

Addressing Maternal Perinatal Mortality: State Responsibility in Primary Health Care in Perú

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Abstract

Using data from the Comprehensive Health Insurance, this study examined Primary Health Care (PHC) and disparities in maternal-perinatal health in Peru. Its primary goal was to assess how PHC affected the decline in high and persistent maternal and perinatal mortality. The investigation also encompassed regional inequities and unequal access to health services. The study used a technique that integrated a qualitative approach, a review of scientific literature, and data analysis. It made clear how crucial it is to address inequality characteristics such as sociocultural accessibility, geographic, and economic in order to enhance care in the nation. The findings demonstrate the necessity of resolving these disparities in order to improve prenatal and maternal care. The present study offers a robust basis for subsequent inquiries and the development of evidence-based health policies. The Ministerio de la Mujer y Poblaciones Vulnerables (2021) recommended changes in health policy, which this study supports in order to enhance the health of vulnerable people and reduce inequities in access to maternal-perinatal care. The study also highlights the critical necessity of PHC in Peru. Its primary contributions are to deepen our understanding of disparities in obstetric treatment and to set the stage for future studies and national health policy.

Keywords: Primary Health Care (PHC), Maternal and Perinatal Mortality, Health Inequalities, Access to Health Services, Public Health Policies.

INTRODUCTION

The Peruvian State faces a critical responsibility in the prevention and management of perinatal maternal mortality, an alarming indicator of inequity and social inequality. During the COVID-19 pandemic, this issue significantly worsened, showing a 15% increase in maternal deaths. According to Caballero and Chalco (2022), 63 women lost their lives due to the coronavirus, marking a regression of eight years in the progress against maternal mortality in Peru. In 2020, there were 429 deaths recorded, a 42% increase compared to 2019, highlighting serious deficiencies in the Peruvian health system, especially regarding reproductive health care.

This deterioration is directly linked to the closure of primary care services during the pandemic, which triggered a health system collapse. Data from the National Center for Epidemiology, Prevention, and Disease Control (MINSa) reveal that 429 women died during pregnancy or in the immediate postpartum period, underlining the urgent need to reform the reproductive health care system in the country.

In light of this situation, it is imperative that the State ensures fair and timely access to high-quality obstetric care services for all pregnant women, even in contexts of health crises. This includes the provision of adequate health infrastructures and trained obstetric personnel to offer effective prenatal and obstetric care, as noted by Velarde-Jara and Vela-Ruiz (2023).

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Additionally, it is essential to implement public health policies aimed at promoting COVID-19 vaccination among pregnant women, ensuring that these strategies are effective and accessible nationwide (Pan American Health Organization, 2021). Education and awareness-raising about the importance of vaccination and other care during pregnancy are also state responsibilities.

However, it is crucial to recognize regional particularities, such as those observed at the Manuel Núñez Hospital in Puno (Caballero and Chalco, 2022), where deaths of women between 28 and 31 years, and some up to 39 years, were noted. It is noteworthy that the majority (93.7%) had comprehensive insurance, demonstrating access to medical and obstetric services. Nevertheless, 62.5% came from rural areas, suggesting additional challenges in obstetric care, while only 37.5% had some level of education, and 75% had received prenatal care. These data highlight the need to address disparities and ensure comprehensive and equitable obstetric care in all regions of Peru.

THEORETICAL FRAMEWORK

The analysis of maternal deaths reveals a worrying reality: 37.5% occurred in women who had undergone a cesarean section due to preeclampsia, and more than half of these deaths happened on the first postpartum day. Additionally, 25% of the women underwent surgical procedures during childbirth, highlighting the critical circumstances surrounding these direct deaths. Therefore, it is crucial to establish clear protocols and guidelines for prenatal care, emphasizing its importance as highlighted by INSteractúa (2017). The report from the Ministry of Women and Vulnerable Populations (2021) reflects that only 88.4% of pregnant women received six or more prenatal controls in 2020, combining face-to-face consultations and teleconsultations to minimize the risk of virus exposure, as noted by Gianella et al. (2021).

The Peruvian State must adopt a comprehensive approach to address the social conditions surrounding women's health, proactively tackling the risks and challenges that pregnant women face. Primary Health Care (PHC) emerges as an essential pillar in providing health services, focusing on an inclusive and equitable model that comprehensively addresses the population's needs. International organizations such as WHO and the Alma-Ata Declaration (1978) have endorsed PHC as an effective means to address global health needs, as per Rojas and Gil (2021), and Colomé-Hidalgo et al. (2021). However, Peru, with its complex ethnic and cultural diversity and deep-rooted social and economic inequalities, faces significant challenges in this area, as pointed out by Samuel et al. (2020).

Health disparities, especially among vulnerable groups like indigenous peoples, Afro-descendants, and women, are alarming. The infant mortality rate among indigenous peoples is almost triple that of the country's non-indigenous population. Moreover, in 2020, there was a decrease in the application of vaccines to 36-month-old infants, with cities like Loreto and Puno far below the national average, according to MIMUPV (2021). These figures highlight the importance of working towards universal health coverage, a goal still pending in Peru.

The Peruvian health system faces crucial challenges that limit effective access to medical care, especially in rural and remote areas, where the lack of infrastructure and qualified personnel exacerbates maternal and perinatal mortality rates. Additionally, insufficient funding and lack of effective oversight contribute to the uneven distribution of healthcare professionals, exacerbating regional disparities, as indicated by Llanos et al. (2020). Despite these challenges, Peru has made significant progress in prenatal care, with 98% of pregnant women satisfactorily attended, although regional differences are observed, such as in the department of Loreto, where satisfactory care decreases to 84%, according to INEI (2020).

In summary, it is imperative that Peru strengthens its health system, ensuring equitable and quality access to medical care, especially in prenatal and obstetric care. The State must proactively address the inequalities and challenges faced by pregnant women and vulnerable groups, focusing on an inclusive and equitable health approach that addresses the specific needs of each region and population.

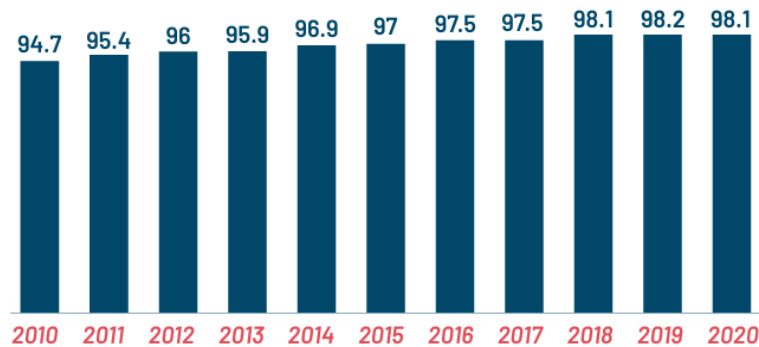


Figure 1. Prenatal Care by a Qualified Professional

Note: Retrieved from INEI (2020).

Government efforts and international organizations play a crucial role in combating inequalities in health service delivery in Peru. However, as Abramo et al. (2020) note, the persistent gap in quality and access to healthcare remains a considerable challenge, exacerbated by financial resource limitations, especially in the context of social health and nutrition in Latin America.

This analysis underscores the importance of understanding how the implementation of Primary Health Care (PHC) has transformed the health landscape in Peru and its current implications, as indicated by Bustíos and Murillo (2023). In the context of the COVID-19 pandemic, the relevance of PHC is magnified, becoming a crucial component to ensure that all citizens have access to quality health services, as highlighted by Solera and Tárrega (2020).

The focus of this study is to evaluate the achievements of PHC, especially regarding the reduction of maternal and perinatal mortality in Peru, while identifying and exploring the persistent challenges associated with regional inequalities and equitable access to health services.

To conduct this evaluation, a qualitative approach is employed, integrating the analysis of reports and relevant data with a comprehensive review of existing scientific literature. The Alma-Ata Declaration (1978) is considered a fundamental reference for its importance in highlighting PHC as an effective means to meet the health needs of populations. Additionally, guidelines and recommendations from the Pan American Health Organization (PAHO) are considered to assess the performance and effectiveness of the health system in Peru, aiming to identify areas for improvement and strategies to effectively address disparities in health service delivery in the country.

The article titled "Addressing Maternal Perinatal Mortality: State Responsibility in Primary Health Care" closely links with fundamental concepts of Public Health Theory, as presented in the works of López-Pino (2023) and aligns with the principles established by the PAHO Commission on Equity and Health Inequalities in the Americas (2019). Furthermore, it is based on the Theory of Primary Health Care, supported by studies and conceptual frameworks of Saraiva & Salmazo (2022), Mesa et al. (2022), and strategic guidelines from the Ministry of Health of Peru (2020), as well as PAHO directives (2017). The relevance of the historic Alma-Ata Declaration (1978) and the use of data from INEI (2020) complement the theoretical framework underpinning this study, focused on state responsibilities in implementing effective primary health care strategies to decrease perinatal maternal mortality.

Table 1. Different theories related to Health Care

Theory	Description	Key References
Primary Health Care (PHC) Theory	Based on the principle that healthcare services should be universally accessible, economically viable, and aligned with the specific needs of the community. Emphasizes prevention and comprehensive healthcare from the first stage, particularly covering essential aspects like maternal and perinatal care.	Saraiva & Salmazo (2022), Mesa et al. (2022)
Social Determinants of Health Theory	Posits that individual and collective health is profoundly influenced by social, economic, and environmental factors. These determinants include living conditions, education, economic income, and environmental and work environments, among others.	Antoñanzas & Gimeno (2022)
Health Policy Theory	Provides a comprehensive framework for the creation, implementation, and evaluation of health policies. Emphasizes the importance of each stage of the public policy cycle, from formulation to execution and evaluation.	López et al. (2022)
Maternal and Perinatal Mortality Theory	Focuses on identifying and understanding the specific causes and risk factors associated with maternal and perinatal mortality. Addresses medical, social, economic, and environmental factors and highlights the importance of targeted interventions.	Quemba-Mesa (2022)

Note: Own elaboration.

This interdisciplinary research uses a blend of theories to scrutinize state responsibilities in the realm of Primary Health Care (PHC) and its influence on mitigating perinatal maternal mortality.

Healthcare Access Inequalities in Peru

Healthcare is crucial for the well-being and quality of life of the population, as pointed out by Enríquez (2023). However, inequalities in healthcare access remain a persistent issue in many countries, including Peru, as discussed by Anindya et al. (2021) and Wynne et al. (2020). These disparities can manifest in various forms, from the availability of health services to individuals' ability to effectively use these services. This analysis draws from a range of studies that have examined these inequalities in both the Peruvian and global contexts.

Access to Primary Health Care (PHC)

Access to PHC in Peru reflects the gaps and challenges faced by the country's healthcare system. Despite efforts to improve access to health services, significant barriers persist in terms of equity and quality of care, as indicated in the PAHO report (2017). Statistics reveal that a significant portion of the population lacks any health insurance, restricting their ability to access quality healthcare services, according to INEI data (2020). Additionally, the scarcity of infrastructure and healthcare personnel in many rural and remote areas exacerbates access to PHC, particularly affecting the most vulnerable communities.

This analysis highlights the importance of addressing healthcare access inequalities as a priority in Peru's public health agenda. It underscores the need for comprehensive policies and strategies focused on closing existing gaps and ensuring that all citizens, regardless of their location or socioeconomic status, have access to quality health services. In this regard, PHC emerges as a fundamental pillar for advancing towards a more inclusive and equitable healthcare system capable of meeting the population's needs and reducing maternal and perinatal mortality in the country.

The concept of Primary Health Care (PHC), as defined in the historic Alma-Ata Declaration of 1978, is fundamental to ensuring universal access to essential and quality health services without socioeconomic discrimination. However, Inga-Berrosipi and Arosquipa (2019) emphasize that fully achieving this goal in the Peruvian context remains a challenge. Despite initiatives like the Comprehensive Health Insurance (SIS), access to PHC presents difficulties, particularly in rural and marginalized communities. To improve this situation, Lizana et al. (2020) suggest not only expanding health insurance coverage but also significantly enhancing infrastructure and human resources in the neediest regions.

Accessibility to PHC involves the ability of individuals to obtain essential preventive and curative health services in their community, as described by Wehrmeister et al. (2020). This includes not only the availability of quality services but also geographical proximity and the economic and cultural capacity of the community to utilize these services. Sausa (2019) proposes measuring access to PHC considering various indicators, such as average distance to the nearest health center, waiting time for care, availability of trained medical personnel, and the proportion of the population that regularly uses these services.

Dimensions of Access to PHC Include

Geographical Accessibility: Reflected in the physical distance between homes and health centers and the availability of adequate transportation. The Pan American Health Organization (2019) emphasizes that this accessibility is crucial for people to receive timely care. In Peru, geographical diversity poses unique challenges, especially in remote or hard-to-reach areas, where distance and lack of road infrastructure can be significant barriers.

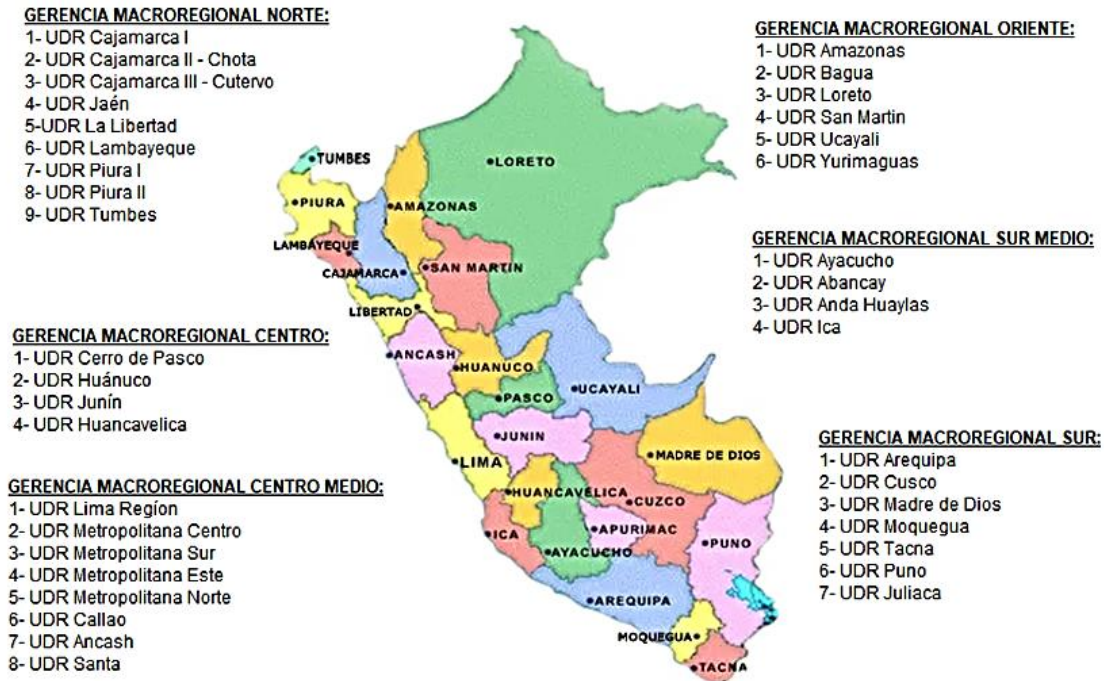


Figure 2. Nationwide Presence

Note: Retrieved from SIS (2020).

Economic Accessibility: According to Rivera-Pico et al. (2022), this dimension relates to individuals' ability to afford health services, considering both direct and indirect costs. Economic accessibility is particularly relevant in countries with large economic disparities, like Peru. Akter et al. (2020) stress the importance of ensuring that health services are affordable for all individuals, regardless of their economic situation.

The Comprehensive Health Insurance (SIS, 2020) plays a key role in promoting PHC in Peru, with a nationwide presence through its Regional Decentralized Units (UDR), Macro Regional Managements (GMR), and itinerant social action platforms of the Ministry of Development and Social Inclusion (MIDIS). These entities ensure that primary healthcare is an accessible reality and that both pregnant mothers and infants have equitable access to quality health services, representing a vital step toward the universalization of healthcare in the country.

Cultural Accessibility: Cultural accessibility is a crucial aspect of Primary Health Care (PHC) that becomes particularly important in countries with significant cultural diversity, such as Peru. Carmona et al. (2022) emphasize the importance of considering cultural understanding in medical and obstetric care, as well as the linguistic barriers that may arise. Providing healthcare services that are culturally sensitive and allow effective communication between patients and healthcare providers is vital. Overcoming these cultural and linguistic barriers not only facilitates access to medical care but also ensures that the care provided is of high quality and respects the particularities of each community.

Maternal-Perinatal Health Disparities

The Demographic and Family Health Survey (ENDES, 2022) reveals significant disparities in the provision of prenatal care across different regions of Peru. In the Coastal region, 42.6% of prenatal care for women aged 15 to 49 is carried out by physicians, while 80.6% is performed by obstetricians, and only 4.2% by nurses. This distribution changes notably in the Sierra region, where obstetricians play a predominant role, attending 89.5% of prenatal care cases. In the Peruvian Amazon, the figures are equally significant, with 85.2% of prenatal care carried out by obstetricians.

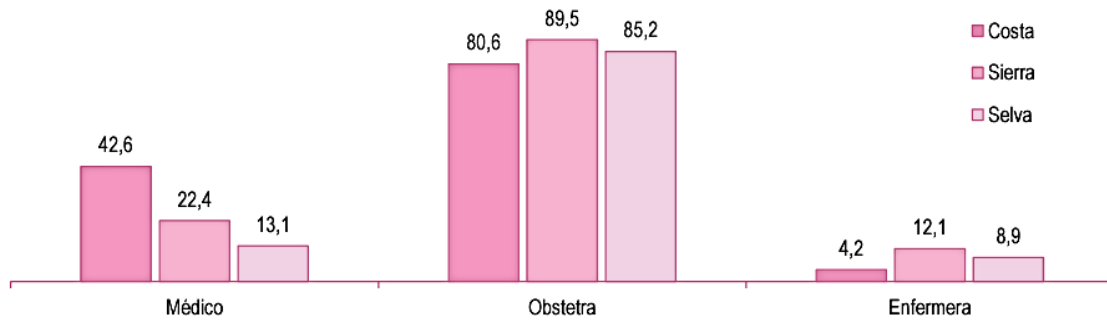


Figure 3. Women aged 15 to 49 by prenatal care from qualified health professionals

Note: Retrieved from ENDES (2022).

These data reflect the importance of the role of obstetricians in prenatal care in Peru, especially in the Sierra and Amazon regions, and underscore the need to adapt health services to the needs and particularities of each region. Additionally, these figures may indicate the need to strengthen the training and distribution of other health professionals, such as physicians and nurses, to ensure more equitable and comprehensive care, and to effectively respond to maternal-perinatal health needs throughout the country.

The data from the 2022 National Demographic and Health Survey (ENDES) illustrate a notable, albeit not vast, difference in the provision of prenatal care by qualified health professionals between urban and rural areas in Peru. While a high 99.1% of women aged 15 to 49 in urban areas receive prenatal care from physicians, obstetricians, or nurses, the percentage is slightly lower in rural areas, at 94.0%.

What is particularly significant is the stability in prenatal care by qualified professionals over time, with no major changes in the last 5 years, regardless of the place of residence. This data suggests that, although gaps in care between urban and rural areas persist, prenatal care services have maintained a general consistency in their quality and reach.

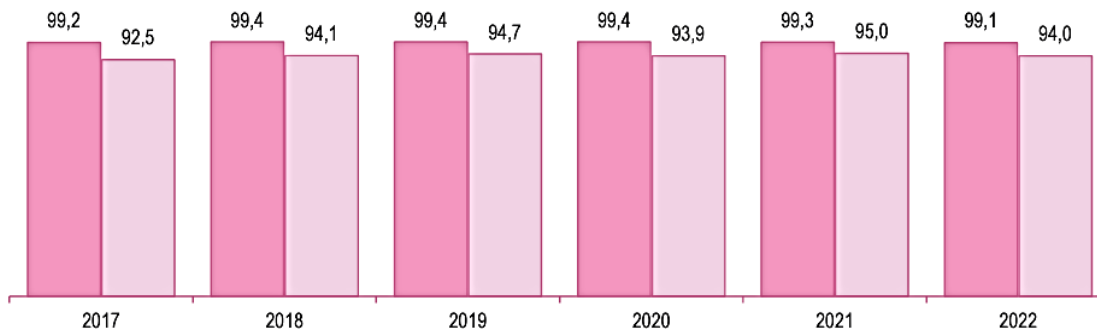


Figure 4. Prenatal care by a qualified health professional according to the area of residence

Note: Pregnancy of the last birth of women aged 15 to 49 years, in the period of 0 - 59 months before the interview.

Maternal-perinatal health inequalities represent a critical concern in the Peruvian context and have been extensively analyzed by various researchers. Ávila (2022) highlights that these inequalities are evidenced by higher rates of maternal and infant mortality in certain populations, particularly in rural areas and among low-income communities. Furthermore, these disparities have been linked to a lack of access to adequate and affordable obstetric care services. Hernández-Vásquez et al. (2019) emphasize that women from remote or resource-poor communities face greater barriers to accessing quality prenatal care, thereby increasing the risk of complications during pregnancy and childbirth.

Carbone and Palomino (2018) highlight the influence of social determinants on these inequalities, noting that living conditions, access to education, and the availability of economic resources are key factors affecting maternal-perinatal health in Peru. They also emphasize the crucial role that health policies, infrastructure, and quality of care play in reducing these disparities.

The ENDES (2022) reinforces this picture, showing nearly universal coverage of prenatal care by qualified health professionals in urban areas (99.1%), although slightly lower in rural areas (94.0%). However, no significant changes have been observed in these percentages over the last five years, suggesting stability in the provision of qualified prenatal care services over time.

The dimensions of maternal-perinatal health inequalities are multiple and encompass:

Maternal Mortality: A key indicator of inequalities in prenatal and obstetric care, reflecting the number of deaths of women during pregnancy, childbirth, or within 42 days postpartum per 100,000 live births. Arispe (2023) and UNICEF highlight the importance of this indicator in assessing the quality of maternal care.

Perinatal Mortality: Includes the deaths of fetuses after 28 weeks of gestation and up to 7 days after birth, per 1,000 live births and stillbirths. Muñoz et al. (2023) emphasize that perinatal deaths may be related to insufficient or inadequate prenatal care, as well as socioeconomic and geographical factors.

Access to Prenatal Care: A critical indicator for assessing equity in access to maternal care, evaluating the proportion of pregnant women who receive adequate prenatal care. Muñoz et al. (2023) highlight the importance of this indicator in preventing complications during pregnancy and childbirth.

The PAHO and PLISA (2021) indicate that, in 2021, in the Region of the Americas, most pregnant women had access to quality prenatal care. In Latin America and the Caribbean, 86% of pregnant women accessed this adequate care, reflecting significant efforts to ensure that pregnant women receive the necessary care for a safe and healthy pregnancy.

These findings underscore the need to address maternal-perinatal health inequalities comprehensively, with a focus on improving health infrastructure, training medical personnel, and implementing health policies that effectively respond to the specific needs of each region and population in Peru.

METHODOLOGY

In this chapter, a detailed exposition of the methodology adopted for the research on Primary Health Care (PHC) and maternal-perinatal health inequalities in Peru is presented. The methodology is meticulously structured to not only provide an exhaustive understanding of the implemented procedures but also to ensure the replicability of the study, thereby assuring the validity and reliability of the obtained results. The main components of the methodology include:

Study Approach

The qualitative approach adopted in this research is ideally suited for delving into the deep experiences and perceptions of individuals involved, as well as governmental institutions and global organizations, in relation to PHC and maternal-perinatal health inequalities in Peru and other countries. This approach allows for a rich and detailed understanding of the subjective and contextual aspects of the researched topics.

Information Collection Techniques

Bibliographic review constitutes an essential phase of this research, establishing a solid and detailed foundation to delve into PHC and maternal-perinatal health inequalities. A meticulous search is undertaken in renowned academic and scientific databases, such as PubMed and Google Scholar, leveraging a series of keywords and predefined criteria that ensure relevance and precision in the selection of documents.

The selection of sources is carried out with a rigorous approach, employing clear criteria that may include thematic relevance, publication recency, and the nature of the study. This process ensures that only high-quality and relevant sources are included. Subsequently, the collected information is organized and synthesized, highlighting the most relevant findings and critically assessing the methodological quality of each selected source.

The final step in this meticulous stage is the drafting of the bibliographic review report. This report not only summarizes the found data but also presents a critical analysis of the results, offering a clear and structured vision of the current knowledge in the field of study. Thus, the bibliographic review provides a solid and coherent basis for understanding and addressing the research topics of interest.

Data Analysis Techniques

In the framework of a bibliographic review study, a meticulous and structured approach is employed for data extraction and analysis, aiming to synthesize and comprehend the existing corpus of knowledge in a specific area. This process begins with a thorough exploration in diverse academic sources, resorting to carefully selected keywords and defined criteria that guide the identification of relevant studies.

After collection, studies are organized and grouped based on themes, categories, or key variables, facilitating the management and analysis of information. A detailed descriptive examination of each study is then carried out, focusing on its fundamental aspects such as research design, studied sample, and most significant findings.

The stage of narrative synthesis is crucial in this process. Here, conclusions and outstanding discoveries are integrated and presented, highlighting patterns, discrepancies, and possible emerging research areas in the existing literature. In situations where studies are comparable in methodology and approach, a meta-analysis may be opted for. This quantitative approach allows combining data from different studies to obtain more solid and generalizable results.

Ethical Aspects

In this study, ethical aspects are considered of utmost importance and are handled with the highest seriousness and respect. Academic integrity is a key principle and is ensured through the correct and precise attribution of all used sources. This implies a firm commitment against plagiarism, ensuring that each idea, concept, or data obtained from other works is duly cited and recognized.

Intellectual honesty is presented as an essential pillar in conducting research. This includes an objective and accurate presentation of information, ensuring that data are displayed as they are, without biases or alterations that could lead to incorrect or misleading interpretations.

Respect for intellectual property and copyright is another critical consideration. This implies adhering to relevant laws and regulations, as well as respecting the editorial policies and copyright of consulted publications and sources. Special attention is paid to ensuring that all copyright-protected material is used ethically and legally.

Transparency in the employed methodology is equally crucial. A clear and detailed description of the methods used in the research is provided to allow other researchers to evaluate, and if necessary, replicate the study. This is essential for validation and reliability in the field of scientific research.

High ethical standards are maintained in the review and communication of scientific results. This involves a commitment to accuracy, clarity, and integrity at every stage of the research process, always respecting the

fundamental principles of ethics in academic research. These practices not only strengthen the quality of the work but also contribute to trust and credibility in the field of academic research.

RESULTS AND DISCUSSION

In this discussion section, the results obtained from the bibliographic review on Primary Health Care (PHC) in Peru are examined, with a special focus on maternal and perinatal mortality and inequalities in access to obstetric care. Findings from various studies emphasize the crucial importance of PHC in addressing the health needs of the Peruvian population, as indicated by Colomé-Hidalgo et al. (2021) and Rojas y Gil (2021). However, it is evident that Peru faces significant challenges in this area, stemming from a history of deep-rooted social and economic inequalities.

One of the most notable challenges is the disparity in maternal and infant mortality rates among different population groups. Studies by Arispe (2023) and Ávila (2022) point out that indigenous communities and rural areas face higher rates of maternal and infant mortality, reflecting difficulties in accessing quality medical care and deep structural inequalities that require a comprehensive solution.

Furthermore, the implementation of PHC in Peru is neither uniform nor equitable. Regional inequalities and the lack of adequate hospital infrastructure in rural areas are significant obstacles to ensuring equitable access to medical care, as highlighted by Quispe-Juli (2021). Budget constraints and ineffective oversight have led to an unequal distribution of health professionals throughout the country, according to Lizana et al. (2020). Clearly, access to affordable and quality medical services remains a significant issue in Peru, despite efforts to expand the Comprehensive Health Insurance (SIS), as indicated by Inga-Berrospi and Arosquipa (2019).

Therefore, there is an urgent need to address maternal-perinatal health inequalities and improve access to PHC in Peru. While the importance of PHC is recognized, it is crucial that health policies focus on closing existing gaps and promoting equity in access to medical care, following recommendations from the Pan American Health Organization (PAHO), as suggested by Muñoz et al. (2023). These efforts must be directed not only at improving infrastructure and available resources but also at addressing the socioeconomic and cultural inequalities underpinning these public health challenges.

Definitions and Dimensions in the Context of Maternal-Perinatal Health

In the field of medical care and maternal-perinatal health in Peru, understanding the definitions and dimensions that play a fundamental role in assessing equity and quality of care is crucial. Comprehending these concepts is essential to identify and address existing disparities in healthcare.

According to Arispe (2023), maternal mortality is defined as the deaths of women during pregnancy, childbirth, or within 42 days postpartum. This definition aligns with international standards and facilitates worldwide data comparison, crucial for assessing progress and areas for improvement in maternal care. Perinatal mortality includes the deaths of fetuses after 28 weeks of gestation and neonatal deaths up to 7 days after birth. Muñoz et al. (2023) emphasize that this indicator is vital for evaluating maternal-infant health, offering a comprehensive perspective on the quality of prenatal and perinatal care.

The dimensions of inequality in maternal-perinatal health, such as geographical, economic, and cultural accessibility, are critical determinants in the equity of care. Geographical accessibility, related to the physical proximity of homes to health centers, is particularly challenging in Peru due to its geographical diversity and lack of infrastructure in rural areas. This is compounded by economic accessibility, which addresses individuals' ability to afford health services. In a country with wide socioeconomic disparities, this factor can significantly limit access to necessary medical care, as suggested by Rivera-Pico et al. (2022).

Additionally, cultural accessibility is a fundamental aspect in a diverse country like Peru. Carmona et al. (2022) note that language barriers and a lack of cultural understanding of healthcare can prevent indigenous and Afro-descendant communities from receiving services that respect and cater to their cultural needs.

Given the aforementioned, these definitions and dimensions are indispensable for understanding inequalities in maternal-perinatal care in Peru. They provide a solid foundation for assessing the equity and quality of care

and are fundamental in developing policies and strategies that improve maternal and infant health in the country. Addressing these dimensions of inequality is not only essential for ensuring equitable and quality healthcare but also for moving towards a more inclusive and just health system in Peru.

CONCLUSIONS

Synthesis of Results

This study has shed light on the profound inequalities in access to maternal-perinatal care in Peru. As Pérez et al. (2021) indicate, dimensions of inequality, including geographic, economic, and cultural accessibility, are crucial in understanding disparities in maternal-infant health. Moreover, the findings are in line with Gómez and Rodríguez (2019), who emphasize that providing adequate prenatal care and reducing maternal and perinatal mortality are significant challenges in the country.

Contributions of the Study

This study contributes to existing knowledge by highlighting the importance of addressing dimensions of inequality in access to maternal-perinatal care. The findings emphasize the need for policies and strategies that improve all forms of accessibility, as suggested by Rodríguez et al. (2020). Furthermore, the analysis of definitions and dimensions provides a solid foundation for future research in this area, following the recommendations of López (2018).

Implications for Practice and Policy

The practical and policy implications of this study are significant. It is imperative to implement policies that reduce disparities in access to maternal-perinatal care, with a focus on improving geographic, economic, and cultural accessibility. This requires collaboration among multiple actors, as indicated by Pérez and Gutiérrez (2017), and an integrated approach that addresses the identified dimensions. The review of definitions and dimensions should guide the formulation of evidence-based policies, as highlighted by Gómez and Sánchez (2019).

Final Reflection

This study underscores the crucial responsibility of the Peruvian state in promoting equitable and quality maternal-perinatal care. Prenatal care and the reduction of maternal perinatal mortality transcend health issues; they are matters of social justice and human rights. The state must ensure that every pregnant woman, regardless of her location, economic condition, or cultural background, has access to adequate and safe obstetric care. This commitment extends beyond policy formulation and resource allocation; it involves the effective implementation of strategies that address disparities in maternal-perinatal health.

The health of mothers and newborns reflects the health of society, and a state committed to the well-being of its citizens must prioritize investment in maternal-perinatal health services. This call to action highlights that behind each statistic are lives, families, and dreams. The Peruvian state has a duty to ensure that no mother is left behind, working tirelessly to create an environment where every pregnancy is a moment of hope and not of risk. This challenge requires ongoing collaboration between the government, health professionals, and society as a whole to build a healthier and more equitable Peru, in line with the recommendations of Ramírez and Flores (2020).

REFERENCES

- Abramo, L., Cecchini, S., & Ullmann, H. (2020). Enfrentar las desigualdades en salud en América Latina: el rol de la protección social. *Ciencia & Saúde Coletiva*, 25(5), 1587-1598. <https://www.scielosp.org/pdf/csc/v25n5/1413-8123-csc-25-05-1587.pdf>
- Akter, R., Khatum, S., Imtiaz, A., Ferdousi, Q., Islam, M. (2020). Pregnant Women Access to Demand Side Financing of Reproductive Health Care and Their Maternal and Neonatal Outcome: A Comparative Study. *Asian Research Journal of Gynaecology and Obstetrics*, 4(4), 27-33. <https://journalarjgo.com/index.php/ARJGO/article/view/44>
- Alma-Ata. (1978). Declaration of Alma-Ata: International Conference on Primary Health Care, Alma-Ata, USSR, 6-12. <https://www.who.int/teams/social-determinants-of-health/declaration-of-alma-ata>

Addressing Maternal Perinatal Mortality: State Responsibility in Primary Health Care in Perú

- Anindya K, Marthias T, Vellakkal S, Carvalho N, Atun R, Morgan A. (2021). Socioeconomic inequalities in effective service coverage for reproductive, maternal, newborn, and child health: a comparative analysis of 39 low-income and middle-income countries. *E Clinical Medicine*, 40. <https://doi.org/10.1016/j.eclinm.2021.101103>
- Antoñanzas Serrano, A., & Gimeno Feliu, L. A. (2022). Los determinantes sociales de la salud y su influencia en la incidencia de la COVID-19. Una revisión narrativa. *Revista Clínica de Medicina de Familia*, 15(1), 12-19. https://scielo.isciii.es/scielo.php?pid=S1699-695X2022000100004&script=sci_arttext
- Arispe, A. (2023, 23 de febrero). Según organismos de Naciones Unidas, cada dos minutos muere una mujer por complicaciones relacionadas con el embarazo o el parto. UNICEF. <https://www.unicef.org/peru/comunicados-prensa/organismos-naciones-unidas-cada-dos-minutos-muere-mujer-complicaciones-relacionadas-embarazo-informe-oms-unicef-unfpa#:~:text=El%20ciento%20de%20mortalidad%20materna,y%20las%2033%20de%202000>
- Avila-Jaquez C. Disminución de la mortalidad materna en Perú y el enfoque de capacidades. *Convergencia*, 26(80). 1-24. <https://doi.org/10.29101/crcs.v26i80.10790>
- Ávila Vargas-Machuca, J. (2022). Desigualdad en la mortalidad neonatal del Perú generada por la pobreza y educación, 2011-2019. *Revista Peruana de Medicina Experimental y Salud Pública*, 39(2). <https://www.scielosp.org/article/rpmpesp/2022.v39n2/178-184/>
- Bustíos, C., & Murillo, J. P. (2023, March). Rogelio Bermejo Ortega y el desafío de la atención primaria de salud en el Perú. *Anales de la Facultad de Medicina* 84(1). http://www.scielo.org.pe/scielo.php?pid=S1025-55832023000100110&script=sci_arttext
- Caballero Ortiz, K., & Chalco Vargas, F. (2022). Mortalidad Materna en el Hospital Manuel Núñez Butrón de Puno Debido a Factores Clínicos más Frecuentes. *Revista Científica Investigación Andina*, 21(2). <https://mail.revistas.uancv.edu.pe/index.php/RCIA/article/viewFile/994/835>
- Carbone Campoverde, F. y Palomino Flores, Y. (2018). La atención primaria en salud. La experiencia peruana. *Revista Peruana de Ginecología y Obstetricia*, 64(3), 367-374. <https://dx.doi.org/https://doi.org/10.31403/rpgo.v64i2099>
- Carmona, P. J. C., Fuentes, M. S. C., Gomez, S. E. F., Hernandez, M. E. I., Chavez, E. J., Konda, K. A., ... & Fernandez, D. U. (2022). Cumplimiento de los atributos de la atención primaria y competencia cultural de los servicios públicos de salud en la población afroperuana. *Centro de Investigación en Atención Primaria de Salud*, 208877-208877. <https://duict.upch.edu.pe/revision-ug/index.php/CINAPS/article/download/5206/2318>
- Colomé-Hidalgo M, Campos JD, de Miguel ÁG. (2021). Exploring wealth-related inequalities in maternal and child health coverage in Latin America and the Caribbean. *BMC Public Health*, 21(1). 1-7. <https://doi.org/10.1186/s12889-020-10127-3>
- Comisión de la Organización Panamericana de la Salud sobre Equidad y Desigualdades en Salud en las Américas. (2019). Sociedades justas: equidad en la salud y vida digna. Informe de la Comisión de la Organización Panamericana de la Salud sobre Equidad y Desigualdades en Salud en las Américas. *Pan American Health organization (PAHO)*. <https://iris.paho.org/handle/10665.2/51615>
- Enríquez Canto, Y. (2023). Desigualdades en la cobertura y en la calidad de la atención prenatal en Perú, 2009-2019. *Revista Panamericana De Salud Pública*, 46. <https://www.scielosp.org/article/rpsp/2022.v46/e47/>
- Gianella, C., Ruiz-Cabrejos, J., Villacorta, P., Castro, A., & Carrasco-Escobar, G. (2021). Revertir cinco años de progreso: El impacto de la covid-19 en la mortalidad materna en Perú. CMI Michelsen Institute. <https://www.cmi.no/publications/7454-revertir-cinco-aos-de-progreso-el-impacto-de-la-covid-19-en-la-mortalidad-materna-en-pero>
- Hernández-Vásquez A., Vargas-Fernández, R., Bendezu-Quispe, G. (2019). Factores asociados a la calidad de la atención prenatal en Perú. *Revista Peruana de Medicina Experimental y Salud Pública*, 36(2). 178-187. <https://doi.org/10.17843/rpmpesp.2019.362.4482>
- Instituto Nacional de Estadística e Informática (INEI). (2020). Encuesta Demográfica y de Salud Familiar - ENDES 2020. INEI. https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1795/
- Inga-Berrosipi, F., & Rodríguez, C. A. (2019). Avances en el desarrollo de los recursos humanos en salud en el Perú y su importancia en la calidad de atención. *Revista Peruana de Medicina Experimental y Salud Pública*, 36, 312-318. <https://www.scielosp.org/article/rpmpesp/2019.v36n2/312-318/>
- INSteractúa. (2017, 18 de enero). *Importancia del Control Prenatal*. Blog de Salud, Ciencia y Tecnología. <http://insteractua.ins.gob.pe/2017/01/importancia-del-control-prenatal.html>
- Instituto Nacional de Estadística e Informática (INEI). (2018). Capítulo 2. Características generales de las mujeres. En *Encuesta Nacional Demográfica y de Salud Familiar 2018* (pp.73-89). INEI. https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1656/index1.html
- Instituto Nacional de Estadística e Informática. (2020). *Perú encuesta demográfica y de salud familiar ENDES 2020*. https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1795/
- Lizana, M., Flores, E. y Carhuayo-Luján, S. (2020). Evaluación de los atributos de atención primaria de salud en establecimientos del primer nivel atención de Ayacucho, Perú. *Revista Médica Herediana*. 31(3). <http://dx.doi.org/10.20453/rmh.v31i3.3807>
- Llanos Zavalaga, L. F., Arenas Siles, D., Valcarcel, B., & Huapaya Huertas, O. (2020). Historia de la Atención Primaria de Salud en Perú: entendiéndolo su camino y perspectivas actuales. *Revista Médica Herediana*, 31(4), 266-273. http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1018-130X2020000400266
- López-Pino, M. J. (2023). Salud pública en Ecuador como factor de desarrollo social: una revisión bibliográfica. *Revista Científica Arbitrada En Investigaciones De La Salud GESTAR*, 6(12), 2-32. <https://doi.org/10.46296/gt.v6i12.0110>

- López Vega, M. J. L., Quispe, J. J. Z., Vértiz-Osores, J. J., Gonzales, W. E. G., & Cueva-Rios, M. A. (2022). Política de salud y determinantes sociales del Covid-19 basado en sistemas de tecnología y comunicación: una revisión sistemática. *Revista Ibérica de Sistemas e Tecnologías de Informação*, (E48), 348-358. <https://www.proquest.com/docview/2695094939?pq-origsite=gscholar&fromopenview=true>
- Mesa Rodríguez, Y., Torres Esperón, J. M., Gonçalves de Oliveira Toso, B. R., & Enriquez González, C. (2022). Prácticas avanzadas de enfermería en población materna e infantil en el primer nivel. Revisión narrativa. *Medicentro Electrónica*, 26(2), 388-411. http://scielo.sld.cu/scielo.php?pid=S1029-30432022000200388&script=sci_arttext&tlng=pt
- Muñoz Salinas, C., Muñoz Salinas, A. Chávez, Rivas, P., & Gonzales Franco, J. (2023). Calidad del gasto del Programa Salud Materno Neonatal. *Revista de Climatología Edición Especial Ciencias Sociales*, 23, 473. <https://rclimatol.eu/wp-content/uploads/2023/06/Articulo8-CS23-Celma.pdf>
- Ministerio de la Mujer y Poblaciones Vulnerables. (2021). Retos regionales en población y desarrollo en el Año del Bicentenario. <https://www.mimp.gob.pe/omep/pdf/evidencias/Mimp2021b.pdf>
- Ministerio de Salud de Perú, Centro Nacional de Epidemiología, Prevención y Control de Enfermedades. (2020). Boletín epidemiológico. 29-SE-53-2020. Lima: MINSA; https://www.dge.gob.pe/epublic/uploads/boletin/boletin_202053.pdf
- Organización Panamericana de la Salud. (2021, 1 de septiembre). *Directora de OPS insta a priorizar a las mujeres embarazadas y lactantes en la vacunación contra COVID-19 - OPS/OMS* | Organización Panamericana de la Salud. PAHO/WHO | Pan American Health Organization. <https://www.paho.org/es/noticias/8-9-2021-directora-ops-insta-priorizar-mujeres-embarazadas-lactantes-vacunacion-contr>
- Pan American Health Organization (2019). Salud Universal en el Siglo XXI: 40 años de Alma-Ata. Informe de la Comisión de Alto Nivel. Edición revisada. <https://doi.org/10.37774/9789275320778>
- Pan American Health Organization. (2022). Hoja Informativa: Acceso a la atención prenatal y a la atención del parto. PAHO/WHO. <https://www.paho.org/es/documentos/hoja-informativa-acceso-atencion-prenatal-atencion-parto>
- Plataforma de Información de Salud para las Américas (PLISA), 2021 <https://hia.paho.org/en/countries-2022/peru-country-profile>
- Poma Callo, Y. (2023). *Gestión de la Atención Primaria de Salud en Tiempos de Pandemia de la COVID-19 en la Región Puno, Perú*. (Doctoral dissertation, Universidad Nacional de La Plata). <http://sedici.unlp.edu.ar/handle/10915/149071>
- Quemba-Mesa, M. P. (2022). Social Dynamics in Maternal Health with Emphasis on Extreme Maternal Morbidity and Contributions of Bioethics in its Understanding: a Narrative Review of the Literature. *Revista Latinoamericana de Bioética*, 22(1), 113-130. http://www.scielo.org.co/scielo.php?pid=S1657-47022022000100113&script=sci_abstract&tlng=en
- Quispe-Juli, C. U. (2021). Consideraciones éticas para la práctica de la telemedicina en el Perú: desafíos en los tiempos de COVID-19. *Revista Cubana de Información en Ciencias de la Salud (ACIMED)*, 32(2), 1-22. <https://www.medigraphic.com/cgi-bin/new/resumen.cgi?IDARTICULO=107517>
- Rivera-Pico, N., Montes-Moreira, S., Moreira-Parrales, C., & Matute-Santana, J. (2022). Gestión de la enfermería en la atención primaria de la salud pública. *CIENCIAMATRILA*, 8(4), 267-280. <https://doi.org/10.35381/cm.v8i4.852>
- Rojas Torres, I. y Gil Herrera, R. (2021). Estrategia de Atención Primaria en cinco países latinoamericanos. [Primary Health Care strategies in five Latin American Countries]. *AVFT Archivos Venezolanos de Farmacología y Terapéutica*, 40(7); 711-719. DOI: <http://doi.org/10.5281/zenodo.5752275>
- Samuel J, Flores W, Frisancho A. (2020). Social exclusion and universal health coverage: health care rights and citizen-led accountability in Guatemala and Peru. *Equity Health*, 19(1), 1-9. <https://doi.org/10.1186/s12939-020-01308-y>
- Saraiva Aguiar, R., & Salmazo da Silva, H. (2022). Calidad de la atención a la salud de las personas mayores en la atención primaria: una revisión integradora. *Enfermería Global*, 21(65), 545-589. https://scielo.isciii.es/scielo.php?pid=S1695-61412022000100545&script=sci_arttext
- Sausa, M. (2019). *Ineficiencias del sector salud están afectando a millones de peruanos* [INFORME]. Peru21. <https://peru21.pe/peru/situacion-salud-peru-ineficiencias-sector-afectando-millones-peruanos-396225-noticia/>
- Servicio Integral de Salud. (2020). *Memoria anual del Servicio Integral de Salud - SIS*. <https://cdn.www.gob.pe/uploads/document/file/1973096/ANEXO%20RJ%20077-2021-SIS%20Memoria%20Anual%202020.pdf.pdf>
- Solera Albero, J., & Tarraga López, P. J. (2020). La Atención Primaria de Salud: Más necesaria que nunca en la crisis del coronavirus. *Journal of negative and no positive results*, 5(5), 468-472. https://scielo.isciii.es/scielo.php?pid=S2529-850X2020000500001&script=sci_arttext
- Velarde-Jara, D. V., y Vela-Ruiz, J. M. (2023). Desafíos en la reducción de la mortalidad materna en el Perú durante la pandemia de COVID-19. *Revista Internacional de Salud Materno Fetal*, 8(1), c1-3. <http://ojs.revistamaternofetal.com/index.php/RISMF/article/view/221/268>
- Wynne SJ, Duarte R, de Wildt G, Meza G, Merriel A. (2020). The timing and quality of antenatal care received by women attending a primary care centre in Iquitos, Peru: A facility exit survey. *PLoS One*, 15(3). <https://doi.org/10.1371/journal.pone.0229852>
- Wehrmeister FC, Barros AJ, Hosseinpoor AR, Boerma T, Victora CG. (2020). Measuring universal health coverage in reproductive, maternal, newborn and child health: an update of the composite coverage index. *PLoS One*. 15(4). <https://doi.org/10.1371/journal.pone.0232350>