

Budget program management and maternal mortality in the Pachitea Health Network

Gestión del programa presupuestal y la mortalidad materna en la Red de Salud Pachitea

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ABSTRACT

Objective. To determine the relationship between budget program management and maternal mortality in the Pachitea Health Network. **Methods.** A non-experimental, cross-sectional study with a quantitative approach, of applied type and descriptive-correlational level was conducted. The population and sample were conformed of 69 healthcare workers involved in maternal and maternal-neonatal care services. The survey technique and a structured questionnaire consisting of 21 Likert-scale items was used. Frequencies and percentages were used, and for the Kolmogorov-Smirnov normality test and Pearson's correlation were applied for inferential analysis. **Results.** Budget program management was mainly consolidated at a moderate level with 63.8%, and at moderate level maternal mortality with 59.4 %. A significant positive relationship was observed between budget program management and maternal mortality ($r = 0.629$, $p < 0.000$), budget and maternal mortality ($r = 0.704$, $p < 0.00$) and performance indicators and maternal mortality ($r = 0.681$, $p < 0.000$). **Conclusions.** Budget program management is significantly related with maternal mortality.

Keywords: public budget; maternal health; maternal mortality; health management; budget program; health indicators.

RESUMEN

Objetivo. Determinar la relación entre la gestión del programa presupuestal y la mortalidad materna en la Red de Salud Pachitea. **Métodos.** Se desarrolló un estudio no experimental de corte transversal, enfoque cuantitativo, de tipo aplicado y nivel descriptivo correlacional. La población y la muestra estuvieron conformadas por 69 trabajadores de servicios vinculados a la atención materno-neonatal. Se utilizó la técnica de encuesta y un cuestionario estructurado de 21 ítems tipo Likert. Se usaron frecuencias y porcentajes, y para el análisis inferencial se aplicó la prueba de normalidad de Kolmogorov-Smirnov y la correlación de Pearson. **Resultados.** La gestión del programa presupuestal se consolidó principalmente a nivel medio con un 63.8 % y a un nivel promedio de mortalidad materna con un 59,4 %. Se observó una relación significativa entre la gestión del programa presupuestal y la mortalidad materna ($r = 0,629$; $p = 0,000$), el presupuesto y la mortalidad materna ($r = 0,704$; $p = 0,000$) y los indicadores y la mortalidad materna ($r = 0,681$; $p = 0,000$). **Conclusiones.** La gestión del programa presupuestal se relaciona significativamente con la mortalidad materna.

Palabras clave: presupuesto público; salud materna; mortalidad materna; gestión sanitaria; programa presupuestal; indicadores de salud.

Cite as

Sebastián Estrada, A., y Callan Bacilio, R. (2026). Budget program management and maternal mortality in the Pachitea Health Network. *Innovación Empresarial*, 6(1), 26-32. <https://doi.org/10.37711/rcie.2026.6.1.4>

INTRODUCTION

Maternal mortality is a sensitive indicator of health inequalities, the effectiveness of public health systems, and their capacity to address problems. Despite a 40% worldwide decline in maternal mortality from 2000 to 2023, it is estimated that 260,000 maternal deaths will occur in 2023, equivalent to 712 deaths per day, mostly as a result of the lack of timely, continuous, and essential health services during pregnancy, childbirth, and the postpartum period (World Health Organization et al., 2025). The Pan American Health Organization (PAHO) has reported setbacks in its goal of eliminating preventable maternal deaths, as the maternal mortality ratio increased from 58 to 68 deaths per 100,000 live births between 2015 and 2020 in the Region of the Americas (PAHO, 2024).

Recent evidence illustrates how maternal mortality is not purely a function of clinical considerations nor the result of a single factor, but also involves aspects such as the availability, accessibility, and timeliness of care, health system financing, and the quality of health system governance. Ekwuazi et al. (2023) state that, in low- and middle-income countries, preventable deaths continue to occur due to delays in care, gaps at the primary care level, and the lack of obstetric services. Along the same lines, Wojcieszek et al. (2023) indicate that the continuum of maternal and neonatal care encompasses the integration of maternal check-ups, neonatal care management, follow-up, timely referrals, and an overall improved care experience. On the other hand, Dinga et al. (2024) state that, from a financial perspective, maternal mortality is likely to decrease through the strengthening of personnel, equipment, and service delivery if public funds are allocated to these areas.

In Peru, results-based budgeting seeks to link expenditure with identifiable products, services, and outcomes for the population, thereby allowing for a broader scope in budget management. It is no longer merely a matter of budget execution, but rather of generating real and verifiable changes in prioritized public problems (Ministry of Economy and Finance, 2024). This approach describes budget programs as the main basic instruments of budget programming processes related to the delivery of goods and services defined to achieve the expected results. For this reason, the design and methodological improvement of budget programs are justified for evaluating the efficiency of public interventions, as observed in Directorial Resolution No. 0018-2024-EF/50.01 (2024). In terms of maternal and neonatal health, this approach involves budget allocations for the early identification of pregnant women, enhanced prenatal care, institutional deliveries, increased family planning, management of obstetric complications, and a functional referral system.

The Budget Program 0002 Maternal and Neonatal Health is one of Peru's central public health strategies, aimed at reducing maternal and neonatal risks. For the first half of 2023, the program's total adjusted institutional

budget amounted to S/ 2,365,286,031, demonstrating the distribution of the program across the different levels of government and its priority within the country's health policy (Ministry of Health, 2023). The annual evaluation of programs in the budgetary sector related to health establishes that examining expenditures, physical targets, and performance metrics reveals whether health budget allocations achieve the intended health outcomes (Ministry of Health, 2025). However, recent budget monitoring indicates that, despite increases and high levels of execution in activities, gaps remain in investment projects, decentralization, and the balance of expenditure within the maternal and neonatal program (Roundtable for the Fight Against Poverty, 2025).

Maternal mortality in Peru experienced notable fluctuations from 2019 to 2023. According to del Carpio Ancaya and Pacheco-Romero (2024), there were 264 maternal deaths in 2023, with a maternal mortality ratio of 51.9 deaths per 100,000 live births, following the trend of increased deaths reported during the pandemic. In addition, Rueda-Camaná et al. (2024) observed a decline during the study period, but also noted regional disparities among departments. This highlights the importance of exploring health management while considering specific regional contexts. In Huánuco, the Ombudsman's Office (2022) identified cases of maternal deaths and suggested improving referrals, health personnel, and prenatal services, as well as improving the availability, accessibility, and quality of care, including the cases reported in Pachitea.

Consequently, examining the management of the budget program and maternal mortality in the Pachitea Health Network is relevant, as it allows for the integration of the public budgeting approach with a pressing public health challenge in a region characterized by significant obstetric needs. The study is important because it provides a basis for changes in the allocation, implementation, and monitoring of maternal health resources, as well as in the decisions and actions aimed at mitigating preventable risks. Therefore, the study aimed to determine the relationship between budget program management and maternal mortality in the Pachitea Health Network.

METHODS

Type and area of study

The research was applied in nature and employed a quantitative approach, with a descriptive-correlational level and a non-experimental cross-sectional design. This is because the variables were examined in their natural context, without manipulating the variables, and the data were collected at a single point in time. The study was conducted in the area of public health and public budgeting, within the Pachitea Health Network, Huánuco, during the 2023 period, following the logic of the quantitative research approach described by Hernández-Sampieri and Mendoza Torres (2018).

Table 1

The relationship between the management of Budget Program 002: Maternal and Neonatal Health and the maternal mortality rate

	Level	Maternal mortality rate						Total	
		Poor		Fair		Good			
		F	%	F	%	F	%	F	%
Management of Budget Program 002 Maternal and Neonatal Health	Low	6	8.7	0	0.0	0	0.0	6	8.7
	Medium	2	2.9	41	59.4	1	1.4	44	63.8
	High	0	0.0	0	0.0	19	27.5	19	27.5
Total		8	11.6	41	59.4	20	29.0	69	100.0

Note. Data were collected through the administration of the instrument.

Population and sample

The study population consisted of 69 employees of the Pachitea Health Network in Huánuco, who were involved in the maternal health management and care area. Of these, 23 were heads of health facilities, 23 were heads of obstetric services, and 23 were responsible for the maternal care area. The sample was census-based and comprised the entire study population. It included appointed staff and personnel contracted for obstetric services. Personnel from other services or areas not related to obstetrics were excluded.

Variables and data collection instruments

Two variables were analyzed: budget program management and maternal mortality. The first comprised the dimensions of the Ministry of Economy and Finance budget and indicator compliance. The second variable included the dimensions of human resources, medicines and supplies, equipment and infrastructure, referral and counter-referral. Measurement was carried out using a self-designed structured questionnaire consisting of 21 items, which employed a five-level Likert scale: never, almost never, sometimes, almost always, and always. Likert-type scales are useful for categorically capturing feelings, opinions, and attitudes. Consequently, they are useful in studies related to perceptions within institutions (Koo & Yang, 2025).

Data collection techniques and procedures

The survey technique was applied to the selected personnel of the Pachitea Health Network. Before administering the survey, the objective of the research

was explained, and respondents were asked to participate voluntarily. The questionnaires were distributed in an organized manner, ensuring that the instructions were clearly understood in order to maintain the integrity of the responses. The rationale for selecting this procedure was based on the fact that it provides direct answers to the research questions (Taherdoost, 2021).

Data analysis

The data were organized in Microsoft Excel and analyzed using SPSS. Frequencies and percentages were used for descriptive analyses. For inferential analyses, the Kolmogorov–Smirnov normality test was applied because the sample size was greater than 50. Since the significance levels were greater than 0.05, Pearson's correlation coefficient was used to assess the strength and direction of the linear relationship between the two variables (Janse et al., 2021).

Ethical aspects

The research respected voluntary participation, informed consent, data privacy, and the use of information for research purposes. The principles of integrity, responsibility, and respect for research participants were also considered. There was no clinical intervention or risk to the employees involved in this study, as the research was limited to collecting perceptions through an anonymous questionnaire.

RESULTS

The results show an improving trend between budget program management and the maternal mortality rate.

Table 2

Relationship between MEF budget and the maternal mortality index

		Maternal Mortality Index							
								Total	
		Poor		Fair		Good			
Level		F	%	F	%	F	%	F	%
MEF Budget	Low	8	11.6	2	2.9	0	0.0	10	14.5
	Medium	0	0.0	36	52.2	0	0.0	36	52.2
	High	0	0.0	3	4.3	20	29.0	23	33.3
Total		8	11.6	41	59.4	20	29.0	69	100.0

Note. Data were collected through the administration of the instrument.

Table 3
Relationship between indicator compliance and the maternal mortality index

		Maternal Mortality Index								
		Level	Poor		Fair		Good		Total	
			F	%	F	%	F	%	F	%
Indicator Compliance	Low	4	5.8	0	0.0	0	0.0	4	5.8	
	Medium	4	5.8	41	59.4	6	8.7	51	73.9	
	High	0	0.0	0	0.0	14	20.3	14	20.3	
Total		8	11.6	41	59.4	20	29.0	69	100.0	

Note. Data were collected through the administration of the instrument.

When management was at a low level, maternal mortality rates were high. Medium-level management resulted in average rates. When management was at a high level, the rates decreased to a low level. It can be observed that improvements in budget program management correspond to more favorable conditions for reducing maternal risks. Conversely, the predominance of medium-level management indicates that functional constraints still exist in achieving optimal health outcomes.

The results in Table 2 show that, as the budget allocated by the Ministry of Economy and Finance increases, the behavior of the maternal mortality rate responds inversely to the measured rate. At low budget levels, a poor rate predominated; at a medium budget level, a fair rate was predominant; and at high budget levels, a good rate was more predominant. This result indicates that adequate budget allocation is related to better maternal care conditions. However, budget constraints have not generated changes in the frequency of reported cases. Therefore, effective management is required to ensure that the allocated funds have a significant impact.

Indicator compliance showed a positive relationship with the maternal mortality rate. Poor maternal health outcomes were observed at low levels of indicator compliance, whereas moderate indicator compliance was associated with relatively standard maternal health outcomes. On the other hand, indicator compliance was classified as good at high levels of compliance, and maternal health outcomes were positively evaluated. This shows that prenatal care, delivery at a healthcare facility, and family planning are important for improving maternal outcomes. However, the presence of average compliance indicates the need to improve the monitoring and control of health targets.

Table 4
Correlation of the general hypothesis

		Maternal Mortality Index
Management of budget program 002 Maternal and Neonatal Health	Pearson Correlation	,629**
	Sig. (tailed)	,000
	N	69

Note. Data were collected through the administration of the instrument.

The Pearson correlation showed a strong positive correlation between budget program management and the maternal mortality rate ($r = 0.629$, $p = 0.000$). Since the significance level is < 0.05 , the research hypothesis is accepted and the null hypothesis is rejected. This result shows that budget program management has a significant relationship with the maternal mortality rate in the Pachitea Health Network. Therefore, improving management will lead to better maternal health outcomes.

Table 5
Correlation of specific hypothesis 1

		Maternal Mortality Index
MEF Budget	Pearson Correlation	,704**
	Sig. (tailed)	,000
	N	69

Note. Data were collected through the administration of the instrument.

The budget of the Ministry of Economy and Finance and the maternal mortality index showed a strong positive correlation, with a coefficient of 0.704 and a significance level of 0.000. This indicates a highly statistically significant relationship. From this perspective, improved budget allocation is correlated with an increased capacity to manage maternal health problems. However, this should not be viewed solely as an increase in spending; rather, it should be considered as an appropriate allocation focused on immediate priorities within obstetric services.

Table 6
Correlation of specific hypothesis 2

		Maternal Mortality Index
Indicator Compliance	Pearson Correlation	,681**
	Sig. (tailed)	,000
	N	69

Note. Data were collected through the administration of the instrument.

A strong positive correlation was found between indicator compliance and the maternal mortality rate, with a coefficient of 0.681 and a significance level of 0.000. This demonstrates that indicator compliance is significantly related to the reduction in the maternal mortality rate. Therefore, monitoring targets, identifying pregnant women, monitoring prenatal care progress, promoting institutional deliveries, and strengthening family planning are vital priorities for improving healthcare in the Pachitea Health Network.

DISCUSSION

The findings indicate a significant positive correlation between budget program management and maternal mortality within the Pachitea Health Network. This illustrates that maternal mortality goes beyond a clinical interpretation and instead constitutes a multifaceted issue involving institutional, territorial, and budgetary factors that affect efficient access to obstetric services. In this regard, Souza et al. (2024) discuss how social and structural health determinants contribute to transitions in maternal mortality, while Soto-Cabezas et al. (2025) observe that, in Peru, persistent territorial inequalities shape the evolution of this indicator. Therefore, the result observed in Pachitea is consistent with the evidence regarding the relationship between health management and maternal outcomes.

Regarding budget program management, the assessment obtained indicates that better management of resources, objectives, and interventions is aligned with improved conditions for reducing maternal risks. This finding is consistent with Jan et al. (2025), who point out that optimal coordination of government action with public health expenditure is essential for reducing maternal mortality. Similarly, George-Anokwuru (2024) argues that maternal mortality is partly attributable to public health expenditure, while other variables, such as poverty, staffing, and the condition of the health system, also play a relevant role. Therefore, the budget should not be evaluated solely based on financial execution, but rather on its capacity to provide services, supplies, personnel, and a functional obstetric response.

Regarding budget distribution, the findings suggest an association between higher budget levels and the maternal mortality index. This evidence demonstrates the importance of allocating funds to priority interventions such as prenatal care, institutional deliveries, family planning, management of obstetric emergencies, and timely referrals. Lateef et al. (2024) indicate that the use of prenatal care and delivery attended by skilled personnel is essential for reducing maternal deaths in a context of access gaps. Similarly, Mohamed et al. (2024) found that the quality, affordability, and accessibility of services improved institutional delivery. For their part, Dotse-Gborgbortsi et al. (2023) explain that service quality and travel time represent barriers to the utilization of delivery services. These studies suggest that the effects of the budget are only visible when service-specific barriers are mitigated.

In terms of indicator achievement, the substantial assessment observed suggests that monitoring pregnant women, institutional deliveries, and family planning are vital elements for improving maternal health. This finding is consistent with Hussen et al. (2023), who state that the presence of social, educational, economic, and spatial inequalities results in a significantly low level of continuity of maternal care. According to Buli et al. (2023), completion of the continuum of care is influenced by maternal education, transportation availability, progress in the initial prenatal care visit, and support provided by the partner. Likewise, Abebe et al. (2022) demonstrated that continuity of maternal care depends on individual and community circumstances. Consequently, compliance with indicators should not be considered an administrative requirement, but rather as genuine traceability of care.

Ali et al. (2024) similarly showed that women who receive prenatal care and maternal health education are more likely to complete the continuum of maternal services. Debie et al. (2025) emphasize that continuity of maternal care depends on certain changes and improvements in the system. This is consistent with the results obtained in Pachitea, where average adherence to the indicators demonstrates both progress and limitations in consolidating positive outcomes across all facilities.

Referral and counter-referral also constitute important aspects. Eshetu et al. (2024) concluded that delays in accessing emergency obstetric services are related to distance and income, previous referrals, and delays in the decision to seek care. This conclusion is relevant to Pachitea, where geographical conditions and potential service capacity also restrict access to care. The main limitation of the study was the inability to directly assess clinical outcomes, given that the study relied primarily on the perceptions of health personnel. However, it was demonstrated that the combination of budgeting, indicator compliance, service quality, and health system capacity within the territory is necessary to eliminate maternal mortality.

CONCLUSIONS

- Budget program management is positively and significantly related to maternal mortality in the Pachitea Health Network. This relationship indicates that the more effective and efficient the management of resources, objectives, and interventions is, the better the condition of the maternal healthcare system will be.
- Budget distribution has a strong positive relationship with maternal mortality rates. This suggests that the budget should be systematically planned to improve the workforce, medications, supplies, equipment, and hospital infrastructure, as well as to enhance skills in obstetric clinical problems.
- Indicator compliance is significantly related to maternal mortality. Therefore, improving the flow of pregnant women for prenatal care, supervised institutional deliveries, family planning, and timely referrals is essential.

- As this is a correlational study, the results do not demonstrate causality, although they do provide useful information for improving maternal health budget planning.

Recommendation

It is suggested that the Pachitea Health Network optimize the management of the budget program, prioritizing human resources, medications, supplies, and equipment, together with infrastructure and obstetric referrals. In addition, monitoring and evaluation of maternal indicators within an established timeframe should be implemented, particularly with regard to identifying pregnant women, prenatal care, delivery care, and family planning, in order to ensure that the effects are translated into improved maternal care and the sustained reduction of gaps and risks in maternal mortality.

REFERENCES

- Abebe, G. F., Belachew, D. Z., Girma, D., Aydiko, A., and Negesse, Y. (2022). Multilevel analysis of the predictors of completion of the continuum of maternity care in Ethiopia; using the recent 2019 Ethiopia mini demographic and health survey. *BMC Pregnancy and Childbirth*, 22, 691. <https://doi.org/10.1186/s12884-022-05016-z>
- Ali, M. A., Geremew, H., Abate, A., Bamlaku Golla, E., Simegn, M. B., Kumbi, H., Gichew Wondie, S., Abdisa, S., Legasu, T. D., and Chekole, M. S. (2024). Complete continuum of care for maternal health services and determinants among mothers who gave birth in the last year in Chiro City, Eastern Ethiopia: A community-based cross-sectional study. *Frontiers in Global Women's Health*, 5, 1404001. <https://doi.org/10.3389/fgwh.2024.1404001>
- Buli, T. D., Wakgari, N. W., Ganfure, G. G., Wondimu, F. W., Dube, D. L., Moti, G. M., and Doba, Y. S. (2023). Completion of the continuum of maternity care and associated factors among women who gave birth in the last 6 months in Chelia district, West Shoa zone, Ethiopia: A community-based cross-sectional study. *Frontiers in Public Health*, 10, 1026236. <https://doi.org/10.3389/fpubh.2022.1026236>
- del Carpio Ancaya, L., and Pacheco-Romero, J. (2024). Evolución de la mortalidad materna en Perú 2019-2023. *Revista Peruana de Ginecología y Obstetricia*, 70(2). <https://doi.org/10.31403/rpgo.v70i2638>
- Debie, A., Wassie, M. M., Roberts, C. T., Mittinty, M. N., Wilson, A., and Stephens, J. H. (2025). Trends and contributors of complete continuum of maternal healthcare service utilization in Ethiopia: A multivariate decomposition analyses. *Reproductive Health*, 22, 9. <https://doi.org/10.1186/s12978-025-01945-y>
- Defensoría del Pueblo. (2022, July 25). *Defensoría del Pueblo solicita a Diresa Huánuco fortalecer la atención de mujeres gestantes*. <https://www.defensoria.gob.pe/deunavezportodas/defensoria-del-pueblo-solicita-a-diresa-huanuco-fortalecer-la-atencion-de-mujeres-gestantes/>
- Dinga, G. D., Mah, G., and Mosikari, T. (2024). Government health expenditure and maternal mortality: The moderating role of external debt. *Healthcare*, 12(20), 2030. <https://doi.org/10.3390/healthcare12202030>
- Dotse-Gborgborts, W., Tatem, A. J., Matthews, Z., Alegana, V. A., Ofosu, A., and Wright, J. A. (2023). Quality of maternal healthcare and travel time influence birthing service utilisation in Ghanaian health facilities: A geographical analysis of routine health data. *BMJ Open*, 13(1), e066792. <https://doi.org/10.1136/bmjopen-2022-066792>
- Ekwuazi, E. K., Chigbu, C. O., and Ngene, N. C. (2023). Reducing maternal mortality in low- and middle-income countries. *Case Reports in Women's Health*, 39, e00542. <https://doi.org/10.1016/j.crwh.2023.e00542>
- Eshetu, D., Aschalew, Z., Bante, A., Negesa, B., Gomora, D., Ejigu, N., Geta, G., and Mersha, A. (2024). Delay in reaching health facilities for emergency obstetric care and associated factors among postpartum mothers at Bale zones, Ethiopia. A cross-sectional study. *PLOS Global Public Health*, 4(2), e0002964. <https://doi.org/10.1371/journal.pgph.0002964>
- George-Anokwuru, C. C. (2024). Public health expenditure and maternal mortality in Nigeria. *European Journal of Public Health Studies*, 7(1). <https://doi.org/10.46827/ejphs.v7i1.165>
- Hernández-Sampieri, R., and Mendoza Torres, C. P. (2018). *Metodología de la investigación: las rutas cuantitativa, cualitativa y mixta*. McGraw-Hill.
- Hussen, A. M., Ibrahim, I. M., Tilahun, B., Tunçalp, Ö., Grobbee, D. E., and Browne, J. L. (2023). Completion of the continuum of maternity care in the emerging regions of Ethiopia: Analysis of the 2019 demographic and health survey. *International Journal of Environmental Research and Public Health*, 20(13), 6320. <https://doi.org/10.3390/ijerph20136320>
- Jan, A., Gupta, M., and Aftaab-UI-Marroof, S. (2025). Impact of government health expenditure on maternal mortality: An appraisal of South-Asian-Economies. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 62, 00469580251339069. <https://doi.org/10.1177/00469580251339069>
- Janse, R. J., Hoekstra, T., Jager, K. J., Zoccali, C., Tripepi, G., Dekker, F. W., and van Diepen, M. (2021). Conducting correlation analysis: Important limitations and pitfalls. *Clinical Kidney Journal*, 14(11), 2332-2337. <https://doi.org/10.1093/ckj/sfab085>
- Koo, M., and Yang, S.-W. (2025). Likert-type scale. *Encyclopedia*, 5(1), 18. <https://doi.org/10.3390/encyclopedia5010018>
- Lateef, M. A., Kuupiel, D., McHunu, G. G., and Pillay, J. D. (2024). Utilization of antenatal care and skilled birth delivery services in Sub-Saharan Africa: A systematic scoping review. *International Journal of Environmental Research and Public Health*, 21(4), 440. <https://doi.org/10.3390/ijerph21040440>
- Mesa de Concertación para la Lucha contra la Pobreza. (2025). *Análisis de la asignación y ejecución presupuestal del Programa Salud Materno Neonatal. Balance anual 2024* [Diapositivas de PowerPoint]. <https://intranet.mesadeconcertacion.org.pe/storage/documentos/2025-03-21/ppt-mclcp-analisis-del-pp-smn-200325v4.pdf>
- Ministerio de Economía y Finanzas. (2024). *Presupuesto por resultados y programas presupuestales* [Diapositivas de PowerPoint]. https://www.mef.gob.pe/contenidos/presu_publicapacita/2024/16082024_Orientaciones_proceso_presupuestario_marco_presupuesto_resultados.pdf
- Ministerio de Salud. (2023). *Programa Presupuestal 0002: Salud Materno Neonatal. Reporte de seguimiento al I semestre*

2023. https://www.minsa.gob.pe/presupuestales/doc2024/reporte-seguimiento/Reporte%202023-L_PP%200002.pdf

Ministerio de Salud. (2025). *Evaluación de los programas presupuestales de salud: informe de año 2024*. https://www.minsa.gob.pe/presupuestales/doc2024/Evaluacion_Anual_2024_PP-2.pdf

Mohamed, M., Abdeeq, B. A., Mohamed, A. I., Jama, H. A., Tafese, F., and Getachew, M. (2024). Level of institutional delivery service utilization and associated factors among women who gave birth in the past 12 months, Ga'an libah district, Marodijeh region, Somaliland: a community-based cross-sectional study. *BMC Health Services Research*, 24, 1085. <https://doi.org/10.1186/s12913-024-11330-3>

Organización Panamericana de la Salud. (2024). *Llamado a la acción: cero muertes maternas evitables en las Américas*. <https://www.paho.org/sites/default/files/2024-06/llamado-accion-cero-muertes-maternas-evitables.pdf>

Resolución Directoral N.º 0018-2024-EF/50.01. Resolución Directoral que modifica la Directiva N.º 0005-2020-EF/50.01 "Directiva para el diseño de los Programas Presupuestales en el marco del Presupuesto por resultados", aprobada mediante Resolución Directoral N.º 0030-2020-EF/50.01. (2024, April 24). Ministerio de Economía y Finanzas. Diario oficial El Peruano, 13/04/2024. <https://www.gob.pe/institucion/mef/normas-legales/5517089-0018-2024-ef-50-01>

Rueda-Camaná, M., Roman, L. A., Moncada-Mapelli, E., Galeas-Torre, M. K., and Roman-Lazarte, V. (2024). Situación epidemiológica de las muertes maternas en Perú durante 2015 y 2022 y análisis de dos décadas de los años de vida potencialmente perdidos. *Revista del Cuerpo Médico Hospital Nacional Almanzor Aguinaga Asenjo*, 17(4), e2179. <https://doi.org/10.35434/rcmhnaaa.2024.174.2179>

Soto-Cabezas, G., Vásquez-Mejía, A., Gil, F., Reyes, M., Juscamaíta, R., Oyola, A., Talavera Romero, L., Mujica, O. J., Sanhueza, A., and Munayco, C. V. (2025). Maternal mortality in Peru: Trends, determinants, inequalities, and the impact of COVID-19. *International Journal for Equity in Health*, 24, 248. <https://doi.org/10.1186/s12939-025-02588-y>

Souza, J. P., Day, L. T., Rezende-Gomes, A. C., Zhang, J., Mori, R., Baguiya, A., Jayaratne, K., Osoti, A., Vogel, J. P., Campbell, O., Mugerwa, K. Y., Lumbiganon, P., Tunçalp, Ö., Cresswell, J., Say, L., Moran, A. C., and Oladapo, O. T. (2024). A global analysis of the determinants of maternal health and transitions in maternal mortality. *The Lancet Global Health*, 12(2), e306-e316. [https://doi.org/10.1016/S2214-109X\(23\)00468-0](https://doi.org/10.1016/S2214-109X(23)00468-0)

Taherdoost, H. (2021). Data collection methods and tools for research; A step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management*, 10(1), 10-38. <https://hal.science/hal-03741847/document>

Wojcieszek, A. M., Bonet, M., Portela, A., Althabe, F., Bahl, R., Chowdhary, N., Dua, T., Edmond, K., Gupta, S., Rogers, L. M., Souza, J. P., and Oladapo, O. T. (2023). WHO recommendations on maternal and newborn care for a positive postnatal experience: strengthening the maternal and newborn care continuum. *BMJ Global Health*, 8(suppl. 2), e010992. <https://doi.org/10.1136/bmjgh-2022-010992>

World Health Organization, United Nations Children's Fund, United Nations Population Fund, World Bank Group, & United Nations Department of Economic and Social Affairs, Population Division. (2025). *Trends in maternal mortality estimates 2000 to 2023: Estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division*. <https://www.who.int/publications/i/item/9789240108462>

Authorship contribution

ASE: Conceptualization of the study, data collection, fieldwork management, preparation of the first draft of the manuscript, and review of the content from a maternal health perspective.

RCB: Methodological guidance, statistical processing and analysis, interpretation of results, critical feedback on the manuscript, and adaptation of the original article to the journal's editorial guidelines.

Funding sources

The research was carried out with own resources.

Conflict of interest statement

The authors declare no conflicts of interest.

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