims to delve into the various perspectives of women concerning home births to describe the underlying motivations behind their choices, their perceptions of the associated risks and benefits, and their stance on the "no home-birthing policy" of the state.

**Subjects and Method:** This was a descriptive, cross-sectional study involving 80 mothers drawn from Malangas, Zamboanga Sibugay, Philippines through a referral-based sampling method. The study examined sociodemographic characteristics as independent variables, while dependent variables included perceived reasons for home birth preference, associated risks and benefits, and respondents' views on the "no home-birthing" policy. Data were described in descriptive statistics.

**Results:** The findings showed that the inclination of women toward giving birth at home without the presence of professional birth attendants emanates from a multitude of factors. These include economic considerations, the sense of a familiar and comfortable environment, deeply rooted cultural beliefs, challenges related to accessibility to health facilities, and geographical impediments. Notwithstanding the inherent health risks, women opt for home births due to cost considerations, improved accessibility, and as a means of expressing their cultural and personal convictions. Consequently, the "no home-birthing policy" implemented in the Philippines is seen to reflect an effort to safeguard maternal and neonatal health by promoting facility-based deliveries.

**Conclusion:** The study underscores the importance of developing a holistic healthcare strategy that harmonizes women's autonomy and cultural practices with the crucial goal of ensuring safe childbirth, especially in marginalized areas.

**Keywords:** home birth, traditional birth attendants, reasons, risks, benefits, no-home birth policy

#### **Correspondence:**

Randy Ian F. Gallego. Associate Professor, College of Health Sciences, Mindanao State University-Main Campus, Marawi City, Lanao del Sur, 9200, Philippines. Mobile: +639-661-659-3722. Email: randyian.gallego@msumain.edu.ph

#### Cite this as:

Modillas MB, Oliva DL, Opada LLM, Gallego RIF (2024). Exploring the Drivers of Home Births: Perspectives, Risks, Benefits, and Policy Implications in Zamboanga Sibugay, Philippines. *J Matern Child Health*. 09(03): 315-325. https://doi.org/10.26911/thejmch.2024.09.03.04.

© Marichu B. Modillas. Published by Master's Program of Public Health, Universitas Sebelas Maret, Surakarta. This open-access article is distributed under the terms of the <u>Creative Commons</u> <u>Attribution 4.0 International (CC BY 4.0)</u>. Re-use is permitted for any purpose, provided attribution is given to the author and the source is cited.

e-ISSN: 2549-0257

#### **BACKGROUND**

Ensuring timely access to high-quality healthcare is of paramount importance for the early detection, effective management, and treatment of pregnancy-related complications, ultimately contributing to the reduction of maternal morbidity and mortality rates (Morof et al., 2019). Therefore, the healthcare team assumes a central and indispensable role in the childbirth journey, rendering healthcare facilities the most secure choice, especially in high-risk pregnancies, given their access to emergency equipment and surgical facilities. Notwithstanding these facts, in many low and middle-income countries, a significant number of pregnant women continue to rely on traditional birth attendants (TBAs) (Aziato and Omenyo, 2018). In the Philippines, these individuals are commonly known as "hilots" or "mananabangs". Even in the absence of formal obstetric training, many pregnant women continue to seek their assistance.

Studies show that women's choices for home births are often influenced by experiences of mistreatment at health centers, cultural mismatches in birthing services, and access barriers, among others (Atukunda et al., 2020; Kassie et al., 2022). However, choosing home births without the presence of qualified healthcare providers have been seen to jeopardize the well-being of either or both the mother and newborn (Chi and Urdal, 2018). As a case in point, one study asserts that when TBAs provide childbirth assistance, they often do so without ensuring proper sterilization measures which raises the risk of hepatitis virus transmission during the childbirth process (Bustan et al., 2019). The risk is particularly heightened in rural regions, where the accessibility of healthcare facilities is not only limited but also fraught with considerable challenges, potentially exacerbating the health and safety concerns associated with home births.

In the Philippines, where approximately 60% of all births take place at home (Santos, 2016), the safety of home births remains a contentious issue, with healthcare experts expressing concerns about potential delays in delivering essential medical care during emergency situations. In 2008, the country enacted the Maternal, Newborn, and Child Health and Nutrition Strategy policy, commonly known as the "no homebirthing policy" with the objective of addressing the nation's elevated rates of maternal mortality. Despite the implementation of such policies, there is compelling evidence indicating that women still opt for home deliveries due to financial constraints, geographical or environmental barriers, the influence of their social networks, and the pervasive impact of social and cultural factors (Gabrysch and Campbell, 2009).

In Zamboanga Sibugay, a province located in the southern region of the Philippines, a substantial 28% of births were still attended by TBAs in 2013 (Joson, 2015). This statistic highlights the enduring prevalence of non-institutional births despite the presence of the "no home-birthing policy". In light of the persisting challenges related to maternal and child morbidity within the region, this research sought to delve into the perspectives of mothers residing in Zamboanga Sibugay. The study seeks to elucidate their motivations for choosing home births, explore their perceptions regarding the advantages and disadvantages of delivering at home, and gather their insights on the effectiveness and implications of the "no home-birthing policy".

## SUBJECTS AND METHOD

#### 1. Study Design

This study employed a descriptive, crosssectional research design. The research took

place in Malangas, Zamboanga Sibugay, Philippines, from June 2022 to March 2023.

#### 2. Population and Sample

This cross-sectional research centered on 80 respondents who were selected based on three key criteria: 1) they had to be mothers residing in the geographically identified barangays who have high incidence of home birth, 2) must have experienced at least one home birth, 3) within the last 10 years.

## 3. Study Variables

The study examined the sociodemographic characteristics of the respondents as independent variables. The dependent variables comprised the perceived factors influencing the preference for home birth, its associated risks or disadvantages, its benefits, and the respondents' views on the "no home-birthing" policy.

**4. Operational Definition of Variables Reasons for home-birth** preference refers to the specific factors, motivations, or circumstances that lead individuals to choose giving birth at home rather than in a healthcare facility.

**Risks and disadvantages of home birth** entails the potential negative outcomes and drawbacks associated with choosing to give birth at home rather than in a healthcare facility.

**Benefits of home birth** encompasses the perceived advantages or positive aspects of giving birth at home as reported by the respondents.

**Perception of the "no home-birthing policy"** refers to the attitudes, beliefs, and opinions of the respondents regarding the governmental policy aimed at discouraging home births and promoting facility-based

deliveries.

# 5. Study Instruments

The primary data collection involved a researcher-made questionnaire, meticulously evaluated by a panel of nursing experts to ensure alignment with research objectives. Feedback from experts was considered, and after validating the data, a Content Validity Ratio (CVR) analysis was conducted. Additionally, the questionnaire demonstrated high internal consistency (Cronbach's Alpha = 0.85) through likert-type questions.

# 6. Data Analysis

The data underwent statistical analysis, employing descriptive statistics such as frequencies and percentages for the socio-demographic variables, and means and standard deviations for quantitative variables. The responses were organized and computed separately using Statistical Package for Social Science (SPSS) version 20.

## 7. Research Ethics

A thorough review and approval were sought from the MSU Buug Nursing Department Ethics Committee. Ethical clearance (NDEC-2022-15) was obtained on July 24, 2022.

#### **RESULTS**

Table 1 presents the sociodemographic characteristics of the participants. The largest segment of respondents, comprising 57.65% of the total, fell within the age range of 36-50 years. Most (27.06%) of them are self-employed, with a monthly income of less than 5,000 Php (34.12%), and have at least one previous home delivery history (38.82%).

Table 1. Frequency distribution of the studied sample according to their personal profile characteristics (n = 80)

| Variables | Criteria               | f  | Percentage (%) |
|-----------|------------------------|----|----------------|
| Age Group | 35 years old and below | 21 | 24.71          |
|           | 36 to 50 years old     | 49 | 57.65          |
|           | 50 years old and above | 10 | 11.77          |

| Variables                 | Criteria              | f  | Percentage (%) |
|---------------------------|-----------------------|----|----------------|
| Nature of Employment      | Government Employed   | 20 | 23.53          |
|                           | Privately Employed    | 18 | 21.18          |
|                           | Self-employed         | 23 | 27.06          |
|                           | Unemployed            | 19 | 22.35          |
| Monthly Income            | Less than 5,000 Php   | 29 | 34.12          |
|                           | 5,001 to 10,000 Php   | 24 | 28.24          |
|                           | 10,001 to 20,000 Php  | 24 | 28.24          |
|                           | 20,001 to 30,000 Php  | 3  | 3.53           |
|                           | 30,001 or higher      | 0  | 0.00           |
| Number Of Home Deliveries | Once                  | 33 | 38.82          |
|                           | Twice                 | 30 | 35.29          |
|                           | More than Three Times | 17 | 20.00          |

Table 2 shows the perceptions of women in terms of their reasons behind home birth preference which demonstrates a significant consensus favoring it due to its affordability, ease of access, preparedness for transportation, comfort, the presence of a supportive network, and alignment with cultural preferences.

It is evident that a strong consensus exists among the respondents regarding the perceived risks associated with home births (Table 3). It is evident that a strong consensus exists among the respondents regarding the perceived risks associated with home births.

Table 2. Descriptive statistics of the reasons behind the respondents' preference for home birth (n = 80)

| Nature of home birth:   | Mean | SD   | Interpretation |
|---|------|------|----------------|
| Cost-effective  | 3.50 | 0.50 | Strongly Agree |
| Accessible attendants (traditional)                             | 3.40 | 0.52 | Strongly Agree |
| Transportation-ready  | 3.34 | 0.57 | Strongly Agree |
| Comfort   | 3.49 | 0.55 | Strongly Agree |
| Presence of family and support during delivery                  | 3.29 | 0.60 | Strongly Agree |
| Culturally-aligned  | 3.29 | 0.64 | Strongly Agree |
| Privacy   | 3.20 | 0.64 | Agree          |
| History of prior unfavorable encounters in a healthcare setting | 3.20 | 0.64 | Agree          |

Note: 3.26 – 4.00 Strongly Agree; 2.51 – 3.25 Agree; 1.76 – 2.50 Disagree; 1.00 – 1.75 Strongly Disagree

Table 3. Descriptive statistics on the perceptions of the risks/ disadvantages of home birth (n = 80)

| Nature of home birth:  | Mean | SD   | Interpretation |
|--|------|------|----------------|
| Risk for maternal complications is high.                       | 3.25 | 0.63 | Agree          |
| Risk for neonatal complications is high.                       | 3.19 | 0.67 | Agree          |
| Lack of medical monitoring                                     | 3.26 | 0.61 | Strongly Agree |
| Inadequate infection control                                   | 3.27 | 0.59 | Strongly Agree |
| Cultural practices may contradict regular birthing procedures. | 3.49 | 0.55 | Strongly Agree |
| Limited pain relief options                                    | 3.40 | 0.52 | Strongly Agree |
| Unpredictable outcomes   | 3.34 | 0.57 | Strongly Agree |
| Limited access to postpartum care                              | 3.49 | 0.55 | Strongly Agree |

Note: 3.26 - 4.00 Strongly Agree; 2.51 - 3.25 Agree; 1.76 - 2.50 Disagree; 1.00 - 1.75 Strongly Disagree

Table 4 provides insights into the advantages of home birth as perceived by the respondents. It is clear that there is a strong agreement among the participants regarding the benefits associated with home births. These advantages encompass personalized care, the comfort of a familiar environment, enhanced control and autonomy

during the birthing process, increased satisfaction, and the meaningful involvement of family members.

Table 5 reveals divergent opinions on the "no home-birthing policy" among respondents. They generally view it as a safety measure but have reservations about its restrictiveness and impact on autonomy.

Table 4. Descriptive statistics on the perceptions of the benefits of home birth (n = 80)

| Nature of Home Birth: | Mean | SD   | Interpretation |
|-----------------------|------|------|----------------|
| Personalized care     | 3.5  | 0.50 | Strongly Agree |
| Familiar environment  | 3.4  | 0.51 | Strongly Agree |
| Control and autonomy  | 3.34 | 0.57 | Strongly Agree |
| Satisfaction          | 3.35 | 0.62 | Strongly Agree |
| Family involvement    | 3.49 | 0.55 | Strongly Agree |

Note: 3.26 - 4.00 Strongly Agree; 2.51 - 3.25 Agree; 1.76 - 2.50 Disagree; 1.00 - 1.75 Strongly Disagree

Table 5. Descriptive statistics on the perceptions of the "no home-birthing policy" (n = 80)

| Nature of No Home Birth Policy:   | Mean | SD   | Interpretation |
|---|------|------|----------------|
| A measure to ensure women's safety and the safety of their newborns.    | 3.11 | 0.76 | Agree          |
| Restrictive and infringing on women's autonomy.                         | 3.01 | 0.86 | Agree          |
| Disregards important traditions and rituals associated with childbirth. | 1.95 | 0.69 | Disagree       |
| A barrier to essential maternal care.                                   | 1.81 | 0.77 | Disagree       |
| Reinforces disparities in healthcare access.                            | 1.88 | 0.70 | Disagree       |
| Provides a sense of accountability and quality control.                 | 3.15 | 0.68 | Agree          |

Note: 3.26 - 4.00 Strongly Agree; 2.51 - 3.25 Agree; 1.76 - 2.50 Disagree; 1.00 - 1.75 Strongly Disagree

#### DISCUSSION

# 1. Socio demographic Characteristics

The most significant proportion of respondents, constituting 57.65% of the total sample, belonged to the 36-50 years age category. This age distribution suggests that a substantial portion of the study's respondents were in the middle to older age groups. Kimario et al. (2020) indicated a connection between maternal age and home births, with older women being more inclined to choose home birth. Studies have found that older women in the community were more inclined to participate in home births, potentially due to certain social factors.

Devasenapathy et al. (2014) found that the majority of home births were pre-planned, particularly among those individuals who had prior home birth experience. Incidentally, a considerable portion of the respondents (38.82%) had experienced home births at least once in their lives. Hence, older women with greater parity and prior home birth experiences tend to exhibit a stronger inclination towards choosing home births, distinguishing them from their younger counterparts. It may also suggest that this age group might have a different perspective on the benefits and risks associated with home births compared to

e-ISSN: 2549-0257

younger women.

Additionally, a significant proportion of the participants identified as self-employed (27.06%), and the majority reported a monthly income of less than 5,000 Php (34.12%). The findings indicate that the majority of respondents fall within lowerincome categories. In the Filipino setting, there is an expectation for women to take on predominantly domestic roles and often be centered around the home (Gallego and Abdullah, 2021). Consequently, this can lead to their inclination to refrain from entering the workforce and lacking personal income. Research have shown that financial constraint could be a key factor influencing their choice of home births, as home births are often perceived as a more cost-effective alternative to hospital deliveries (Appiah et al., 2021). A recent study conducted in the Philippines highlights a correlation between lower wealth index scores and an increased propensity for home deliveries, particularly among individuals falling within the most impoverished families (Amit et al., 2022). This pattern suggests that women with limited economic resources are more inclined to opt for home births due to the financial implications associated with delivering in health facilities.

## 2. Reasons for Choosing Home Birth

Home births often come with lower associated costs compared to hospital births. The absence of hospital fees, medical interventions, and other expenses can make it a more financially feasible option for some families. Sarker et al. (2016) posits that the inability to cover the expenses associated with facility-based deliveries emerged as a recurring and unanimous concern among women, leading them to favor home births. Hence, women with limited financial means are more inclined to opt for home births due to the financial burden associated with giving birth in a healthcare facility (Moshi and

Mbotwa, 2020). Particularly for women residing in rural areas, the absence of emergency funds during pregnancy has led to a higher probability of home deliveries among this demographic (Amit et al., 2022).

Similarly, opting for a home birth eliminates transportation concerns, as the attendants will be the ones traveling to the birthing woman's residence. Particularly in rural areas and geographically isolated and disadvantaged regions (GIDA), the high transportation expenses stemming from long-distance travel to healthcare facilities can act as a deterrent for women seeking medical care at these establishments (Amit et al., 2022). For women residing far from a hospital, especially those who have previously undergone rapid deliveries, the prospect of reaching the hospital in a timely manner can be a source of stress (Nygaard and Kesmodel, 2018). Therefore, mothers in such situations often opt to arrange their deliveries in the comfort of their homes, with TBAs conveniently located nearby.

Several studies also indicate that many women place great value on the presence of a familiar birthing attendant throughout the entire childbirth process, the welcoming atmosphere of a home birth setting, and the increased sense of control and involvement in decision-making during labor and delivery (Hollowell et al., 2016). Home births offer a serene and comfortable atmosphere where women can labor and deliver in a setting of their choice. Home births provide a higher degree of privacy compared to settings. Essentially, hospital familiar surroundings can reduce stress and anxiety during childbirth. A setting that is perceived as manageable, comfortable, and secure has the potential to reduce stress and promote the natural release of endogenous oxytocin, which in turn supports the physiological progression of labor and the birthing process (Bellini et al., 2023).

# 3. Perceived Risks and Disadvantages of Home Birth

Essentially, hospitals provide continuous monitoring and access to medical equipment that can detect and respond to potential complications, such as fetal distress or maternal health issues. Home births may lack these resources. A study by Brocklehurst et al. (2012) contends that the occurrence of unfavorable perinatal events (such as stillbirth after the onset of labor, brachial plexus injuries, or fractured bones) among healthy women with low-risk pregnancies remained minimal across all childbirth settings. Nevertheless, the risk was elevated in home births when contrasted with hospital deliveries (Brocklehurst et al., 2012). Hence, professionals responsible for attending home births must possess not only the requisite expertise to oversee the birth itself but also the capability to make informed decisions regarding the suitability of candidates for this birthing approach (Sánchez-Redondo et al., 2020).

On another note, certain home birthing procedures may conflict with cultural practices leading to challenges in adhering to established, evidence-based birthing protocols and standards, potentially compromising the safety and well-being of both the mother and the newborn. For instance, a study by Gallego and Abubakar (2019) on Subanen mothers in the southern part of the Philippines highlight a practice where the "mananabang" (TBA) delays allowing the baby to breastfeed directly from the mother immediately after delivery due to the belief that the mother's milk is considered impure and requires purification before being offered to the newborn. This practice runs contrary to the standard protocol; the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) advise placing newborns in immediate skin-to-skin contact with their mothers, for at least an

hour to identify when babies are ready to breastfeed and promotes assistance if needed (Terra et al., 2020). Therefore, when dealing with these discrepancies, it may be crucial to approach the matter in a way that acknowledges the significance of these practices while emphasizing the need for safe and hygienic birthing conditions.

Additionally, limited pain relief options may not adequately address the pain levels experienced during labor for some women. In cases of prolonged or particularly painful labor, women at home may find it challenging to manage pain without the option of medical pain relief. Generally, TBAs may not possess an in-depth understanding of the available pharmacological interventions for pain relief. Queremel-Milani and Davis (2023) highlight that effective pain management necessitates a multidisciplinary healthcare team to provide personalized pain control for patients, especially those with specific comorbidities, with follow-up assessments including a comprehensive history and physical examination to monitor for side effects.

# 4. Perceived Advantages of Home Birth

Home births can provide a distinctive and intimate care experience, as they typically involve one-on-one attention from the TBA, midwife, or healthcare provider. This personalized approach to childbirth is one of the key benefits often cited by women who choose home births: "With home birth, I have the opportunity to contact my trusted birth attendant, someone I know personally, which instills in me a sense of confidence and trust that the birthing process will proceed smoothly." (Informant #3)

The primary advantage lies in the close relationship established between the expectant mother and her chosen caregiver, allowing for a deep level of trust and familiarity. Studies also reiterated that TBAs

were perceived as more mature, patient, and caring when compared to nurses and midwives (Kodom et al., 2018). Additionally, the factors of comfort and familiarity were also seen as substantial considerations that influenced women's decision to opt for home as their preferred place of childbirth (Andrino et al., 2016). In the context of a familiar home environment, the presence and encouragement of grandmothers or aunties were deemed pivotal during labor, as they assumed a vital role in offering support, assisting with food preparation, and providing help with childcare tasks to ensure that the expectant mother can rest and care for her unborn child adequately (Reed et al., 2017). In other cases, mothers or aunties also served as gatekeepers, assuming the role of deciding when supportive family and friends could visit the laboring or postpartum mother which helped in safeguarding the mother's privacy and ensuring she could rest as needed (Gupta et al., 2015).

Furthermore, a woman's autonomy in choosing her place of birth is rooted in her access to information, her capacity to comprehend and evaluate the associated risks and benefits, her freedom from external or internal pressure, her intention to avoid harm, and her accountability for the outcome (Halfdansdottir et al., 2015). This sense of autonomy empowers women to make informed choices about their birthing experiences. Women who choose home births are actively involved in creating their birth plans and determining the specific elements of their birthing experience, such as birthing positions, pain management options, and the presence of family members.

# 5. Perceptions on the "No Home-Birthing Policy"

The primary criticism of homebirth centers on concerns about its safety when compared to hospital-based birth, particularly regarding maternal and neonatal physical health outcomes and mortality rates (MacKenzie Bryers and van Teijlingen, 2010). However, it is worth noting that other available literature present differing viewpoints on this matter. One research indicates that homebirth can be equally safe as hospital birth for women classified as low risk, especially when attended by professional midwives who are well-connected within a responsive healthcare system (Scarf et al., 2018). Conversely, homebirth may pose a higher risk to the baby when women with significant risk factors opt for this choice or when they give birth without the presence of regulated healthcare providers (Dahlen, 2019).

In the Philippines, the implementation of the "no home-birthing policy" in 2008 has prompted local governments to support ordinances that forbid non-institutional deliveries (NIDs). The policy specifically emphasized that births assisted by TBAs were associated with the three delays: delays in recognizing complications, referring to appropriate care, and managing complications, ultimately resulting in maternal and neonatal fatalities (Kanamori, Bonhaon and Molon, 2021). Nonetheless, it is crucial to critically assess the suitability of the "no home-birthing policy," considering that access to birthing facilities were seen as problematic particularly in underserved barangays.

In conclusion, the findings of this study underscore the multifaceted nature of factors influencing the preference for home births, ranging from economic considerations, cultural alignment, perceived comfort, the presence of support systems, and the lingering effects of unfavorable hospital experiences. These drivers collectively emphasize the significance of understanding the complex interplay of socioeconomic, cultural, and healthcare system-related

determinants in shaping women's choices regarding the place of childbirth.

#### **AUTHOR CONTRIBUTION**

M. Modillas, D. Oliva, and Lynne L. Opada were the investigators responsible for conceptualizing the study and collecting the data. R. Gallego, on the other hand, served as the study's supervisor and contributed to data analysis and interpretation.

#### **ACKNOWLEDGMENT**

The authors would like to express their gratitude for the valuable expert input provided by Prof. Laranjo and Prof. Taruc, who served on the examination panel.

# FUNDING AND SPONSORSHIP

None.

#### CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest associated with this study.

# **REFERENCE**

- Amit AML, Pepito VCF, De los Reyes SJ, Tang CS, Aliazas NAK, Sumpaico-Tanchanco L (2022). Prevalence and determinants of home delivery in urban and rural Philippines: Evidence from the 2017 National Demographic and Health Survey. Women's Heal. 2022 (18): 17455057221117957. https://doi.org/10.1177%2F17455057221117957
- Andrino AMP, Balasoto HIH, Bono MKG, Canindo KR, Casa LJG, Oducado RMF (2016). Reasons why women choose home birth. Asia Pacific J Multidiscip Res. 4(4): 57-63
- Appiah F, Owusu BA, Ackah JA, Ayerakwah PA, Bediako VB, Ameyaw EK (2021). Individual and community-level factors associated with home birth: a

- mixed effects regression analysis of 2017–2018 Benin demographic and health survey. BMC Pregnancy Childbirth. 21, 547. https://doi.org/10.-1186/s12884-021-04014-x
- Atukunda EC, Mugyenyi GR, Obua C, Musiimenta A, Najjuma JN, Agaba E, et al. (2020). When women deliver at home without a skilled birth attendant: A qualitative study on the role of health care systems in the increasing home births among rural women in Southwestern Uganda. Int J Womens Health. 27(12):423-434. https://doi.org/10.2147%2FIJWH.S248240
- Aziato L, Omenyo CN (2018). Initiation of traditional birth attendants and their traditional and spiritual practices during pregnancy and childbirth in Ghana. BMC Pregnancy Childbirth. 18(1):64. https://doi.org/10.1186/s12-884-018-1691-7
- Bellini E, Macchi A, Setola N, Lindahl G (2023). Sensory design in the birth environment: learning from existing case studies. Buildings. 13(3): 604. https://doi.org/10.3390/buildings130 30604
- Brocklehurst P, Hardy P, Hollowell J, Linsell L, Macfarlane A, McCourt C, et al. (2012). Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the birthplace in England national prospective cohort study. BMJ. 23 (343):d7400. https://doi.org/10.1136-/bmj.d7400
- Bustan M, Ansariadi A, Syam E, Muis M (2019). Analysis of the relationship between Traditional Birth Attendant service and the risk of Hepatitis B transmission among Pregnant Women at the Indonesian Rural Community. Proceedings of the 3rd International Conference on Environmental Risks

- and Public Health, ICER-PH 2018: 26-27. http://dx.doi.org/10.4108/eai.26-10-2018.2288914
- Chi PC, Urdal H (2018). The evolving role of traditional birth attendants in maternal health in post-conflict africa: A qualitative study of Burundi and Northern Uganda. SAGE Open Med. 19(6):205031211775363. https://doi.org/10.1177/2050312117753631
- Devasenapathy N, George MS, Jerath SG, Singh A, Negandhi H, Alagh G, et al (2014). Why women choose to give birth at home: A situational analysis from urban slums of Delhi. BMJ Open. 4(5):e004401. https://doi.org/10.11-36/bmjopen-2013-004401
- Gabrysch S, Campbell OM (2009). Still too far to walk: Literature review of the determinants of delivery service use. BMC Pregnancy Childbirth. 11(9):34. https://doi.org/10.1186/1471-2393-9-34
- Gallego RIF, Abdullah AM (2021). Structured assessment, evaluation and monitoring parameters: critical correlates to the perceived effectiveness of school-based deworming programs. Mal J Med Res. 5(2):22-28. https://dx.doi.org/10.31674/mjmr.2021.v05i 02.005
- Gallego RIF, Abubakar JC (2019). Benal m'tobus sug m'gbata": an ethnographic exploration of the indigenous puerperal beliefs and practices of midsalip-subanen tribe of western mindanao. INSTABRIGHT e-GAZETTE. 1(2):1-13.
- Gupta ML, Aborigo RA, Adongo PB, Rominski S, Hodgson A, Engmann CM, et al (2015). Grandmothers as gatekeepers? The role of grandmothers in influencing health-seeking for mothers and newborns in rural northern Ghana. Glob Public Health. 10(9):1078-91.

- https://doi.org/10.1080/17441692.20 14.1002413
- Halfdansdottir B, Wilson ME, Hildingsson I, Olafsdottir OA, Smarason AK, Sveinsdottir H (2015). Autonomy in place of birth: a concept analysis. Med Heal Care Philos. 18(4):591-600. https://doi.org/10.1007/s11019-015-9624-y
- Hollowell J, Li Y, Malouf R, Buchanan J (2016). Women's birth place preferences in the United Kingdom: A systematic review and narrative synthesis of the quantitative literature. BMC Pregnancy Childbirth. 16(1):213. https://doi.org/10.1186/s12884-016-0998-5
- Joson R (2015). Maternal mortality ratio / rate reduction in Zamboanga Peninsula. (2015)
- Kanamori S, Bonhaon MD, Molon MP (2021). Negative incentives for noninstitutional births are associated with a higher rate of facility-based births in the Eastern Visayas Region, Philippines. Glob Heal Sci Pract. 9(3): 565–574. https://doi.org/10.9745%2FGH-SP-D-20-00616
- Kassie A, Wale A, Girma D, Amsalu H, Yechale M (2022). The role of traditional birth attendants and problem of integration with health facilities in remote rural community of West Omo Zone 2021: exploratory qualitative study. BMC Pregnancy Childbirth. 22(1):425.
  - https://doi.org/10.1186/s12884-022-04753-5
- Kimario FF, Festo C, Shabani J, Mrisho M (2020). Determinants of home delivery among women aged 15-24 years in Tanzania. Int J Matern Child Heal AIDS. 9(2):191-199. https://doi.org/10.21106/ijma.361
- MacKenzie Bryers H, van Teijlingen E

- (2010). Risk, theory, social and medical models: A critical analysis of the concept of risk in maternity care. Midwifery. 26(5):488-96. https://doi.org/10.1016/j.midw.2010.07.003
- Morof D, Serbanescu F, Goodwin MM, Hamer DH, Asiimwe AR, Hamomba L, et al (2019). Addressing the third delay in saving mothers, giving life districts in Uganda and Zambia: ensuring adequate and appropriate facility-based maternal and perinatal health care. Glob Heal Sci Pract. 7(Suppl 1): S85–S103. https://doi.org/10.9745%2FG-HSP-D-18-00272
- Moshi FV, Mbotwa CH (2020). Determinants for choice of home birth over health facility birth among women of reproductive age in Tanzania: an analysis of data from the 2015-16 Tanzania demographic and health survey and malaria indicator survey. BMC Pregnancy Childbirth. 20(1):561. https://doi.org/10.1186/s12884-020-03266-3
- Nygaard SS, Kesmodel US (2018). Home births—Where are we heading? Acta Obstetricia et Gynecologica Scandinavica. 97(10):1155-1156. https://doi.org/10.1111/aogs.13441
- Queremel-Milani DA, Davis DD (2023). Pain Management Medications. In StatPearls. StatPearls Publishing. 2023 Jan-. PMID: 32809527.
- Reed SJ, Callister LC, Kavaefiafi A, Corbett C, Edmunds D (2017). Honoring motherhood: the meaning of child-birth for Tongan women. MCN Am J

- Sánchez-Redondo MD, Cernada M, Boix H, Espinosa Fernández MG, González-Pacheco N, Martín A, et al. (2020). Home births: a growing phenomenon with potential risks. An Pediatr. 93(4):266.e1-266.e6. https://doi.org-/10.1016/j.anpedi.2020.04.005
- Santos A (2016). Forbidding and punishing home births. Rappler (2016).
- Sarker BK, Rahman M, Rahman T, Hossain J, Reichenbach L, Mitra DK (2016). Reasons for preference of home delivery with traditional birth attendants (TBAs) in Rural Bangladesh: A qualitative exploration. PLoS One. 11(1): e0146161. https://doi.org/10.1371/-journal.pone.0146161
- Scarf VL, Rossiter C, Vedam S, Dahlen HG, Ellwood D, Forster D, et al (2018). Maternal and perinatal outcomes by planned place of birth among women with low-risk pregnancies in high-income countries: A systematic review and meta-analysis. Midwifery. 2018 (62):240-255. https://doi.org/10.10-16/j.midw.2018.03.024
- Terra NO, Góes FGB, Souza AN, Ledo BC, Campos BL, Barcellos TMT (2020). Fatores intervenientes na adesão à amamentação na primeira hora de vida: revisão integrativa. Rev Eletrônica Enferm. 22(2020): 62254. https://doi.org/10.5216/ree.v22.62254.