# on the application of the survey of knowledge, attitudes and practices (KAP) associated with COVID-19 in the territories of incidence of the Amazon Indigenous Health Route Project in Maranhao – Brazil, Madre de Dios – Peru and the Ecuadorian Amazon





In collaboration with:











The development of this document is part of the Amazon Indigenous Health Route.

AIR is an innovative model of care based on intercultural knowledge dialogues and facilitation of multi-stakeholder processes, bringing together health public servants, indigenous organizations, academia, and civil society organizations around joint activities designed to tackle the COVID-19 pandemic in the Amazon.

AIR is implemented by Hivos, in coordination with the Confederation of Indigenous Nationalities of the Ecuadorian Amazon (CONFENIAE) in Ecuador, the Native Federation of the Madre de Dios River and Tributaries (FENAMAD) in Madre de Dios, Peru, and the Center of Indigenist Work (CTI) in Maranhao, Brazil.

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# 1. Background

In order to better understand the knowledge, attitudes and practices (KAP) associated with the community approach to COVID-19 in the Amazonian territories of influence of the Amazon Indigenous Health Route Project (AIR), two KAP surveys were conducted in Ecuador, Peru (Madre de Dios Region), and Brazil (Maranhao Region). This report compares the two periods of application of the survey, the first one in the months of May to June (KAP 1) and the second one (KAP 2) in the month of September 2021; and allows us to visualize the changes that occurred over time in the communities/villages of incidence of the project regarding how the pandemic was dealt with.

The results in the three countries, as well as the data collection process, will allow us to rethink the AIR strategies and we hope that they will serve as a baseline and input to provide feedback to the communities, contribute to the generation of public policy with intercultural relevance and therefore to decision-making.

# 2. Objective

Identify changes in knowledge, attitudes, and practices for the approach to COVID-19 focused on health promotion and disease prevention measures, prior to and after the implementation of workshops associated with the management of COVID-19 as part of the Amazon Indigenous Health Route.

# 3. Target Population

Leaders of the AIR implementation communities in Ecuador. This population was defined according to the incidence by the roles they may have in the different population segments to which the respondents correspond, since they are local opinion makers, that is, their criteria have a particular value in relation to those of the rest of the population.

## 4. Selection Criteria

- Adult representative of the community (authority or president)
- Leaders of the project's indigenous partner organizations
- To strive for gender parity



 People who can attend the survey by phone, Zoom, or WhatsApp, WhatsApp audio or Skype

\*Difficulty: in the application of the selection criteria, it was possible to comply with three out of four criteria, due to the fact that connectivity in the Amazon is deficient and, in many cases, non-existing. This forced the project to establish an alternative plan in which the people who applied the surveys did it directly in the territory due to the fact that they entered the communities. It is important to point out that those who applied the surveys are young people from the Amazonian nationalities.

# 5. Sample

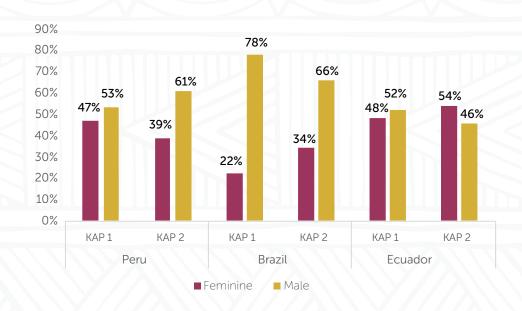
For the application of the two surveys (KAP 1 and KAP 2), the same number of people per country were approached (N=193) in order to have the most accurate data possible.

COUNTRY	VILLAGE/ NATIONALITY	TOTAL SURVEYED
Brazil	Povo gavião	
4 villages	Povo apankreja	50 people
	Povo kanela	
25 communities	Povo kraho	
Ecuador	Siona	67 people
	Siekopai	
6 nationalities	Waorani	
	Cofan	
341 communities	Shuar	
	Achuar	
Peru	Harakbut	76 people
	Matsiguenka	
	Shipibo	
7 villages	Kichwa runa	
36 communities	Yine	
	That eja	
	Amahuaca	



# 6. General Context of the Survey

#### Who were our Interlocutors?



The population surveyed in the three countries (N= 193) is between 18 and 67 years of age. In all three countries, there is a predominance of the male gender, which is associated precisely with the presence of men in positions of leadership and authority in the communities and villages.

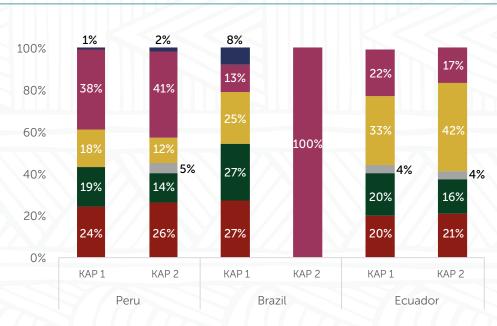
Particularly in Peru, male participation increased from 53% to 61% between the first and second application of the survey; in Brazil, female participation increased from 22% to 34%, as well as in Ecuador, with 48% of women participating in KAP 1 and 54% in KAP 2.

It is important to note that interlocutors in the three countries include community members, leaders, authorities, and, to a lesser extent, health promoters.

# 7. General Findings

Hereafter, we will analyze the perceptions of the surveyed population in terms of knowledge, attitudes and practices associated with COVID in terms of two periods of application of the KAP survey as described above, which we will refer to as KAP 1 and KAP 2.

 With which of the following options do you consider that the spread of COVID-19 is prevented?



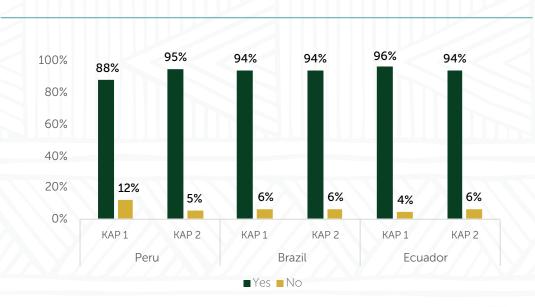
- Washing the hands
- Taking medicine given by the media
- All of the above

- Wearing mask
- Taking traditional medicines
- Others



In Brazil, this diversity of options identified in the first survey changes radically to an absolute combination in the use of preventive measures; while in Ecuador hand washing is increased by one percentage point, as in Peru the use of masks is reduced, and the use of traditional medicine is increased from 33% to 42%. The combination of all measures is reduced by five percentage points, while the use of Western medicine is maintained.

## Do you think COVID-19 is dangerous?

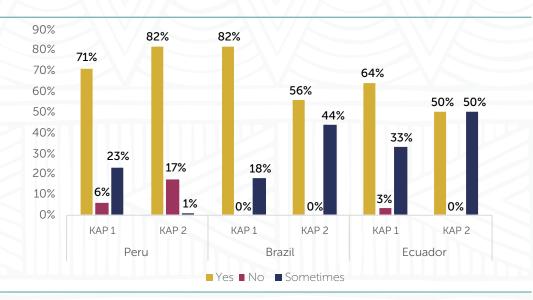


In general, the surveyed population has the perception -both in KAP 1 and KAP 2-that COVID is dangerous. This perception in Peru increases from 88% to 95%, while in Brazil the perception remains the same in the two periods of the application, and, in Ecuador, the perception of dangerousness is reduced by two percentage points.



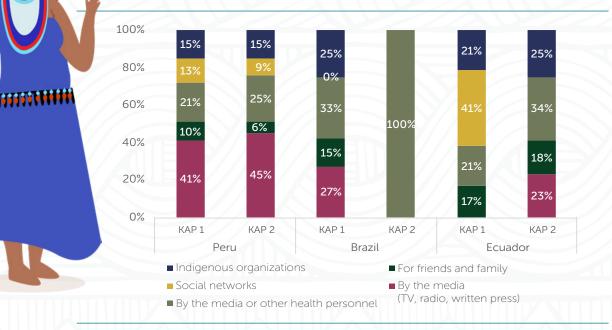


## Do you put into practice the prevention measures that you are aware of?



The behavior shown by the survey in the three countries differs significantly. In Peru, the use of prevention measures increased by nine percentage points, while in Brazil and Ecuador the practice of prevention measures decreased. In the first country overwhelmingly from 82% to 54% and in the second country from 64% to 50%, according to the perception of the respondents who might not know such measures.

By what means did you acquire knowledge about COVID-19?

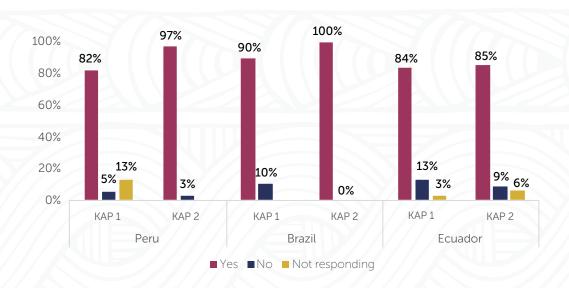


Regarding the mechanisms by which the communities acquired information about COVID, it is identified in the KAP 1 and KAP 2 surveys that in Peru, in general, the trends are maintained, the media are strong regarding the arrival of information about the pandemic. Between the two surveys their presence increases by four percentage points, as well as the information that arrives through health personnel. The incidence of indigenous organizations is maintained, and the influence of social networks decreases as well as the information that arrives through friends and family.

In Brazil, the diversity of information sources shown in KAP 1 is no longer reflected in KAP 2, which concentrates exclusively on the information provided by the health teams present in the villages.

In Ecuador, the presence of health personnel shows a significant increase of thirteen percentage points between the first and second survey, as well as an increase from 21% to 25% regarding the information from indigenous organizations. The information from social media is not reflected. However, the influence of social media is registered as 23%.

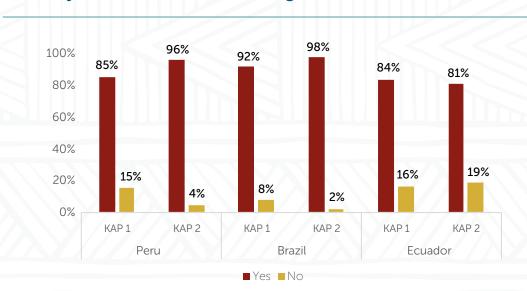
 Did you put into practice any of the acquired knowledge?





The knowledge acquired is put into practice in a convincing manner in the three countries, with an increase in acceptance in Peru from 82%, in KAP 1, to 97%, in KAP 2. In Brazil, there is a 100% of replies that the knowledge was put into practice. And, in Ecuador, although there is an increase from 3% to 6% among those who do not respond, implementation reaches 85%, reducing by four percentage points the refusal to put acquired knowledge into practice.

## Are you interested in learning more about COVID-19?



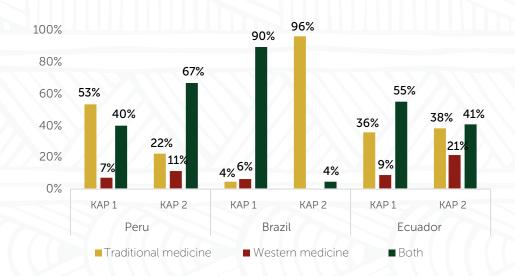
The surveyed populations in Peru and Brazil show a greater interest in learning more about COVID. Between KAP 1 and KAP 2, there was an increase from 85% to 96% in Peru and in Brazil from 92% to 98%. In Ecuador, something different happens. The populations lose interest in learning more about COVID with a reduction of three percentage points in the results.



# What would you do if you learned that a family member has symptoms of COVID-19?

In the first survey, the people interviewed indicated that immediate action was taken to care for the patient in the community and then the report was made, related to KAP 2, to the community and government health authorities, but the patient was not left unattended. This could be the results of a better coordination with the health systems represented by the agents closest to the communities.

# When there are patients with COVID-19, what do they use?

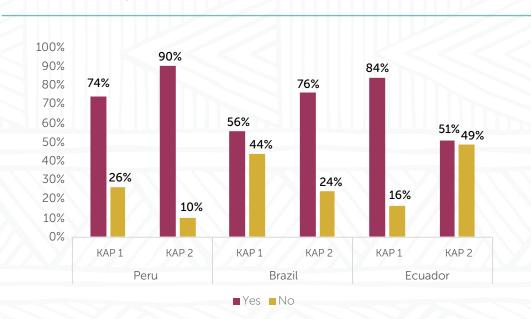


The data from the surveys of the two periods differ significantly in the behavior of the populations with respect to the use of conventional and traditional medicines. In Peru there is an increase from 40% to 67% in the combination of the two medicines, reducing the exclusive use of traditional medicine.

In Brazil, the change is so radical that when the survey was applied, 90% used traditional medicine in combination with conventional medicine and, at the second implementation of the survey, 96% of the population focused on the exclusive use of traditional medicine, showing a coordination of only 4%.

In Ecuador, the use of conventional medicine increased significantly by eleven percentage points, while the use of the two medicines decreased from 55% to 41%.

 Did your role as an authority or representative person of the community allow you to have more knowledge about COVID-19 than the rest of the people in the community?

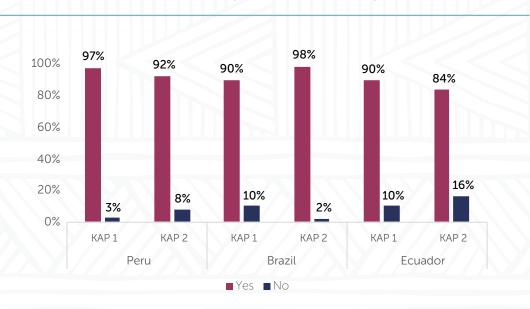


Regarding access to knowledge by people who hold positions of leadership or authority in the community, the data showed, in the first application of the KAP, a perception that the representative role of the respondents allowed them to have greater access to knowledge about COVID. However, when KAP 2 was applied, the data differed between countries.



In Peru and Brazil, this perception augmented with a significant increase from 74% to 90%, and from 56% to 76%, respectively, while in Ecuador it decreased from 84% to 51%. This radical change could be due to the intersectoral processes to generate effective communication mechanisms in the communities.

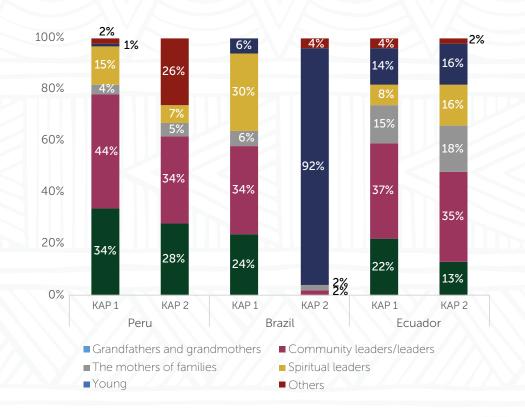
 Do you think that the knowledge acquired about COVID-19 is useful for your community?





Regarding the question on the usefulness in the communities of the knowledge acquired about COVID, the answers per country differ. In Peru, however, this perception is reduced by five percentage points in KAP 2, while in Brazil this perception is not only positive but also increases by eight percentage points, and in Ecuador there is an equally broad perception, although it is reduced by 6% between KAP 1 and KAP 2.

# Who is most knowledgeable about COVID-19 in your community?



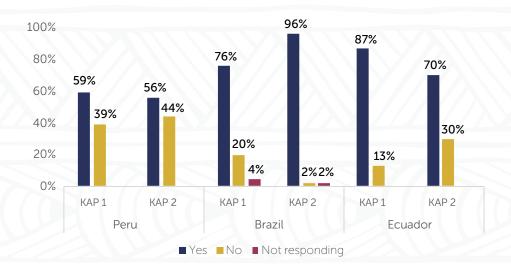
When asked about the perception of those who have the most knowledge in the communities about COVID, the data is presented as follows:

In Peru, it is considered that, between KAP 1 and KAP 2, among grandfathers and grandmothers there is a decrease in the perception of those who have more knowledge about COVID with a reduction from 34% to 28%, as well as in the group of spiritual leaders with a decrease of eight percentage points and community leaders with 10% less. These changes can be explained by the increase from 2% to 26% in others who could be health personnel or other people outside the community who frequent the communities, as well as the improvement in access to culturally adapted information from verified sources.

In Brazil, the change is radical, since in KAP 2 the knowledge held by young people in the villages represents 92% and significantly displaces the perception that grandparents, mothers, leaders and other people may have knowledge about COVID.

While in Ecuador, the results of KAP 1 and KAP 2 show that respondents perceive their spiritual leaders as more knowledgeable over time, doubling their percentage between the first and second surveys. The other actors do not reflect major changes, except for the perception that grandfathers and grandmothers have less knowledge with a decrease of 9% between the two surveys.

 Are the people who know more about COVID-19 in the community updating their knowledge?

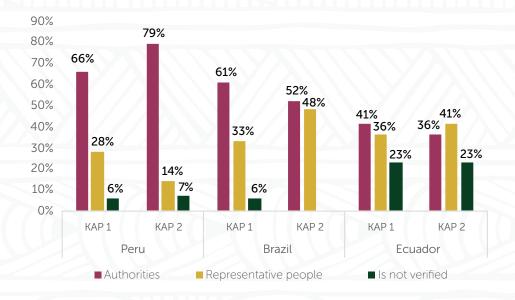




Between the implementation of the KAP 1 and KAP 2 surveys, a decrease in the updating of knowledge within the communities of Peru and Ecuador was identified. It should be noted that this knowledge was associated with their own knowledge.

In Peru, in particular, there is a decrease of three percentage points, while in Ecuador this decline is significant, from 87% to 70%, in contrast to Brazil, where the country's own knowledge is significantly strengthened. It could be interpreted that this decrease goes hand in hand with the dissemination of conventional medicine as evidenced earlier in this report.

## The information that reaches the community is verified with:

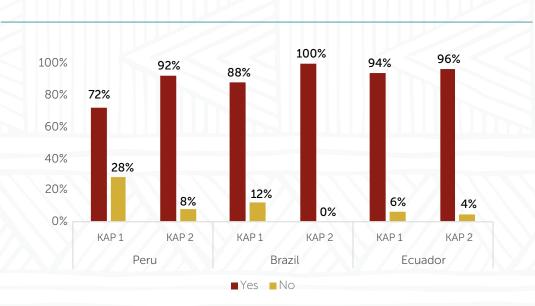


In all three countries when applying KAP 1 there is a strength in the confirmation of information with the authorities. However, in the application of KAP 2 there are several changes:

In Peru, consultation with local authorities is strengthened with an increase of thirteen percentage points, followed by representative persons. This means that the communal authority maintains an important role that is strengthened with the passage of time.

In Brazil and Ecuador, although the percentages of consultation with local authorities decreased from 61% to 52% and from 41% to 36%, respectively, it increased for representative persons from 33% to 48% in Brazil and from 36% to 41% in Ecuador, while in both countries unverified information remained practically stable.

 Since COVID-19 appeared, do you think that ancestral knowledge has been strengthened?

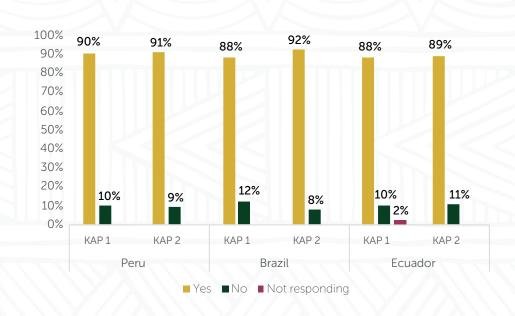




Although in previous questions the coordination with the knowledge of conventional medicine was evident, the strengthening of traditional knowledge increased in the three countries. In Peru, it increased by 20%, in Brazil by 12% and in Ecuador by 2%.

It is important to mention that, in KAP 1, Peru registered 72%, Brazil 88% and Ecuador 94%. So, in KAP 2 there is a significant increase in the first two and a slight but representative increase in Ecuador due to the strength already evident in KAP 1.

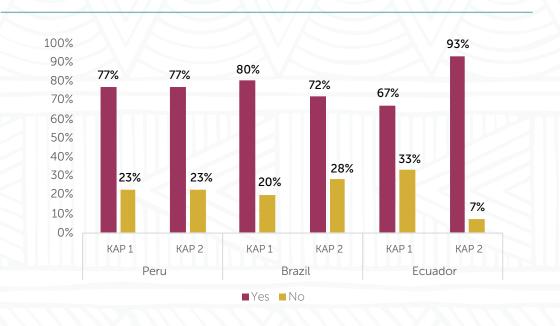
 Is the community willing to work more on ancestral knowledge and wisdom to reduce the symptoms of COVID-19?



The data from the two KAP surveys show the following data. In Peru and Ecuador, the increase is one percentage point in each country, while in Brazil it is four, which reflects a vitality of local knowledge and a continuity in the transmission of traditional knowledge.



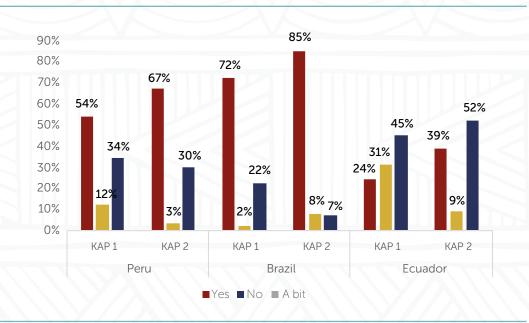
## Community youth have good knowledge about culture, nature and traditional health



In the first KAP survey, young people already recorded a strengthened traditional knowledge. In the data provided by KAP 2 it can be determined that in Peru the percentages are maintained, in Brazil there was a decrease of eight percentage points, which could be due to the addition of knowledge from other currents of data that strengthen their knowledge in a dialogic manner. And, in Ecuador, there is evidence of a significant increase from 67% to 93%.



 Do you believe that the knowledge of the health personnel in your community is helpful in dealing with COVID-19?



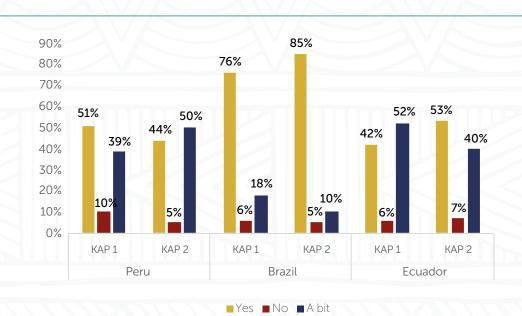
This question and the two subsequent ones will make it possible to analyze the perceptions of the health teams for the two periods of survey application.

In Peru, trust in the health teams increased by thirteen percentage points, significantly reducing the negative perception that existed.

In Brazil, the increase in the perception of health teams is significant, from 72% to 85%, although it is worth mentioning that in KAP 1 there was already evidence of a close relationship with these teams.

In Ecuador, the perception of the health teams was negative, which for 45% of the population brought about hesitation. However, it is important to highlight that for the populations surveyed in the latter country, the negative perception was reduced from 31% to 9%, without affecting the hesitation generated by the knowledge of the teams, which increased from 45% to 52%. And there was also an increase in the positive perception regarding the knowledge of the health teams, with an increase of fifteen percentage points in KAP 2 compared to KAP 1.

# Do you believe that the knowledge of health personnel is well received by your community?



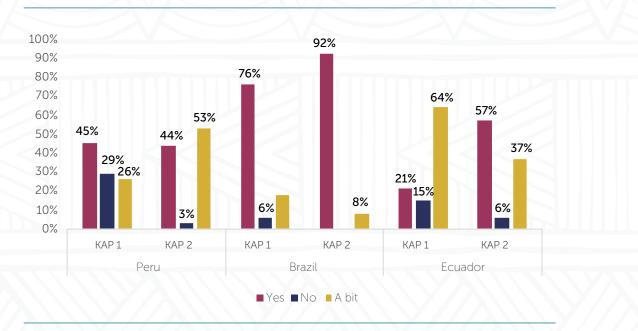


As for the reception of the knowledge of health personnel and the trust they generate in Peru, although acceptance decreased from 51% to 44%, partial trust increased by eleven percentage points, reducing the negative perception of this group by half.

On the other hand, in Brazil, as a result of the close relationship with the health teams in the territory, acceptance increased from 76% to 85%, decreasing partial trust and negative perception.

In Ecuador, negative perception increased by one percentage point, while acceptance in KAP 2 increased by eleven percentage points compared to KAP 1, and partial trust decreased from 52% to 40%.

 Do you think that the recommendations to prevent or treat COVID-19 given by health personnel in your community are applied by the people?



The comparison between the KAP 1 and KAP 2 surveys yields the following results regarding the use of the health teams' recommendations:

In Peru, although there was a drastic decrease in the refusal to use the recommendations of the health teams, there was an increase from 26% to 53% in the partial trust in them, which is an advance in the coordination between the health systems.

In Brazil, the refusal was canceled out and partial confidence was reduced from 18% to 8%, significantly increasing the application of the health teams' recommendations by the villagers.

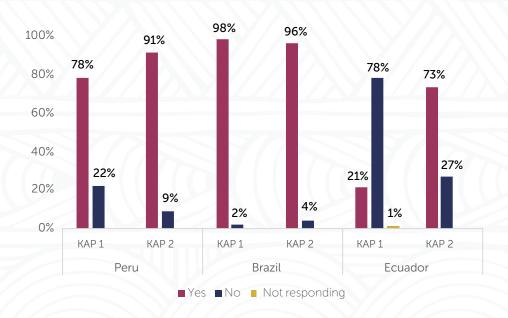
In Ecuador, there was a significant increase in the use of recommendations, from 21% to 57%, with partial confidence dropping from 64% to 37% and negative confidence from 15% to 6%. This is in response to greater interaction with the country's health policy director.

## What have you heard about vaccination for COVID-19?

In Ecuador, 41% of the population associated vaccination with death, 21% said it has side effects and 19% that it is a preventive measure. In Peru, 52% said it protects against COVID, 18% that it kills and sterilizes, while in Brazil, 26% believed it is good and 24% were skeptical due to lack of information.

When asked what they think about the vaccines, in Brazil 90% said "it is good", 4% said they had a reaction when they were vaccinated and 6% still have doubts. In Ecuador, 46% said "it is bad", 41% said they do not need it and only 9% said it is good, while in Peru 74% said it protects against the virus, 7% are afraid and distrustful and 19% think it requires more information.

Subsequently, each respondent was asked if they would recommend vaccination for their communities and the responses were as follows:



The scenario described above allows us to introduce the analysis of vaccine acceptance in the communities and villages of incidence of the Amazon Indigenous Health Route.

In Peru, acceptance increased from 78% to 91%, in Ecuador from 21% to 73%, while in Brazil this percentage dropped by two percentage points. The reasons for this are as follows:

In Peru, health teams are increasing vaccination coverage, in Ecuador, a mass vaccination program is being created, while Brazil is experiencing a complex situation with respect to vaccination policy. These strategies, which are outside the direct impact of the Amazon Indigenous Health Route, were supported by several actions from the project:

- Cultural adaptation by indigenous people of the information associated with vaccination
- Various workshops in each country were held to dispel doubts about vaccination.
- Alliances with indigenous leaders for strategic spokespersons to promote vaccination among indigenous peoples.



### 8. Conclusions:

The surveys of knowledge, attitudes and practices implemented in the three countries provide information on the status of traditional knowledge associated with biodiversity, the relationship with health teams, as well as perceptions about information associated with COVID and vaccination.

Regarding traditional knowledge, in the first survey, the data already showed a strengthening of this knowledge, as well as the interest of the younger segments of the population in revitalizing it. This is a trend that is maintained in the second KAP survey, which confirms that for indigenous peoples, knowledge about health, environment, and nature are not dissociated both in their transmission and in their implementation.

Regarding the relationship with the health teams in Brazil, the process resulting from a public health policy built based on the organizations is strengthened between the application of KAP 1 and KAP 2, so that in the two surveys the coordination between the health systems is evidenced as a structural practice that goes beyond government policy as it is a state policy.

The relationship between the communities and the State in Peru makes visible the ties that are developed by people with cultural awareness, which allows them to overcome in some way the bottlenecks that can be generated between the communities and the State. The statistics show a slight strengthening in this relationship.

As for Ecuador, the relationship with the governing health institution shown in KAP 1 and 2 suggests a certain distance with the vaccination program and the deployment for its execution, which generates certain approaches, but not enough to reestablish a broken relationship despite the existence of an intercultural public policy, which, in the face of its implementation, encounters a number of obstacles that deepen the differences between the communities and official organizations.

Regarding knowledge associated with COVID that is not necessarily traditional, an increase is evident, to a large extent due to the presence of cooperation in the territories, generating a sort of bridge to adapt information, interculturalize explanations, to promote the use of good local practices and a greater participation of young people as catalysts of such information.

With respect to vaccination, the joint and coordinated action with the organizations made it possible to improve vaccination projections, which is clearly evidenced by the variation in the results of the KAP 2 survey.

Although it is not part of the statistics, the strengthening of good practices to face the COVID, the processes of revitalization of traditional knowledge and awareness-raising regarding vaccination, tasks that emerged from the KAP 1 survey made it possible to generate, to a large extent, the changes reflected in the KAP 2 survey.

They also undoubtedly generated new challenges identified by the communities that strengthen the autonomy of the population in an integral sense that goes beyond the vision of health and disease and reveals other problems that at the end of the day overshadow the pandemic, placing its analysis in the syndemic generated by the social, economic, cultural, gender gaps and the pressures on the territories, making the analysis more complex, and enriching the visions of the future.



