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FINAL PERFORMANCE EVALUATION REPORT OF THE PROJECT "ZIKA RESPONSE IN ECUADOR AND PERU"

PRODUCT No. 6

Final evaluation report of Ecuador and Peru (includes recommendations)

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Desarrollo



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1. Summary

Abstract

This document is the final report of the performance evaluation of the binational project Zika Response in Ecuador and Peru, implemented in Ecuador and Peru by CARE from 2016 to 2019. The main objectives of the project were to strengthen community, local and national capacities to respond to the outbreak of Zika virus and other vector-borne diseases, as well as to improve regional and national efforts to reduce Zika transmission rates.

The evaluation of the project in Ecuador was carried out in the intervention zones of 10 cantons of the provinces of El Oro, Manabí and Esmeraldas, between August and September 2019; in Peru, in 20 districts of 10 provinces of the departments of Tumbes, Piura, Lambayeque, and Cajamarca. After the elaboration of the work proposal and the methodological design of the evaluation, secondary information was collected and primary information was collected at field through interviews, focus groups and social mapping (in Ecuador), and a Likert scale survey (in Peru). The evaluation was framed in five blocks: General Aspects, Community Mobilization, Community-Based Surveillance, Social and Behavioral Change, and Inter-Institutional Planning and Coordination.

The main findings of the evaluation determine that the project achieved, for the most part, the objectives of the project, having as its main achievement the facilitation of inter-institutional coordination of the different actors in the territory. In Peru, the experience of community-based vector control, supported by technological and communications innovations, stands out. In both countries, the project successfully mobilized the community to carry out prevention strategies against Zika and increase knowledge of the risks of this type of disease, as well as useful individual and collective strategies for its prevention.

The present document is the final evaluation report on the performance of the binational project Zika Response in Ecuador and Peru, implemented by CARE from September 2016 to September 2019. The main objectives of the project were: to strengthen community, local and national capacities to respond to the outbreak of the Zika virus and reduce the transmission of the virus; to maintain a gender focus and to contextualize interventions within the social and cultural environment.

The project evaluation in Ecuador was carried out, during August and September 2019, in the project intervention zones: cantons of Arenillas, Huaquillas, and Las Lajas in the province of El Oro; cantons of Portoviejo, Manta, Sucre, San Vicente, Jama, and Pedernales in the province of Manabí; and the canton of Muisne in the province of Esmeraldas. The evaluation of the project in Peru was carried out in the intervention zones of 20 districts of 10 provinces of the departments of Tumbes, Piura, Lambayeque, and Cajamarca. In both countries, the evaluation was framed in five blocks, with their respective questions provided by CARE: General Aspects, Community Mobilization, Community-Based Surveillance, Social and Behavioral Change, and Inter-Institutional Planning and Coordination.

The evaluation was carried out in the following phases: 1) work proposal and coordination meeting with the project team; 2) elaboration of the proposal for initiation and evaluation methodology; 3) compilation of secondary information for the evaluation; 4) collection at field of the necessary information for the evaluation through focus groups, interviews, social mapping, and other tools; 5) drafting of the preliminary evaluation document; 6) drafting of the unified Ecuador-Peru report, presentation of the final report and its subsequent translation into English as established in the TOR.

The main findings of the evaluation determine that most of the objectives of the project implemented in Ecuador and Peru were achieved. In Ecuador, the main achievement was the facilitation of inter-institutional coordination of the different actors in the territory, a condition that, likewise, allowed the community to be satisfactorily mobilized to carry out prevention strategies against Zika and to increase knowledge of the risks of this type of disease, as well as individual and collective strategies useful for its prevention. The evaluation report in Peru highlights the experience of community-based vector control, supported by technological and communications innovations.

The level of community mobilization and inter-institutional cooperation was varied in the territory and had particular strengths and weaknesses in the implementation zones. The main weakness, recognized by the actors, was the lack of time to implement activities and strategies with greater impact and sustainability. The epidemiological surveillance system was applied as a pilot and was mainly entomological in nature and of hatcheries eradication at the household and community levels. An effective strategy in both countries was home visits and the implementation of the "Ten Minutes Against Zika" campaign. The implementation of the community-based surveillance system, within an approach of community empowerment, was successful. However, in Ecuador, the record of reported information presented some difficulties, which limits the usefulness of its analysis for actors external to CARE. In Peru, the surveillance and monitoring system was carried out by groups of local monitors gathered by the project and supported by

economic incentives through the municipalities, and also included the monitoring of egg traps and the development of software for this purpose, carried out by CARE's central team.

The communication strategy was a key piece in the implementation of the project in both countries. The materials, for the most part, were well received in the community and the key messages of the campaign (eradication of hatcheries and prevention of infection in pregnancy) were successfully disseminated.

2. Purpose of the evaluation

The purpose of this evaluation is to report on the results of the binational project Zika Response in Ecuador and Peru and its contributions to the response to Zika during and after the epidemic.

In addition, it seeks:

- To report on the challenges faced in the execution of the project and on the response to them and other elements that contributed to or made it difficult for the project to achieve its results.
- Report on project inputs in terms of approaches or strategies, interventions, tools, best practices, lessons learned, etc., with special attention to those elements that might be applicable in the response to other epidemics or health emergencies.
- Enable CARE and USAID to obtain inputs that contribute to improving the quality and management of their projects in future interventions.

The evaluation was based on a review of secondary information from the documentation provided by CARE and primary information collected through interviews, social mapping, surveys, and focus groups conducted with the main actors that participated in the project.

3. Context and background

In mid-2015, an increase in the number of cases of microcephaly in newborns and neurological alterations was detected in the northwest of Brazil, which were associated with a possible infection by the Zika virus and which would later begin to be observed in other Latin American countries. On February 1, 2016, the World Health Organization (WHO) declared as a Public Health Emergency of International Concern (PHEIC) the outbreak of Zika virus disease (ZIKV), the increase in neurological disorders and congenital malformations (mainly microcephaly) detected at the end of 2015. The PHEIC declared by WHO led to a global response, which made it possible to understand that the ZIKV infection and related consequences pose a very important public health problem in the long term.

In November 2016, WHO considered that the event no longer constituted a PHEIC, although the virus and its consequences constitute a major and long-lasting public health problem. Thus, in the post-emergency phase, the Pan American Health Organization (2018) recommended that countries in the Americas should consider incorporating the disease from Zika into existing surveillance systems.

In the context of the PHEIC, USAID allocated resources as part of the U.S. government's contribution to the global response to support and strengthen prioritized countries in their strategies to minimize the negative impact of Zika virus infection during pregnancy. USAID organized a three-year Zika program in four priority areas: innovation, vector control, interventions for social and behavioral change, and maternal and child health.

Within the framework of the Integrating Community Health Program (ICH), USAID decided to support efforts to identify, locate, and prevent the spread of the Zika virus in Central America, South America, and the Caribbean. For USAID, it was important to accelerate the ability to prevent, detect, and respond to the Zika virus, and to strengthen the ability to reduce the risk of future infectious disease outbreaks through community participation and mobilization.

Within this framework, USAID's response to the Zika outbreak included three lines

of action: 1) vector control and management; 2) communication for social behavior change; 3) community-based surveillance and monitoring. To this end, USAID allocated resources and invited organizations from eligible countries to submit proposals to the Involving Communities in Response to Zika call, published in May 2016.

3.1 Problem description and local context in Ecuador and Peru

3.1.1 Problem description and local context of Ecuador

In Ecuador, the first suspected case of ZIKV was reported at the end of 2015. During 2016, a cumulative total of 2947 cases were reported (MSP-Gacetas vectoriales, 2016). This increase in the number of cases coincided with the earthquake of April 16, 2016, which mainly affected the provinces of Esmeraldas and Manabí. Postearthquake conditions made it difficult to control communicable diseases because the affected population had to be placed in shelters, with little or no access to drinking water and sanitation. This increased the use of ground tanks and other water storage tanks, which functioned as breeding grounds for the *Aedes aegypti* mosquito.

As of 2016, an alert was issued by the Subsecretaría de Vigilancia de la Salud Pública (Subsecretariat for Public Health Surveillance) of the Ministry of Public Health (MSP), on the basis of which a Response Plan to the Zika Virus Disease (MSP, 2016) was carried out. In this plan, action guidelines were given to reduce the effects of Zika in the country, as well as the action protocol for the different institutions that should work against this disease, based on the WHO recommendations.

With the increase in research on the behavior of the virus and the international publication of cases with sexual transmission and newborns with microcephaly associated with Zika, prevention and control measures focused on pregnant women and women in reproductive age. In the years following this epidemic (2017, 2018 and 2019), the number of cases reported decreased considerably from 2413 cases in 2017 to 10 cases in 2018 and 0 cases in 2019 (MSP-Gacetas vectoriales, 2019).

Of the total number of cases, 242 pregnant women with Zika infection were reported in 2016, 722 in 2017, and 1 in 2018. Up to week 14 of 2018, 17 children with vertical transmission of Zika were registered—they had no congenital malformation, were born to positive and suspected women of ZIKV infection, and came from the provinces of Manabí, Guayas, El Oro and Santo Domingo de los Tsáchilas. While from 2016 to 2018, 20 cases of microcephaly associated with ZIKV were reported (5 cases in Manabí, 2 in Los Ríos, 8 in Guayas, 2 in Pichincha, 1 in Sucumbíos, and 2 in El Oro) and 1 case of congenital malformation without microcephaly in Santo Domingo de los Tsáchilas (MSP-Gacetas vectoriales, 2018).

3.1.2 Problem description and local context of Peru

As of November 2015, there were no confirmed cases of Zika virus infection in Peru, but conditions for circulation and transmission of the virus existed and still exist, as the presence of *Aedes aegypti* was by 2015 widely distributed in 385 districts and 20 departments of the country, where 18.4 million inhabitants live. This mosquito is the same vector transmitter of the Zika virus, yellow fever, dengue and chikungunya (DGE, 2015).

By 2016, MINSA reported 2206 cases of Zika virus disease (the more confirmed suspects, including symptomatic and asymptomatic). Confirmed cases were 1575 with an Annual Incidence Rate (AIR) of 514.1 per 100 000 inhabitants. In 2017, Zika spread to eleven departments with an AIR of 1977 per 100 000 inhabitants. By 2018, 14 of Peru's 24 departments presented a total of 1008 Zika cases with an AIR of 332.47 per 100 000 inhabitants. As of July 14, 2019, 1205 new cases of Zika had been reported, with an increase of 302 cases (33%) of Zika compared to 2018 in the same period, of which 742 correspond to cases confirmed in Cajamarca, with 61.6% of cases nationwide according to records from the Ministry of Health (MINSA, 2019).

3.2 Summary of the evaluated project

In the USAID call mentioned above, CARE applied with a proposal titled Zika

Response in Ecuador and Peru, which lasted 36 months, implemented from September 30, 2016 to September 29, 2019.

The binational project Zika Response in Ecuador and Peru was framed in the context of the international health emergency and the earthquake that mainly affected the coastal region of Ecuador in April 2016. In this sense, the areas prioritized by the project were the tropical coast of Ecuador and Peru, where the presence of the *Aedes aegypti* mosquito is endemic, with a high prevalence of metaxenic diseases (dengue, chikungunya) and which made them vulnerable to the spread of the Zika virus. In the case of Ecuador, the cantons affected by the earthquake were included, and in the case of Peru, the project covered the northern coast and part of the border area between Peru and Ecuador.

Even though the project started when the international emergency was about to end, the project set out to work on the prevention of Zika, due to the possible risk of a spread of the disease, especially in the areas affected by the earthquake. This prevention labor continued despite the fact that since April 2018 no new cases were reported in Ecuador, as it was considered important to continue with surveillance and prevention so that new outbreaks do not recur.

Table 1. Basic aspects of the evaluated project

Name of the project	Zika Response in Ecuador and Peru		
Funding source	USAID		
Budget	7 000 000 USD		
Objective 1	Increase community, local and national capacities to respond effectively and in a timely manner to the outbreak of Zika virus and other vector-borne diseases through Disaster Risk Reduction (DRR) and human rights approaches based on CARE's experience in sexual, reproductive and maternal health (SRMH), sustainable community health systems and empowerment to strengthen the direct participation of communities, through community health workers (animadores) in areas prioritized due to Zika virus (vector prevention and control).		

Objective 2	To enhance regional and national efforts to help decrease the rates of Zika transmission by sharing findings, impact results and influencing bi-national policymaking through a deep and rigorous evidence-based approach of best practices and lessons learned in community mobilization and participation. To allow fast track, gender-sensitive implementation strategies in diverse social and cultural contexts. Increase coordination and planning capacities. Refine an accurate monitoring system and a well-developed communication and dissemination strategy.	
Direct beneficiaries	391 954	
Implementing organization	CARE	
Implementation period	September 30, 2016 to September 29, 2019	

Source: (Cooperative Agreement AID-OAA-A-16-00078, 2016)

Elaboration: Evaluation team of Ecuador, 2019

The direct beneficiaries in the two countries were 391 954 people. The distribution of this population in Ecuador and Peru is described in Annexes E.1 and E.2. Figure 1 shows the cantons and districts of intervention in Ecuador and Peru.

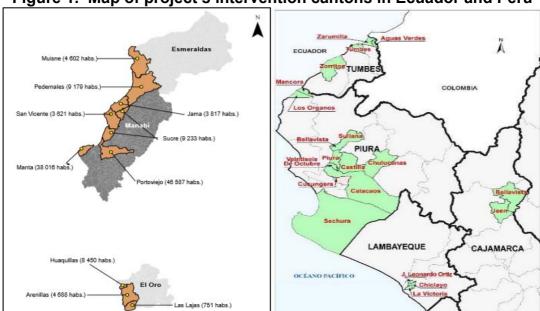


Figure 1. Map of project's intervention cantons in Ecuador and Peru

Source: (Cooperative Agreement AID-OAA-A-16-00078, 2016) Elaboration: Evaluation team of Ecuador and Peru, 2019

4. Evaluation questions

The evaluation responds to specific questions defined for each line of effort of the project, which are framed in the purpose and objectives of the evaluation. The questions described below are organized into 5 blocks: 1) general aspects, 2) community mobilization, 3) community-based surveillance, 4) social and behavioral change, and 5) inter-institutional planning and coordination (Table 2).

Table 2. Aspects, questions and evaluation criteria

Aspects to evaluate	Questions or evaluation criteria	
Block 1: General aspects	1. To what extent did the project meet the objectives and achieve the expected coverage, results and indicators (crosscutting the main programmatic approaches into gender, interculturality, disaster risk management, rights, and governance)? 2. What are the main challenges arising from the evolution of epidemic scenarios produced by the vector Aedes aegypti/Zika that should be considered by external cooperation to optimize the use of resources? 3. What lessons have been learned from the binational model between the leading organization and its partners?	
Block 2: Community mobilization	 What are the main good practices and contributions with respect to community mobilization? Which community mobilization strategies and actions worked and which did not? What were the challenges encountered by the different actors in promoting community mobilization? How were they overcome? 	
Block 3: Community-based surveillance	1. In using the methodology to incorporate community work into the Community-Based Surveillance System (CBSS), what worked and what did not work? 2. How was the CBSS developed? What are the best practices and lessons learned to contribute to the sustainability of the CBSS? 3. What are the aspects or elements of the CBSS that could be used in official surveillance systems in Ecuador?	
Block 4: Social and behavioral change	1. What were the elements of the communication strategy that most contributed to increasing knowledge and behavioral change for Zika prevention and vector control? 2. What was the contribution of the communication strategy and tools to the achievement of the project's objectives and results? Were communication actions integrated with vector control actions?	

			3. What are the main lessons learned and challenges in promoting social and behavioral change among the key actors in the prevention and control of Zika?
Block 5: Inter-institutional coordination	planning	and	1. What are the best practices identified in intersectoral planning and coordination at the different levels of intervention? 2. What are the lessons learned in inter-institutional coordination and planning in relation to giving sustainability to the management model in public sector entities at the different levels of intervention?

Source: (CARE-TOR, 2019)

Elaboration: Evaluation team of Ecuador, 2019

5. Evaluation design and methodology

The evaluation of the project was carried out from a collective health approach, in coordination and permanent feedback with the CARE team from both countries. Specially designed participatory methodologies were used for project beneficiaries and other participating actors. The approach was mainly qualitative, since most of the quantitative indicators had already been collected by the project's monitoring area.

5.1 Description of methodology

With this background, it was proposed that the external evaluation be carried out in eight steps until the conclusion of the final products, which are detailed below:

5.1.1 Work proposal and coordination meeting with the project team

The approved work proposal for the consultancy was presented at a meeting with the CARE team responsible for coordination with the consultancy team. At this meeting, the proposal and timelines were adjusted. At the same time, the expectations of the work to be carried out were systematized, as well as the coordination mechanisms between the CARE team and the consulting team to guarantee an integral evaluation.

Subsequently, a coordination meeting was held with the project team and the evaluation teams from both countries to standardize evaluation criteria and have an evaluation that responds to common aspects of Ecuador and Peru.

5.1.2 Elaboration of the beginning proposal and its evaluation methodology

Based on the information described above, a beginning proposal and an evaluation methodology was made, which included all the aspects required by the TOR, such as the fulfillment of the objectives, results and indicators, limitations and problems faced by the project, familiarization of the beneficiaries with the promoted practices, management and monitoring of the project, among other aspects. The beginning proposal and evaluation methodology laid special emphasis on the communication campaign carried out by CARE and its effects on the beneficiary populations.

5.1.3 Collection of secondary information for the evaluation

In this phase, once the timelines and expected products had been adjusted, the available project information provided by CARE was collected and analyzed (Annex F).

5.1.4 Collection of field information needed for evaluation: Focus groups, interviews, social mapping, and other tools

In Ecuador, interviews, social mapping and focus groups were carried out with key actors who participated in the project, mainly leaders of organizations, beneficiaries, political decision-makers, technical team, community monitors, among others, which were defined together with the members of the CARE-Ecuador team who executed the project. Although it is true that the interviews were conducted in a differentiated manner according to the actors and their participation in the project, the information gathered from all the interviews and focus groups was systematized under the same blocks and criteria of the evaluation. A detail of the systematization of the interviews in Ecuador can be found in Annex D and the understanding matrix for the evaluation approach in Annex L.

In Peru, in-depth interviews were conducted with a representative group of key actors per district intervened, selected with the CARE core team and local teams per department. A Likert scale format was applied to those selected for interviews (Annex H). Focus groups were also carried out with key actors related to the project, including beneficiary population groups and partner and allied organizations and institutions.

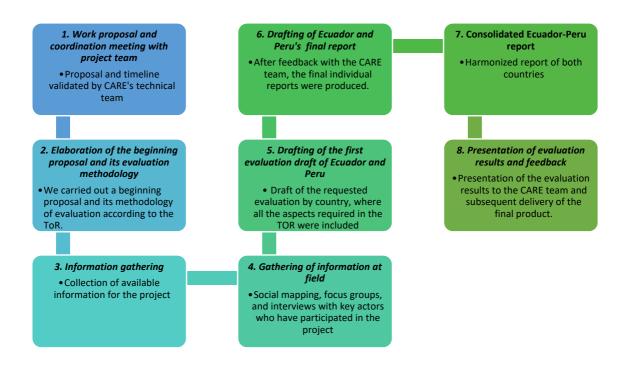
5.1.5 Drafting of preliminary reports, feedback, final reports for each country, and final consolidated report

In this phase, the evaluation teams of Ecuador and Peru drafted the first draft of the external evaluation of each country, including the results of the analysis of epidemiological indicators, social mapping representations, interviews, focus groups, and institutional documents. After a meeting with the CARE team and receiving feedback on the first draft, the evaluation teams drafted a final report on the Ecuador and Peru evaluation documents, incorporating new documentation and comments suggested at the meeting. With the results of the Ecuador and Peru evaluations, Ecuador's evaluation team produced a unified binational analysis report.

5.1.6 Presentation of evaluation results and feedback with team members

The evaluation results, which considered the observations and feedback to the evaluation document, were presented to the CARE team. These were also incorporated into the final version of the document. Terms of reference

Figure 2. Methodology of the evaluation process



Elaboration: Evaluation team of Ecuador, 2019

5.2 Instruments used to collect information

The field data collection tools focused on the project's performance in the different territories through semi-structured interviews, focus groups, social mapping in the case of Ecuador and Form 1 in the case of Peru. The tools were applied to community leaders, community monitors, health, education, social inclusion and municipalities officials, political decision-makers, technical team, among others, which were defined in conjunction with CARE team members.

The applied interview can be seen in **Annex A**, the focus groups in **Annex B**, the social mapping in **Annex C**, the systematization of interviews and focus groups in **Annex D**, and Format 1 in **Annex H**.

6. Evaluation constraints

During the development of the evaluation, there were some aspects that affected the collection and analysis of information to generate the necessary inputs for this report.

These limitations, although relevant, did not prevent this external evaluation from being carried out. The main constraints for the evaluation team are here described:

- a) **Temporary**. The time available for the evaluation was insufficient. In total, the consulting team had only 40 days to prepare this evaluation report. A longer time would have allowed a better preparation of the fieldwork, a deeper analysis of the documentation provided and therefore a better quality of the information gathered from the interviews and focus groups. Mention should be made of the absence of the project baseline.
- b) Documentary information in the process of closure. At the end of this evaluation, the final report of the project was not yet available because it was still in preparation. Under the terms of the implementing institution's contract, the implementing institution has a delivery period of up to 90 days after the end of the project. This situation was somehow supplemented with other documentation, such as CAP studies, the presentation of data during project closing, as well as the draft indicators in progress. Having this information at the beginning of this evaluation would have allowed for a more effective triangulation of data.
- c) **Key actors selection for interviews and focus groups**. Since there was not enough time to select key actors for the evaluation, it was necessary to make a joint selection with CARE's project technicians. To some extent, this may have biased the information provided by the various actors, as it was the CARE team that directed us to the informants.

Despite all the constraints described above, the evaluation team would like to highlight and thank CARE staff in Ecuador and Peru. The support of coordinators and technicians, both in accompanying the evaluation processes and in facilitating access to documentation and logistics were determining factors in carrying out this evaluation.

7. Findings, conclusions, and recommendations by country

7.1 Findings per block and evaluation questions

7.1.1 Block 1: General aspects

To what extent did the project meet the objectives and achieve the expected coverage, results and indicators (cross-cutting the main programmatic approaches into gender, interculturality, disaster risk management, rights, and governance)?

Table of findings 1. Objectives, coverage, and indicators

Findings in Ecuador	Findings in Peru
The project presents an adequate fulfillment of the objectives, its coverage, and indicators. However, it was not possible to carry out a more exhaustive analysis, since the final report, which is being prepared by CARE, is not available.	In terms of operational aspects at the level of coverage (expressed in the indicators) as well as in the perception of the key actors, the project has fulfilled its objectives.
Programmatic approaches were incorporated into project actions. With regard to the rights approach, the project worked mainly on the sexual and reproductive rights of pregnant women and adolescents, due to the nature of the project.	The programmatic approaches were incorporated into the project's actions.

Elaboration: Evaluation team of Ecuador, 2019

In Ecuador, the project was directed to 10 cantons belonging to the coastal provinces of Esmeraldas (Muisne), Manabí (Manta, Portoviejo, Pedernales, Jama, San Vicente, and Sucre) and El Oro (Arenillas, Huaquillas, and Las Lajas). Coverage was maintained in the 43 planned communities (Annual Progress Report, 2018), with adequate coverage in its implementation.

With regard to results and indicators, the analysis of the annual progress report of Zika Response in Ecuador and Peru for 2018 as well as the final progress report of indicators for 2019 is as follows:

Table 3. Results and observations

Results	Observations for Ecuador (with respect to indicators)	Observations for Peru (with respect to indicators)
R1: The best practices in community participation and mobilization on prevention, promotion, and practices related to Zika were identified.	100% compliance with the proposed indicators regarding the implementation of CAP studies and EBA reports.	100% compliance with the proposed indicators regarding the implementation of CAP studies and EBA reports.

In the case of the indicator referring to the application of

	R2: The best practices and lessons learned to combat Zika, found through the EBA and CAP studies, were immediately implemented in priority risk areas.	The programmed target was exceeded in most of the indicators. Especially in relation to the implementation of vector control and community surveillance actions by families, communities, municipalities, health systems, and water resources community management organizations. The following indicators were not met with respect to the target: 80% compliance with the number of local governments that implemented the actions planned for the prevention of Zika (I.9).	In most indicators, the programmed target was exceeded. Especially in indicators related to training, communication messages, egg traps for vector control and community surveillance, vector control and community surveillance events, and municipalities that implemented prevention and control actions. The following indicators were not met with respect to the target: Compliance of 80.4% in community monitors providing reports to local health services (I.12).
	R3: System (Community-Based Surveillance System) for local governments and community use to enable a continuous gathering and analysis of best practices at the community level is in use.	Compliance with most indicators equal to or greater than 100%. The following indicators were not met with respect to the target: The percentage of people (health workers, local authorities) who used (and provided) valid CBSS information was 98% (I.14). The proportion of local authorities, community health workers and community monitors who have received feedback through CBSS was 89% (I.16).	Compliance with most of the proposed indicators equal to or greater than 100%. The following indicators were not met with respect to the target: The percentage of people (health workers, local authorities) who used (and provided) valid CBSS information was 78.8% (I.14).
	R4: Communication strategies for behavior change among women of reproductive age, pregnant women and adolescents were implemented using formal and informal means.	The target was met for most indicators. The following indicators did not meet the target: Implementation of 80% of local communication plans by stakeholders (I.21). Recognition of the role of key actors (community organizations, local governments, and health	The target was met for most indicators. The following indicators did not meet the target: In the case of the indicator referring to the increase in knowledge and awareness of adolescents with respect to Zika, only 27% of the target was met (I.27).

governments, and health

services) by 70% of target communities (I.22).

56% compliance with the indicator for women of reproductive age and pregnant women who increased their awareness/knowledge about prevention and control of Zika infection (I.25).

best practices for the prevention of Zika in adolescents, 95% of the target was met (I.29).

Application of best practices in the prevention and care of Zika by 88.67% of women of reproductive age beneficiaries (I.26).

Knowledge of Zika infection prevention practices by 63% of the target of adolescent beneficiaries (I.28).

Implementation of better prevention and care practices against Zika by 62% of the target of adolescent beneficiaries (I.29).

The target was met for most indicators.

The following indicators did not meet the target:

In the indicator relating to the training of local governments in annual budget preparation processes, in order to plan and budget actions against Zika, this indicator was reached at 60%. In other words, 10 municipalities were trained, but 6 incorporated actions to prevent infection by the Zika virus (I.30).

The indicator referring to the implementation, coordination and intersectoral planning of prevention and control actions of Zika, involving other key actors and communities on the part of the beneficiary local governments, was reached at 78% (I.33).

The target was met for most indicators.

The following indicators did not meet the target:

In the indicator relating to the training of local governments in annual budget preparation processes, in order to plan and budget actions against Zika, this indicator was reached at 95%. In other words, 19 out of 20 municipalities were trained and 13 were able to incorporate actions for the prevention of Zika (I.30).

Despite the change of all local authorities and most officials as a result of political incidence, the implementation, coordination and intersectoral planning of prevention and control actions of Zika, involving other stakeholders and communities, was achieved

R5: Strategies and protocols developed and applied locally were extended to other areas of the country.

	by local governments in 54% (I.33).
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Source: (Final Indicators Report CARE, 2019); (Annual Progress Report, 2019)

Elaboration: Evaluation team of Ecuador, 2019

In the case of Ecuador, results 4 (communication strategy aimed at behavior change in women of reproductive age, pregnant women and adolescents) and 5 (extension of strategies and protocols to other areas of the country) show partial compliance with the proposed indicators. Additionally, based on the comparative report of the CAP studies (individual and collective knowledge, attitudes and practices) corresponding to 2017, 2018 and 2019, an increase in national, local and community capacities to respond to the Zika virus was observed, based on the incidence achieved in terms of knowledge, attitudes and practices of communities, agents and community health workers between 2017 and 2019.

On the other hand, since the "Annual Progress Report of 2018", there have been important results regarding the training of health personnel in vector control, surpassing the proposed goals and making it possible to extend the training to other territories. In addition, it can be observed that the Ministry of Public Health promoted the strategy of healthy municipalities, incorporating the prevention of Zika and other infectious diseases derived from vectors.

In the case of Peru, in the operational aspects at the coverage level (expressed in the indicators) as well as in the perception of the key actors, the project has fulfilled its objectives.

According to the results of the survey applied to the key actors, it is confirmed that since the beginning of the project more is known about health in the community, it has generated greater understanding of the population with respect to Zika and that with the project the population understands the benefits of eliminating hatcheries.

On the other hand, the programmed goals of all the activities were fulfilled, highlighting the coverage of the training goals, due to the participation of the facilitators and the replicas carried out.

Based on the above, the following can be inferred with respect to the fulfillment of the objectives:

Table 4. Project objectives and main observations

Observations for Ecuador

Objective O1. To increase community, local and national capacities to deliver efficient and timely response to the Zika virus outbreak and other vectorborne diseases through Disaster Risk Reduction (DRR) and human rights approaches based on CARE's experience in SRMH (Sexual, Reproductive and Maternal Health), sustainable community health systems and empowerment to strengthen the direct involvement of communities by community health agents (animadores), in Zika priority areas (prevention and vector control).

Community, local and national capacities to respond efficiently and in a timely manner to the outbreak of Zika virus in priority areas (prevention and vector control) have been partially increased. Although there is a high rate of compliance with regard to the implementation of vector control and community surveillance actions by families, communities, municipalities, health systems, and water resources community management organizations, as well as greater knowledge of transmission mechanisms and of the personal role in water resource prevention, practices decreased over time. The proposed goal was partially achieved with regard to the implementation of the Community Based Surveillance System (CBSS), and the knowledge and application of prevention and care practices against Zika by women of reproductive age and adolescents.

Community and local capacities to respond efficiently and in a timely manner to the outbreak of Zika virus in priority areas (prevention and vector control) have been increased with the leadership of municipal authorities.

Observations for Perú

Greater awareness of Zika's forms of transmission was generated, especially with regard to vertical transmission, by means of dissemination through different media. However, a decrease in dissemination to the pregnant women's group was observed, due to the change in priorities and approaches of the participating municipalities.

O2. To enhance regional and national efforts to help decrease the rates of Zika transmission by sharing findings, impact results and influencing bi-national policymaking through a deep and rigorous evidence-based approach of best practices and lessons learned in community mobilization and participation. To allow fast track, gender-sensitive implementation strategies in

The national efforts aimed at reducing Zika's transmission rates were successfully promoted, since strategies were implemented in coordination with the central government (Ministries of Public Health, Education, and Economic and Social Inclusion) and oriented towards local governments. Zika's prevention and control actions coordinated at the intersectoral level by local

One of the main achievements of the project was to have facilitated the articulation of local governments with the health and education sectors and the other members of the multisectoral health committee. The project has complemented efforts so that the sectors involved in surveillance develop the activities that are functionally incumbent upon them.

diverse social and cultural contexts. Increase coordination and planning capacities. Refine an accurate monitoring system and a well-developed communication and dissemination strategy.

governments and efforts to train and involve other interested parties and communities were also implemented. This has made it possible to strengthen institutional coordination and articulation at the local level.

However, there is not enough information to establish the scope or impact of the results obtained in the design of public policy at the regional or binational level, nor the feedback on which the implementation of the project has relied for its improvement and territorial extension.

Events have been held to disseminate and exchange experiences among different groups of actors (epidemiologists, community agents, among others) and public officials have carried out internships in the successful Campo Amor pilot.

Most municipalities have committed themselves and, in some cases, have allocated budgets to finance their CBSS activities. However, the local authorities in the pilot town of Campo Amor, as an exception and unlike most of the municipalities, at the time of the evaluation had not committed to continue financing community agents, which shows the fragility of the progress made in the face of changing authorities.

Source: (Final Indicators Report CARE, 2019); (Annual Progress Report, 2019)

Elaboration: Evaluation team of Ecuador, 2019

Regarding the crosscutting of the main programmatic approaches, the table below details the relevant observations:

Table 5. Programmatic approach and observations

rable 6.1 regrammatic approach and observations					
Programmatic approach	Observations for Ecuador	Observations for Peru			
Gender	The project has a clear gender focus since its actions are fundamentally aimed at changing the knowledge, attitudes, and practices of adolescents, women of reproductive age and pregnant women with respect to the prevention and care of Zika. However, the patriarchal and gender inequality nature of Ecuadorian society also calls for specific actions aimed at men, since women are considered to be solely responsible for prevention and control, despite the fact	The project was implemented with a gender perspective, as it produced differentiated material and messages for men and women. Activities were developed for different groups of men on the transmission routes of Zika, especially sexual transmission, as well as the use of condoms as a preventive measure. Additionally, the approach of men to health services and the equitable distribution of roles in family care were promoted.			

	that they do not enjoy full autonomy with regard to decisions related to their sexual and reproductive health. This approach was worked in coordination with the Ministries of Public Health, Education, and Economic and Social Inclusion, with whom guides, educational modules and other documents incorporating the gender perspective were constructed.	
Interculturality	Although the communication campaign "Todos contra el Zika" ("Everyone against Zika") incorporates an intercultural approach, it would have been necessary to strengthen this approach with regard to the dissemination of messages and learning techniques. This approach should be especially strengthened in the policies, programs, and services of the Ministries of Public Health, Education, and Economic and Social Inclusion.	The communication strategy has been characterized by continuous adaptation to the target audiences. During the first year, a diagnosis was made using different methodologies that allowed the identification of messages and terms to be used according to population and stage of knowledge.
Disaster risk management	This was strengthened thanks to cooperation with other projects in the area, as well as participation in the risk management roundtable promoted by the government of Ecuador, with institutions such as MINEDU, especially in the canton of Muisne, province of Esmeraldas. Through the work with MINEDU, it was possible to incorporate the risk management approach in the guides developed on Zika prevention.	Zika was successfully positioned as a risk, which, due to its asymptomatic nature, is not usually taken into account by the population. The mayors in Peru lead risk management in their respective areas, so the project provided them with tools to intervene in the face of alerts from CBSS, this being something innovative in a health intervention. This risk management approach was also present in the community plans elaborated in the localities with diverse actors, in order to prevent and control metaxenic diseases.
Rights	The rights-based approach focused on the right to health, sexual and reproductive rights, with	During the project, the incorporation of sexual and reproductive rights was evidenced through the

special emphasis on adolescents and pregnant women. This work was carried out in conjunction with institutions such as the Ministry of Education, the Ministry of Public Health and the Ministry of Economic and Social Inclusion, as well as other institutions at the local level.

coordination with the areas of promotion at the national. regional and local government levels. According to the perception of the actors, the project did not discriminate in any way. In the department of Tumbes, there has been a strong migration of Venezuelan citizens who have also benefited from the project. Community dialogues were held, guaranteeing the right to participation in health and transparent information on the interventions that are carried out related to their health in the communities. In the framework of rights to health care, people with febrile symptoms from the community have been referred to external places, so that their health care can be guaranteed.

Source: (Annual Progress Report, 2019; Final Indicators Report CARE, 2019)

Elaboration: Evaluation team of Ecuador, 2019

What are the main challenges arising from the evolution of epidemic scenarios produced by the vector Aedes aegypti/Zika that should be considered by external cooperation to optimize the use of resources?

Table of findings 2. Main challenges

rubic of finality 2. Main challenges		
Findings in Ecuador: Main challenges	Findings in Peru: Main challenges	
The strengthening of community participation is presented as one of the main challenges for external cooperation in this type of projects.	One of the main challenges for national authorities to replicate and authorize more stable resources for these experiences as well as to facilitate the integration of the health and education sectors with the local level is the financing of pilots with external cooperation resources that integrate all strategies (communitarian, technological, communicative).	
In the case of Ecuador, generating coordinated work among the various actors operating in the territory is another of the main challenges.	To guarantee that in the development of interventions by area the required number of processes (based on evidence and with a territorial approach) is complied with, in order to ensure optimal results and guarantee the respective transfer to the authorities with the competence to continue managing the intervention.	

The projects should promote the contact and coordination of institutions with experience and recognition in issues related to Zika, generating synergies.

Elaboration: Evaluation team of Ecuador, 2019

In the case of Ecuador, according to the *Annual Progress Report* (2018), community participation in health issues should be strengthened, mainly in urban and border areas, where it was difficult to have volunteer community supervisors and rely on the commitment of the community in general. The team had to turn to the support of university students. This student support, however, was part of the outreach actions made by the universities for community involvement and presented limitations directly related to the structure and organization of these programs. It is noteworthy that CARE was able to reach agreements with the universities of El Oro (Universidad Técnica de Machala) and Manabí (Universidad Laica Eloy Alfaro) for the participation of students.

In addition, it is necessary to consider that the municipalities do not directly possess health competencies, which limited the results obtained. For example, the project was based on the Estrategia de Municipios Saludables y Municipios Guardianes (Strategy of Healthy Municipalities and Guardian Municipalities), an official program of the Ministry of Public Health to articulate the actions of the municipalities, aimed at the production of healthy spaces, habits and lifestyles, as well as for the prevention of significant health problems (in this case, actions and indicators linked to the prevention and control of Zika and other diseases transmitted by *Aedes aegypti* were promoted). The actions and support of the project executed by CARE were an important catalyst for the municipalities of Las Lajas and Arenillas, based on the previous experience of the municipality of Portoviejo, to implement the program and be certified as Health Promoters or Health Guarantors. On the other hand, the municipalities of Sucre and San Vicente are in the process of certification as a result of the process initiated with the support of the project executed by CARE (Annual Progress Report, 2018; CARE Indicators Final Report, 2019).

In the case of Peru, in the scope of the project from 2018 to 2019, 13 of the 20

municipalities have managed to plan and budget actions for the prevention and control of the Zika virus, through the "Budget Program 017: Metaxenic diseases and zoonoses." And 19 of the 20 districts in the scope of intervention have been trained to plan and incorporate resources for Zika in their budgets.

The incidence of the project for the incorporation of budget begins in 2017 and the results can be observed from the years 2018 and 2019 according to the following graph:



Figure 3. Budget in the BP 017 in the fields of intervention (currency: soles)

Source: Friendly consultation to SIAF-MEF, on September 8, 2019. The information from 2015 to 2018 corresponds to the execution of the accrued. For 2019, it corresponds to the modified institutional budget (MID).

Elaboration: Evaluation team of Peru

What lessons have been learned from the binational model between the leading organization and its partners?

Table of findings 3. Binational model

Findings: Binational model

The official health agencies of Ecuador and Peru consider that there was adequate coordination between the projects.

Independent strategies were chosen in each country due to the different health competencies of each country. The relevant health competencies for the project in Ecuador are held by the Ministry of Public Health and in Peru by the municipalities.

It was not possible to establish a binational intervention model, but the project contributed to the exchange of experiences.

Awareness-raising among political actors must be foreseen as this process delays activities. Monitoring was adapted to a progressive process of learning and absorption of effective experiences.

Elaboration: Evaluation team of Ecuador, 2019

The Ministries of Health of Ecuador and Peru consider that coordination between projects was positive, which has also strengthened technical assistance and the capacities of health personnel (Annual Progress Report, 2018). However, in order to

encourage the participation of local governments and strengthen their relations, it is important to bear in mind that they face different scenarios in both countries: decentralization of health and education competencies in Peru since 2002 and concentration of decisions at the central government level in Ecuador (Annual Progress Report, 2018). Thus, according to CARE staff, in practice, the execution of the proposed binational model was complex due mainly to the contradiction mentioned above in relation to the health competencies of both countries. This caused the interventions to be differentiated in Peru and Ecuador, opting for independent strategies in each case and planning and reviewing progress on a continuous and joint basis.

In both Peru and Ecuador, it was possible to exchange the communication materials developed so that they could be reproduced, such as the "Ten Minutes Against Zika" and the flipchart with their respective adaptations. Binational events were held with mayors where agreements were signed for the fight against Zika and binational actions were held jointly in the common zone of the Ecuador-Peru border, especially in Huaquillas and Tumbes. This also contributed to the elaboration of the Binational Health Plan.

On the other hand, the binational project was coordinated and planned by CARE staff in Ecuador and Peru, in addition to periodic monitoring by CARE Ecuador and CARE USA. These were systematized and made it possible for the lessons learned in both countries to be adapted to local contexts.

7.1.2 Block 2: Community mobilization

What are the main good practices and contributions with respect to community mobilization?

Table of findings 4. Good practices and contributions that favored community mobilization

Findings in Ecuador

Findings in Peru

Incorporation of community monitors, inclusion of leaders or organized groups from each locality, as volunteers at all levels of planning and implementation of activities.	Incorporation of women community monitors with economic incentives, through an open call with a specific profile selected by the local government and the health sector.
Work specifically adapted to groups of young people and adolescents, mainly in schools.	Promotion of the leadership of local governments in issues related to Zika through activities that foster community participation (citizen dialogues).
Adapt actions and strategies to the social, cultural and economic contexts of each locality.	Community agents, leaders and women monitors participated and promoted prevention activities that were accepted in the community and participated in the process of developing community plans.

Elaboration: Evaluation team of Ecuador, 2019

The development of activities and strategies for community mobilization formed a crucial component of the project in both countries. Since the conception of the project, there has been a critical need to mobilize the community with strategies that from its population allow the dissemination of knowledge and best practices for the control and prevention of Zika (CARE - USAID, 2016, p. 18).

In Ecuador, it was observed that the levels of community mobilization were very variable between different localities and with particular characteristics in each territory. In Peru, community mobilization was based on the incorporation of community agents with a specific profile, a total of 106 women monitors who received incentives per month, which were convened and selected in an open and transparent process with MINSA. Their performance was affected by the main results of community-based surveillance and the communicational aspects that had the greatest effect on the intervention. In Ecuador, groups of monitors were set up on a voluntary basis, i.e. without any monetary incentive; the majority were women's groups, neighborhood leaders and students.

The involvement of local leaders, representatives, and monitors was recognized by all actors. In Ecuador, for example, more than one actor in the province of El Oro mentioned that when work began with the university directly, in the neighborhoods there was much difficulty on the part of the students to access the families, both to call them to prevention campaigns and to establish the system of vigilance of nurseries. Recognizing these difficulties, strategies for mobilization in the neighborhoods were adapted (e.g., no visits during working hours, notifications

through a vehicle PA system or other means of the visits to be made, organizing medical brigades for the neighborhoods, and accompanying visits with local monitors) resulting in greater involvement and mobilization on the part of the population in prevention activities against Zika. In Peru, the women community monitors were able to establish relationships of trust with the families of the houses visited. The adequate training and incentive provided by the project to the women community monitors empowered them and made them exercise leadership in their area.

In Peru, families responded to the recommendations received by a member of the community for the prevention of a metaxenical disease, which is supported by a social communication strategy and application. In Ecuador, it was also observed that, although families recognize risk and implement changes in prevention habits, sustained community mobilization is necessary to maintain a high perception of risk. Actors belonging to the project communities mentioned that, regardless of the prevention and promotion activities against Zika and other diseases, these should be constant and attract people with diverse strategies such as fairs, talks with experts, medical brigades, cultural and sports events, among others that go beyond keeping the perception of risk of the disease high (Community Leaders Focal Group, Manabí, 2019).

Which community mobilization strategies and actions worked and which did not?

With the objective of mobilizing the population to empower themselves in prevention actions against Zika, activities focused on both the collective and individual levels were implemented with differentiated scopes of participation and success in the localities where they were implemented. It was observed, for example, that activities that were effective for mobilization in one community did not have the same reception in others. The following table summarizes the strategies and actions that were most successful.

Table of findings 5. Most successful community mobilization actions
Findings in Ecuador Findings Peru

Home visits by groups of community monitors.	Home visits by women community monitors.
Prevention actions through cultural and entertaining events (day by day, open houses, music festivals).	Incorporation of informed community members into the multisectoral health committee (including community monitors).
Coordination with established programs (MSP's neighborhood vector and medical control, Toda Una Vida plan, etc.). Community monitors played an important role in the inclusion of families and local institutions in the project's actions.	Promotion of the role of the community monitor as a communal manager to involve families in project activities and as a link with their authorities.
Training of student leaders in schools for replication in "cascade" methodology.	Training in local schools.

Elaboration: Evaluation team of Ecuador, 2019

Home visits were identified by key actors in both countries as one of the most effective project strategies. Through home visits, women community monitors worked with families to change attitudes, either in communication with the flipchart, supervising the "Ten Minutes Against Zika" or the control of the egg traps in the case of Peru. In Ecuador, community monitors also worked with the "Ten Minutes Against Zika" activity. In addition, some talks and workshops were held with community groups that were welcomed in some localities, but mainly in primary and secondary schools and with less acceptance at the community level. Even at the level of schools, the talks and workshops most remembered by the actors interviewed in focus groups were those that focused on training in skills and knowledge to be put into practice in subsequent *mingas* or home visits. Mostly informative talks and workshops, without dynamic and practical activities, were mentioned in some focus groups as ineffective.

In Ecuador, one strategy that had mostly positive effects for mobilization was the coordination with established programs and campaigns of public sector institutions, mainly the Ministry of Public Health and local governments. Collective prevention activities, such as *mingas* and cleaning brigades, owed their effectiveness to the aforementioned logistical support from CARE, and the participation of actors such as neighborhood physicians and the Ministry of Public Health's vector control (abatizations). Similarly, in Peru, the project promoted the dynamization of multisectoral health committees at the local level (in which project personnel even participated). Some committees had the participation of community monitors or community leaders who had been previously trained.

Many of the successful activities mentioned above were made possible thanks to logistical support from CARE staff. This support consisted mainly of resources for transportation, food, workplaces, coordination, etc. in both countries.

What were the challenges encountered by the different actors in promoting community mobilization? How were they overcome?

The two main challenges regarding community mobilization were 1) to identify or establish spaces for community organization that would allow effective mobilization in prevention and health promotion activities against Zika and 2) to establish and strengthen sustainability mechanisms in community organization spaces focused on disease prevention activities such as Zika.

At this point, the identified challenges differ according to the type of actor involved, with some clear coincidences and similarities.

Table of findings 6. Challenges encountered by the different actors to promote community mobilization

promote community modulization		
	Findings in Ecuador	Findings in Peru
CARE	Quito Maintain high-risk perception in the population. Sustainability of mobilization by local state institutions. Safety conditions for work in communities. Countryside Sustainability of resources to manage activities with local leaders. Need for more work time to recognize the differences and particularities of each locality.	Maintain high-risk perception in the population. Involve representatives of institutions with different functional competencies in project activities. Safety conditions for work in communities. Maintain the complete team in the intervention departments.
Local leaders, monitors, and beneficiaries	Disinterest of the population. Lack of support or incentives for local monitors to devote more time to coordination activities and community organization.	Involvement of household members in project activities.
Local government authorities	Keep people interested in their own health.	To achieve the articulation of actions of the different sectors (health and

	Urban areas: low social and occupational cohesion of the population. Rural areas: wide dispersion of the population.	education) with the local government for community mobilization actions.
Health sector	To attract people who do not usually attend talks (mainly men). Sensitize the population about the importance of collective actions (cleaning, eradication of nurseries, etc.). Different priorities of the population.	Have trained and sufficient personnel in local health facilities to carry out community mobilization activities.
Education sector	Time available for teachers and student advisors. Adapt activities to the priorities of youth and adolescents.	Adapt activities to the priorities of youth and adolescents.

Elaboration: Evaluation team of Ecuador, 2019

In most cases, these challenges were successfully overcome. The evaluation team of Ecuador observed that many of these challenges were overcome primarily through the work of CARE technical staff in adapting many of the strategies to local contexts and situations. In order to work on the population's perception of risk, a study was carried out in Peru on the "updating of theoretical models on behavior change related to Zika transmission" (Munayco, 2017), in which theoretical models explaining why people do not comply with preventive measures were examined. This model was used for the determination of the communication strategy and the selection of the protocols to be used in the project.

The level of community organization prior to the implementation of the project was a crucial component that was also identified in the evaluation of the community epidemiological surveillance system pilot. A study conducted for the project in Ecuador mentions that "the initial difficulties encountered at the pilot sites seem to indicate that Zika's incidence and prevalence data were given higher priority in previous years, and the social organization at the selected sites was overshadowed, i.e., the existence of community organizations and the presence of managers and people with deep relationships in the community. ... Understanding the dynamics of the community makes it possible to structure a community-based system. However, the community groups and their modes of functioning were not known" (Patiño, León, Ordóñez, and Patiño, 2018, p. 20).

As previously mentioned, the strategy of home visits, going "from house to house" (Community leaders focal group El Oro, 2019), made it possible to know at what times or moments the work of technicians, volunteers/monitors and officials would be most effective. Interviewees in Ecuador conclude that it was essential for the community to identify and seek solutions and that for this it was essential to listen and give value to their cultural preferences. It also worked to approach the community as a representative of an institution (e.g., the Ministry of Public Health, high school or university students, or teachers) recognized in the territory. However, carrying out activities with different institutions, in some cases with different functional competencies, has been one of the main challenges of the project. In Peru, it is mentioned that the way to overcome it was by first holding awareness-raising meetings with authorities in their respective headquarters, and then convening a meeting and committing them to common activities.

The participation of household members at the beginning was partial, but as the project developed the participation of household members was achieved. This was due mainly by the implementation of training and empowerment of community monitors that are residents of the intervention zone in order to convince families, and also due to the involvement of parents in activities of prevention and control of the Zika virus.

In Ecuador, work was done to train care personnel, including the development of work guides and training modules in conjunction with the Ministry of Public Health, MINEDU, and MIES (www.todoscontraelzika.com/documentos). In Peru, obstetricians, nurses and other health professionals were trained under the guide "Counseling pregnant women and individuals of childbearing age in the context of the Zika virus." Currently, the trainees give talks on the Zika virus at the centers as part of the maternal, child health, sexual and reproductive health strategies, and participate in extramural community mobilization activities for the prevention of Zika.

7.1.3 Block 3: Community-based surveillance

In using the methodology to incorporate community work into the Community-Based Surveillance System (CBSS), what worked and what did not work?

Table of findings 7. CBSS's work methodology

Findings in Ecuador	Findings in Peru
Education about the infection, disease, and transmission of the Zika virus vector was given to different social groups with different strategies and ways of relating.	Response of all actors in cases of positive egg traps by the generation of interinstitutional commitments and agreements to confront Zika.
The record of the surveillance system presented certain difficulties in its implementation.	The monitoring of the egg traps by the community monitors and the functions assigned to it for community surveillance, especially home visits.
The work was organized and planned with the participation of the different institutions (MSP, MINEDUC, MIES, municipalities), social agents and health monitors.	Health involvement for technical assistance in entomological surveillance and quality control of egg traps monitoring, for the community early warning system.

Elaboration: Evaluation team of Ecuador, 2019

In Ecuador, knowledge about the essential aspects of the disease, the mosquito and its mode of transmission were exposed through different methods (photographic records, workshops, recreational activities, among others). The children promoted the diffusion of the messages at home. As for women, according to the interviewees, the problems consistent with gender inequality were addressed, above all, from a sexual and reproductive health approach.

In communities living in rural areas, it worked very well to go "door to door" (Field Research Report, 2019), especially if you went with a member of the community. It was not the same in urban areas, where participation with universities worked better—here the students inspected the tanks and kept a record.

The sensitization of key actors, particularly community leaders, with specific messages for the perception of risk of infection by Zika, worked to have their active participation in the implementation of the project. It was useful to "work with people from the same community, supported and trained local monitors" (Actor of education sector El Oro, 2019). They promoted the work of the communities, especially in the rural areas of the project's cantons of incidence; they were also a source of information and a channel between the community and other agents.

In urban areas such as Manta and Huaquillas, the work with the leaders did not take

place in the same way and it was better to work on entomological monitoring activities with the educational institutions, which were in charge of keeping records.

In the case of Peru, the involvement and support of the authorities at all stages led to surveillance with egg traps. Activities to promote public policies and technical meetings were carried out, which allowed for an intercultural and gender approach during the execution of the project. The health sector provided technical support for the activities.

For example, they supported the mapping, helping to identify families reluctant to participate in the organization of the entomological barrier and other activities. According to the protocol, these practices must be carried out when a positive egg trap is alerted. This has been institutionalized thanks to the influence of the project. In the cases of positive egg traps, an adequate response of all the actors was observed in order to comply with protocol 3: collection and elimination of breeding sites or potential breeding sites of mosquitoes.

On the other hand, the work of the women community monitors was of constant vigilance, which allowed them to have a better response to risk situations. The monitors and community agents are referents of the people of the community and were selected with the participation of the local government and the representative of the health facility. In addition, the women community monitors were supervised by the staff of health centers, who did a random check of the houses visited to check the quality of community surveillance for Zika prevention. This activity is also part of the quality assurance system implemented by CARE.

Through the training of the technical-operational personnel of the health sector, who operated as facilitators, involvement in the quality control activities of egg traps monitoring was achieved. Here, an adequate level of agreement was evident, which indicates the good work carried out by the women community monitors.

According to interviewees in Ecuador, the surveillance system worked with the joint work of the Ministry of Public Health and the adaptation of the project's registration

system that was based on what this ministry already used for epidemiological surveillance of vector-borne diseases. Other systems (EpiInfo) could not be implemented due to the complexity of adapting it to local needs. Despite the foregoing, there were certain difficulties in the Community Surveillance System registers provided by CARE, mainly related to the quality of the information generated by the registration system, which did not prevent its content from being analyzed by the CARE team. However, in this regard, the PAHO (2018) mentions that "good quality, accessible, timely and reliable disaggregated data are needed to measure progress and ensure that no one is left behind, as these data are essential for decision-making".

It was not possible to quantify the duplicates because there is no single record of beneficiaries and many names were entered incorrectly, with missing, added or modified letters which, for the rest of the data of the variables shown, seem to belong to the same individual (for example, Hugo Jimenez vs. Hugo Jimenes). In other words, there were no policies that allowed a beneficiary to be registered only once and integrate information prospectively. The existence of duplicate registrations cannot be valued, due to the fact that the ID numbers are incomplete.

In Peru, the level of coordination at the beginning of the CBSS was not adequate, which was caused by the lack of understanding of the "new protocols" by the authorities of the Subregional Health Direction of Jaén. This resulted in a six-month delay in the implementation of the pilot. At the province, in turn, the absence of a stable link in the project was claimed, which in the first years was not considered; the various changes of the coordinator in Chiclayo, on which Jaén depended, was also argued as a weakness.

With respect to the immediate communications to be provided for the directive or executive levels of the health sector, both at the national and regional levels, the health promotion areas observed the lack of feedback of the project results, which would serve as an input for decision making. The project did not foresee periodic information for this type of actor, with the formality that public institutions require.

Coordination between health facilities and community monitors was fluid and in realtime, but the information generated was not immediately made known to the directive levels of the environmental health area.

At the national government level, no commitment was made to assume the resources to maintain the CBSS monitoring team, despite coordination with different levels of MINSA. It should be noted that the introduction of new computer systems is very complex and highly formalized by the computer area of MINSA, even more so if they have not been developed by its technicians. In spite of this, the authorization for the use of the CBSS app, requested by Gore-Tumbes, the district municipality of Bellavista (Jaén) and other public institutions, was initiated.

In the focus groups, it was identified that there is a better reception of the community when the community monitors come from the neighborhood, especially when it was a question of asking for more details of information or documents containing identification data.

How was the CBSS developed? What are the best practices and lessons learned to contribute to the sustainability of the CBSS?

Table of findings 8. CBSS development, practices and lessons learned

Findings in Ecuador	Findings in Peru
Although there were delays, CBSS was consistent with the model proposed by CARE. Intersectoral work played a key role.	Development of an app for the CBSS that consolidates community participation information, integrates different levels (family, community, authority), and provides information in real-time.
The coordinated work with the Ministry of Health yielded good results for the implementation of the CBSS. However, many public officials did not identify this practice with the CBSS, since vector control is done at the district health level and not at the level of centers and subcenters.	Coordinated work to activate the early warning system.
The work of the local monitors was fundamental in order to implement the CBSS in some areas.	Chikungunya and dengue were integrated into Zika's prevention activities to optimize resources, especially human resources and participation of sexual and reproductive health and HIV personnel.

Elaboration: Evaluation team of Ecuador, 2019.

In Ecuador, despite the fact that not all the cantons started their activities on time, since for various reasons necessary and specific adaptations were made to the intervention in the different cantons, the implementation of the project had the participation of several social actors.

The implementation of the surveillance system was based on the following stages: (a) intersectoral coordination; (b) early case detection, control, and surveillance; (c) capacity-building (community surveillance and vector control); (d) rapid and integrated health intervention (vector control); (e) information strategy; and (f) communication and education. The best practices were 1) intersectoral coordination, 2) rapid and integrated health intervention (vector control), 3) information strategy and 4) communication and education.

Intersectoral coordination was organized by CARE, which acted as a catalyst to ensure that the meetings in the technical roundtables were held in the best possible way. Participating in these meetings were the Decentralized Autonomous Governments (Gobiernos Autónomos Descentralizados, i.e., GAD), community leaders (the community), the health sector (district health directors, district heads of epidemiological surveillance and of health promotion and equality), and the education sector, which included educational establishments of the Ministry of Education (MINEDU) and the universities involved. The coordinated work with the health sector complemented the *entomological monitoring* and training activities carried out by the universities on abatization, which in turn allowed for *rapid and integrated health intervention* for vector control. The intersectoral work included planning meetings, but also feedback on the actions undertaken in the territory.

The *information, communication and education strategies* worked through contact and support with community leaders who favored the relationship between the community, state institutions, and project staff. It worked to go "door to door" (Local Government Authority of Manabí, 2019).

In Peru, in the second quarter of year 3 (Q2Y3), the new CBSS app was implemented, which allowed the collection of entomological information and the "Ten

Minutes Against Zika" data, in addition to the project's social mobilization activities. At the end of the project, 34 localities were using the CBSS and the alert information was communicated by the monitors through WhatsApp messages shared with local authorities and health personnel, in a total of 13 municipalities scaling up to 3 additional districts.

The community early warning system has required coordinated work by the women community monitors, the health facilities, the local governments, and the communities. The egg traps are controlled by the community monitors, which allows, based on the positive egg trap, to focalize the *entomological barrier*. Depending on the density, this can lead to measures that go as far as fumigation. The commitment of the local governments to maintain the activities of the community monitors and assume the economic and logistic input will allow the sustainability of the early warning system.

Since the health personnel already had previous knowledge of dengue and chikungunya prevention, Zika's prevention strategy through the project united the health personnel with the women community monitors. Prior to the project, midwives never participated in the prevention of Zika as they were in charge of the STI and HIV/AIDS strategies. Now they have joined the strategy of metaxenic diseases, such as the prevention of Zika, by their mode of sexual transmission.

Before the project was implemented, a practical communication tool in at-risk communities did not exist. The flipchart made it possible for the monitors to provide specific information for Zika prevention and to easily reach at-risk families with simple and concrete messages. In this sense, the flipchart became one of the main communication tools during the CBSS visits, because, according to experts and users, it is simple, understandable and fulfills the objective of reaching families in a clear way.

The lessons learned in Ecuador are related to the insufficient number of monitors. The voluntary work of the monitors, who received no remuneration, does not contribute to the sustainability of the project. Many must carry out other activities in

order to survive and, despite the commitment they may have, the living conditions make it impossible for volunteer work to be sustained over time. These conditions limited the development of capacities in the communities. However, these capacities were worked at an institutional level, especially in health workers, for whom the training processes were of great value.

On the other hand, the interviewees mentioned that the work developed by the project could be more effective if the objectives, indicators, and goals were planned with the community: "you need first to reach the community before starting to work" (Actor sector education, El Oro, 2019). However, it is necessary to mention that the project arose in the context of an international health emergency and after the earthquake in Ecuador.

In Peru, the lessons learned are framed in the work of local governments and the CBSS model. The local government plays a fundamental and primary role in the territorial articulation and sustainability of the community surveillance strategy. However, the involvement of municipal personnel in entomological surveillance tasks, as an additional activity to their functions, has not yielded sustainability. In Chiclayo there was participation of municipal personnel, in the following months there were some desertions and at the end of the project, without the stipend for mobility, only two people have expressed their interest to continue collaborating.

The CBSS model has been developed more easily and with better results in small semi-urban localities, where community work is organized or has a proven track record or where community solutions are required.

What are the aspects or elements of the CBSS that could be used in official surveillance systems in Ecuador?

Table of findings 9. Aspects or elements of the CBSS that could be used by surveillance systems in Ecuador and Peru

Findings in Ecuador	Findings in Peru
The involvement of civil society and the state	The CBSS community approach model
in health/disease processes is capable of	together with its technological platform can
transforming local processes.	be applied to community epidemiological

	surveillance of any health risk and case analysis.
Participation of community monitors in vector surveillance and coordination with families for the inspection and destruction of hatcheries.	Inclusion of surveillance through community monitors in the inspection of egg traps and houses.
CARE's participation was able to streamline bureaucratic processes with state institutions and generated solid commitments among the different actors that were part of the CBSS.	Terms that can be understood by all the actors involved in the response, such as the ones used by the CBSS.

Elaboration: Evaluation team of Ecuador, 2019.

In Ecuador, the participation of local monitors in the official epidemiological surveillance system can be very useful, especially if their activity is sustained over time. However, this is difficult to maintain with a volunteer scheme. Inter-institutional relations through intersectoral roundtables involving various actors, including Non-Governmental Organizations (NGOs), is an aspect that can help in the control and surveillance of transmitted diseases developed by the official surveillance system run by the Ministry of Public Health (MSP).

In addition, the incorporation of actors such as universities (linked to surveillance systems to favor the diffusion of prevention campaigns) with the MSP can be very useful: "the more people who join, the better" (Health sector actor of El Oro, 2019). This is due to the fact that MSP's resources are limited and the activities they have to carry out in the territory are numerous: "People claimed that visits were made without MSP people, since they only went every month and a half and the students every 15 days" (Education sector actor of El Oro, 2019).

For its part, Peru recommends incorporating the egg traps surveillance system, which has worked efficiently thanks to community monitors that have focused on compliance with egg traps management protocols when these were positive, and there was interrelation with those responsible for the health center. The egg traps system also worked in territorial areas that were not part of the project. The health sector, with support from the municipalities, is looking for support for the community monitors. The inclusion of community surveillance through community monitors in the inspections of the egg traps and houses developed in the pilot has shown that trained non-health personnel can make a correct reading of the egg traps (high level of agreement when performing quality control).

The CBSS has used understandable terms for all actors involved in the response, which could be considered by the official surveillance system for effective communication (appropriate and relevant language) with authorities and connection with the community.

7.1.4 Block 4: Social and behavioral change

This section assesses the level of knowledge or memory that the community has about the messages deployed in the campaign, which is associated with the level of impact and scope of the communication proposal. The communication strategy became CBSS's fulcrum, the material and the messages made it possible to increase the population's knowledge.

What were the elements of the communication strategy that most contributed to increasing knowledge and behavioral change for Zika prevention and vector control?

Table of findings 10. Elements that contribute to increasing knowledge and behavioral change

beliaviolal change		
Findings in Ecuador	Findings in Peru	
Elaboration of materials based on the results of the CAP study. According to the population group, there is a predilection for one or the other of the materials received.	The use of the <i>design thinking</i> methodology, which focuses on the design of user-centered solutions and makes the user participate in order to achieve higher adequacy of communications material according to the target population.	
Discourses on prevention during pregnancy were complemented with messages on sexual transmission related to Zika and its effects.	The inclusion of Zika themes in the curriculum of primary and secondary schools.	
Capacity building for the prevention of Zika in personnel who work in health, education, local governments, economic and social inclusion sectors.	Capacity building for Zika prevention in health, education and local government personnel who acted as facilitators.	
The community values positively the type of design chosen for the campaign.	The interpersonal communication provided by the women community monitors.	

Elaboration: Evaluation team of Ecuador, 2019.

In the case of Ecuador, messages regarding water collection behaviors and the type of provision vary in each province and canton. For this reason, the message shows a differentiated impact. People identify covering tanks in their homes as safe actions. In Peru, the "Zikario" campaign, which began with a campaign of intrigue, was initially shocking but was later linked to the Zika and its threat. The campaign has

become a major actor in murals, panels, and messages.

In the same vein, the community valued positively the fact of integrating people of both sexes doing domestic chores in the graphic pieces of the communication material, which helped to promote the concept that responsibilities in the home should be shared. Likewise, it was positively valued that the campaign was able to mobilize other issues that were not addressed in the community, such as sexual education for adolescents. In both countries, the "Ten Minutes Against Zika" communication strategy was implemented, allowing the whole family to participate in self-care.

Discourses on prevention during pregnancy were complemented by messages on sexual transmission related to Zika (Communication Campaign Concept, 2017), which was one of the strongest components in the development of outreach in the two countries.

It is clear that the community reacted better to the direct and simple messages related to the effects of Zika. In the population of pregnant women was installed the discourse of prevention and the effects that the baby could have if the mother was infected. Images used from children with microcephaly had a high impact on adolescents. Sexual behavior and personal health habits are issues that generated interest in this population.

The training received by the women monitors in Peru covered aspects that were of interest to different groups of actors, so they were prepared to respond to the concerns of the population. The use of the flipchart allowed for effective communication with families, an element that is highly valued by health personnel. It was possible to integrate the communication actions with those of vector control through the interventions carried out by the monitors and the follow-up of the "Ten Minutes Against Zika", through which an inspection of the possible hatcheries was carried out in the household.

Two points of interest within the community stand out: the general appreciation of

the design and the contents presented in the communicational pieces.

The community values positively the type of design chosen for the campaign. They highlight the chromatic of the graphic pieces, as well as the characters used because they see them closer and more real to their communities. The majority of community actors interviewed consider that a simple and accessible language was used, in accordance with the population groups that were intended to be reached. However, in cantons where the majority of the population is older, it was difficult to understand the information.

The communicational pieces generated different reactions. According to the population group, there was a predilection for one or the other material received. The table games, the handheld fan, and the water bottle are the most valued materials among young people, and the story in the case of children. It is important to mention that some of these products were not elaborated by CARE but were gathered from previous experiences of organizations such as UNICEF and UNFPA, which were adapted for the need of the campaign and the project.

In Peru, the inclusion of Zika themes in the primary and secondary curriculum was the strategy that worked best in several sectors, generating the participation of students and parents in jointly planned activities. The communication strategy "Ten Minutes Against Zika" is the one with the highest level of remembrance in the community and the one that most impressed authorities, officials, and key actors. According to the interviews and focus groups carried out, no impact has been evidenced in the messages made on television or in the written press of the massive campaign carried out in 2017.

What was the contribution of the communication strategy and tools to the achievement of the project's objectives and results? Were communication actions integrated with vector control actions?

Table of findings 11. Most effective means of dissemination of the campaign

Findings in Ecuador	Findings in Peru
Participatory activities such as mingas, community	The Zika virus was positioned as a health
fairs, and cultural caravans are the most remembered	risk, with a disaster risk management

and valued activities within the community.	approach.
Positive reception of home visits and dissemination of campaign messages.	The communication was not redundant, it was transmitted according to the level of risk.
Low impact on the dissemination of messages in the written press.	The information provided through the flipchart in the home visits is the most valued by the community.
Potentialize the diffusion in social networks and WhatsApp, so that its replicability reaches a greater percentage of the population.	

Elaboration: Evaluation team of Ecuador, 2019.

Reception and impact of the campaign in local media: Conventional vs. digital media

While the monitoring of informative notes and verification of radio spots are not the only parameters for evaluating the effectiveness of a communication campaign, they help determine an important trend in media exposure and consumption habits among population segments.

As for media coverage, it focused mainly on the radio stations with the largest audience and some local media with the intention of achieving greater resonance. As for radio programming, it was carried out mainly on local and community radio stations, in both countries with sustained periods and timetables adapted to the beneficiary population.

On the other hand, the campaign showed that conventional media such as the press and radio do not have a major impact on young people, especially in the cantons with greater access to the Internet and the use of smartphones. The use of other communication channels such as social networks, videos, or WhatsApp are some of the proposals that stand out in young people and adults, who frequently use these channels of communication, especially among their families and friends with whom they share and replicate information.

What aspects of the communication promoted by the project contributed to raising awareness about Zika?

Mingas, home visits and community fairs (see Annex J) are the activities with the

most remembered and best valued creative methodologies within the community. These activities have generated a friendly learning space for the transfer of knowledge related to the Zika virus. The people interviewed refer to the didactic character of the materials, as well as the link with the community through various recreational activities.

In Peru, the character ZIKArio has allowed the theme of Zika to be easily positioned because the social imaginary of a hitman was used to make a link with the disease: "he steals from you" and "harms your health".

The people interviewed think that direct contact is the most effective way to reach with the messages of the campaign. Working with people from the community such as social and community leaders, neighborhood representatives, health monitors, undergraduate students, teachers or psychologists in educational institutions is identified as an important strategy to more effectively disseminate the purposes of the project.

Health monitors, communicators, and health sector officials agree that home visits, which were reinforced with educational-communicative materials, allowed for greater contact and incidence with people. The presence and management of the project's social and technical leaders increased community participation and consolidated the meetings in these cantons.

In Peru, three levels of strategy can be defined to position the risk of Zika: 1) the communication of home visits, "10 Minutes Against Zika" and, in the line of services, counseling for pregnant women and of childbearing age; 2) communication strategy through the media, the use of murals, educational materials, including flipchart, fairs, contests, work with schoolchildren and the educational community; and 3) advocacy work with decision-makers, community leaders, grassroots groups and other key actors.

As for the comments on the type of media used, interviewees have a good level of remembrance of alternative means of communication. In Ecuador, for example,

banners on bicycles, advertisements on garbage trucks, billboards in cantons, and PA systems are remembered. The latter is usually a widely used medium, especially in rural populations. These components contributed to the diffusion of the messages in both countries.

The community also highlights the provision of materials and tools for vector control, such as brushes to clean tanks, sifters, shovels, machetes, among others.

The community also highlights the delivery of materials and tools for vector control such as brushes to clean tanks, sifters, shovels, machetes, among others.

What are the main lessons learned and challenges in promoting social and behavioral change among the key actors in the prevention and control of Zika?

Table of findings 12. Main lessons learned from the intervention of the project executed by CARE

project executed by CANL		
Findings in Ecuador	Findings in Peru	
The campaign privileged the images and messages where the main effects of the disease were identified with the purpose of alerting the community.	Good practices in prevention and control of Zika prior to the project have been collected and applied for interpersonal communication through the "Ten Minutes Against Zika" campaign, which was an adaptation of the proposal developed in Fio Cruz, Brazil.	
Use of prioritized behavior matrix, developed by USAID, to adapt intervention and communication strategies.	Use of prioritized behavior matrix, developed by USAID, to adapt intervention and communication strategies.	
Social actors are key to generating public opinion on the issue. Community health monitors assist in the positioning of a given campaign. Teenagers from schools accomplish this function too; they were given information on several occasions along the different lines proposed.	Repository of generated documents and diffusion in social networks.	
The importance of planning, taking into account validation deadlines with local authorities and different instances for diffusion.		

Elaboration: Evaluation team of Ecuador, 2019.

The communication campaign privileged the images and messages where the main effects of the disease were identified with the purpose of alerting the community. In the future it is important to reinforce and continue with these messages in coordination with local authorities, taking advantage of the tools and strategies developed with healthy municipalities that positively impacted the actions of the project Zika Response in Ecuador and Peru. This is proposed as an objective in the

Manual for the Certification of Guardian Municipalities against Zika, Dengue and Chikungunya: "To raise awareness and provide information to municipal authorities and technicians on the importance and priority actions for the control and prevention of diseases produced by arbovirus" (Costales, 2019, p. 5).

On the other hand, during the interviews and focus groups, it was possible to distinguish at least two clear stages within the campaign. A first moment of sensitization with the community, where the most important topics to be disseminated were addressed, and a second moment that allowed the implementation of the acquired knowledge. The time taken to validate documents with the institutions involved was long; in the case of Ecuador, due to internal processes within public institutions such as MSP and MINEDU. In Peru, good practices were identified and their implementation made it easier for the project to gain time, take advantage of experiences and synergies. Based on the findings of ABE and CAP on vector control and prevention of Zika, some experts on the subject were interviewed at the regional level, with which six protocols were identified to be implemented in pilot areas.

The CAP3 study identified the need for a strategy that addresses interpersonal communication and greater efficiency in the transmission of information to individuals of childbearing age. Likewise, the challenge of involving men from the perspective of promoting new masculinities in favor of the implementation of practices for the prevention and control of the Zika virus remains (CARE-USAID, 2016). Mention should be made of the low level of recall of the messages in the media, such as the press and television, at the time of the evaluation, which were only carried out in the first year of the project.

In reference to the work carried out in the planned media, the project had a profile of the exposure and consumption habits of the different population segments in each province. This made it possible not only to determine the preferences of the audiences, but also to know which media had the greatest credibility in the population and to extend the reach to population groups that were not included in the project but that had the expectation of receiving information about the campaign

(Manthra Communications, 2019).

It is important to highlight the impact generated at the territorial level and the strategic alliances with local governments. The elaboration and validation of the educational-communicative materials carried out with and for the community allows not only to create alliances with these sectors but also to update knowledge. Social actors are key in generating public opinion on the subject. Community health monitors not only help in the positioning of a specific campaign but can also become generators of actions in their community, which may be of interest or focus of attention for the media.

The interviewees stated that, in order to support the work of these community leaders (who do not receive remuneration or incentives in the case of Ecuador), the project should include the management of a payment, at least symbolic, for their work as in the case of Peru. For example, in Ecuador, it is mentioned that "a difficulty in all the pilot sites is related to the lack of incentives for the monitors to carry out their work. This affects sustainability and represents a major challenge for the implementation of the system" (CARE-Ecuador, 2018, pág. 58). For its part, in Peru it is considered important to review the perception of the changes in knowledge with respect to that provided by the project, in reference to knowledge about health, knowledge about Zika, the benefits of eliminating hatcheries. These are the most relevant points that the campaign develops, as can be seen in Annex K.

Interviewees also spoke of the need for permanent training spaces. In the case of Ecuador, it is suggested to evaluate the possibility of reaching school training spaces at all levels. This with the purpose of encouraging not only the habits of early care, through talks, courses, workshops, but also to generate permanent inter-institutional links and alliances with the community, and thus promote and continue the campaign in both countries.

7.1.5 Block 5: Inter-institutional planning and coordination

Components of inter-institutional planning and coordination have already been

analyzed within all the previously discussed blocks. This is evident as one of the main strengths of the project, since it included planning and coordination with various actors in the territories for many of its activities.

What are the best practices identified in intersectoral planning and coordination at the different levels of intervention?

Table of findings 13. Best practices identified in intersectoral planning and coordination

Findings in Ecuador	Findings in Peru
The negotiation and signing of agreements at managerial-central levels were useful for working at	Elaboration of district plans and budget programming to allocate resources for Zika.
district and local levels, both with ministries and municipalities.	
CARE-Ecuador was able to function as coordinator and facilitator of inter-institutional coordination and planning with mainly MSP, MINEDU, and local governments.	Provide authorities and leaders of institutions with information about the risk of Zika.
Elaboration of community and communication plans with the participation and implementation of local institutions (municipalities) and national institutions (MSP, MIES, MINEDUC).	Elaboration of community and communication plans with the participation and implementation of the health sector.

Elaboration: Evaluation team of Ecuador, 2019.

For CARE-Ecuador's field technical staff, the instability of staff in local government offices and health and education districts made it difficult to coordinate and organize activities during the early years of the project. To a large extent, these difficulties were resolved after the formal establishment of inter-institutional agreements between CARE and each of the different institutions. For example, the establishment of an agreement at the central level with the Ministry of Public Health was useful for working in the different districts. In the same way, the agreement signed directly with the universities was recognized as very useful for the work carried out by the students in prevention and communication activities and in the different pilots of the community epidemiological surveillance system. This was also beneficial for the university programs that used the project's agreements and activities as their community outreach projects.

In the inter-institutional coordination of Peru, the processes leading to the commitment and participation of local authorities in the CBSS were highlighted. This process began with the political advocacy carried out by the project, through which

19 district plans were drawn up. The only district where planning was not possible was La Victoria, in the department of Lambayeque, because the head of the Health Network initially did not recognize the leadership of the mayor who began his term in January 2019. In 12 of the intervention districts, the municipal authorities have committed to assume the incentives of the women community monitors and give continuity to the actions promoted by the project.

In the case of Ecuador, several actors related to the project mentioned the usefulness of the facilities provided by CARE for institutional coordination. With regard to the prevention of vectorial diseases such as Zika, the Ministry of Public Health, through its districts and operational units, carries out periodic activities such as the delivery of abatements and fumigations. However, added to these recurrent activities of the MSP and with the coordination facilitated by CARE (logistics for meetings, transportation, food, etc.) were the work of university students, visits to school units, coordination with local governments so that the abatization brigades included cleaning and elimination of hatcheries, among others.

In the words of a local government official in Ecuador: "It was a good practice for CARE to coordinate meetings and for delegates from different institutions to come and have a voice and vote in decisions" (Local government actor of Manabí, 2019). In other words, the achievement of the project at this level was to strengthen interinstitutional coordination and planning activities. Similarly, various activities have been carried out in Peru, such as campaigns for the elimination of hatcheries with the participation of municipalities, health centers, regional governments, police, social actors, the army, CETPROS, educational institutions, the general population and the leader of each sector. According to the interviewees, local municipalities before the project did not actively participate, while now there is more logistical and economic commitment because some municipalities have considered it in the programming of their annual budget.

However, the sustainability of such coordination is not certain, as it is not known whether the coordination mechanisms will continue to function without CARE's facilitation. In the case of Ecuador, the sustainability of inter-institutional coordination

is more favorable in places where programs between MSP officials and municipalities have been established, such as the Healthy Municipalities program in Arenillas, Las Lajas, Manta, and Portoviejo. In addition, Sucre and San Vicente are also working on their incorporation into the Healthy Municipalities program and to achieve their certification in the future thanks to CARE's support.

What are the lessons learned in inter-institutional coordination and planning in relation to giving sustainability to the management model in public sector entities at the different levels of intervention?

Table of findings 14. Lessons learned in inter-institutional coordination and planning

Findings in Ecuador	Findings in Peru
Establish strategies that integrate community work with the strategies of local institutions, mainly with the Ministry of Public Health in its prevention and epidemiological surveillance actions, thus avoiding duplication of work and affecting community mobilization.	Approval of sectoral norms and formalization of project activities within institutions through the signing of bilateral inter-institutional agreements between CARE and local governments, health and education sectors.
Coordinate planning times with the programming of local institutions and with climate patterns so that the work becomes timely and more effective.	Carry out field visits with local and regional (health) authorities so that they understand, value the CBSS and may plan their activities based on successful practices.
Focus inter-institutional coordination and planning on the creation of cooperation processes that can be sustainable without the presence of an external institution such as CARE. For example, support for the certification of Healthy Municipalities and the establishment of intersectoral working groups.	Technical assistance to new authorities in posts, so as not to delay project activities.

Elaboration: Evaluation team of Ecuador, 2019.

Changes were made in local government authorities (Peru in December 2018 and Ecuador in May 2019), as well as changes in public ministry officials that impacted inter-institutional work at different stages in both countries. The change of authorities as a result of elections led, for the project team, to the need to return to the training and awareness-raising actions that had been carried out with the outgoing authorities.

On the other hand, it could be observed that if the epidemiological surveillance system duplicated the work carried out by the Ministry of Public Health (for example, during home visits), it caused saturation in the levels of community participation. This fact was visible in community focus groups in El Oro and Manabí (Ecuador) since it

was manifested that the population lost interest in participating in activities such as "Ten Minutes Against Zika", unless the visit was accompanied by the delivery of abatements of the MSP or another type of support. Similarly, the evaluation team from Peru observes that the project has demonstrated the importance of carrying out field visits *in situ* with the local authorities and the health sector, so that they can fully understand the actions carried out within the framework of the CBSS, which allowed a real understanding of the role of community participation in the prevention and control of Zika. This has also led several local municipalities to allocate resources to maintain the activities of the women community monitors.

In addition, the time of year in which these activities are carried out should be coordinated and planned directly with the local authorities, in order to intensify these works during the winter season. In some places in Ecuador, for example, coordination began in July 2018, after the winter season had passed, leaving only one year of intervention until the project closed in 2019. In Peru, some interviewees commented that prior to the project coordination between institutions already existed, thus they considered that this was not a contribution, nor should it be attributed to the project. This group includes the health sector. In the case of community members, it has not been possible to establish during interviews or focus groups whether their response is also in this sense. In any case, none of the actors considered that coordination had worsened with the project.

7.2 Conclusions

Regarding block 1: General aspects

- 1. The project presents an adequate fulfillment of the objectives, coverage, and indicators within the programmatic approaches proposed in both countries.
- 2. The strengthening of community participation, in coordination with the various actors present in the territories, is one of the main challenges for the impact and sustainability of this type of project.
- 3. The intervention developed constitutes a successful alternative to reach the community easily and involve it in the prevention of Zika. Its results have been more satisfactory where the leadership of the local authority (mayors) has been evidenced and the participation of the community has been valued through the work of the community monitors.
- 4. As for the binational model, coordination between the two countries was mainly focused at the directive level; joint planning, periodic review of progress and monitoring were carried out. At the operational level, cooperation was more limited, due to the fact that independent strategies had to be chosen in each country.

Regarding block 2: Community mobilization

- 5. Good practices for community mobilization were: 1) the inclusion of community leaders and organized collectives in the implementation of activities and strategies; 2) working differentiatedly with youths and adolescents in schools and universities; and 3) adapting actions and strategies to local contexts.
- 6. Community mobilization was more effective with the coordination and inclusion of local institutions.

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7. The intervention was successful mainly due to the participation of community

monitors and families in the surveillance. Additionally, in the case of Peru, the

success was due to the incorporation of the "Ten Minutes Against Zika" strategy in

home visits and the CBSS app. The challenge remains to be the incorporation of

more zones, though with different characteristics.

Regarding block 3: Community-based surveillance

8. In the application of the CBSS methodology, from the model of community

epidemiology and with an empowerment approach, community education and social

participation succeeded. In the case of Ecuador, the registry of this surveillance

system and the operationalization of the variables present difficulties that must be

resolved through the design of the system and the collection of information.

9. The best practice with institutions was the intersectoral work with the community,

the door-to-door visits. Previous work with the community and in the territory is

necessary to establish the objectives, indicators, and goals of a future project.

10. The internships carried out, taking as an example the case of Tumbes in Peru

with local authorities and health personnel, have generated a multiplier effect and a

sense of competency that has facilitated the replication of the pilot in 34 localities.

11. The CBSS app developed by the project in Peru has facilitated surveillance work

and has become an agile, inexpensive and highly portable tool. However, the system

as a whole faces major challenges in terms of its institutionalization. This challenge

is related to sustainability, especially financial, in order to maintain the CBSS app,

the incentives to women community monitors and the political commitment of local

governments, but also to maintain the level of coordination that should exist between

the local governments and the health and education sectors in the space of the

Multisectoral Committee and the Community Plan.

Regarding block 4: Social and behavioral change

- 12. In Ecuador, messages focused on self-care and individual lifestyles. Regarding prevention in pregnant mothers, messages focused on the importance of care at the gestational stage and the risk of congenital syndromes caused by Zika.
- 13. In Peru, the home visit has been the most effective communication intervention and the "Ten Minutes Against Zika" the most innovative strategy for the prevention of metaxenic diseases, which has even been replicated by MINSA at the national level. In the places where the project intervened, families actively participated in the prevention of Zika; the women community monitors formed by the project, due to a correct selection process, showed themselves to be empowered leaders who replicated the preventive action.
- 14. The educational-communicative products, in general, were well received in the communities, emphasizing the interest especially in children and young people, as they encouraged recreational activities and collective play both in educational institutions and in their family spaces.
- 15. In Peru, the identification of good practices through a national contest was a milestone that marked the course of the intervention in the first stage of the project. The prize for good practices in the prevention and control of the Zika virus has proved to be effective in identifying, systematizing and recognizing experiences, as well as promoting community and civil participation.

Regarding block 5: Inter-institutional planning and coordination

- 16. CARE acted as a facilitator of inter-institutional coordination and planning, promoting and strengthening spaces for cooperation among institutions and actors in the territories. Several of these spaces continue after the closing of the project.
- 17. In Ecuador, the sustainability of inter-institutional planning was strengthened through initiatives such as support for the certification of Healthy Municipalities and intersectoral working groups.

18. In Peru, the project intervened in the final stage of the health emergency. However, it has taken steps to promote the sustainability of Zika prevention initiatives towards more stable sources of financing through the incorporation of a public budget for the control of Zika and also through the creation of ten multisectoral health committees and the reactivation of six of these to articulate the response to the Zika virus.

19. In Peru, advocacy work and capacity building on budget issues have enabled 13 municipalities to incorporate resources into their budget. This was done under budget program 017, aimed at controlling metaxenic diseases. Budget allocation has been sustained for 12 of these municipalities.

20. The JAZ Project, within the educational sphere, developed four key intervention axes: capacity building, classroom intervention for teaching/learning a culture of prevention in the face of Zika, peer educators and social communication. Actions were developed on these axes with great acceptance and success.

7.3 Recommendations

Recommendations for risk management and **short- and medium-term** interventions against possible epidemic scenarios caused by vector-borne diseases such as Aedes aegypti.

- 1. In projects such as the one implemented by CARE to prevent Zika in the context of emergencies caused by natural disasters, we recommend having flexible action plans, taking into account the peaks of the epidemic and the prioritization and adaptation of actions after the peak subsides.
- 2. The incorporation of testimonial means is recommended, that is, experiences or stories of people from the community, such as, for example, the group of adolescents. This helps to generate not only greater empathy with audiences, but also allows for sustained work with the community and encourages

participation at all levels.

- 3. Finance pilots where good practices are implemented and the community participates with the support of communication strategies and appropriate technologies. The project has demonstrated that these types of pilots are an effective mechanism for national authorities to demonstrate (through internships) effective results and to authorize resources. In turn, for regional authorities to facilitate the integration of the health and education sectors with local authorities and to scale up the pilots to other localities.
- 4. Promote digital communication channels as one of the most effective strategies to reach young people, where there is greater replicability and fixation of the message. It is suggested to take into account the hiring of advertising spaces in social networks for prolonged and periodically updated periods.
- Make use of the information generated by the project interventions for the elaboration or modification of the normative-technical documents at national and regional levels in the prevention and control of Zika and other metaxenic diseases.

Recommendations for risk management and **long-term** interventions against possible scenarios of epidemics caused by vector-borne diseases such as Aedes aegypti:

- 6. Plan and design methodological strategies for the collection of data in the territory to facilitate their collection and subsequent analysis. It is advisable to create a methodological record of the variables, as well as a manual to facilitate data collection and interpretation.
- 7. Strengthen the Multisectoral Health Committees and implement the plans they formulate. It is necessary to support the implementation of multisectoral health plans and community plans.

Recommendations for the implementing organization (CARE-Ecuador) and the donor organization (USAID):

- 8. Recognizing that the executed project responded to an emergency context and that the actions were carried out from this approach, we recommend that other approaches to epidemiology, in accordance with the local context and reality of the territory, be considered in future projects that may arise.
- 9. Integrate, in the design of future projects, aspects that consider the complexity and multidimensionality in the processes of the enforceability of rights by the beneficiary population.

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9. Annexes

Annex A: Guide of focal groups



Systematization guide of focus groups

Place of focal group:	Contact person:	Telephones/email address:
Total number of participants:	Men participants:	Women participants:

Blocks	Questions	Answers
	To what extent did the project meet the objectives and achieve the expected coverage, results and indicators?	
Block 1: General aspects	1.1 How were the issues of gender, interculturality, disaster risk management, and rights addressed?	
	2. What are the main challenges arising from the evolution of epidemic scenarios produced by the vector <i>Aedes aegyptil/</i> Zika that should be considered by external cooperation to optimize the use of resources?	
	What are the main good practices and contributions with respect to community mobilization?	
Block 2: Community mobilization	2. Which community mobilization strategies and actions worked and which did not, regarding the Zika reduction that this project proposed?	
	3. What were the challenges encountered by the different actors in promoting community mobilization? How were they overcome?	
Block 3: Community- based surveillance	In using the methodology to incorporate community work into the Community-Based Surveillance System (CBSS), what worked and what did not work? How was the CBSS	

	developed? What are the best	
	practices and lessons learned	
	to contribute to the	
	sustainability of the CBSS?	
	3. What are the aspects or	
	elements of the CBSS that	
	could be used in official	
	surveillance systems in	
	Ecuador?	
	What aspects of the	
	communication promoted by	
	the project contributed to	
Block 4:	raising the knowledge about	
Social and	Zika?	
behavioral	2. What are the main lessons	
change	learned from the intervention	
Change	of CARE's project for the	
	. ,	
	prevention of Zika in your	
	territory?	
	1. What are the best practices	
	identified in intersectoral	
	planning and coordination at	
	the different levels of	
Block 5:	intervention?	
Inter-		
institutional	2. What are the lessons	
	planning and learned in inter-institutional	
coordination coordination and planning in		
	relation to giving sustainability	
	to the management model in	
	public sector entities at the	
	different levels of intervention?	

Conclusions and analysis of the focal group:

Number and tentative composition of focus groups

	Tentative number of focus groups									
Esmeraldas	Aldas Manabí El Oro									
Muisne	Portoviejo	Manta	Sucre	San Vicente	Jama	Pedernales	Huaquillas	Arenillas	Las Lajas	TOTAL
2	2	2		2 2		2			12	

Tentative composition of focus groups							
Men's focus group	Women's focus group						
Men at reproductive age		Pregnant women ** Mothers of <3 years	3-6				
Adolescent men	3-6	Adolescent women	3-6				
Monitors, community leaders, other beneficiaries or participants		Monitors, community leaders, other beneficiaries or participants	3-6				
TOTAL of attendees (min-max)		TOTAL of attendees (min-max)	9-18				

Universities' focus group					
Faculty	2				
Students	6-8				
TOTAL of attendees (min-max)	8-10				

Annex B: Semi-structured interviews



Semi-structured interviews

Thank you very much for agreeing to this interview. This interview is part of an evaluation of the project Zika Response in Ecuador and Peru, carried out by CARE during 2017-2019. If you wish, the information presented during the interview will be anonymous, and you can stop responding or suspend the interview at any time. The approximate interview time is 30 minutes. Your sincere and complete input will be very useful for the evaluation of the project mentioned. In this way, we hope to contribute to the prevention and health promotion tasks of the organizations and the Ministry of Public Health. For more information on the evaluation project, please contact Juan Espinosa (098 050 8614) or Xavier León (099 390 6602) of the evaluation team.

Place of interview:	Name:						Telephones:	
	Male Female I				L(GBTI		
Date of interview:	Act	tor:						Email address
Interviewer(s):	1	CARE/USAID	3	Local government authorities	5	Health (MSP) a Social (MIES) sector	nd	(optional):
	2	Monitors, leaders, community beneficiaries	4	Intersectoral committee or other local coordination spaces	6	Education sector, including faculty a college students	j nd	

NOTE: The numbers in parentheses at the beginning of each question indicate to which actor(s) the question will be applied, according to the code in the previous table.

BLOCK 1: General aspects

- 1. (1,2,3,4,5,6) Please tell me about your experience with the project Zika Response in Ecuador and Peru.
- 2. (1,2,3,4,5,6) In your opinion, to what extent was the project useful for the prevention of Zika?
- 3. (1,3,4,5) What are the main challenges that arise in scenarios of epidemics such as Zika, and the effects in time of this disease (congenital syndrome by the Zika virus)?
- 4. (1) What lessons have been learned from the binational model between the leading organization and its partners?

BLOCK 2: Community mobilization

- 5. (1,2,3,4) In your opinion, did the project activities contribute to community mobilization against Zika? In what way?
- 6. (1,2,4) Of the community strategies and actions undertaken that you recall, which worked and which did not?
- 7. (1,2,4) What were the challenges encountered by the different actors to promote community mobilization? How were they overcome?

BLOCK 3: Community-based surveillance

- 8. (1,2,3,4,5,6) Could you tell us, if you know, what the CBSS is?
- (1,2,4,5,6) From what you remember, what worked and what did not to incorporate community work into the Community Based Surveillance System (CBSS)?
- 10. (1,2,4,5,6) What are the best practices and lessons learned that contribute to the sustainability of the CBSS?

11. (1,2,4,5,6) What are the aspects or elements of the CBSS that could be used in official surveillance systems in Ecuador?

BLOCK 4: Social and behavioral change

- 12. (1,2,3,4,5,6) What were the messages of the Zika prevention and vector control campaigns (*Aedes aegypti* mosquito) that you remember or that had the greatest impact on your territory?
- 13. (1,2,3,4,5,6) In your opinion, which was the most effective means of dissemination of the Zika prevention and vector control campaign (*Aedes aegypti* mosquito), and which was the least effective?
- 14. (1,2,3,4,5,6) In your opinion, what lessons and challenges exist to promote social and behavioral change in the prevention and control of Zika?

BLOCK 5: Inter-institutional planning and coordination

- 15. (1,3,4,5,6) In your experience, what are the best practices for intersectoral/inter-institutional planning and coordination for the prevention and control of Zika?
- 16. (1,3,4,5,6) In your opinion, what are the lessons learned in inter-institutional coordination and planning to provide for sustainability in the public sector management?

Closing question:

17. (1,2,3,4,5,6) Is there anything else you would like to say about the project or your participation in it?

Thank you very much for your cooperation.

Annex C: Community mapping used by the evaluation team of Ecuador

* The results of the community mapping are included in electronic format in Annex C.1.

Actors with whom the community mapping will be built:

- Community monitors who participated in the project Zika Response in Ecuador and Peru.
- Community leaders who participated in the project Zika Response in Ecuador and Peru.

Steps for the construction of the community mapping:

- 1. Find out if there are previous mappings of the project intervention.
- 2. Search for geographic archives for the construction of the map.
- 3. Elements of interest: communities and territories where the project Zika Response in Ecuador and Peru intervened, main actions carried out in the territories, main institutions and organizations with which there was coordination in the territory.
- 4. Delimit the historical territorial contexts, defining the times before and after the intervention of the CARE project in terms of communication for the prevention and eradication of Zika.
- 5. To define the social subjects and the relations between them. Likewise, it is necessary to identify who inhabits the territory and how historically they have been reconstructed according to their social and power relations and according to the following aspects:
 - Patterns of consumption and access to basic services. In the case of the CARE project, the most important is safe water.
 - Forms of social organization of leisure and culture, analyzing whether they were considered and linked in the project executed by CARE.
 - Identify the relationships with natural resources and ecosystems, in order to try to understand how these communities relate to nature in order to prevent diseases such as Zika
- 4. Questionnaire for participants in the construction of the community mapping:
 - a) Where did the project Zika Response in Ecuador and Peru intervene in your community?
 - b) What were the main actions implemented by the community with the support of the project Zika Response in Ecuador and Peru?
 - c) With which organizations coordination took place in the territory?
 - d) Which were the places of difficult access in the work of the project

activities?

- e) Where were there most reports of Zika in your territory?
- 5. Definition of symbology to represent each process in the maps.
- 6. Tour of the intervention zones with the leaders and monitors.
- 7. Graphical representation on the maps of the information collected.
- 8. Discussion with the social groups participating or beneficiaries of the project vs. what was identified in the mapping, in relation to the identification of collective health processes and according to three levels: individual, family, and community collective, all framed in the territorial historical context.
- 9. Map socialization.
- 10. Validation.

Annex D: Database with systematization of interviews and focus groups of Ecuador

This annex is provided in electronic format in Excel.

Annex E.1: Beneficiary population of the project in Ecuador

Province	Cantons	Population	Population at risk	Objective population
Esmeraldas	Muisne	30 680	9204	4602
	Portoviejo	310 582	93 175	46 587
	Manta	253 441	76 032	38 016
Manabí	Sucre	61 553	18 466	9233
Wallasi	San Vicente	24 139	7242	3621
	Jama	25 448	7634	3817
	Pedernales	61 193	18 358	9179
	Huaquillas	56 336	16 901	8450
El Oro	Arenillas	31 250	9375	4688
	Las Lajas	5 007	1502	751
Total	10	859 629	257 889	128 944

Source: (Cooperative Agreement AID-OAA-A-16-00078, 2016) Own elaboration

Annex E.2: Beneficiary population of the project in Peru

Department	Province	District	Total population	Population at risk	Direct beneficiaries
		Jaén	100 450	30 135	15 068
Cajamarca	Jaén	Bellavista	15 361	4608	2304
		Chiclayo	291 777	87 533	43 767
Lambayeque	Chiclayo	José Leonardo Ortiz	193 232	57 970	28 985
		La Victoria	90 546	27 164	13 582
		Piura	153 544	46 063	23 032
Piura	Piura	Castilla	143 203	42 961	21 480
riura	Piura	Catacaos	72 863	21 859	10 929
		Cucungara	18 639	5592	2796

		Veintiséis de Octubre	147 683	44 305	22 152
	Morropón	Chulucanas	76 214	22 864	11 432
	6.11	Sullana	176 804	53 041	26 521
	Sullana	Bellavista	38 071	11 421	5711
		Los Órganos	9411	2823	1412
	Talara	Máncora	12 888	3866	1933
	Sechura	Sechura	42 974	12 892	6446
	Tumbes	Tumbes	111 683	33 505	16 752
Tumbes	Contralmir ante Villar	Zorritos	12 313	3694	1847
Tunibes		Zarumilla	22 257	6677	3339
	Zarumilla	Aguas Verdes	23,480	7044	3522
Total		20	1 753 393	526 018	263 010

Source: (Cooperative Agreement AID-OAA-A-16-00078, 2016) Own elaboration

Annex F: Secondary information provided by CARE

Required secondary information documents

Annual CAP report (knowledge, attitudes, and practices)

CAP database for each year

Database of annual beneficiaries

Monthly reports

Annual reports

USAID quarterly indicator report and annual project indicator reports

Analysis report of annual evidence (good practices)

Evidence analysis report of community epidemiological surveillance

Systematization of good practices

Communication strategy for social and behavioral change and communication products

Community-based surveillance system

Reports of experiences in schools

Training guides and documents

CARE monitoring platform: users and evidence of developed actions

Project management committee reports and recommendations

Cooperation agreement signed between CARE and USAID

USAID regulations applicable to the evaluation

Source: (CARE-TOR, 2019)

Own elaboration

Annex G: Format 1, used by the evaluation team of Peru

Nam	Name					Gender	F	М
Organization					Age			
Posi	tion				Curre	ently in office:	Yes	No
	il address			Cellp				
proje			From:	То:		ginning of the project:	Yes	No
				final evaluation of disagree with eac		a Response in	Ecuador	and Peru.
	Part 1: W	•	ou think about thatements?	e following	Strongly disagree	Disagree	Agree	Strongly agree
1	commitme population	ent of the	e authorities to istrict.	n, there is more the health of the				
2	has not in	nproved s	since the project					
3	agents the	at will fac	ilitate Zika's pre	aders will be the vention activities.				
4	project or	nwards.		health from the				
5	in the con	nmunity.		own about health				
6	population	n regardir	ng Zika.	knowledge in the				
7	needs of	the popul	ation.	e adapted to the				
8	of elimina	ting the h	atcheries.	nows the benefits				
9	communit	ty surveilla	ance.	ely participated in				
10			ovided health ca t had not been a	re to more people attended before.				
	Part 2: W		ou think about th atements?	e following	Strongly disagree	Disagree	Agree	Strongly agree
1	the health	authoriti	es to make deci					
2		/ coordina	ated with the pop	activities was not oulation and				
3	Communi face futur		ers are now mor ics.	e prepared to				
4	The proje population gender, s	ct has ca n without exual orie		ce, nationality,				

Annex H: Results analysis of information collected with Format 1, Peru

	Format 1 filled	Format 1 processed with complete information		
Cajamarca	30	28		
Lambayeque	31	28		
Piura	14	14		
Tumbes	20	20		
Lima	7	7		
Total	102	99		

In the analysis, in order to have all the questions on the same scale, the transposes of questions P102, P109 and P202 were used. Therefore, the 14 questions that entered the analysis are the ones detailed in the following table.

Code	Detailed question
P101	Since the project's implementation, there is more commitment of the authorities to the health of the population of the district.
TP102	Coordination among institutions for health issues has improved since the project began.
P103	From now on, the community leaders will be the agents that will facilitate Zika's prevention activities.
P104	There will be more resources for health from the project onwards.
P105	Since the project began, more is known about health in the community.
P106	The project has generated greater knowledge in the population regarding Zika.
P107	The activities of the project were adapted to the needs of the population.
P108	With the project, the population knows the benefits of eliminating the hatcheries.
TP109	All actors involved have actively participated in community surveillance.
P110	The project has provided health care to more people in communities that had not been attended before.
P201	The information generated by the project is used by the health authorities to make decisions.
TP202	The implementation of the project activities was previously coordinated with the population and local organizations.
P203	Community members are now more prepared to face future epidemics.
P204	The project has carried out activities with the entire population without discrimination on the basis of gender, sexual orientation, age, race, nationality, socioeconomic level or any other reason.

Reliability

The SPPS-24 statistical package was used for the reliability analysis. The reliability coefficient has been calculated as internal consistency for dichotomous items using the Kuder Richardson KR-20 technique. For the fourteen variables, the SPSS result shows us a Cronbach Alpha variant of 0.845, which is in a good range.

Reliability statistics

Cronbach's	Chronbach's Alpha based	N of
Alpha	on standardized elements	elements
0.845	0.837	14

Frequency analysis and statistics of the 14 elements show a low variance per element.

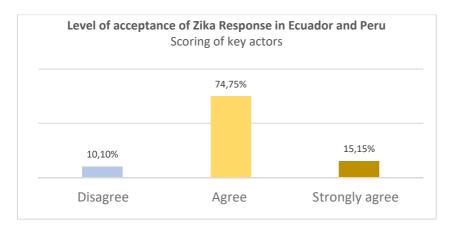
Ctatiotics									
Since the									
		Since the project's implementat ion, there is more commitment	From now on, the community		Since the	The project			
		of the	leaders will	There will	project	generated			
		authorities	be the	be more	began,	greater			
N	Valid	to the health of the population of the district.	agents that will facilitate Zika's prevention activities.	resources for health from the project onwards.	more is known about health in the community.	knowledge in the population regarding Zika.			
	Loss	0	0	0	0	0			
Mea	n	3.29	3.33	2.77	3.59	3.68			
Med	lian	3.00	3.00	3.00	4.00	4.00			
Mod	e	3	3	3	4	4			
Standard deviation		0.576	0.589	0.470	0.515	0.470			
Variance		0.332	0.347	0.221	0.266	0.221			
Minimum		2	2	2	2	3			
Max	imum	4	4	4	4	4			
Sum	1	326	330	274	355	364			

Statistics

		The activities of the project were adapted to the needs of population.	With the project, the population knows the benefits of eliminating the hatcheries.	The project has provided health care to more people in communities that had not been attended before.	The information generated by the project is used by the health authorities to make decisions.	Community members are now more prepared to face future epidemics.
N Valid		99	99	99	99	99
	Loss	0	0	0	0	0
Mean		3.36	3.56	3.38	2.98	3.41
Media	an	3.00	4.00	3.00	3.00	3.00
Mode	•	3	4	3 rd	3	3
Standard deviation		0.543	0.557	0.650	0.349	0.495
Variance		0.295	0.311	0.423	0.122	0.245
Minimum		2	2	1	2	3
Maximum		4	4	4	4	4
Sum		333	352	335	295	338

Statistics						
		The project has carried out activities with the entire population without discrimination on the basis of gender, sexual orientation, age, race, nationality, socioeconomic level or any other	Coordination among institutions for health issues has improved since the	All actors involved have actively participated in community	The implementatio n of the project activities was previously coordinated with the population and local	
		reason.	project began.	surveillance.	organizations.	
N	Valid	99	99	99	99	
	Loss	0	0	0	0	
Mean		3.61	3.45	2.98	3.43	
Median)	4.00	3.00	3.00	3.00	
Mode		4	3	3	4	
Standa deviation		0.531	0.520	0.404	0.592	
Variance		0.282	0.271	0.163	0.350	
Minimum		2	2	2	2	
Maxim	um	4	4	4	4	
Sum		357	342	295	340	

The frequency tables based on the scoring of the key agents show us that the project Zika Response in Ecuador and Peru in general is well accepted, but the scoring is different in the different questions. The bar graphs, obtained from the SPSS, have been included in the document. Taking into account the score of the level of acceptance of the project by the key agents, the score is favorable. 15% strongly agree, 75% agree and 10% disagree.

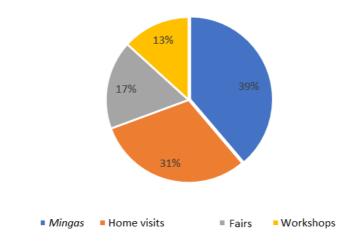


Annex I: Breakdown of training processes in cantons of Ecuador

Place: Canton	Process	Number of activities			
		carried out			
	Training	33			
Portoviejo	Prevention	67			
	Sensitization	43			
	Training	5			
Las Lajas	Prevention	2			
	Sensitization	1			
	Training	85			
Manta	Prevention	32			
	Sensitization	27			
	Training	2			
Jama	Prevention	8			
	Sensitization	19			
	Training	2			
Pedernales	Prevention	15			
	Sensitization	28			
	Training	2			
San Vicente	Prevention	13			
	Sensitization	9			
	Training	14			
Sucre	Prevention	14			
	Sensitization	27			
	Training	1			
Huaquillas	Prevention	5			
	Sensitization	23			
	Training	13			
Arenillas	Prevention	13			
	Sensitization	8			
	Training	15			
Muisne	Prevention	18			
	Sensitization	3			

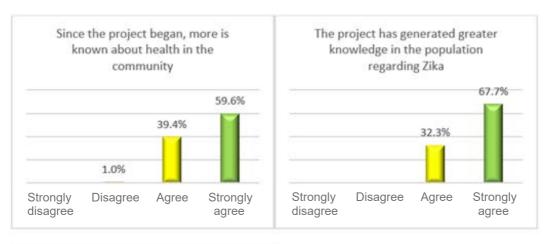
Source: (Consolidated M&E Database, 2019) Own elaboration

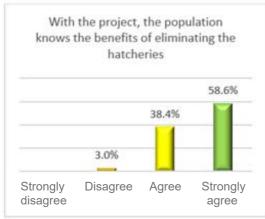
Annex J: Dissemination activities of the campaign that had an impact on the population of Ecuador



Source: (Field Research Report, 2019) Own elaboration

Annex K: Perception of knowledge provided by the project, Peru





Source: Processing of Format 1. Own elaboration

Annex L: Matrix of understanding for the evaluation approach

Transversal G		General	General			Disaggregation according to evaluation approach		Blocks					
	axes objective			Specific objectives				2	3	4	5		
	explic the perforn ce of t		To make explicit the performan ce of the project	а	To know how the capabilities for the prevention of Zika changed at the community, local, national, binational and intersectoral levels, as a result of the intervention of PJAZ in Peru to combat the Zika epidemic.	а	Change of community capacities for the prevention of Zika						
	Zika Response in Ecuador			To know the outputs and outcomes of community participation and mobilization promoted by the project in the prevention of diseases caused by		Results of community participation and mobilization							
			b	arboviruses, and to identify the approaches and activities that could be implemented by other institutions, particularly in other health emergencies and epidemics.	b.2	Actions to be implemented in other health emergencies							
er	ırality	mobilizati on and participati on, on, communit		С	To know the results and contributions of community epidemiological/entomological surveillance for the prevention of Zika and for the control of Aedes aegypti	c.1	Results of community epidemiological/en tomological surveillance						
Gender	Interculturality	Human rights	Disaster risk ı	epidemiol ogical surveillan ce, and		within the framework of the response implemented by the project in Peru, as well as the sustainability of the community surveillance systems proposed by the project.		Sustainability of community surveillance systems					
				social and behaviora I change for the preventio n of Zika and for the	d	To identify the elements of the communication strategy, messages, educational-communicative materials and the means that were most effective in increasing knowledge about Zika and in achieving the adoption of effective prevention practices at the individual, family and community levels.	d	More effective communication strategy elements					
				control of Aedes aegypti, carried out in the areas of interventi on in Peru.	е	To identify elements of the project's implementation that could contribute to improving the quality of CARE's strategic and programmatic intervention.	е	Elements of quality improvement of strategic and programmatic intervention					

	Blocks				
1	General aspects				
2	Community mobilization				
3	Community-based surveillance				
4	Social and behavioral change				
5	Inter-institutional planning and coordination				

Own elaboration