

## **Annex 1: Training Report**

### **Zonal Trainings**

According to the planning within the COVID 19 Information Systems Strengthening project, during the month of November 2022, zonal trainings were conducted for the users who will upload the information and who will be trainers for other users. This uploaded information is currently not in any MOH system and is being sent in spreadsheet files via e-mail. At a meeting held on October 21, together with the National Directorate of Epidemiological Surveillance, a list of attendees was drawn up, with special emphasis on the areas of surveillance, statistics, ICTs, quality of services and prevention strategies.

Attendees were grouped according to their geographic location, but not by zones, since distances were considered so that the transfer would be as short as possible and thus guarantee the greatest number of attendees. If it was known that a certain officer would not be able to attend, it was indicated that the corresponding replacements should be sent.

Transportation was also coordinated for MSP personnel whose work location did not correspond to the city where the workshops were held. For this purpose, a company was hired to coordinate with each of the participants the time and place of pick-up and return for each of the workshops.

Each training was planned to be carried out in 5 hours, within which the following points were considered:

- Welcome and registration.
- About Clinton Health Access Initiative, Inc. (CHAI), presence in the world and actions carried out in Ecuador during 2022.
- Presentation of the COVID19 information systems strengthening project, needs assessment and current situation.
- Proposal presented and approved by the different directorates of the MSP.
- Detail of the solution, considering the parameterization interface, data loading and visualization, as well as processing and statistical analysis tools.
- Importance of public health data.



Each participant was given a pen drive containing the workshop presentation, the user's manual and the three matrices related to COVID19 delivered at the time by the officials who acted as focal points.

At the end of the training day or the following day, an email was sent to each attendee with a link to a survey for feedback on the workshop.

*Table 1* below shows the dates of the workshops as well as the places where each one was held and the level of attendance, and then details the results of each of the workshops and the respective feedback surveys that were sent out.



Table 1: Agenda of zonal workshops

Date	City	Location	Zone	Invited Attendees	Attendees Present	Percentage of attendance
7/11/2022	Ibarra	Hotel Ajaví	Zone 1	18	20	111%
9/11/2022	Tena	Hotel Terra Luna Lodge	Zone 2	31	29	94%
11/11/2022	Riobamba	Quindeloma Art Hotel	Zone 3	29	21	72%
14/11/2022	Guayaquil	Hotel Courtyard by Marriot	Zone 8	32	26	81%
15/11/2022	Guayaquil	Hotel Courtyard by Marriot	Zone 5	33	28	85%
17/11/2022	Santo Domingo	Grand Hotel Santo Domingo	Zone 1, 2 and 4	47	43	91%
23/11/2022	Loja	Grand Victoria Hotel	Zone 7	30	26	87%
24/11/2022	Quito	Swissotel	Zone 9	40	24	60%
30/11/2022	Watershed	Hotel Tryp by Wyndham	Zone 6	30	27	90%
<b>Total</b>				<b>290</b>	<b>244</b>	<b>84%</b>

### Ibarra Training (Zone 1: Imbabura and Carchi)

On November 7, 2022, a call was made for the COVID 19 Information Systems Strengthening workshop, to be held at the Ajaví Hotel in the city of Ibarra. The list of attendees included officials from epidemiological surveillance, statistics, ICTs, quality and strategy. Officials from Tulcán, Montúfar, El Ángel, Otavalo, Cotacachi and Ibarra were invited. In spite of having invited 18 officials, during the beginning of the workshop, the regional surveillance manager requested the inclusion of other surveillance colleagues whose presence was important and replaced three who were unable to attend.

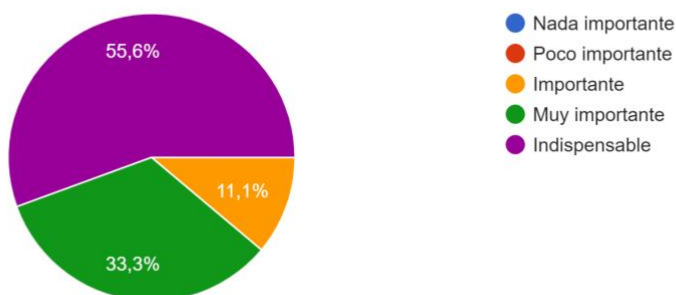


*Image 1: Workshop in Ibarra*

Although the feedback survey was sent to all those present and since it was not an obligation, but rather, a very polite request was made to provide feedback in order to improve future workshops and transmit their needs to the authorities of both the Ministry and the Clinton Foundation, only 9 officials filled it out.

Among the most relevant aspects is that most of them consider it essential to decentralize data processing and that it should not only be carried out at the central plant (at the national level) but also at the zone or district level:

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?  
9 respuestas



*Figure 1: Importance of decentralized processing in Ibarra*

The participants agreed that the real expected result will be found when the MOH sets itself the objective of having quality information at all levels and that this information will be fed back to all its decentralized entities, information that will be used to make decisions according to the circumstances and needs that arise in all public health areas.

There is great expectation and urgency in the implementation of the solution presented, which has three main components: the data loading interface, the Apache Zeppelin tool for data processing and the indexing of business intelligence tools and dynamic data visualization.

¿Cree que la solución presentada solventará los problemas de la carga actual de los datos?  
9 respuestas

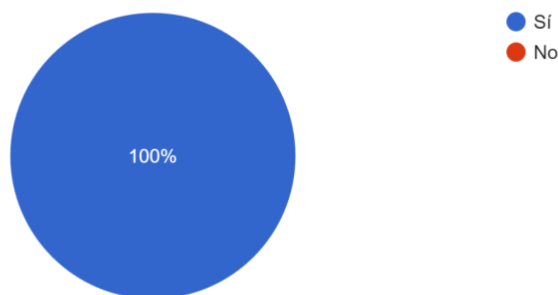


Figure 2: Expectations of the solution in Ibarra

During the workshop there was a good participation by the attendees, who showed interest in the tool, as well as made known their points of view regarding the tool and how it can solve the current difficulties in relation to the loading of information collected in the field.

El taller cumplió con sus expectativas, de acuerdo a los temas presentados?  
9 respuestas

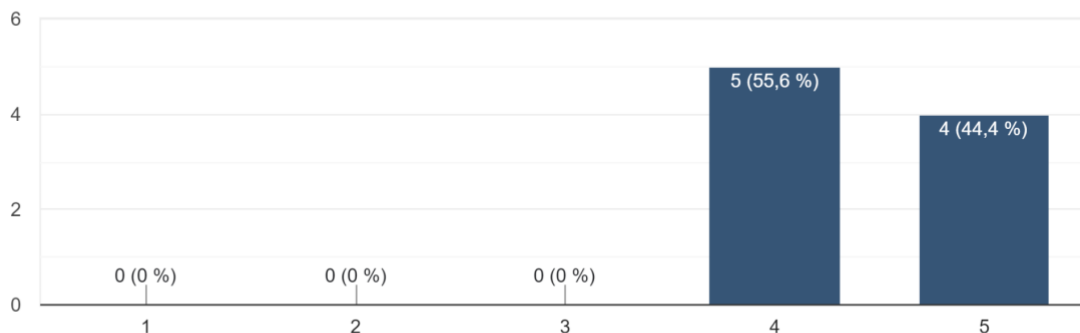


Figure 3: Expectations of the workshop in Ibarra

They also believe that the tool must be sustainable over time and that it will depend a lot on a correct parameterization of the information requested to be uploaded, as well as its validations.

The officers raised a request regarding the training of tools for ICTs as well as for surveillance and statistics technicians. They stated that they do not feel supported in updating their knowledge, and believe that it is of utmost importance that they be considered for this type of training.

### Tena Training (Zone 1 and 2: Sucumbíos, Orellana and Napo)

On November 9, 2022, the workshop was held at the Terra Luna Lodge Hotel in the city of Tena, where 31 participants were expected to attend, of which 29 were present. For this purpose, officials from epidemiological surveillance, statistics, ICTs, quality and strategy, from Shishufindi, Lago Agrio, Archidona, Loreto, El Coca, Joya de los Sachas, Aguarico and Tena were invited.

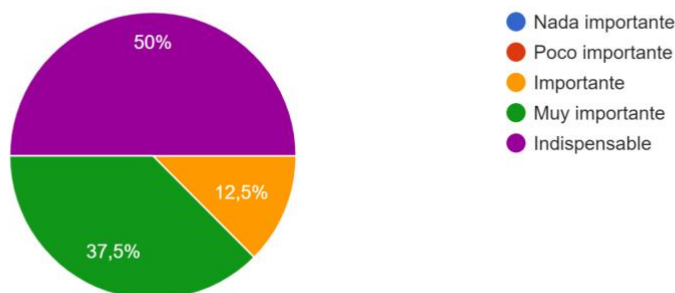


Image 2: Workshop in Tena

The feedback survey was filled out by 16 officers, and among the most important issues was the need for decentralization in information processing.

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?

16 respuestas

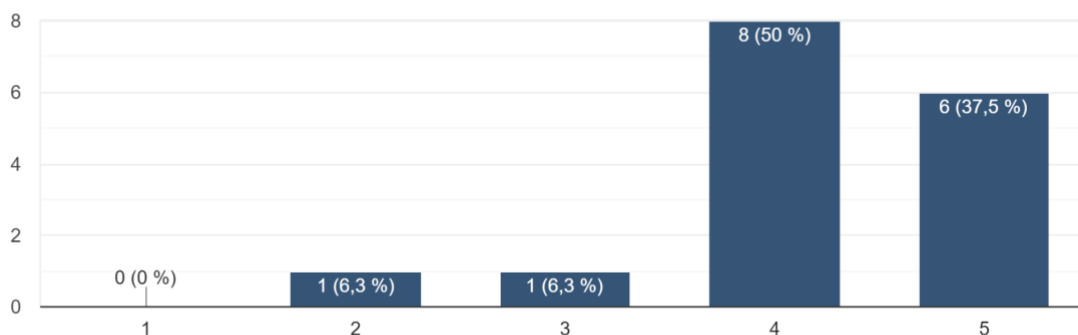


*Figure 4: Importance of decentralized processing in Tena*

Expectations for the workshop were high, and the topics presented generated a lot of interest from the participants. 50% of the attendees believe that the expectations were met.

El taller cumplió con sus expectativas, de acuerdo a los temas presentados?

16 respuestas



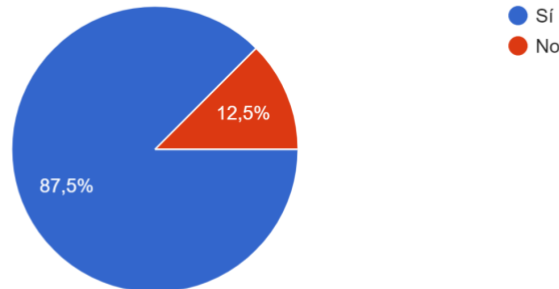
*Figure 5: Expectations of the workshop in Tena*

Many of the officers agree that errors in the origin of the data is a problem that must be solved and believe that the tool will provide such a solution. They also believe that the tool should be adequately maintained, because although it is true that in the first version many of the problems raised in the initial workshops were considered, with the use of the tool new requirements will emerge, which if not addressed, could generate risks in the continuity of its use.

A little more than 87% agree, as shown in Graph 6, that the solution presented will help improve data quality with the validations prior to loading the information, and with this the processing will be more efficient and the information presented in reports will support the improvement of the decisions taken.

¿Cree que la solución presentada ayudará a tener datos de calidad, por lo tanto, informes de calidad?

16 respuestas



*Figure 6: Solution in relation to data quality in Tena*

The participants believe that the proposal presented will save time spent on manual verification of the data entered and that they hope that the number of matrices will decrease, since the information found in other systems is often requested again, so they believe that there are many duplicate records in the ministry's databases. They also believe it is important to extend this to other situations, not only to information related to COVID, but to all the information that is requested through these spreadsheet files and that is not found in any of the MOH's systems.

When asked about their assessment of the usability of the tool, they consider that the loading of information is a simple process, but everything will depend on how the matrices are parameterized and how well the validation grids are documented. When a file is requested to be filled and loaded, each field or column of the tables to be filled and its respective validation should be communicated in a timely manner, in order to standardize the information and make the processing more effective.

Finally, they indicated that the eastern part of Ecuador has very limited Internet connectivity, and that they believe it is necessary to make efforts with other state portfolios to provide a service that allows them to send information from health facilities, since they are currently forced to go to other cities where there is good connectivity and send such information.



### Training Riobamba (Zone 3: Cotopaxi, Tungurahua, Chimborazo and Pastaza)

An invitation was extended to 29 officials from the epidemiological surveillance, statistics, ICTs, quality and strategy departments of the districts of zone 3, such as Ambato, Latacunga, Pastaza, Mera, Pujilí, Colta, Aluasí, Salcedo, Patate and Riobamba, for the workshop to be held on November 11, 2022, of which 21 were present.

The feedback survey was completed by 10 staff members, most of whom stated that the workshop met their expectations, as shown in Figure 7 below.

El taller cumplió con sus expectativas, de acuerdo a los temas presentados?

10 respuestas

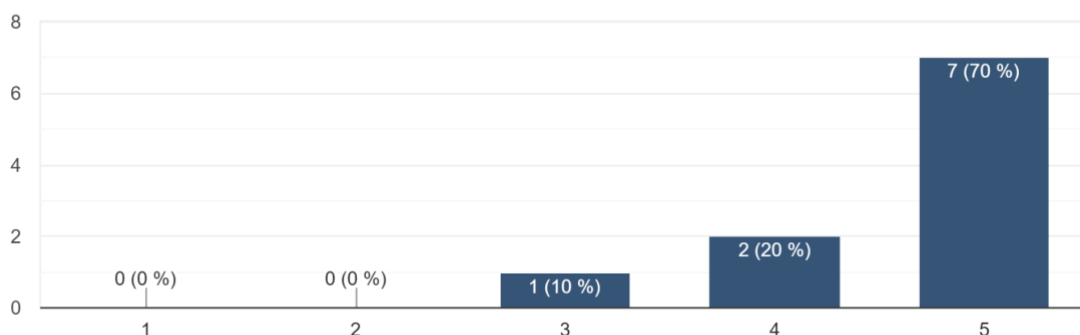
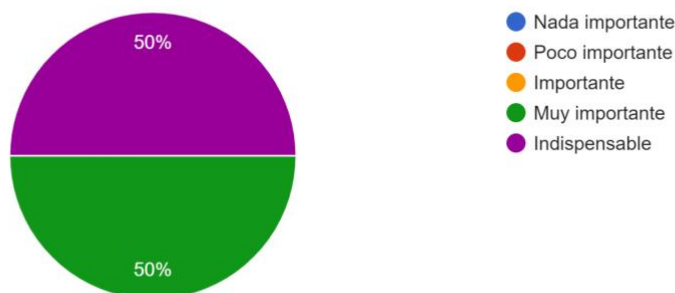


Figure 7: Expectations of the workshop in Riobamba

As shown in Figure 8, officials consider it very important to decentralize data processing and to be able to create dashboards or reports that allow them to visualize the information processed, not only for their area or district, but also to be able to compare it with other sites and generate strategies to stop epidemics and save lives.

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?

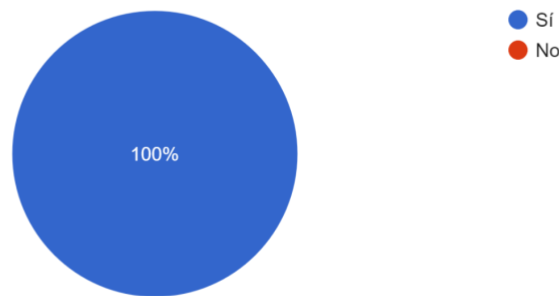
10 respuestas



*Figure 8: Importance of decentralized processing in Riobamba*

All participants agree that this type of tool, in which there is a validation at the time of uploading the information, will solve the data uploading problem that they have with the current process, which is the sending via e-mail of the files with the information collected, as shown in Figure 9. When there are errors or inconsistencies in the information collected, they are asked to rectify or ratify the information, this process can take a few weeks and many times it is the student doctors who collected the data, and they are not at the facility due to the high turnover of staff, so no action can be taken, remaining the inconsistency in the information.

¿Cree que la solución presentada solventará los problemas de la carga actual de los datos?  
10 respuestas



*Figure 9: Perception of the solution presented in Riobamba*

They believe it is important that along with new tools for data loading, processing and visualization, there be training for personnel in data analysis with computer tools.

They indicate that the tool presented is of importance since epidemiology is based on indicators and above all for the decision making of the authorities of the Ministry of Public Health. They also request that the administrative personnel of the districts be trained in the elaboration of indicators and data analysis with the objective of creating a situational room for each of the facilities and to be able to intervene in a timely manner in events that may put the health of the population at risk.



*Image 3: Workshop in Riobamba*

In the province of Pastaza there are operational units that are in the interior of the Amazon and do not have basic services, especially electricity and internet. For this reason, some of them do not have institutional computers and in order to obtain data in real time it is important to have electricity generators, laptops and internet and trained personnel, for this reason they request that the National Government coordinate the provision of these services where there are public health care centers.

Many officials present at this and the other workshops indicated that they do not have computers provided by the ministry, but are owned by the officials themselves, and when handling sensitive information, they are afraid that the information will be intercepted by hackers and used in a way that violates the rights of patients.

### **Training Guayaquil (Zone 8: Guayas)**

On Monday, November 14, 2022, the fourth zonal workshop was held, for which 32 people were invited from Zone 8, corresponding to the districts of the urban area of the city of Guayaquil, attended by 26 officials from the directions of epidemiological surveillance, statistics, ICTs, quality and strategy, so that they in turn are trainers of the staff responsible for loading the requested information, which is not available in the systems of the Ministry of Public Health.

Of the officials present, 17 filled out the feedback survey, the vast majority of whom indicated that the workshop met their expectations, as shown in Figure 10.

El taller cumplió con sus expectativas, de acuerdo a los temas presentados?

17 respuestas

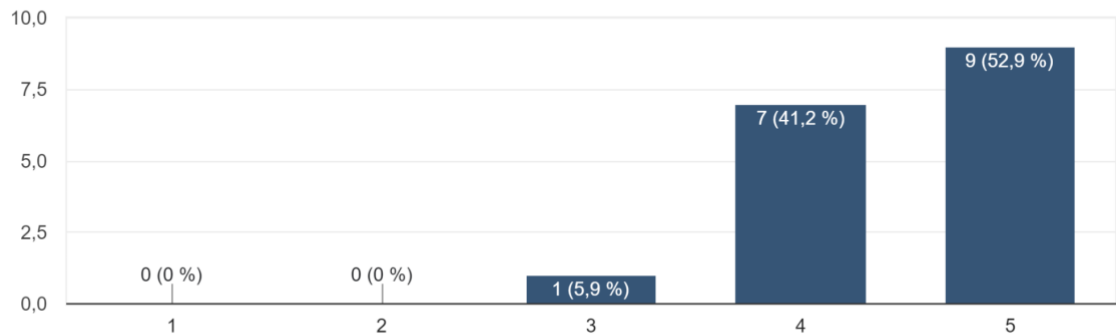


Figure 10: Expectations of the Guayaquil workshop (Zone 8)

As in all the workshops held, the territory personnel agree on the need to decentralize the processing of information, as shown in Figure 11, and that the Central Plant should dictate the policies to be implemented in the zonal and district offices.

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?

17 respuestas

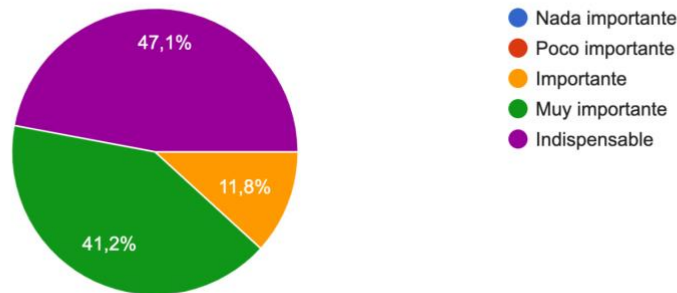


Figure 11: Importance of decentralized processing in Guayaquil (Zone 8)

The participants see the need to extend the tool to other epidemiological scenarios, so that the loading through matrices is done through the interface, and the same for data processing. They also believe that by reviewing the matrices at the national level and analyzing the data held in other systems for data processing, they will be considerably reduced.

All users agree that having quality data helps to make quality decisions, which is why it is so important in this type of tool, as shown in Figure 11.

¿Cree que la solución presentada ayudará a tener datos de calidad, por lo tanto, informes de calidad?

17 respuestas

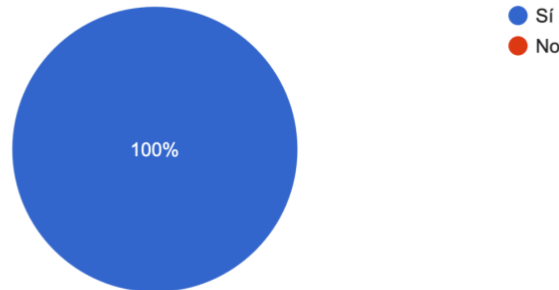


Figure 12: The solution will help data quality in Guayaquil (Zone 8)

The users are aware of the limited technological infrastructure that exists in the ministry, so they hope that if the tool is successful, they can complement the cooperation in the future to further equip the server donated by CHAI.



Image 4: Workshop in Guayaquil (Zone 8)

They consider this type of training to be very useful, since they have not been carried out with other systems due to the costs involved, such as room rental, personnel transportation and training materials. Not only do they see the content of the workshop in a positive light, but they also agree that this type of meeting allows them to learn more about the activities carried out by the other areas and thus work in a more coordinated manner among the different departments of the MOH.

### Training Guayaquil (Zone 5: Bolívar, Guayas, Santa Elena, Los Ríos)

On November 15, 2022, the zonal training workshop was held for Zone 5, which covers the provinces of Guayas, Bolivar, Santa Elena and Los Rios. For this workshop, although the zonal office is in the city of Milagro, it was recommended that it be held in Guayaquil since many of the people who work in the zone reside in Guayaquil. Thirty-three officials from the

epidemiological surveillance, statistics, ICTs, quality and strategy departments of cities such as Guaranda, Chillanes, Chimbo, Caluma, El Empalme, Milagro, Daule, Salitre, Babahoyo, Quevedo, Ventanas, Playas, Salinas, among others, were invited to the workshop. Twenty-eight officials attended, corresponding to 85%.

Of the 28 present, only 3 filled out the survey, and they mentioned, among other things, that it is necessary to strengthen the statistics and epidemiological surveillance personnel in the use of BIG DATA and Python.

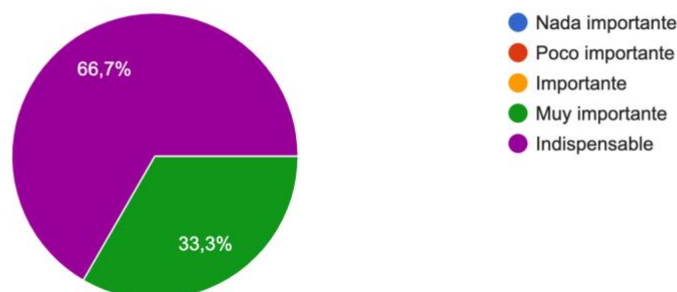
They also suggest the possibility of integrating all the information systems currently managed by the MOH into a single platform. It should also be complemented with support in other areas of epidemiological surveillance through training workshops for epidemiology specialists.



*Image 5: Workshop in Guayaquil (Zone 5)*

They also agree with the decentralization of information processing, as shown in Figure 13, which is of utmost importance to be carried out in zones or districts and thus support the national level with statistics and epidemiological surveillance personnel.

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?  
3 respuestas



*Figure 13: Importance of decentralized data processing in Guayaquil (Zone 5)*



The ICT officers present at this workshop indicated that they have not had any technical training; the ICT officers believe it is important to update their knowledge more towards tools with free software licenses and to be able to serve their internal clients and optimize the tools they currently have.

### **Training Santo Domingo (Zones 1, 2 and 4: Esmeraldas, Manabí, Santo Domingo Pichincha)**

The workshop was held on November 17, 2022 in the city of Santo Domingo as it is a central point for the provinces of Esmeraldas, Manabí, Pichincha and Santo Domingo de los Tsáchilas itself. Forty-seven officials from epidemiological surveillance, statistics, ICTs, quality and strategy were invited and 43 attended, with a 91% level of attendance.

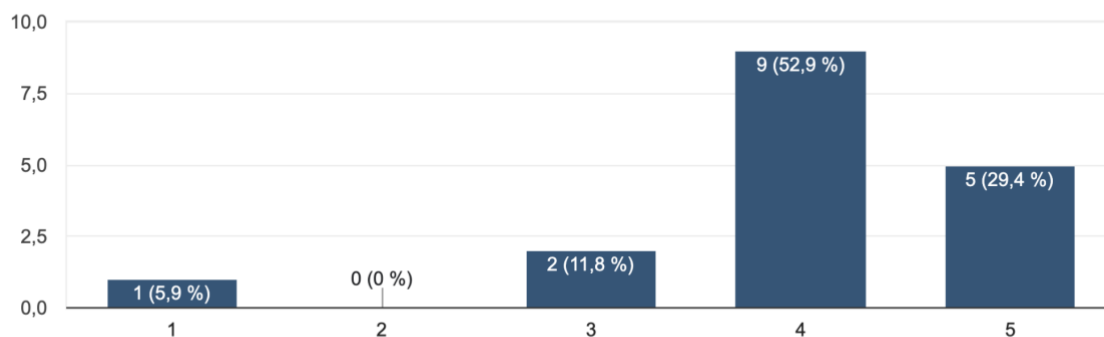


*Image 6: Workshop in Santo Domingo*

The surveys were completed by 17 people, most of whom indicated that the workshop met their expectations regarding the issues presented and the solution to be implemented by the ministry, as shown in Figure 14.

El taller cumplió con sus expectativas, de acuerdo a los temas presentados?

17 respuestas



*Figure 14: Expectations on the topics presented in Santo Domingo*

Most of them also consider it important that processing should be carried out at the level of each zone and decentralized from the central plant, since they believe that in this way the human resources of the statistics and surveillance directorates can contribute more efficiently to data processing activities, as shown in Figure 15.

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?  
17 respuestas

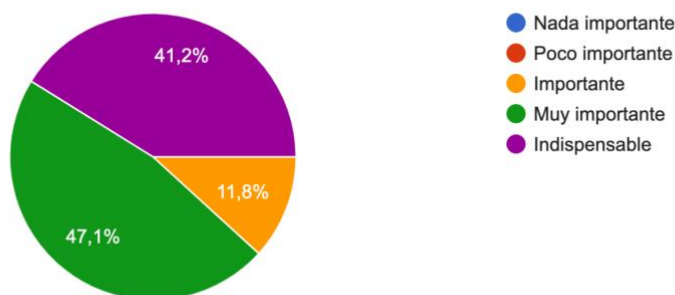


Figure 15: Decentralization of data processing in Santo Domingo

There is a large majority that believes that this type of tool, where information is validated at the source, will improve data quality and help improve information loading, as shown in Figure 16.

¿Cree que la solución presentada solventará los problemas de la carga actual de los datos?  
17 respuestas

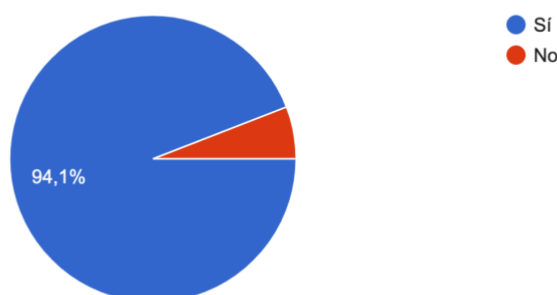


Figure 16: Improvement in data loading with the Santo Domingo solution

The attendees believe that it is useful to have a tool that allows them to have a better flow of information, records and to generate quick reports of the information collected, however it would be important that the MSP manages it correctly in the sense that all the tools they have had so far to store information correct their errors. They also believe that the internet



networks should be improved, as they are not adequate to work with, especially in inaccessible places.

Officials believe that isolated training is not enough, but that the ministry should work on sustainable training that can reach all users of IT tools. They indicate that there are no training plans for the ministry's own systems, and even worse for external systems. They indicate the need for training not only on COVID-related issues, but also on sensitive issues such as HIV, tuberculosis and child malnutrition.

Within the IT solution presented, they believe that a time control for matrix loading should be added, as well as creating the option of grouping the users created to be able to assign different matrix loading response times.

They also consider that the Clinton Foundation's projects or programs should include scholarships for the Ministry's personnel in general, such as diploma, master's, doctorate, etc., because they believe that it is essential that public officials continue to receive instruction and training in order to provide excellent quality service to end users.

The ministry believes it is important to provide technological infrastructure such as high-capacity servers, layer 2 and 3 manageable switches for better communication, computer equipment for the personnel of our health centers so that they can have the necessary tools to make use of their systems and those of the health system.

### **Training Loja (Zone 7: Loja, El Oro, Zamora)**

On November 23, 2022, the seventh workshop was held at the Grand Victoria Hotel in the city of Loja, for which 30 officials from epidemiological surveillance, statistics, ICTs, quality and strategy were invited, and 26 attended.



*Image 7: Workshop in Loja*

The surveys were completed by only 8 employees, who indicated their satisfaction with the workshop, the content and their expectations regarding the solution presented, as shown in Figure 17.

El taller cumplió con sus expectativas, de acuerdo a los temas presentados?

8 respuestas

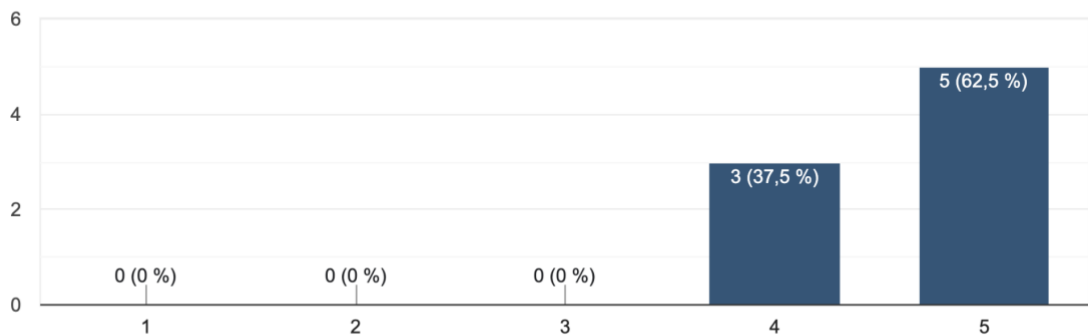


Figure 17: Expectations on the topics presented in Loja

Like the rest of the workshops, there is a perception of the importance of data processing in the territory and that it is not centralized in the central plant, as can be seen in graph 18.

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?

8 respuestas

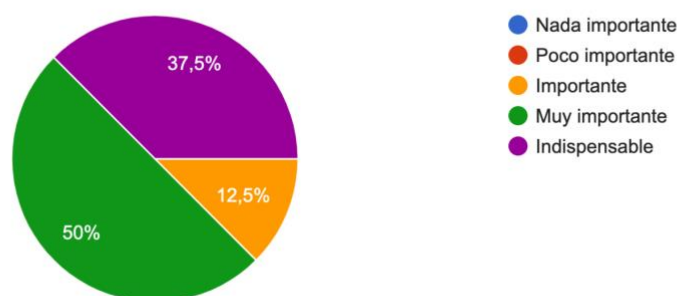
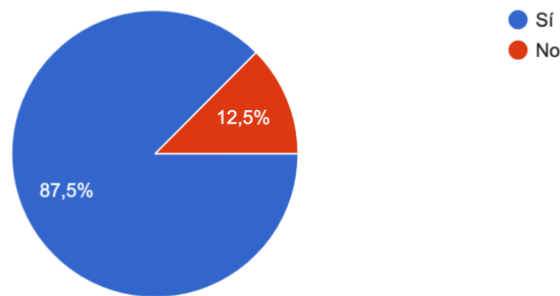


Figure 18: Decentralization of data processing in Loja

Most of them are also aware that data quality improves if there are validations at the source of the information, as shown in Figure 19, and believe that with the validation meshes well configured by the tool administrators, the quality of the reports provided by the ministry will be greatly improved.

¿Cree que la solución presentada solventará los problemas de la carga actual de los datos?

8 respuestas



*Figure 19: Improvement in data loading with the Loja solution*

Officials believe it is important to review the existing matrices, since much of the information requested to be collected is already in the systems in place at the MOH. They also believe it is important to purge these matrices in order to consolidate the information in fewer files.

### **Training Quito (Zone 9: Metropolitan District of Quito)**

On November 24, 2022, the eighth training workshop for the strengthening of COVID 19 Information Systems was held at the Swissotel in the city of Quito, to which 40 officials from zone 9 were invited and only 24 attended, the lowest level of attendance of all the zonal workshops. The workshop was attended by personnel from epidemiological surveillance, statistics, ICTs, quality and strategy.

Of those attending, 15 people completed the survey and were able to express their high expectations in relation to the solution presented, as shown in Figure 20.

El taller cumplió con sus expectativas, de acuerdo a los temas presentados?

15 respuestas

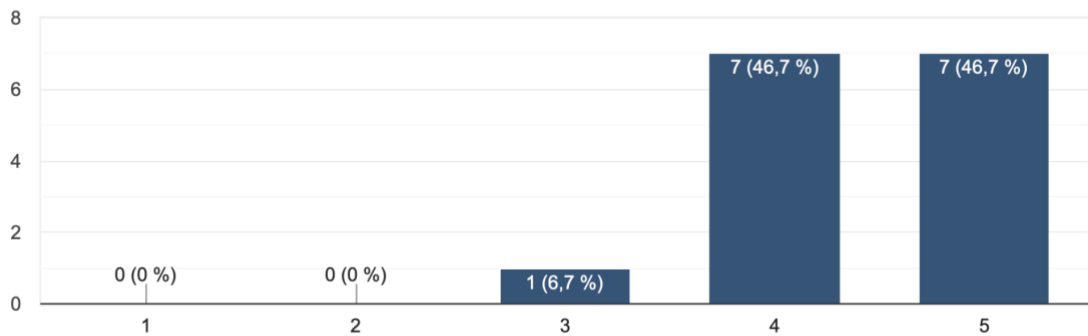


Figure 20: Quito workshop expectations

As shown in Figure 21, officials consider it very important to decentralize data processing and to be able to create dashboards or reports that allow them to visualize the information processed, not only for their area or district, but also to be able to compare it with other sites and generate strategies.

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?

15 respuestas

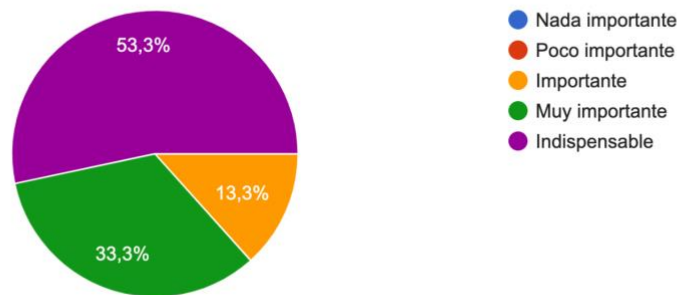


Figure 21: Decentralization of data processing in Quito

The officers believe that many times the forms sent for data collection are modified by the user and this makes it difficult to consolidate the databases, which is where the problem of data quality will arise. The cleaning of the databases will take time and sometimes it will not be solved properly, that is why they insist on improving the quality of the data from the moment it is generated.

One point of view was that the proposal is interesting but if there is no debugging of the variables of the existing matrices, it would not be very successful, since at present there is a lot of information in the programs without being effective, on the other hand, the activities of the people who are in charge of the data should be regulated. They believe that the elaboration of graphs should be the Directorate of Statistics since it is the personnel prepared for this activity and that at the present time it is carried out by people who do not have adequate training.



*Image 8: Workshop in Cuenca*

As in other workshops, they believe it is important to review the existing matrices in order to avoid duplication of information found in the existing systems of the MSP. The purification of the matrices is essential in order to consolidate the information in fewer files.

### **Training Cuenca (Zone 6: Azuay, Cañar, Morona Santiago)**

Finally, on November 30, 2022, the ninth and last workshop was held in the city of Cuenca, at the Tryp by Wyndham Hotel, to which 30 officials from the epidemiological surveillance, statistics, ICTs, quality and strategy departments were invited, and 27 from cities such as Cuenca, Gualaceo, Paute, Azogues, Sigsig, La Troncal, among others, attended.

The feedback survey was completed by 16 employees, most of whom said that the workshop met their expectations, as shown in Figure 22 below.

El taller cumplió con sus expectativas, de acuerdo a los temas presentados?

16 respuestas

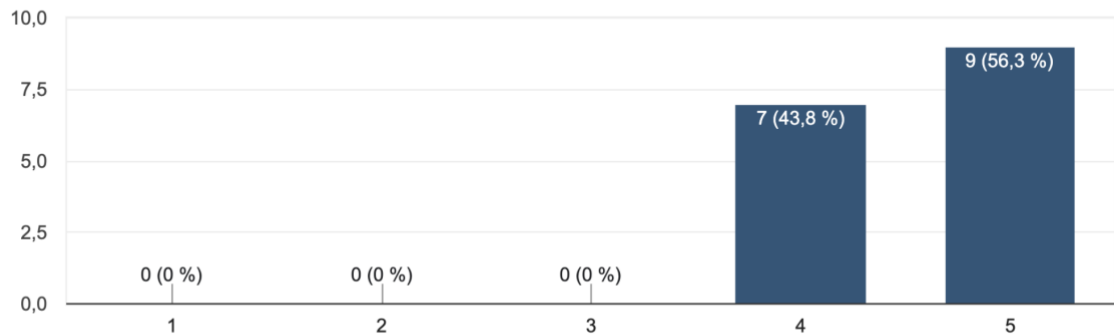


Figure 22: Expectations of the workshop in Cuenca

The need to decentralize the processing of information to the territory, as shown in Graph 23, and not only to the central plant, in order to be able to visualize zonal data and compare them with national data, remains a constant.

¿Qué tan importante considera un procesamiento de datos descentralizado a nivel de distrito?

16 respuestas

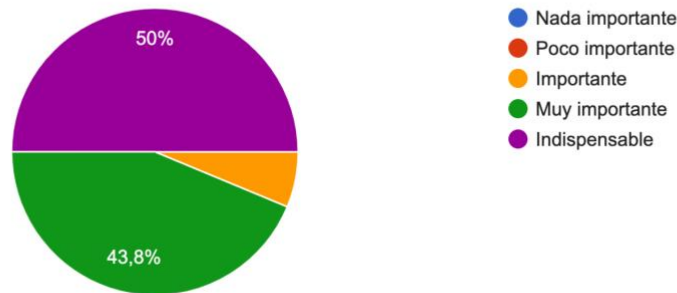


Figure 23: Expectations of the workshop in Cuenca

They believe that infrastructure limitations are a drawback for the deployment of the tool. Not all officials were provided with personal computers by the ministry, and those that were, have obsolete equipment, as well as a very intermittent connection in certain operational units, which makes it difficult to send information efficiently to the ministry's servers.



*Image 9: Workshop in Cuenca*

They consider it extremely important to structure a training plan for technical personnel, either with the ministry's own funds or with cooperation from external entities, to enable them to update their knowledge and learn about new tools for more effective data processing.

They agree that the existing matrices should be reviewed at the national level with the information that exists in the ministry's computer systems. They believe that the number of matrices can be reduced if processing is optimized with the information in the PRAS and PahoFlu databases.

### **Technical Training**

During the week of Monday, October 17 to Friday, October 21, five workshops were held on three different topics. Two of the workshops were given to two groups at the request of the Ministry so as not to leave the areas empty during the days of the workshops, as detailed in Table 2.

*Table 2: Technical Workshops*

<b>Day</b>	<b>Thematic</b>	<b>Assistants</b>
October 17, 2022	Server configuration for BackEnd, FrontEnd and Data Lake implementation	DNTICs
October 18, 2022	Use of the Apache Zeppelin platform, R programming language and Python for statistical data processing.	Group 1: SNVSP and DNEAIS
October 19, 2022	Use of the Apache Zeppelin platform, R programming language and Python	Group 2: SNVSP and DNEAIS



	for statistical data processing.	
October 20, 2022	Tableau, Microsoft Bi, Google Data Studio for dynamic reports (Dashboards).	SNVSP & DNEAIS, DN Quality, DNTICS
October 21, 2022	Tableau, Microsoft Bi, Google Data Studio for dynamic reporting (dashboards)	SNVSP & DNEAIS, DN Quality, DNTICS

A total of 130 officials were invited to these workshops, of which 10 were scheduled for the first day and 30 for each of the following days, according to the mail sent on October 11.



*Image 10: Technical Workshops*

**Conclusions and next steps**

The staff who attended the workshops have high expectations for the implementation of this solution as they see it as a very flexible tool for information that is not in any of the MSP systems and that needs to be quickly gathered while it is being included in existing systems.

Most of the participants agreed that the number of matrices that currently exist should be reduced, since much of the information already exists in the different systems managed by the ministry, such as PRAS, Paho Flu or DHIS2, and this would avoid duplication of information.





In all the workshops, the attendees agreed that there is a need for decentralization in the processing and visualization of information. They believe that they have good human capital that can support the central plant in this purpose and thus free up some work for the national technicians. With this, these technicians can create or design processing scripts and disseminate them to the zones so that the information can be processed in the territory and consolidated at the national level.

There is also a consensus on the lack of training received by the technical personnel of the territory. There is disagreement because they know that the national personnel are much better trained than the zone or district personnel. The ministry should develop a training plan for technical personnel in the territory to update their knowledge in the different areas of work.

After the delivery and implementation of the solution, as officials use the tool, new requirements will arise, for this reason, the DNTICs must provide assistance and maintenance to support improvements to the system.

An exhaustive analysis of the number of existing matrices is essential. When implementing new systems or modules where information is recorded, officials consider that much of the information requested is unnecessary because it is already in the databases. They believe that this can reduce the amount of information they are asked to collect and minimize the amount of duplicated information within the MSP servers.

In relation to infrastructure, they agree that it is deficient, the computers in the territory are obsolete in terms of processing and storage capacity. Connectivity is also very limited, which makes it difficult to send information constantly. They recommend working together with other state agencies to improve and provide connectivity to places where there is none.