Technical cooperation: "Implementation of the ECHO methodology in three Latin American and Caribbean countries"
ATN-/JF-18098-RG
Final Report

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Project ECHO – URUGUAY
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1 Executive summary

1. This report is part of the actions programmed by the Technical Cooperation (TC) ATN-/JF-18098-RG of the Inter-American Development Bank (IDB), executed by the School of Medicine of the University of the Republic of Uruguay. The purpose of this systematization is to understand the validity of the tools used and transferred, identify lessons learned and produce recommendations for future interventions. The goal of the technical consultancy was to contribute to the response to the COVID-19 crisis and its aftermath during the recovery phase, through the implementation of the ECHO methodology in three countries of the region. Initially, the three beneficiary countries chosen were El Salvador, Ecuador and Belize. Because of the poor institutional capacity of the national counterpart, Belize was unable to be a beneficiary of the project in the format initially proposed and it was decided, in agreement with the Bank, to complete the list of three countries with Honduras, while Belize was included in ECHO's general actions in the region.
2. Due to the complexity of the process of forming local counterparts in the selected countries, the work carried out by Udelar significantly exceeded the initial effort estimate and the number of countries involved to achieve it (four instead of three): Belize, El Salvador, Ecuador and Honduras. In any case, Udelar, with the support of the IDB, succeeded in obtaining almost all the expected and deliverable outcomes within the execution period initially defined: from the signing of the contract until April 2, 2023. Field activities were completed in the 12th month of 2023 in Honduras.
3. The total number of products executed has reached and in some cases exceeded the number committed in the key activities defined in the contract. No outcomes are presented for Beliz, but negotiations and preparations went on for approximately one year (2021 - 2022), after which it was decided to replace this country with Honduras and restart work from scratch (from 2022 to December 2023). The case of El Salvador presents only part of the outputs initially proposed, which were executed between 2021 and 2022, but then the counterpart stopped responding to the project and it was decided to migrate these products to Ecuador (executed between 2021 and 2023).
4. The first line of action implemented was that of project scoping. It consisted of a set of actions to adapt the programming to the specificities of each institutional, professional and cultural context. These activities were conducted in the 4 countries involved.
5. The second line of action was the creation and/or strengthening of at least three ECHO hubs in the participating countries. These activities were fully accomplished, starting with the strengthening of the hubs in El Salvador and Ecuador, and the creation from scratch of the hub in Honduras.
6. The fourth line was the implementation of teleclinics following the ECHO methodology. Thirty teleclinics were planned and 39 were actually implemented, including those carried out in CEDIA Ecuador and SESAL

Honduras. In the case of El Salvador, the National Health Institute decided not to continue with the project, so this component was not executed.

7. The fifth line consisted of the design and implementation of complementary training activities. Eleven activities were carried out, involving teleclinics and binational events, as well as publications. The original plan referred to only eight.
8. Finally, the plan included the evaluation of the outcomes of these interventions and products. The results in this case are below initial expectations. Training in the ECHO monitoring and evaluation methodology was performed in El Salvador, Honduras and Ecuador. In the case of SESAL Honduras, during the year the project was implemented, monitoring actions were carried out, providing initial data on compliance with activities and participant satisfaction, which showed that expectations had been met. In the case of CEDIA Ecuador, monitoring activities were carried out for two years, providing evidence of compliance with activities. In addition, an outcomes evaluation tool was designed jointly with the technical counterpart, a pretest was carried out to validate it and a process of systematization of the regulatory framework was generated to implement studies with users. We did not reach the stage of applying the instrument to a representative sample, but the capacities were installed. Proof of this is that during the final stage of this intervention, **ECHO CEDIA was promoted to superhub by the ECHO Institute**. In the case of the National Health Institute (INS) El Salvador, three different teams were trained in monitoring and evaluation, but the characteristics of the technical counterpart did not allow studies to be carried out under this project. After the cessation of activities with the project, the **INS hub in El Salvador was named superhub by the ECHO Institute** of the University of New Mexico, so it is fair to say that these competencies were considered to that end.
9. At the end of the field activities, the M&E records of the project in **Ecuador and Honduras show a total of 4300 participants of the technical cooperation interventions during 2022 and 2023**, scattered in the territory, hence meeting the goal of the project to achieve a wide coverage in the first level of health at the territorial level. In principle, it is considered that the results obtained contribute to the creation of long-term organizational capacities in terms of telementoring and continuous professional development of health teams in the areas prioritized by the ministries of health of the three countries involved. Likewise, the technical quality of the outcomes collaboratively achieved by the teams of experts from the region is considered significant. Without altering the initial budget (USD 250,000), the ECHO Udelar team, with the support of the IDB, managed to generate strategies adaptable to the characteristics of their counterparts in the countries; all the work was done remotely.

10. The implementation of this project posed a new challenge for ECHO as a global project, since it is the first experience of implementing training and mentoring activities on a multinational scale, and fully virtually. This challenge implied an initial diagnostic and negotiation effort in four countries, with outcomes that differ; we understand those differences are justified by the political and technical configuration and the level of development of the different health systems.

The first lesson learned in this regard is that there are four key elements for the success of these activities: 1) the political will of the health authorities to enable and support these initiatives; 2) the institutional capacity of the organization that will act as the direct counterpart, enabling articulation with the different national and international actors; 3) the technical density of the teams provided by the counterpart to execute the initiative; and 4) the adaptive leadership capacity that is necessary locally to guarantee the identification and creation of the technical support teams, and to visualize the general strategy of the project and the gradual planning that should be allowed according to each context.

The second lesson learned has to do with the need for initial planning with a certain margin of flexibility, to be able to respond to contingencies due to factors external to the project. The fact that the attempt to reach an agreement in Belize took approximately one year is to be noted. It is necessary to build greater capacities to identify the barriers that may preclude the operation early on, and to generate a more dynamic decision-making mechanism.

The third learning has to do with the concrete implementation of the components. No difficulties were encountered with the creation of a fully virtual hub. The case of Honduras is a successful example in this regard. No problems were identified when strengthening existing hubs either. In these cases, it is important to have a good explanation of the initial status of the hub and the strengthening objectives. However, meeting the goals for the teleclinics component did pose challenges. A specific lesson learned in this component is the level of capillarity achieved in the short term at the territorial level. This far exceeds initial expectations and shows the potential of the ECHO model in territories with these characteristics.

However, the fourth learning focuses specifically on the evaluation component. There is clearly a lack of a pre-existing evaluation culture, and although there are local technical capacities, they are not applied to these activities. The main lesson is that we identified the need to incorporate the evaluation component more strongly, but to do so requires an initial approach through a series of face-to-face activities to select a national technical counterpart and an initial evaluation and monitoring workshop. The rest of the activity can be completed virtually. Despite their weaknesses, the counterparts were left with initial training and validated evaluation instruments, and the challenge of deepening these capacities was also

raised. In summary, the project achieved its goals and the organizations are left with a strong installed capacity to continue reproducing the initiative on their own.

2 Introduction and background

This report is part of the actions programmed by the Technical Cooperation (TC) ATN-/JF-18098-RG of the Inter-American Development Bank (IDB), executed by the School of Medicine of the University of the Republic. The purpose of this systematization is to understand the validity of the tools used and transferred, identify lessons learned and recommendations for future interventions.

The objective of the technical consultancy was to contribute to the response to the COVID-19 crisis and its aftermath during the recovery phase, through the implementation of the ECHO methodology in three countries of the region. Initially, the three beneficiary countries chosen were El Salvador, Ecuador and Belize. Due to the lack of institutional capacity of the national counterpart, Belize could not be a beneficiary of the project in the format initially proposed and it was decided, in agreement with the Bank, to complete the list of three countries with Honduras.

The ECHO methodology is based on teleclinics and short didactic courses. Teleclinics are defined as videoconferences in which rural doctors, general practitioners, specialists and other health professionals connect simultaneously via the Internet, together with professors from university hospitals or reference centers, following a methodology that is specific of the ECHO model for the discussion of difficult clinical cases.

The ECHO teleclinics operate as follows: physicians and other health care professionals from the interior or periphery of the countries present clinical cases that are frequent and complex, o cases difficult to manage to the actors of the project's participating community (“community of practice”). They share the questions or dilemmas facing the treating physician and the local health team. The participating community brings knowledge and experience; they a pathway to solve the case, under the coordination of experts from the university hospital or referral center, who contribute in the same way and synthesize evidence-based recommendations, giving special emphasis to those aspects of the diagnostic procedure or treatment that are difficult to manage without specialized training and experience. They may also include brief presentations on common or difficult topics, called “didactics”.

The foundations of this methodology are collective case-based learning and the sharing of best practices. By repeating this dynamic periodically and learning from each other, health teams in remote areas become progressively more specialized and manage to treat most frequent and complex patients on their own, while forming a nationwide community of practice and providing an ongoing professional development program that allows these professionals to remain locally, providing care to their patients.

Organizations that replicate the model are referred to as “hubs” or ECHO nodes, after having signed a legal agreement with the ECHO Institute of the University of New Mexico (USA), which establishes the terms of replication and intellectual property (without involving any type of monetary or in-kind counterpart or institutional commitment), and after having trained a group of human resources. Likewise, the terms “superhubs” or ECHO reference centers refer to those organizations with an outstanding track record in their replication of the model and that are selected by the Institute to be trained in the capacity to train others (new hubs or expanding hubs).

The work plan was organized in three stages. The first stage was aimed at establishing contact with the counterpart teams in each country and defining the work teams. The second stage involved teleclinics, courses or educational interventions, as well as the preparation of multimedia materials. The last phase involved the evaluation reports and closing activities of the consultancy. The project was implemented nationwide in each of the three countries.

In each country selected, either a new ECHO hub was created, or the work involved existing hubs. The hubs were in charge of implementing the ECHO methodology, articulating between communities of practice, specialists and reference centers. This ensures the sustainability of the initiative in the participating countries once the technical cooperation is discontinued.

The work methodology in the countries was based on joint work between the ECHO Udelar team and the technical teams assigned in each country, considering the priorities set by the ministries of health of the respective countries as a guide, in addition to the articulators at the local level represented by the IDB Experts of the Health and Social Protection Division.

3 Activities and deliverables

Through Project ECHO, School of Medicine, the University of the Republic of Uruguay (Udelar) complied with the five initial deliverables in due time and form and received the approval of IDB.

N°	Description	Delivery date
1	Signing of contract	03 May 2021
2	Work plan and project scoping	07 May 2021
3	Report on: i) Materials and methodology for training activities and courses and ii) materials and methodology for teleclinics.	07 June 2022
4	First report on implementation of teleclinics, strengthening of frontline health teams and ECHO hubs	17 Nov 2022
5	Second report on implementation of teleclinics, strengthening of frontline health teams and ECHO hubs	13 March 2023
6	Final Report	April 2024

Due to the complexity of the process of forming local counterparts in the selected countries, the work undertaken by Udelar significantly exceeded the initial effort estimate and the number of countries involved to achieve it (four instead of three): Belize, El Salvador, Ecuador, Honduras. In any case, Udelar, with the support of the IDB, was able to achieve almost all the expected outcomes and deliverables within the execution period that had been initially defined: from the signing of the contract until April 2, 2023.

In view of the levels of commitment and work schedules of the counterpart organizations in the countries involved, through their ministries of health and project executing organizations (ECHO hubs), it was agreed there would be a first extension of implementation until December 31, 2023.

The total number of products executed reached and in some cases even exceeded the initial commitments for the key activities defined in the contract. No outcomes are presented for Belize, but negotiations and preparations went on for approximately one year (2021 - 2022). Due to Belize's shortage of human resources to run an ECHO hub, it was agreed to promote the participation of health teams in the communities of practice formed in the sub-region by hubs from the United States, Mexico and other countries. Given Belize's inability to participate, it was decided to replace it with Honduras and to restart work from scratch (from 2022 to December 2023). The case of the National Health Institute (INS) of El Salvador presents only part of the outcomes initially proposed, which were executed between 2021 and 2022, but then the counterpart stopped responding to the project and the decision was made to migrate these products to Ecuador (executed between 2021 and 2023).

Seven specialists from ECHO Udelar's core team worked uninterruptedly to complete these activities, permanently in contact with the counterparts, according to the required profiles: Elisa Martínez, MA (Coordination), José E. Fernández, MA (Evaluation and Monitoring), Carla Muñoz, MA (Methodology and Communication), Thais Forster, MA (Methodology), Analía Bombau BC (Communication and Monitoring), Carlos Reolon, MD (Methodology and Technological Management), and Henry Cohen, MD (Director).

Below is a summary of the execution of key activities as defined in the contract and deliverables, by country.

3.1 Ecuador

Creation and/or strengthening of ECHO HUBs: There were activities to strengthen the CEDIA hub (Ecuadorian Corporation for the Development of Research and Academia) during 2021 - 2023. Below is a listing of the lines of work effectively implemented:

- **Strategic communication:** report of activities carried out and recommendations.
- **Methodological optimization:** report of activities carried out and recommendations.
- **Positioning with universities:** diagnosis, proposal and execution of two binational activities.

Implementation of teleclinics following the ECHO methodology: Ten teleclinics of the maternal-neonatal management program were held in 2022 (the topic had been expressly defined as a priority by the Ministry of Health) and 19 teleclinics of the specialty program (which included the topic above) in 2023. Lines of work effectively implemented:

- **Maternal-neonatal management teleclinic program:** report of 10 teleclinics implemented, monitored and evaluated in 2022.
- **Specialty program:** report of 19 teleclinics implemented, supervised and evaluated in 2023.

Design and delivery of complementary training activities: During the implementation period, the 8 complementary activities were completed and one additional educational material was exclusively developed in Ecuador (CEDIA). Lines of work effectively implemented:

- 2 events to position ECHO CEDIA before universities and authorities: First national telehealth meeting (May 2022); Binational virtual colloquium (November 2022).
- 2 educational interventions in pre-existing teleclinics on patient mental health (maternal-neonatal management program and hypertension program) in July 2022.
- 2 mental health educational interventions by the health team in the maternal-neonatal management program, in September and October 2022.
- 2 binational teleclinics on clinical management and communication of severe preeclampsia (August 2023).

Twelve experts from Uruguay participated in the design and preparation of contents and in the execution of these activities: Prof. Dr. Henry Cohen (Director Project ECHO Udelar), Elisa Martínez, MA (Coordinator Project ECHO Udelar), Prof. Dr. Juan José Dapueto (Dept. Medical Psychology), Prof. Dr. Fernando Tomasina (Dept. Occupational Health), Assoc. Prof. Dr. Zaida Arteta (Dept. of Infectious Diseases), Assist. Prof. Dr. Gabriela Píriz (Dept. of Infectious Diseases), Assist. Prof. Dr. Gabriela Píriz (Palliative Care Service), Assist. Prof. Dr. Mariana Guirado (Palliative Care Service), Assist. Prof. Dr. Mariana Guirado (Chair of Infectious

Diseases), Assoc. Prof. Dr. Cecilia Durán (Dept. of Medical Psychology), María Noel Silvariño, B. in Psychology (Dept. of Medical Psychology), Assoc. Prof. Dr. Fernanda Nozar (Dept. of Gynecology A), Assist. Prof. Dr. Verónica Fiol (Dept. Gynecology A), Prof. José E. Fernández (E & M Officer, ECHO Udelar).

Sample of dissemination material for the interventions

In addition, an educational material was prepared on the children's right to health care in Ecuador, aimed at schoolchildren between 8 and 12 years of age, published

in the children's magazine “Chispiola”, distributed nationwide; it is sponsored by the Ministry of Education. The material corresponds to issue no. 178 of the magazine, published in November 2023: Please refer to https://issuu.com/revistachispiola/docs/chispiola_178_final

Four experts from ECHO Udelar worked in the development, design and preparation of the contents: Assist. Prof. María de los Ángeles Dallo, MA, Elisa Martínez, MA, Assist. Prof. Dr. Facundo Taboada, Assist. Prof. Dr. Carlos Zunino. An expert from CEDIA, Dr. Marcia Arce, also collaborated in the contents, albeit with less dedication.

Sample sections of educational material developed for ECHO CEDIA

Despite having exceeded the number of activities required, an additional educational material on the same subject was produced for adult relatives and affective trusted leaders of children from 6 to 12 years of age in Ecuador. Five experts from the ECHO Udelar team participated in the project: Elisa Martínez, MA, Dr. Carlos Zunino, Dr. Facundo Taboada, María de los Ángeles Dallo, MA, D/I Alejandro Salvo.

3.2 Honduras

Creation and/or strengthening of the ECHO SESAL hub: Creation and support of the ECHO SESAL hub during 2022 - 2023: The lines of work effectively implemented under this item were as follows:

- Presentation and political management before the Ministry of Health.
- Preparation and accompaniment in the selection and creation of the technical team.
- Complete training and certification provided to five SESAL members.
- Accompaniment in the design, preparation and launching of the first teleclinic program on tuberculosis and diabetes, aimed at primary care teams in Honduras.
- Re-training workshops and technical assistance to the hub's central team in the areas of communication, the iECHO monitoring system, methodology and technological management.

Implementation of teleclinics following the ECHO methodology: Ten teleclinics of the tuberculosis program in 2023. The lines of work effectively implemented at this point were as follows:

- Supervision of the activity.
- Technical assistance, follow-up and monitoring of the 10 teleclinics executed.

Design and deliver complementary training activities: An educational material was developed with the ECHO SESAL team, Honduras. It consists of a graphic material on the management of tuberculosis in Honduras, for health teams at the first level of care, after an extensive work with specialists from different levels and organizations in Honduras convened by SESAL for the discussion of the problem and definition of the contents. Three experts were involved in this task: Dr. Sayda Pejuán (physician from SESAL's Management Support area), Dr. Mariana Guirado (internist and infectious disease specialist from Udelar) and Elisa Martínez, MA (educational communicator from Udelar).

Sample material and dissemination for ECHO SESAL

All the products generated in the process are available here.

3.3 El Salvador

Project scoping: Initially, it was agreed to work on institutional strengthening activities and teleclinics. The existing hub at the National Health Institute (INS) was strengthened. It should be noted that not everything that was initially planned was achieved.

- **Methodological adequacy**: report of activities and report of recommendations.
- **Professionalization of communication**: activity report and implementation report.

Implementation of teleclinics following the ECHO methodology: A binational program of teleclinics on prenatal care was agreed upon. Between March and July

2022, the binational technical team worked on the design of the program and its curriculum, which was not completed or executed due to a political decision by the Ministry of Health.

3.4 Belize

Project scoping: Although the intervention in Belize was not implemented, it meant a significant workload for the project management team that spanned a period of almost 12 months between 2021 and 2022. Although the ministry initially expressed interest and understood the benefits of bringing Project ECHO to Belize, and even appointed a focal point who was able to convene key stakeholders in the country's health system, the project failed due to the lack of human resources at the ministry to monitor and promote the project-related work. At times it was understood that the Belize Medical and Dental Association could be the operational counterpart of this TC. However, the resignation of the person designated as focal point was a turning point in the project and led to revisit how the country should continue to work. That is, it was agreed that ECHO would be promoted in Belize by IDB's local office and the MoH as a tool available to health professionals and teams that individually or collectively can participate as members of the communities of practice created around teleclinical programs managed by ECHO hubs in the United States, Mexico and other countries of the subregion. Belize participants would be able to present their own clinical cases and actively engage in the discussion and analysis of other peers. This strategy left open the possibility of deploying their own hub in the future when the conditions are met.

4 Process evaluation

The evaluation is presented at two different levels: a) a systematization - evaluation of the activities, products and outcomes generated by the process implemented by ECHO Udelar; and b) a systematization of the progress achieved in the evaluation component corresponding to each country. Level b) was based on the objective of transferring the standardized evaluation tools usually used by ECHO to the countries involved, inducing and monitoring an initial specific evaluation experience on the health personnel participating in the teleclinics, and leaving installed capacities to incorporate the evaluation and monitoring contents in a self-sufficient way.

4.1 General aspects related to project outputs and outcomes

In principle, it is deemed that the results obtained contribute to the creation of long-term organizational capacities in terms of telementoring and continuous

professional development of health teams in the areas prioritized by the ministries of health of the three countries involved. Likewise, the technical quality of the outputs collectively achieved by the teams of experts from the region is considered important. Without altering the initial budget (USD 250,000), the ECHO Udelar team, with the support of the IDB, managed to generate strategies adaptable to the characteristics of the counterparts in the countries, in a purely remote work. Furthermore, expectations were exceeded in the outcomes produced in three of the six key lines of action defined by the IDB:

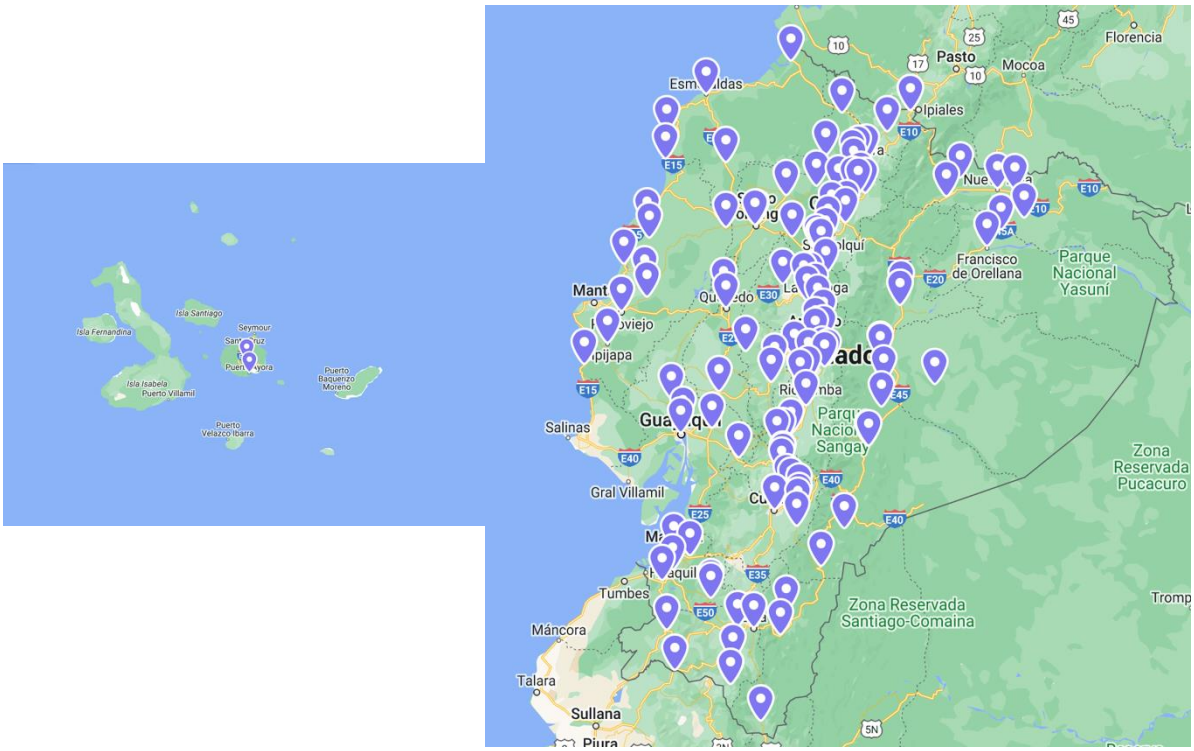
1. **Project scoping**
   Planned activities to be implemented in 3 countries
   Effectively executed in 4 countries
2. **Implementation of teleclinics following the ECHO methodology**
   Number of teleclinics planned: 30
   Actually executed: 39
3. **Design and deliver complementary training activities.**
   Number of complementary activities planned: 8
   Actually executed: 11
4. **Creation and/or strengthening of at least 3 ECHO HUBs in participating countries.**
   Number of ECHO hubs strengthened (2) or created (1): 3
5. **Evaluation of the outcome of these interventions and outputs**
   The results of Activity 5 were below the initial expectations. Below we describe the level of training and the level of evaluation of outcomes achieved jointly with each country.

At the close of field activities, the monitoring and evaluation records of the project in Ecuador and Honduras show a total of 4300 participants during the years 2022 and 2023, with distributed across the territory, which meets the project's goals of achieving broad coverage at the primary health care level at the territorial level.

Total number of participants registered by year and country

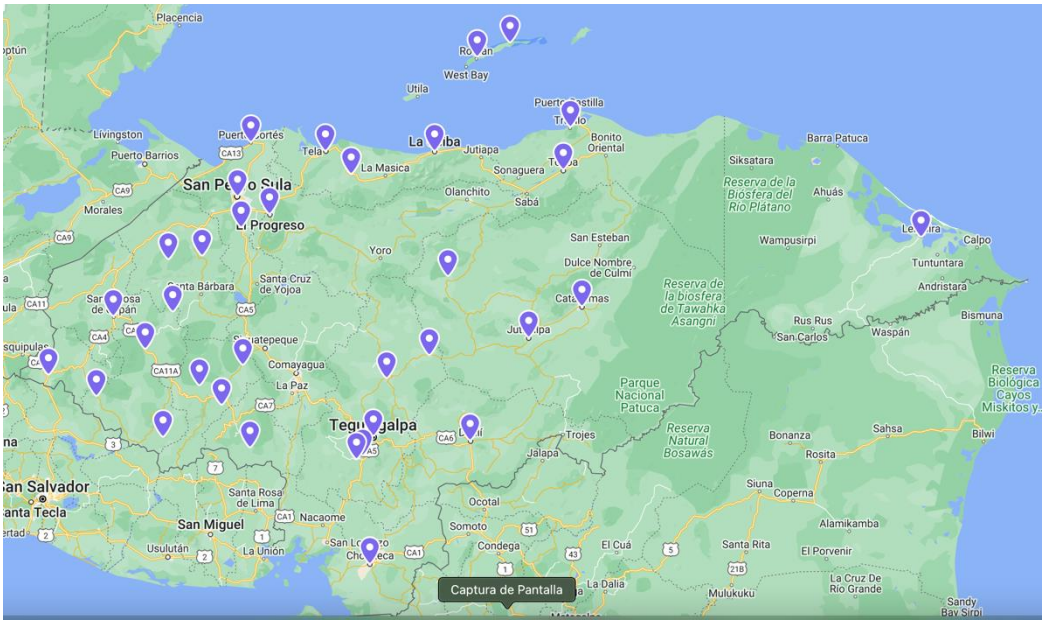
Country	Institution	Participants
Ecuador	CEDIA 2022	520
	CEDIA 2023	1473
	Total CEDIA	1993
Honduras	SESAL 2023	2307
Total		4300

Territorial distribution CEDIA ECUADOR



CEDIA Ecuador sites: see here.

Territorial distribution SESAL Honduras



SESAL Honduras sites: see here.

We will now present an analysis of the evaluation progress in each country, organized according to the two levels of activities: changes in institutional capacities, and the specific effects of the teleclinics on the health care participants. The methodological approach used is interpretative-qualitative, based on the analysis of all available secondary information generated in the process: iECHO monitoring system; analytical information from the ZOOM ECHO platform; interviews with relevant actors at the central level of ECHO and within the participating countries; supervision reports of the teleclinics; reports of planning meetings with the counterpart; and content analysis of the products generated in the process.

4.2 Changes in institutional capacities

4.2.1 Ecuador

- **Validity of the design**

The execution of the product required the development of strategies to adapt to the institutional and technical profile of CEDIA's counterpart, but the project was executed according to schedule with the appropriate amendments when new activities arose because of internal circumstances and changes in the general working configuration with the other countries. Based on the results achieved, the level of compliance is considered good. Although not all stages of the transfer of evaluation capacities were completed, a validated version of a specific capacity assessment tool built jointly with the CEDIA counterpart was made available.

- **Relevance of the project**

The project was considered relevant because it was flexible enough to adjust to the needs and demands of Ecuador, and in the process of strengthening an existing hub, it managed to work in key areas of relations with the State and the Academy. On the other hand, progress was made in building a collaborative space through the creation of binational teleclinics.

- **The project's ability to achieve results**

The project has surpassed the outcomes originally expected, more than completing 5 of the planned components, and making significant progress in component 6, monitoring and evaluation.

- **Sustainability and transferability of the project's achievements**

The management capabilities of the project and the methodological management of the teleclinics were enhanced; furthermore, the project led to processes of

outreach outside the organization that will continue to advance. On the other hand, monitoring and evaluation capabilities have been installed.

4.2.2 Honduras

- **Validity of the design**

The stakeholders involved in the implementation of the project consider that the intervention was in line with the program and was flexible enough to adapt to the professional, institutional and territorial characteristics of Honduras. They express a good level of satisfaction with the outcomes achieved and the level of learning generated in the process.

At the institutional level, having the Department of Strategic Human Resources Development of the Ministry of Health as a counterpart was a real asset. They state that it was an excellent experience. They consider that integration played a role during training, involving health facilities in underserved areas. They indicated that in Honduras there are protocols at hospital level, but they are scarce in primary health care. They consider that it was a good time to update protocols and manuals. At the institutional level, they indicate that program coordination is being created and they see this as an opportunity to connect with relevant levels of the health system.

- **Relevance of the project**

They consider that the project was relevant and as they saw the results they understood its potential and the need to strengthen and expand it to other thematic areas and territories. They state that at the beginning it seemed simple but that the implementation demanded permanent learning and adaptation. They emphasize the adaptation process. They consider that it is key to control the methodology and to respect the agenda. They state that it was very challenging for them, but they adapted. Part of the difficulties came from within like searching for clinical cases, searching for specialists, inviting participants. They consider that they managed to overcome the obstacles. One example they mention is getting specialists to participate, since they were difficult to recruit and even when they agreed to do so, they often had difficulties connecting to the teleclinics. They quickly developed strategies to replace them in case of contingencies.
The teleclinic program developed in 2023 dealt with tuberculosis and its relationship with diabetes. This is a very important topic in the health agenda of Honduras and generated a very significant attendance. They consider that more confidence was gained with practice and with the fact that at the beginning there was great participation and support, all of which boosted their confidence. In

general, they raise problems common to other experiences such as the lack of experts and the availability of time of the health teams, but they point out that they always had management support.

On the one hand, there is a strong interest in the team to expand the agenda and coverage, which is already high. There is also an interesting empowerment of the ECHO methodology. The agenda currently include themes like Women, Domestic Violence and Mental Health. They clearly stated their interest in being part of the initiatives to be developed in Honduras in this regard.

- **The project's ability to achieve results**

It is considered that the project achieved the expected results. As mentioned above**, 10 sessions were held in one year, with a total of 2307 participants**, a figure relatively higher than the expected participation for this type of intervention.

On the other hand, the team maintained a monitoring process that, despite initial difficulties, was able to provide real-time information on a set of indicators related to the way the sessions unfolded and the level of satisfaction with them. Finally, an educational communication product on tuberculosis and diabetes was produced for primary health care professionals, which will serve as an input for future training activities. This is in addition to the extraordinary activities developed with CEDIA.

Management capacity was an important asset for the implementation of such a complex and dense project. It has shown to have an ideal knowledge and handling of the methodology and to have sensitivity and capacity to adapt to contingency management.

It is important to highlight their ability to manage some structural vulnerabilities that are key to the project. In Honduras, the health system does not have high levels of computer equipment and it has low internet coverage and quality. The adaptive strategies they applied led them to favour participation from collective spaces. They suggest that the easiest, albeit not simple solution, would be to have a room with videoconferencing equipment available in the most vulnerable territorial points. They comment that there were meetings of 8 to 10 people in the same location without adequate audio and image conditions, so they managed to move to spaces with better internet coverage in the spaces to which they had access.

Another issue that poses management difficulties and requires adaptive strategies is sending the invitations to the sessions. According to the coordination team, the

most efficient way is to send WhatsApp messages to the participants. They consider that in Honduras this medium works better than e-mails or the secretariat's communication system. The problem they have with WhatsApp is that they use it from personal accounts and when they make many invitations, users can be blocked. They have not been able to find the resources to professionalize this channel to summon and recruitment participants.

- **Sustainability and transferability of the project's achievements**

Sustainability and transferability are on the agenda of project management and coordination. At the institutional level, they consider that they need more support from the authorities, as well as structures with which they can partner to implement and expand the project. They state that they intend to continue strengthening the teams they have worked with and expand this, with the backing and support of the authorities. They are going to strengthen the involvement of the tuberculosis program, since they value the interaction within the teleclinic and want to deepen this link. They also plan to work with the coordination of programs.

At the technical level, they deem it necessary to deepen the recruitment of technical teams and they find it interesting to coordinate with the University and the Medical College.

On the other hand, they see the need to generate a replacement for the technical coordination as a key sustainability issue, since one of the medical coordinators is in the process of retiring. They consider that the coordination is essential, and it requires having someone who knows the methodology and is available to take over. In their first year, they have worked with many alternate people assigned that role; they have managed and solved several problems in obtaining rooms, but they still have connectivity problems. Another key issue is that they see the need to consolidate a place for the central coordination of the teleclinics.

One of the lessons learned after a year of operations is that as the project is implemented, the territorial demand grows exponentially, and it is not easy to cover all the needs exclusively in a virtual way. At a certain point they thought they would have local support to travel to the most disadvantaged areas and promote this work in person, but they failed.

In their view, it would be interesting to obtain more funds for a minimum infrastructure and some face-to-face instances. They mention that when they saw that this initiative was part of an IDB project, they thought that they would receive

more resources, since the reference they have from their role as physicians is the hospital construction projects being implemented by the Bank. However, they are aware that this project has other characteristics and scope.

4.2.3 El Salvador

It is fair to say that the original design could not be implemented. The first two activities of the three lines of work agreed under the first output “Strengthening the hub” were completed, namely “Recommendations for methodological adaptation” and “Advice for the professionalization of communication”.

Three complete training sessions on monitoring and evaluation were conducted with three different teams. Although the themes were given the methodology, the turnover and the professional profile did not allow any progress in terms of specific evaluations.

In any case, the activities carried out surely had a positive effect on the hub, as while this cooperation was underway, **ECHO INS was named Superhub by the ECHO Institute of New Mexico**, being the second in Latin America to receive such designation. As part of this process of evolution of ECHO INS, ECHO Udelar contributed to the preparation and support from ECHO through the Superhub training program, held in November 2022. In February 2023, the process of supporting the strengthening of INS ECHO was successfully concluded.

4.3 Capacity building of participating health care professionals

4.3.1 Ecuador

To get information on the increase in the capacities of the participants in the teleclinics, as foreseen in the project, the counterparts should have incorporated the transferred evaluation capacities and should have generated evaluation products. As mentioned above, CEDIA completed the transfer process and participated in a joint design of an evaluation tool. This process had several stages:

- Initial training.
- Form design with the technical counterpart.
- Development of a database with records of participants' addresses.

From that moment on, CEDIA proposed the need to carry out a legal consultation procedure to define the management of the regulations applicable in Ecuador to the handling of personal data. This process took six months and culminated in an agreement document on data management signed by CEDIA and Udelar.

At the end of the project's execution, the information was gathered through the application of the web form designed jointly but implemented and disseminated by ECHO Udelar to the target base provided by CEDIA. The purpose of this first application was to conduct a pre-test to validate the tool and, once validated, to provide a first approximation to quantitative results on the retrospective increase of capacities in 13 indicators that summarize the abilities worked on in the teleclinics.

The process for obtaining responses to a web survey from health personnel is complex and requires a great institutional effort. In the period available, we received 18 responses, which allows testing to validate the tool but does not provide solid information on the universe of cases. The pretest shows high consistency in the scales applied and significant differences between the baseline and impact line values. The full version of the pre-test is available in Annex 1. This tool can be applied in the future to evaluate the 2024 teleclinic program. Since this product is not available, some qualitative assessments are made below based on secondary monitoring data, as well as teleclinic supervision and observation reports.

According to the existing information, the following skills were worked on during the teleclinic program:

- Ability to identify patients.
- Ability to diagnose the health conditions addressed at the teleclinics.
- Ability to raise possible differential diagnoses.
- Ability to implement a comprehensive approach identifying medical and psychosocial problems, assessing their solvability.
- Ability to identify when and why to consult a specialist.
- Ability to identify the laboratory tests required to reach a diagnosis.
- Ability to understand the results of laboratory tests.
- Ability to know the therapeutic options available and their side effects.
- Ability to coordinate and implement referral and counter-referral of patients.
- Ability to identify problems related to clinical management and propose solutions in the participant’s area of performance.
- Ability to involve the families in the care of patients.
- Ability to transfer knowledge to the territory’s health team.
- Ability to serve as a local consultant

Based on the participation of professionals, the following relevant elements were identified:

- During the process, we perceived how the participants managed to overcome the initial barriers that hindered their intervention and interaction in the different sessions.
- The contents were very well accepted and there was conformity with the work methodology.

- The capabilities that were most easily incorporated are related to case identification and diagnosis.
- The most complex issues where the greatest barriers were perceived were centered on clinical management problems. The contents were well used.
- This program was focused on first level physicians working locally on the territories. As the process progressed, there was a noticeable increase in self-sufficiency expressed in the nature of the interventions and questions, although the interaction is less intense than in the teleclinics where participants are mostly specialists.

Based on the experience accumulated in other ECHO projects in Latin America and the Caribbean, it is estimated that the situation observed in CEDIA's teleclinics is within what is to be expected for first level physicians with some limitations in terms of knowledge, experience and updating.

4.3.2 Honduras

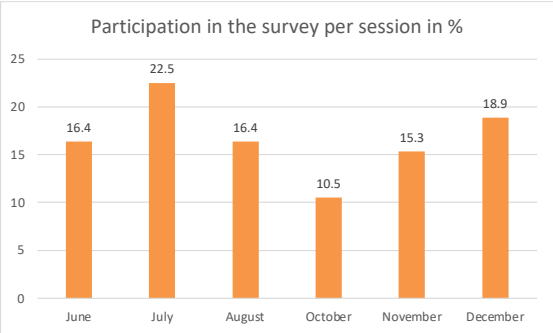
In the case of SESAL, an analysis was made of quantitative monitoring data from surveys to participants at the end of each teleclinic. **Data from six sessions totalling 275 responses were analysed.**

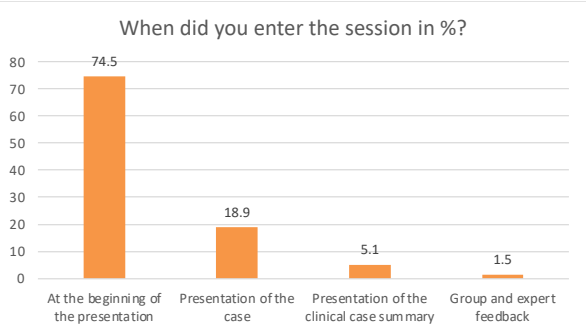
Six variables were surveyed and analysed descriptively:
1. When did you enter the session?
2. Perception of increased knowledge.
3. How useful was the session?
4. Willingness to recommend the experience to another colleague.
5. How did you learn about this?
6. Participation in each session.

Since the implementation was limited to 2023, we conducted a generic training on monitoring and evaluation, but we had not planned a final evaluation like the one initiated in CEDIA.

The SESAL team developed a monitoring process that, after overcoming some initial difficulties, managed to provide real-time information on a set of indicators related to the way the sessions were run and participants' satisfaction as the sessions took place. This information provides us with the first evaluations by the participants immediately after attending the sessions.

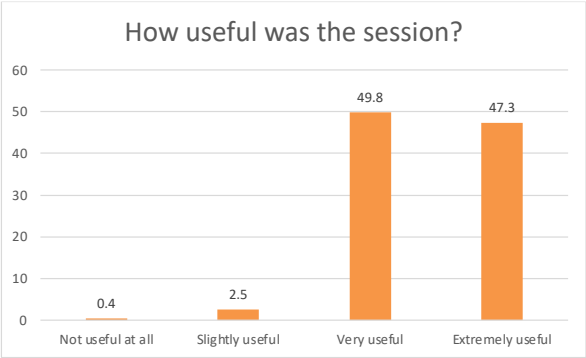
We consider that being a voluntary survey, they had a very good response. Apart from this, the coordinating team posed the challenge of maintaining control of the session and the planned agenda.

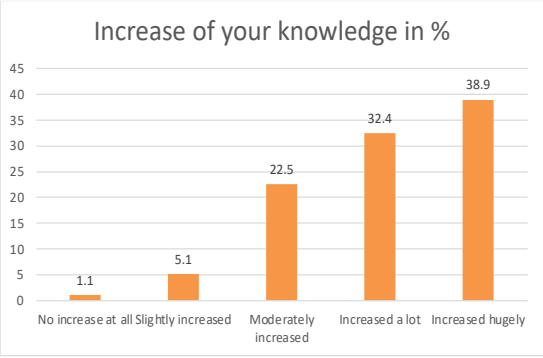




One of the indicators that operates as an empirical reference of the adherence of the participants to the proposed dynamics is the moment the participant enters the session. As we can see below, 75% of the participants stated that they logged in at the beginning of the session.

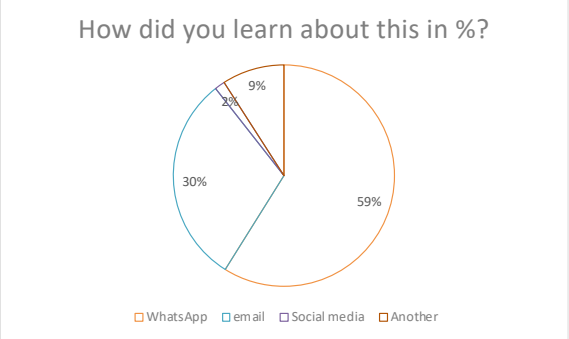
The coordinating team states that the expectations they had at the beginning are maintained because the participants continue to be interested and they need the training, since they are interested in the subject and there are no opportunities for general practitioners in Honduras, as continuing education is focused on specialists. For example, they were interested to discuss molecular tests and the changes that have taken place in the therapeutic process. They appreciate the fact that the training is in Spanish and they appreciate how much that can be done with this methodology in just one hour.

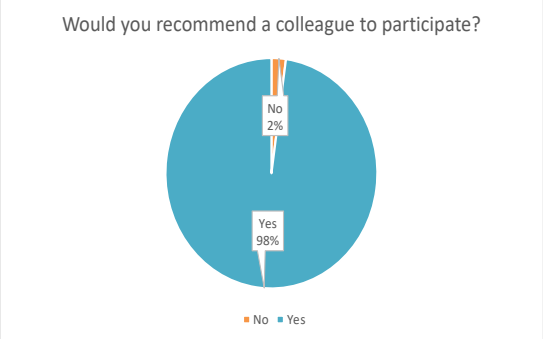




The valuation of usefulness is fully positive. In turn, the recognition of increased knowledge has a very interesting distribution with low negative values and an increasing ladder of positive values. The perception of the coordination team is totally consistent with the survey indicators.

The surveys included a question on how they had received the information in the first place, and 59% claimed it was through WhatsApp. Future instances of the project should consider strengthening the information technology structure adjusted to the settings where it is applied.





Finally, an indicator of participant loyalty that is key to sustainability and that can also be considered a "proxy" for ownership, is the fact that they are willing to recommend other colleagues to participate. In fact, this is one of the pillars of ECHO in its viralization process in the territory. The results of this question are clear and they complete the picture we are presenting.

5 Conclusions, lessons learned and recommendations

We consider that the implementation of this project posed a new challenge for ECHO as a global project, since it is the first experience of implementing training and mentoring activities on a multinational scale, totally online. This challenge implied an initial diagnostic and negotiation effort in four countries, with various results that we understand are justified by the political and technical configuration and the level of development of the different health systems.

- **The first lesson learned** in this regard is that four key elements are required for the success of these activities: 1) the political will of the health authorities to enable and support these initiatives; 2) the institutional capacity of the organization that will act as the direct counterpart, to be able to articulate with the different national and international actors; 3) the technical density of the teams provided by the counterpart to execute the initiative; and 4) the adaptive leadership capacity that is necessary at the local level to guarantee the identification and creation of the technical support teams, and to visualize the general strategy of the project and the gradual planning that should be allowed according to each context.

- **The second lesson learned** has to do with the need for initial planning with a certain margin of flexibility, to be able to respond to contingencies due to factors external to the project. The fact that the attempt to reach an agreement in Belize took approximately one year is to be noted. It is necessary to build greater capacities to identify the barriers that may preclude the operation early on, and to generate a more dynamic decision-making mechanism.

- **The third learning** has to do with the concrete implementation of the components. No difficulties were encountered with the creation of a fully virtual hub. The case of Honduras is a successful example in this regard. No problems were identified when strengthening existing hubs either. In these cases, it is important to have a good explanation of the initial state of the hub and the strengthening objectives. As for the teleclinics, this component was implemented without any problems, meeting the planned objectives. A specific lesson learned in this component is the level of capillarity achieved in the short term at the territorial level. This far exceeds initial expectations and shows the potential of the ECHO model in territories with these characteristics.

- **The fourth learning** focuses specifically on the evaluation component. There is clearly a lack of a pre-existing evaluation culture, and although there are local technical capacities, they are not applied to these activities. The main lesson learned is that we identified the need to incorporate the evaluation component more strongly, but to do so requires an initial approach through a series of in-person activities to select a national technical counterpart and an initial evaluation and in-person monitoring workshop with the designated people committed to the task. The follow-up of the activity can be conducted virtually. Despite the existing weaknesses, the counterparts were left with initial training and validated evaluation instruments, and the challenge of deepening these capacities was also raised.

In summary, the project achieved its goals and the target organizations are left with a strong installed capacity to continue replicating and developing the initiative autonomously in their roles as hub and superhub in the region.