



CERVICAL UTERINE CANCER IN THE COVID-19 PANDEMIC IN RURAL COMMUNITIES OF AYACUCHO

CÁNCER CERVICOUTERINO EN EL CONTEXTO DE LA PANDEMIA DE COVID-19 EN COMUNIDADES RURALES DE AYACUCHO

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ABSTRACT

Introduction: Due to the COVID-19 pandemic, vulnerable rural women faced significant challenges. **Objective:** To explore the situation of cervical cancer during the pandemic from an intercultural perspective among rural women in Ayacucho in 2021. **Methods:** Mixed-method research with a concurrent triangulation design. Sample: Healthcare providers and rural women. Purposeful and reasoned sampling. Techniques: Surveys, in-depth interviews. Data analysis: Data systematization using Excel, SPSS for quantitative data, and Atlas.ti for qualitative data. Level of validity and confidence: triangulation. **Results:** Information from surveys and interviews was contrasted, revealing that the problem may have alternative solutions within the knowledge of the same communities. **Conclusion:** Women reported lack of awareness, insufficient information in the Quechua language, and undervaluation of their traditional knowledge. Fear and contagion concerns prevented them from seeking healthcare services. Services were reduced, redirected, or discontinued, often due to budget constraints.

Keywords: Uterine cancer; Pandemic; Rural Females. (Source: MESH-NLM)

RESUMEN

Introducción: Debido a la pandemia de COVID-19, las mujeres rurales en situación de vulnerabilidad enfrentaron desafíos importantes. **Objetivo:** Explorar la situación del cáncer cervicouterino durante la pandemia desde una perspectiva intercultural entre las mujeres rurales de Ayacucho en el año 2021. **Métodos:** Investigación de métodos mixtos con un diseño de triangulación concurrente. Muestra: Proveedores de atención médica y mujeres rurales. Muestreo intencional y razonado. Técnicas: Encuestas, entrevistas en profundidad. Análisis de datos: Sistematización de datos utilizando Excel, SPSS para datos cuantitativos y Atlas.ti para datos cualitativos. Nivel de validez y confianza: triangulación. **Resultados:** El contraste de la información de encuestas y entrevistas reveló que el problema podría tener soluciones alternativas dentro del conocimiento de las mismas comunidades. **Conclusión:** Las mujeres reportaron falta de conciencia, información insuficiente en quechua y subvaloración de sus conocimientos tradicionales. El miedo y la preocupación por el contagio las disuadieron de buscar servicios de salud. Los servicios se redujeron, redireccionaron o descontinuaron, a menudo debido a limitaciones presupuestarias.

Palabras clave: Cáncer cérvico-uterino ; Pandemia; Mujeres rurales. (Fuente: DeCS- BIREME)

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INTRODUCTION

As a result of the COVID-19 pandemic, the health system experienced a crisis that impacted society, especially rural women from vulnerable sectors^(1,2). Social actors and the roles they play are shaped and interact based on the access and equity available. From health services during the COVID-19 health emergency, the scarcity of material and human resources was evident, denoting inequality; As a consequence, the care of cancer patients was neglected, resulting in an underlying scenario with a high death rate⁽³⁾. In this way, the demand in primary care prioritized COVID-19 cases and left aside other diseases such as cancer⁽⁴⁾. This is how the relationship between the various elements of the problem becomes important and contextualizes the reality where the right to health in the midst of a pandemic was critically affected.

Research has evaluated the adaptation of cancer protocols in the pandemic and has analyzed how it affected patients in different phases⁽⁵⁾. For example, for the management of bladder cancer, treatment protocols adjusted to the oncological risk and the phase of the pandemic were carried out⁽⁶⁾, algorithms were also identified for the management of kidney cancer according to the oncological stage⁽⁷⁾. It should be noted that cervical cancer is a global disease and its prevalence increased during 2020, at the height of the pandemic; Furthermore, it was found that in Peru the mortality rate from this type of cancer ranks fourth⁽⁸⁾. For this reason, and for the experience of previous pandemics, it was suggested to act quickly and study them⁽⁹⁾.

The present study sought to explore the situation of cervical cancer in rural women during the COVID-19 pandemic seen from an intercultural approach. It is necessary to carry out studies on women in the rural sector that contribute to the update so that policies consider the gender, equity, and ethnicity approaches within a human rights framework, with the purpose of promoting equality.

METHODS

Design and Study Area

This research employed a mixed-methods approach,

grounded in a concurrent triangulation design. The study was conducted in Luyanta Hualpa, Socos, in Lima – Perú, focusing on both qualitative and quantitative data collection methods. Semi-structured interviews and surveys were used to explore the target population, with data collection and analysis performed simultaneously⁽¹⁰⁾.

Population and Sample

The sample consisted of 12 rural women and 4 healthcare providers from the study area. A non-probabilistic convenience sampling method was used for the quantitative analysis, while a purposive sampling strategy was applied for the qualitative analysis⁽¹⁰⁾.

Variables and Instruments

The research utilized a variety of instruments for data collection, including surveys and semi-structured interview guides. Quantitative data were collected to capture demographic and service utilization information, while qualitative data were aimed at understanding personal experiences and perceptions related to cervical cancer during the COVID-19 pandemic.

Procedures

For the quantitative component, data were processed using the SPSS statistical software, with the analysis remaining descriptive to explore the sample characteristics. The qualitative analysis involved systematic procedures such as data organization, iterative reading, coding, and the use of traditional techniques alongside Atlas.ti software. The findings from both qualitative and quantitative analyses were then triangulated to enhance the study's reliability and provide a comprehensive understanding of the research problem.

Statistical Analysis

Quantitative data analysis was conducted using descriptive statistics in SPSS to summarize the sample characteristics. Qualitative data were analyzed through coding and thematic analysis using Atlas.ti. The concurrent triangulation method was employed to

integrate and compare the results from both data sets, ensuring a robust and nuanced interpretation of the findings.

Ethical Considerations

Ethical approval was obtained prior to the commencement of the study, and informed consent was obtained from all participants. Confidentiality and anonymity were maintained throughout the research process, and the study adhered to ethical standards in accordance with relevant guidelines and regulations.

RESULTS

Quantitative results

Interviews were conducted with a total of 16

participants: 4 were health services workers and 12 were women living in rural areas of Ayacucho. Of these women, 6 were from Luyanta, 3 from Huambalpa, 2 from Vilcas Huamán and 1 from Socos. Regarding marital status, 3 lived with their partners and the others were married. Regarding education, 2 women had no education, 4 had incomplete primary school and 6 had incomplete secondary school.

The majority of the women surveyed are dedicated to household chores, except for two who are businessmen. The participants stated that they had children, one has 7 children, 2 have 3 children, another 2 have 5 children, 3 have 6 children and 4 have 4 children. They all have Quechua as their native language.

Table 1. Sociodemographic characteristics of rural women.

Sociodemographic variable	F	%
Age ranges		
25 – 62 years	12	100%
Origin		
Huambalpa	3	25%
Vilcas Huamán	2	16,67%
Socos	1	8,33%
Luyanta	6	50%
Civil status		
Cohabitant	3	25%
Married	9	75%
Occupation		
Housewife	10	83,33%
Dealer	2	16,67%
N° children		
7 children	1	8,33%
3 children	2	16,67%
5 children	2	16,67%
6 children	3	25%
4 children	4	33,33%
Language		
Quechua	12	100%



Table 2 highlights that during the pandemic in rural communities, 83% of women who had inflammation did not receive medical treatment, 67% did not

receive information about Pap smears, and 83% could not access services adequately and Quechua was not spoken.

Table 2. Health services that offer cervical cancer prevention to rural women (Pandemic context – Intercultural approach).

Description of questions	YES	NO	SOMETIMES
During the pandemic, did women have pain and inflammation in the lower abdomen, were they treated at the health post?	10	83%	02 17%
Have the women in your community heard talks and information about the Pap smear from the health post staff during the pandemic?	-	08 67%	04 33%
When you go to the health post, do they serve you well, speaking Quechua, do they respect your customs?	-	10 83%	02 17%
During the pandemic, did the health post staff visit you at home?	-	11 92%	01 8%
During the pandemic, did you go to the health post or were you afraid of contagion?	-	11 92%	01 8%
Do you cure yourself with herbs or other home remedies when you have something wrong with your body or womb?	08 67%	-	04 33%
Did you have a mask to go to the post office?	-	02 17%	10 83%
During a pandemic, were you looking for the healer, herbalist to cure you of some illness in your parts or pain in your womb?	08 67%	04 33%	

Regarding the 4 surveyed participants who work in the health sector, as can be seen in table 3, they affirm that the offer of health services that offer prevention of cervical cancer to rural women in Ayacucho does not maintain a good management; Likewise, 3 of those surveyed were suspended during the health

emergency and 4 had limitations due to lack of PPE. Regarding attendance, the 4 collaborators reported that women did not attend due to fear of contagion and due to the high demand for care and priority in COVID 19 cases.

Table 3. Health services that offer cervical cancer prevention to rural women from health providers.

Cervical Uterine Cancer Screening Program Services in rural areas in Ayacucho, during the COVID-19 pandemic						
Ítems	YES		NO		SOMETIMES	
They had normality in their management		00%	04	100%		
They were suspended	03	75%		-	01	25%
They were limited due to lack of PPE	04	100%		-		
Women did not attend out of fear.	04	100%			-	-
Prioritization of services due to COVID-19	04	100%		-		
Training for health providers to face the pandemic	01	75%	03	75%		

Data obtained by survey

Table 04 describes the response capacity of health services in rural areas of Ayacucho for the prevention of cervical cancer in the COVID 19 pandemic, where 100% of health providers report that it was neither timely nor safe, and 02 (50%) reported that they moved to a second order, prioritizing services and servers towards the care of patients due to COVID-19. Likewise, 100% reported that the first level of care was paralyzed and

there was saturation of health services due to cases of COVID-19, community participation was very weak or non-existent, mental health problems were observed in health providers, the absence of an adequate communication strategy was also evident, and interventions in sexual and reproductive health were postponed indefinitely.

ORIGINAL PAPER

Table 4. Response capacity of health services for the prevention of cervical cancer, in the Covid-19 pandemic.

The response capacity of health services for the prevention of cervical cancer during the COVID 19 pandemic was:						
Ítems	YES		NO		SOMETIMES	
Timely and appropriate			04	100%		
Step to a second order	02	50%			02	50%
They paralyzed attention at the first level	04	100%				
Saturation of health services due to COVID-19 cases	04	100%				
Weak community participation	04	100%				
Lack of an adequate communication strategy	04	100%				

Data obtained by survey

In conclusion, 100% of the health services were neither timely nor adequate, and 50% reported that they went to a second order, just as there was saturation in the health services, and regarding community participation, 100%. I indicate that participation was

weak and there was no adequate communication strategy. Qualitative results Below are verbatim excerpts from the interviews that the health personnel who participated in the Sexual Reproductive Health services/Cervical Uterine Cancer Screening Programs



during the COVID-19 pandemic provided. They refer in their entirety that health services during the pandemic period were unsafe and were classified as places of risk of contamination, interviewee A comments that:

[...] Nobody knew about the problems that health workers had to face in the face of COVID-19, they did not know what to do [...] there was a lot of fear, trepidation, all the users in the population for us were carriers of the virus, they were difficult situations and In this whole problem, everything that was not COVID-19 was not attended to [...] but it was not that we did not want to attend to it, but rather we were afraid, people were dying, dying was very painful [...] (Interviewee A, health personnel)

Thus, it is also observed that one of the strongest reasons for not attending was that all services were prioritized to provide care for COVID-19 cases and that the situation regarding care became complex.

[...] In reality, those of us who are in charge of the population, such as the posts and health centers, are the ones who had to face the entire problem of the COVID-19 pandemic, all staff were obliged to provide care to the patients. infected, and we were not even trained in that, but we were even forced to transport the dead, and in those circumstances no one gave importance to the other services, some days we closed because there were no conditions [...] (Interviewee B, health personnel)

Health workers emphasize that the pandemic generated obstacles in the care of cervical cancer, linked to structural problems in the health system. Although primary care is considered a priority, it could not be effectively implemented in practice due to lack of training and slow implementation of protocols, aggravated by the presence of COVID-19. On the other hand, interviews with rural women highlight their active participation in their communities.

[...] When the contagion appeared, we no longer went to the post office, we were afraid, the workers were the same, we did have pain, inflammation in the womb, we cured ourselves with herbs, sahúmas, what can we do, we had to endure [...] (Rural woman A).

In this category, the rural women in the study clearly report the reasons why they did not access care in health services, especially for screening for cervical cancer, or to prevent ailments related to this disease, or some who are already in treatment they could not continue.

[...] I no longer went to the post, there was COVID-19 contagion, it was closed, it was mandatory to wear a face mask, they only spoke to us from afar, they didn't listen and we didn't understand anything, they didn't want to get close to us... The community had a misfortune, our neighbor died bleeding from all parts of her body. She was already over 60 years old, now we are just being told that it was probably due to uterine cancer... so it was very sad, we women did not have any attention for our illnesses [...] (Rural woman B)

Health personnel, poorly informed about COVID-19, treated women with inadequate practices, excessive distance, masks that made communication difficult, and language barriers. Some medical services closed, leaving rural women feeling abandoned and helpless due to the pandemic.

[...] before the infections started, I had a bloody wound treated by the obstetrician, I went every Monday, but after that they didn't open the door anymore, I was afraid to even get close to them, so I gave up, until now I haven't had it treated because they have also changed the obstetrician, she was very good [...] (Rural woman C)

The pandemic revealed that the health sector was not prepared to address the sexual and reproductive health needs of women. Fear and lack of preparation led to neglect, and women were one of the most affected populations, not only by COVID-19, but also by the consequences on the delivery of health services.

[...] at that time of contagion, my daughter, who is married, told me that she had a lot of pain when she was intimate with her husband, it was getting worse and worse, she even bled, but I couldn't do anything, there was no attention, not even in particular [...] (Rural woman D).

The COVID-19 pandemic caused very significant



transformations in the organization of health services, especially in rural areas, generating greater risk in vulnerable populations such as rural women.

[...] we almost don't know anything about women's cancer, because they don't do the talks in Quechua, so maybe we can understand better, when they talk in Spanish, we only understand some things, but they also talk in the talk as if without anything from the parties of women [...] that is not right, we are ashamed to look and listen when they talk to us like that [...] (Rural woman E)

In this culture, there is popular language about cervical cancer.

[...] in the community we have other illnesses and sometimes they say cancer, but it can be alcanzo, pacha or worse still ccapiruzcca, at the post when they can no longer cure you they say cancer, and they give us remedies that sometimes clash, or they send you to File so they can cure you, and there is no money, how are we going to go [...] we understand that cancer has no cure, if it catches you you die, here we have seen several women die with cancer, when it is in the finals they can no longer stand the pain They scream, they cry and the entire community listens, they even throw him out of the hospital and he just waits to die [...](Rural woman F).

[...] in our community there are still our healers and some midwives, they know well what plants they can take and also make cures so that the sick person will heal, but we all know if it is cancer, she will die, there are times that we invoke God to our apus who I took it away without suffering much, my neighbor's entire body swelled, she could no longer urinate and everything stayed in her body and she was like a balloon and the

pain did not even allow the sheet or blanket to touch her, she suffered a lot [...] (Rural woman G).

[...] they say that the virus that causes cancer has women who have several men, well, they are bad women, so how do they find the virus, what would my mother-in-law, my own husband, think [...] it's sad because how many women perhaps don't get rid of it? that [...](Rural woman H)

Concurrency triangulation

Figure 01 presents the comparison of results obtained through mixed research. Regarding whether women with pain or inflammation in the lower abdomen during the pandemic were treated at the health post, it was found, through the surveys, that more than two thirds of the women did not receive care, while the interview provided testimonies that support this statement. One user mentioned that, due to fear of contagion, both they and health workers avoided going to the clinic and resorted to home remedies. The consistency between both results reinforces the idea that access to health services during the pandemic was difficult due to fear of contagion. The data collected shows significant consistency: more than 80% of the people surveyed stated that they did not receive care at the health post. This finding is supported by the testimonies of those who mentioned that they stopped attending the health post due to fear. It is essential to ensure that women receive adequate reproductive and sexual health care, as well as during pregnancy. The services that care for them should not be interrupted, avoiding their isolation from health facilities. It is necessary for health policies to have effective actions with strategies for pandemic contexts, especially those that last for long periods of time⁽¹¹⁾, in addition, the difficulty in accessing health services could translate into a complaint for the cases.

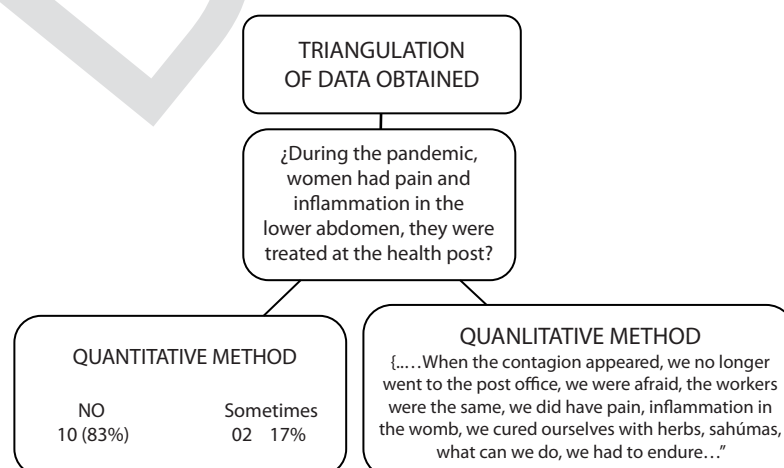


Figure 1. Triangulation of concurrence between quantitative and qualitative results.





DISCUSIÓN

It is clear that many women were not clear that there are forms of prevention to avoid cervical cancer, the information required is basic, they demand that they require information, education in Quechua, which is the language of them and their families, they demand to understand their customs and take them into account when making decisions; The findings show that there is a need to strengthen information and education for the sexual reproductive health of women with an intercultural approach⁽¹²⁾, that considers cultural codes and the use of traditional medicine whose use of inputs demonstrates proven properties. Furthermore, the failure to formulate strategies objects to what was stated by the World Health Assembly, which seeks to combat and eradicate cervical cancer⁽¹³⁾, by not meeting standards.

The testimonies show that they are part of the Andean-Amazonian culture and make the knowledge, practices, customs and beliefs around health survive, they recognize that there are diseases typical of traditional medicine, in the same way they know and use herbalism and other inputs of their own. of the community, which shows that the traditional medicine system has social legitimacy and is in force, they recognize Andean therapists and value their knowledge and demand their services⁽¹⁴⁾. In the case of wounds in the cervix, also called cervicitis, they report that it is the users who are cured by natural methods, demonstrating that in some cases there is complementarity between traditional medicine and Western medicine, these situations challenge carrying out a sociocultural analysis. In the health-disease

process⁽¹⁵⁾, in order to find mutual valuation, they must complement each other and thus achieve better health intervention strategies. However, the cultural aspect also presents disadvantages in the behavior of husbands, partners and/or spouses, related to infidelity, insecurity, distrust of men towards women, which is why they live with stereotypes that border on machismo and low self-esteem, which undoubtedly does not benefit the health of rural women, because it sometimes prevents women from attending health services, especially if it involves examinations of the genital parts⁽¹⁶⁾.

CONCLUSIONS

In conclusion, the results suggest about cervical cancer was not optimally addressed during the COVID-19 pandemic. It was due to different external and internal national factors, making the problem underlying the deaths from COVID-19. However, in rural areas they have alternative strategies to deal with scenarios like this, but it would be optimal for medical personnel to be more involved in these issues to enhance the knowledge of this population.

It must be recognized that, in Peru, cervical cancer is a current problem that needs greater attention. Until 2022, cervical cancer is the oncological problem with the highest number of victims, with 47% being in an advanced phase, difficult to cure in < 35 years. 54.1% of new cases of invasive cancer. Therefore, it is recommended that future research can carry out multidisciplinary studies that evaluate whether the problem is decreasing and medical programs in rural areas.

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REFERENCES

1. Organización Panamericana de la Salud (OPS). La COVID-19 afectó el funcionamiento de los servicios de salud para enfermedades no transmisibles en las Américas - OPS/OMS | Organización Panamericana de la Salud; 2020. <https://www.paho.org/es/noticias/17-6-2020-covid-19-afecto-funcionamiento-servicios-salud-para-enfermedades-no>
2. Quispe L. Repercusión de la pandemia covid-19 en el acceso a los servicios de salud en la región Huancavelica. [Tesis de doctorado]. Huancavelica, Perú: Universidad Nacional de Huancavelica; 2021.
3. Castro A. Desafíos de la pandemia de COVID-19 en la salud de la mujer, de la niñez y de la adolescencia en América Latina y el Caribe; 2020. www.latinamerica.undp.org
4. Meneses G. La atención primaria en servicios de salud urbanos. Diagnóstico. 2022;61(3) Disponible en: <http://142.44.242.51/index.php/diagnostico/article/view/386/389>
5. Campuzano-Castellanos M, Flórez MG. Caracterización de marcadores de células madre tumorales en cáncer escamocelular de cavidad oral. Med UIS. 2022;55(1). Disponible en: <https://doi.org/10.18273/saluduis.55.e:23020>
6. Peña O. Recomendaciones sobre el manejo del carcinoma de vejiga en situación de pandemia por Covid-19. Arch Esp Urol. 2020;73(5):374-383. Disponible en: <https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1016834>
7. Hevia V, Linares-Espinós E, Alonso-Gordoa T, et al. Pandemia Covid-19 y cáncer renal: implicaciones y adaptación para un manejo óptimo de la enfermedad. Arch Esp Urol. 2020;73:360-6. Disponible en: <https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1016762>
8. Espinoza-Calero J, Quispe-Bravo B, Vásquez-Velázquez C. Prueba de Papanicolaou: Mejoras en la atención diagnóstica en tiempos de pandemia. Diagnóstico. 2022;61(3):264-265. Disponible en: <https://doi.org/10.33734/diagnostico.v61i3.380>
9. Hernández R, Mendoza C. Metodología de la investigación: Las rutas cuantitativa, cualitativa y mixta. 1a ed. McGraw-Hill; 2018.
10. Hernández-Hernández A, Vera-Pérez B. La Atención Primaria de Salud: un reconocimiento de la Salud Sexual y Reproductiva de las mujeres indígenas de Huitzotlaco. Cienc Huasteca. 2023;11(21):17-27. Disponible en: <https://repository.uaeh.edu.mx/revistas/index.php/huejutla/issue/archive>
11. Velázquez-Jiménez C, Seminario M, Vargas S, et al. Estrategia educativa intercultural para la prevención del cáncer de cuello cérvico uterino en el resguardo de Paujil, Amazonia Colombiana. UDSCA. 2022;25(1):1e:129. Disponible en: <https://revistas.udca.edu.co/index.php/ruadc/article/view/2159>
12. Organización Mundial de la Salud (OMS). 73.a ASAMBLEA MUNDIAL DE LA SALUD WHA73.2 - Estrategia mundial para acelerar la eliminación del cáncer del cuello uterino como problema mundial de salud pública y sus objetivos y metas conexos para el periodo 2020-2030; 2020. Disponible en: https://apps.who.int/gb/ebwha/pdf_files/WHA73/A73_R2-sp.pdf
13. Citarella Menardi L, Zangari A. Yachay tinkuy. Salud intercultural en Bolivia y América Latina. Unión Europea. Programa de Apoyo a la Higiene y Salud de Base; Cooperación Italiana. 2009. Disponible en: <https://www.bivica.org/file/view/id/2905>
14. Molina-Berrio D, Ramos-Jaraba S, Garcés-Palacio I. Experiencias en la atención en salud de mujeres con anomalías citológicas o cáncer de cuello uterino en dos departamentos fronterizos: una lucha entre la vida y el sistema de salud colombiano. Rev Salud Publica. 2020;39(2). Disponible en: <https://doi.org/10.17533/udea.rfnsp.e341399>
15. Matassini S, Luna V. Barreras para diagnóstico y tratamiento de cáncer de cuello uterino en un hospital público de Lima, Perú: un estudio cualitativo. Acta Med Peru. 2020;37(4). Disponible en: <http://dx.doi.org/10.35663/amp.2020.374.1835>
16. Ministerio de Salud (MINSA). Perú es uno de los países con mayor número de casos de cáncer de cuello uterino en el mundo - Noticias - Ministerio de Salud - Plataforma del Estado Peruano; 2020. Disponible en: <https://www.gob.pe/institucion/minsa/noticias/310733-peru-es-uno-de-los-paises-con-mayor-numero-de-casos-de-cancer-de-cuello-uterino-en-el-mundo>