

"Sexual and Reproductive Rights for Indigenous Peoples of Ayacucho"





Alternative Approaches to Reduce Adolescent Pregnancy in Rural Areas of Peru: Evidence from the program "Sexual and Reproductive Rights for Indigenous Peoples of Ayacucho"

Adolescent pregnancy continues to be a critical barrier to adolescent development in Peru, especially in rural and indigenous areas where access to sexual and reproductive health information and services is limited. This situation compromises their educational opportunities and reinforces cycles of poverty and social exclusion.

Abstract

To address this problem, Asociación Kallpa implemented an innovative intervention in 120 rural schools in Ayacucho, targeting girls and adolescents between the ages of 11 and 19. The strategy combined two components: a certified course in comprehensive sexual education for school tutors, and an itinerant sexual and emotional health counseling service, provided through a bus equipped and staffed by specialized personnel to respond in a manner relevant to the cultural realities of the region.

The intervention was evaluated through a randomized controlled trial (RCT) led by Innovations for Poverty Action (IPA) with researchers Erica Field and Renzo Severino of Duke University. The results show significant effects of the roving bus: reductions of up to 57% in the birth rate and 40% in school dropout among older adolescents, as well as improvements in contraceptive knowledge and a decrease in grade repetition among the youngest girls. In contrast, teacher training did not generate additional effects, possibly due to low course completion rates and high teacher turnover.

These findings provide strong evidence of effective and culturally appropriate strategies to prevent adolescent pregnancy and promote educational trajectories in rural contexts.

Adolescent pregnancy constitutes a critical barrier to the development of girls and adolescents, limiting their educational, economic and welfare opportunities. In addition, it is often associated with greater risks to maternal and child health, and reinforces cycles of poverty and exclusion, especially in rural and vulnerable contexts.

In Peru, the proportion of adolescents aged 15–19 years who are mothers or pregnant has shown a decreasing trend, from 13.4% in 1996 to 8.2% in 2023. However, this national figure hides deep territorial gaps: while in urban areas the rate is 6.1%, in rural areas it reaches 17.1%¹.

Along the same lines, the adolescent motherhood rate in Ayacucho is higher than the national average: 8.52% of women between 15 and 19 years of age have had at least one child, compared to 6.71% at the national level. This situation is aggravated by the structural conditions faced by many rural and indigenous communities in the region, such as limited access to culturally relevant sexual and reproductive health services, a shortage of personnel who speak indigenous languages, and limited availability of adequate and timely information. These conditions significantly increase the risk of unplanned pregnancies at early ages and perpetuate intergenerational inequalities.

¹ Observatorio Nacional de Prospectiva, CEPLAN (2024). Descenso del embarazo en niñas y adolescentes. Disponible en: <https://observatorio.ceplan.gob.pe/ficha/t15>.

² Instituto Nacional de Estadística e Informática (INEI), Encuesta Demográfica y de Salud Familiar – ENDES 2023

Intervention

In response to this problem, Asociación Kallpa – an organization with more than 34 years of experience working with vulnerable populations – designed and implemented an intervention in rural and indigenous communities in Ayacucho, with the aim of reducing teenage pregnancy and strengthening the educational trajectories of girls and adolescents between 11 and 19 years of age.

The intervention has two components:

- 1. Training school tutors in comprehensive sexual education:** It consisted of a four-month certificate course aimed at tutors of the five secondary school grades. The program addressed the regulatory framework of ESI, its incorporation into school management, pedagogical strategies for its implementation in the classroom and essential contents such as sexual and reproductive rights, decision making, prevention of sexual violence, teenage pregnancy and life plan. The tutors who completed the training committed themselves to teach at least five sessions of comprehensive sexuality education in their classrooms. This component did not involve direct contact between Kallpa staff and students.
- 2. Itinerant Sexual and Emotional Health Counseling Service (Kallpa Bus):** This was a mobile unit that visited schools or nearby areas twice during the school year, with stays of two to three days per visit. The bus, staffed by a psychologist and an obstetrician, provided personalized and group guidance, counseling and referrals to local health services, especially in contexts where these services are non-existent or inaccessible. Medical care and contraceptive distribution were not offered. Its function was educational, informative and emotional support. Implementation was closely coordinated with school authorities, local governments and health centers, ensuring its integration with the institutional and community environment.

Impact Evaluation

The intervention was evaluated through a collaboration between Innovations for Poverty Action (IPA) and researchers Erica Field and Renzo Severino of Duke University. To identify whether the intervention was effective in reducing teen pregnancy, an experimental approach known as a randomized controlled trial (RCT), widely recognized for its ability to produce reliable evidence on the effectiveness of public programs and policies, was used.

The evaluation was conducted between 2022 and 2024 in 120 rural schools in the Ayacucho region, with a focus on female adolescents between 11 and 19 years of age. Schools were randomly assigned to one of three groups, ensuring that any observed differences in outcomes could be attributed to the intervention and not to external factors.

- Group 1 received both components of the intervention: the tutor training and the bus tour.
- Group 2 received only the roving bus visit.
- Control Group did not receive any intervention during the study period.

This design allows us not only to estimate the overall impact of the intervention, but also to identify in a differentiated way the effect of the itinerant guidance service and the additional effect of combining it with teacher training. This distinction generates key evidence to guide decisions about which components are more effective in rural and indigenous contexts.

To measure preliminary results, student surveys were combined with official administrative records from the education and health sectors, which included information on enrollment, academic performance and births. This methodological strategy allowed for an objective and accurate measurement, and reduced possible underreporting biases, particularly relevant in sensitive issues such as teenage pregnancy.

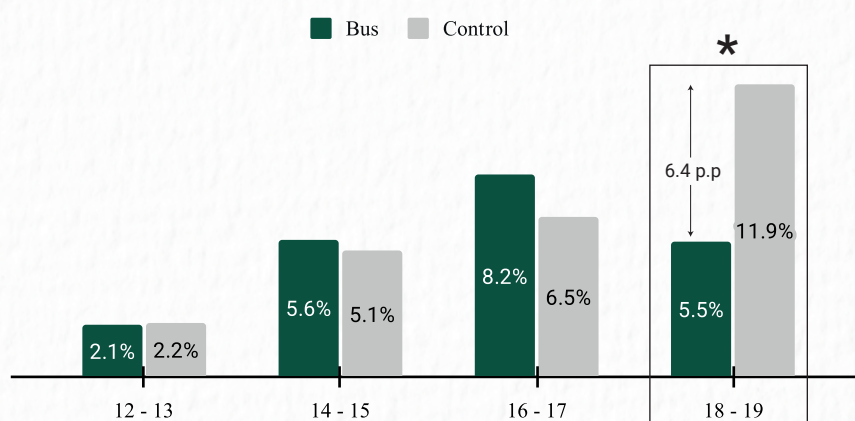
Effects of the Itinerant Bus



Lower teen pregnancy: Between 9 and 23 months after the intervention, the mobile bus reduced the birth rate by 6.4 percentage points among students aged 18 to 19, representing a 54% decrease compared to the group that did not receive the intervention. (See Figure N° 1)

Figure N° 1

Short-term birth 9-23 months

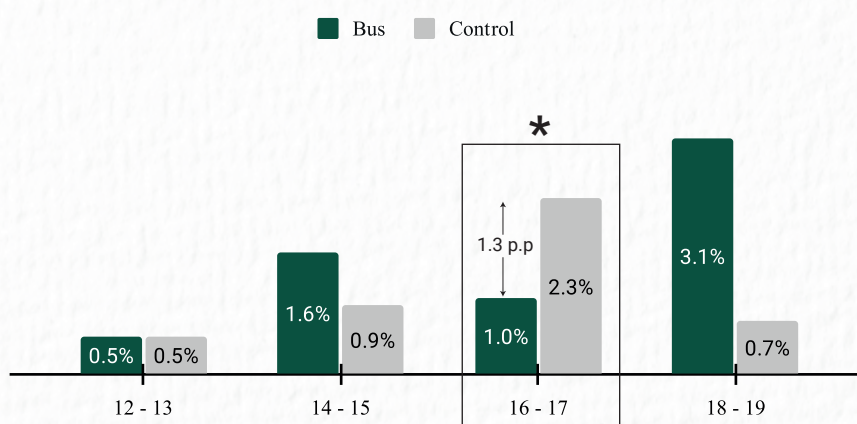


Evaluation Results³

Between 24 and 36 months, a 57% (1.3 percentage point) reduction in births was observed among adolescents who were 16 or 17 years old at the time of the bus visit, suggesting a pregnancy postponement effect. No sustained effects were found in the older group over time, reinforcing this interpretation. In absolute terms, this represents that approximately 11 adolescents aged 18 to 19 did not give birth in the short term, among the 266 who participated in the intervention. (See Figure N° 2)

Figure N° 2

Longer-term birth: 24+ months



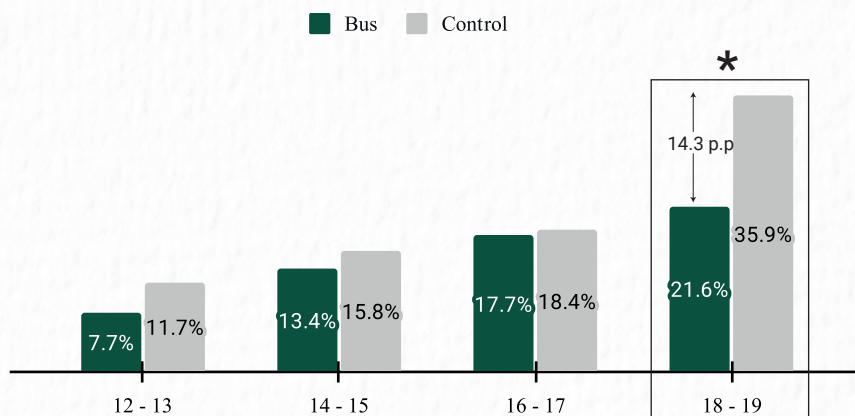
³ A result is considered statistically significant when the observed change can be attributed to a real effect or a specific cause, rather than a random chance result. Significance is indicated by asterisks: (*) 90% confidence in the result (significance at the 10% level), (**) 95% confidence (significance at the 5% level), and (***) 99% confidence (significance at the 1% level).



Reduces school dropout rates: The bus also had a positive impact on school retention. Among the 18- to 19-year-old group, the dropout rate fell by 14.3 percentage points, equivalent to a 40% drop. (See Figure N° 3)

Figure N° 3

Dropout



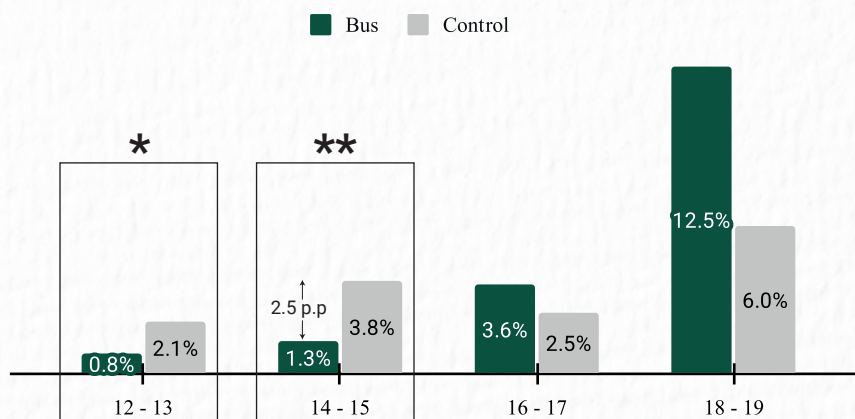
Resultados de la Evaluación



Lower grade repetition: Grade repetition among younger students showed a decrease of 1.3 percentage points in the 12- to 13-year-old group, and of 2.5 percentage points in the 14- to 15-year-old group, suggesting that the impact could be reflected in increased expectations or a sense of control over the future (higher aspirations), which would motivate students to strive harder. In addition, students showed significant improvements in their knowledge of contraceptive methods, especially in the correct use of condoms. (See Figure N° 4)

Figure N° 4

Retention



Effects of the ESI Teacher Training Course:

In contrast, teacher training did not generate any additional effects beyond those achieved by the bus. This may be due to the fact that only 24% of the tutors completed the course, and more than 60% were replaced before the end of the study. Based on the existing literature, one possible explanation is that students feel more comfortable discussing sexuality with healthcare workers than with their teachers⁴.

A key aspect of the evaluation was the use of official health and education records to measure outcomes. The surveys alone underestimated pregnancies: one in three adolescents listed as mothers in the records said they had not been pregnant, likely due to fear of stigma. This underscores the importance of using administrative data to obtain more accurate and reliable measurements.

The mobile sexuality education and counseling intervention in Ayacucho offers key lessons for designing public policies aimed at preventing teenage pregnancy in rural and indigenous contexts. Its innovative approach helped overcome common challenges in this type of intervention:

- **Mobile services are an effective and contextualized alternative:** The mobile bus significantly reduced teenage pregnancies and school dropout rates. Bringing sexual and emotional health counseling directly to schools—with local, bilingual staff—was highly effective in areas where traditional services are scarce or inaccessible.
- **An intercultural approach and trust in staff are key:** The intervention was adapted to the linguistic and cultural context of the communities, prioritizing care in Quechua or Spanish according to the students' preference. Qualitative evidence shows that adolescents feel more comfortable discussing sexuality with health workers than with teachers, underscoring the importance of incorporating empathetic, trained, and culturally relevant professionals.
- **The effectiveness of teacher training could be limited by institutional factors:** Although this component did not generate measurable additional effects, this could be due to factors such as the low course completion rate (24%) and high teacher turnover (over 60%). It is suggested that potential improvements be reviewed, including ongoing training, incentives for participation, and better coordination with the education system, which would allow for the institutionalization of sexuality education in schools.
- **The use of administrative data improves policy measurement and monitoring:** The underreporting of pregnancies in surveys—one in three adolescent mothers denied having been pregnant—highlights the need to use official records as a primary source of information. This allows for more accurate measurement of the impact and more reliable monitoring of public interventions.

⁴ Benzaken, T., Palep, A.H. & Gill, P.S. Exposure to and opinions towards sex education among adolescent students in Mumbai: A cross-sectional survey. BMC Public Health 11, 805 (2011). <https://doi.org/10.1186/1471-2458-11-805>

Acknowledgments

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