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FINAL REPORT

**MONITORING OF THE IMPROVEMENTS
IN WATER, SANITATION AND HYGIENE
OF HEALTH IN LATIN AMERICA
AND THE CARIBBEAN**

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PREFACE

The study on the “Monitoring of improvements in water, sanitation and health hygiene in Latin America and the Caribbean” aimed to provide technical support to the countries of Latin America and the Caribbean in the construction of a roadmap to adopt the practical steps to improve WASH services in health facilities, and thus implement Resolution EB144.R5 of 2019 presented at the 72nd World Health Assembly. This project was carried out collaboratively between Global Water 2020, PAHO/WHO, and the PAHO/WHO Collaborating Center for Public Health and Environment, based in Fiocruz. Likewise, this inter-institutional collaboration has promoted the Regional Symposium on Water and Sanitation and Hygiene (ASH) in Health Establishments: “An Urgent Action” on October 14, 2020 with the support of 31 organizations, including technical and financial organizations, non-governmental organizations and governments of the region, at different levels in 18 countries.

The report of the study carried out presents in detail the progress of ten countries regarding the adoption of the eight steps, identifying the enabling and impeding conditions for their adoption. Likewise, an analysis is made of the opportunities, barriers and challenges for the adoption of the eight steps. Finally, some recommendations are made for the countries of the region and for PAHO/WHO itself to continue advancing in the implementation of Resolution EB144.R5 of 2019.

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1. INTRODUCTION

The access to the water, sanitation, hygiene services, management of solid waste and housekeeping as WASH, at the healthcare units, is essential to ensure that the healthcare professionals work in a safe environment and offer a quality attention, and for the users not to run the risk of developing other diseases. For this reason, the World Health Organization defines that the healthcare units encompass all the formally acknowledged facilities that offer medical attention, including the primary ones (healthcare posts and clinics), the secondary and tertiary (district and national hospital), public and private (including the ones administered by the faith) and the temporary structures designed for emergency situations, located in urban or rural areas” (1).

The deficient access to the WASH services in these units, in addition to placing the healthcare professional, the patients and the neighboring community at risk of infections by infectious diseases, contributes the spreading of antimicrobial resistance (1,2,3,4). It is estimated that infections acquired during the healthcare appointments are of 16% and attributed to inadequate environmental conditions and insufficient availability of sanitary materials and installations adequate for prevention, such as the hygiene of the hands (4,5,6). In addition, the lack of access to the WASH services at the healthcare units can lead to the spreading of diseases during the medical emergencies, such as in the context of the COVID-19.

In 2020, the Covid-19 pandemic reinforced the need for improving the access to the WASH at the HCFs. At the HCFs you have the largest density of pathogens and the largest volume of sick people (4,7,8). For this reason, the 72nd World Health Assembly, in 2020, adopted a Resolution that sets forth that the governments and the partners must support the access to potable water, the sanitation and the hygiene in all the environments, including the humanitarian environments and, in particular, at the healthcare units (9). In addition, a recommendation was issued to the Member States to improve the practice of hygiene of the hands at the HCFs (10).

The promotion of a good hygiene ensuring adequate handwashing practices, was considered as one of the most important measures for preventing the transmission of the Sars-Cov-2 (7,8). Therefore, according to the WHO and the UNICEF, “the functional installation for the hygiene of the hands must be available to all the patients, family members, caretakers and visitors. They must be available next to the restrooms, as well at the entrance and exit of the facility, in the waiting rooms and cafeterias and in other public areas. They must also be available to all the healthcare workers in all the points of attention, in the areas where the personal protection equipment is put on or taken off and where sanitary waste is manipulated” (1). The sanitation

must be disinfected on a regular basis, the water points for different uses must be available in an adequate quantity and the environment must be cleaned frequently. According to the World Bank (1), investing in water and sanitation systems is one of the most profitable strategies during the pandemic. A mapping carried out by the UNICEF and SIWI in 84 countries showed that many countries focused part of their actions in improving the handwashing installations, including in HCF (7).

It is important to remember that, in 2010, the United Nations recognized the access to water and sanitation as a human right. This implies that the States have the obligation of respecting, protecting and complying with this right, extending it all the people with no discrimination. For the States to comply with their human rights obligations, they need to develop national policies and introduce the Human Rights to Water and Sanitation (DHAES) in their constitutions and national laws, improving the access to them and avoiding any form of setback. The access must be available to all the citizens, in all the spheres of life, including the sites outside the home, such as schools, streets, prisons, refugee camps and healthcare units. The services must be in line with the normative contents of the rights, i.e., availability, accessibility, viability, safety, quality, acceptability, privacy and dignity and with principles of human rights. However, many countries lack access to water, sanitation and hygiene in many spheres of life in addition to the home such as schools, prisons and healthcare units, harming the population's health (12).

Therefore, the adequate access to the WASH services at the healthcare units is essential not only to achieve the aspects of universal healthcare coverage, such as equity and quality in the attending, but also to respect the dignity and the human rights of every person who seeks medical attention and works in the healthcare units. In addition, it is necessary to improve the healthcare results at community level and ensure that the primary healthcare commitments detailed in the Astana Declaration are fulfilled (13).

The adequate access to the WASH services at the healthcare units is also important to achieve the Sustainable Development Goals (SDGS), specially the SDGS 3 and 6.1,6.2 AND 6.3. The purpose of the SDGS 6 is to “Ensure the availability and sustainable management of water and sanitation to everyone” until 2030. This implies that all the environments, including houses, schools, healthcare units, work places and public places, must arrange the access, and the accessibility to the services must be assured to all the people, girls, boys, women and men, of all ages, including the people with handicaps. The purpose of the SDGS 3 is to “ensure a healthy life and promote the well-being of all the ages” and includes a specific goal (3.9) which purpose is to “substantially reduce the number of deaths and diseases produced by hazardous chemicals and pollution of the air, water and soil”. Other goals (3.1, 3.2) require reducing the maternal mortality and the mortality of minors below the age of five and neonate, all of which are directly impacted by the WASH conditions at the healthcare units. In fact, the countries can only achieve the universal health coverage (goal 3.8) when everyone has access to healthcare services of quality, including the healthcare units with basic WASH services (14).

According to the WHO/UNICEF, the WASH services at the healthcare units can be classified as basic, limited and without services (Table 1). In the entire world, 1 in each 4 healthcare units lack basic water services, which affects more than 2 billion people; 1 in each 5 have no sanitation services, which affects 1.5 billion people; and 1 in each 6 lacks facilities for hygiene of the hands, which increases the risk of infection for patients and doctors. In Latin America and in the Caribbean, 1 in each 20 healthcare units have no water service and the sanitation services are even worse. In less developed countries, only 55% of the healthcare units have basic services and 15% of the patients, in the low- and medium-income countries, develop one or more infections during the internment, especially women who go to the healthcare units for delivery (1).

Table 1 - Basic services levels of WASH at the Healthcare Units

	AGUA	SANEAMIENTO	HIGIENE	GESTIÓN DE DESECHOS	LIMPIEZA HOSPITALARIA
SERVICIO BÁSICO	El agua está disponible y proviene de una fuente mejorada ¹ in situ.	Las instalaciones de saneamiento mejoradas ² aptas para su uso, con al menos un baño sanitario dedicado para el personal, al menos un baño sanitario separado por sexo con accesorios para el manejo de la higiene menstrual, y al menos un baño sanitario accesible para personas con movilidad limitada.	Se dispone de instalaciones funcionales para la higiene de las manos (con agua y jabón y/o desinfectante para manos a base de alcohol) en los puntos de atención y a menos de cinco metros de los baños sanitarios.	Los desechos se separan de forma segura en al menos tres recipientes, y los objetos punzantes y los desechos infecciosos se tratan y eliminan de forma segura.	Hay protocolos básicos de limpieza disponibles y todo el personal responsable de la limpieza ha recibido capacitación.
SERVICIO LIMITADO	Una fuente de agua mejorada se encuentra a menos de 500 metros de las instalaciones, pero no se cumplen todos los requisitos para el servicio básico.	Por lo menos una instalación de saneamiento mejorada está disponible, pero no se cumplen todos los requisitos para el servicio básico.	Hay instalaciones funcionales para la higiene de las manos, ya sea en los puntos de atención o en los baños, pero no en ambos.	La separación y/o el tratamiento y la eliminación de objetos punzantes y desechos infecciosos son limitados, pero no se cumplen todos los requisitos para el servicio básico.	Existen protocolos de limpieza y/o al menos algunos miembros del personal han recibido capacitación en limpieza.
NO HAY SERVICIO	El agua se extrae de pozos excavados o manantiales no protegidos, o de fuentes de agua superficiales; o de una fuente mejorada que esté a más de 500 metros de las instalaciones; o no hay ninguna fuente de agua.	Las instalaciones no son mejoradas (por ejemplo, letrinas de fosa simple sin losa o plataforma, letrinas colgantes, letrinas de cubo) o no hay ningún tipo de baño.	No existen instalaciones funcionales para la higiene de las manos, ni en los puntos de atención ni en los baños.	No hay contenedores separados para los objetos punzantes o los desechos infecciosos, y los objetos punzantes y/o los desechos infecciosos no se tratan o eliminan.	No hay protocolos de limpieza disponibles y ningún miembro del personal ha recibido capacitación en limpieza.

Source: WHO/UNICEF. WASH at the Healthcare Units. World baseline report. 2019

Due to the deficiencies in access to the WASH services at the healthcare units, the Secretary-General of the United Nations, during the World Water Day, in 2018, launched a worldwide appeal to improve access to these services. After that, many organizations and governments committed to this proposal. In this context, the Ministry of Health of Brazil presented a proposal to the World Health Organization, which resulted in the adoption of Resolution EB144. R5 dated January 30th, 2019 (WHO, 2019b). In addition, the WHO/UNICEF published in 2019 the report Water, Sanitation and Hygiene at the Healthcare Units that presented eight steps to improve or give maintenance to the WASH services in these institutions (WHO/UNICEF, 2019c), presented below. To fulfill these eight steps, it is required that the actions from all the players, at local, national and international level, be coordinated with a strong leadership and a good governance.

1.1. PRACTICAL STEPS FOR ACHIEVING UNIVERSAL ACCESS TO WASH AT THE HEALTHCARE UNITS

Step 1: To carry out an analysis and assessment of the situation

The purpose is to analyze the situation and the perspectives in relation to the fulfillment of the goals for 2030 of the WASH services existents in the healthcare units. It is important to examine the rules, policies and strategies of healthcare and of water and sanitation, the structures of governance including the functions and responsibilities of distinct governmental entities, the partners and the structures of rendering of accounts, such as the regulation

accreditation services, the flows of financing and the performance indicators. To know the updated numbers on the coverage and fulfillment in matters of water and sanitation in the HCFs. The results achieved here constitute the basis for the plans and programs for improving the WASH services at the HCFs and the deployment of the necessary resources.

Step 2: To establish goals and roadmap

To establish goals and define a roadmap supported by a national intersectoral team (WASH and HEALTHCARE), in which the approach is clearly defined, the intervention areas with the respective technical and political leaderships, the objectives in line with the general objectives and the budget for a defined period of time. To establish high level deals in the national intersectoral team, so that, once the roadmap is established, all the partners must promote the consecution of the objectives agreed on and make a follow-up of the progresses, prioritizing the instrument and the preferential approaches of the government on the preferences of the partners or donors.

Step 3: To review or establish national rules and mechanisms of rendering of accounts

To review or establish national rules and mechanisms of rendering of accounts. The national rules must reflect the national context and provide the basis for the design, the cost, the implementation and the function of the WASH services at the healthcare units. In addition, the mechanisms of rendering of accounts shall ensure that all the facilities comply with the national rules.

The rules must consider the needs of the vulnerable populations, which could need, for instance, restrooms differentiated by gender, installations for menstrual hygiene or in case of people with reduced mobility the ramps, body rails and broad entrances. The rules on WASH must be incorporated to the orientations relative to the quality of the attending, strategies of prevention and control of infections, plans of prevention and fight against cholera, as well as the national policies and strategies on quality.

Consider including the WASH services in the normative processes for the accrediting procedures and the national plans of disease insurance. Incentives can also be offered to the healthcare units for them to fulfill certain goals or rules. In this sense, involve users and communities to examine and express their opinion about the WASH services can be a useful manner of reviewing the compliance required for the usufruct of said incentive.

Step 4: To improve and maintain the infrastructure

To improve the infrastructure and the maintenance of the WASH services at the healthcare units and the management of the waste from the medical attention considering the local context, the size of the unit and the services that they offer.

To develop the methodologies to prioritize the investments taking into consideration the social and economic cost of the inexistence or insufficiency of the health infrastructure.

To finance the large infrastructure projects, it is possible to use the existing funds from the WASH and Healthcare Sectors. In many countries there are unused funds due to the lack of projects approved and that, with a good advocacy could be used in these projects.

To include in the work field the articulation with knowledge networks, the promotion of innovative technological and ecological solutions, which are accessible and sustainable, even in environments with scarce resources.

Step 5: To monitor and review data

To monitor and review periodically the indicators is the best way to follow-up the situation or the progress of the WASH interventions at the healthcare units. The integration of the WASH indicators in the routine data collection and review processes allows an effective measurement of the health attention being rendered. The process is potentialized when the interested parties are involved in the assessments of the agreed services.

The WASH indicators at the healthcare units must also be included on national representative surveys (e.g., assessments of the healthcare services provided, assessments of availability and readiness of healthcare services and assessments of healthcare services).

Step 6: To promote the professional development of the healthcare personnel

To promote the professional development of the healthcare personnel, of all the workers of the healthcare system, from managers, healthcare professionals and support professionals, in particular the ones responsible for housekeeping. To include, in the personnel capacitation plans, the WASH components at the healthcare units.

To develop an incremental improvement plan, for instance, the installation of simple hand hygiene stations, colored waste containers and capacitation in hygiene, are measures relative cheap and quick to be implemented.

The cleaners of the healthcare centers and the sanitary waste operators need additional skills and competences to carry their jobs safely and effectively.

To promote the healthcare practices at community level. The exercise of good community sanitary practices improves the practices of hygiene of the hands, sanitary etiquette and social distancing.

Step 7: To involve the communities

To involve the communities and the citizens in such a manner that they have an important role in the defining, control, utilization and feedback about the healthcare services. They must participate on the development of WASH policies at the healthcare units and the periodic review of the coverage data and the implementation of these services.

To assess and propose community participation models in the management systems. For instance, the SUS (Single Healthcare System) in Brazil.

To hold regular meeting with the communities and the citizens to discuss the user's preferences and the factors that affect the quality of the healthcare service, including the operation and housekeeping of the facilities, designs of bathrooms, showers and others.

Step 8: To carry out operational surveys and convey the lessons learned

To carry out operational surveys and convey the lessons learned. When the teachings (from the unit, subnational, national, regional and worldwide) are extracted and shared at all levels, to encourage innovation and extend the proven efficacy focusses.

To promote the knowledge networks including academic groups already established for the development of operational survey in their technological, social aspects and economic practices.

To consider the use of indirect indicators as a preference by the healthcare units, satisfaction of the patient and the personnel, and visual cleanliness instead of the healthcare results, for measuring the effect of the WASH interventions at the healthcare units.

1.2. PROJECT OBJECTIVE

With the purpose of facilitating and providing technical support to the countries of Latin America and the Caribbean in implementing the Resolution EB144.R5 of 2019 presented at the 72nd World Health Assembly, and in putting together a roadmap to achieve the 8 steps, the Global Water 2020, the PAHO/WHO, and the Collaborative Center of Public Health and the Environment of Fiocruz, were integrated to develop the project “Monitoring of improvements in water, sanitation and hygiene in healthcare” by means of a letter of agreement with Fiocruz with the following objectives:

1. To select with the PAHO/WHO, the countries of the Region with which to work in the virtual event, based on the previous researches and on the survey carried out by the PAHO/WHO.
2. To review and analyze the state and the progress of the WASH improvements at the healthcare units from these countries in consonance with Resolution EB144 of the WHO, also taking into consideration the challenges that the countries face in the current Covid-19 pandemic.
3. To support the PAHO/WHO in organizing and facilitating the virtual event, providing materials from background to inform a solid and constructive debate, as well as the conceptual grade, agendas and virtual tools to motivate the participants.

At the end, ten countries accept to participate on the study: Bolivia, Brazil, Colombia, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay and Peru.

2. METHODOLOGY

The study “Monitoring of improvements in water, sanitation and hygiene at the healthcare units”, financed by Global Water 2020 and with the participation of Fiocruz – Collaborative Center of the PAHO/WHO for Public Health and the Environment, had the purpose of facilitating and providing technical support to the countries of Latin America and the Caribbean for implementing Resolution EB144.R5 of 2019 presented at the 72nd World Health Assembly. To that purpose, ten countries were selected as a part of the study sample. They participated on preparatory meetings to participate on the virtual symposium “Water, and sanitation and hygiene at the healthcare units: An urgent action” and the workshops for putting together the roadmaps with the purpose of implementing eight steps or practical measures to fulfill the purposes stated in the Resolution.

This section presents the project stages, and describes the methodology chosen for its development.

The countries that participated on the study were selected mainly by the interest in performing for fulfilling the Resolution and by the prior participation of the survey carried out by the ETRAS (Technical Regional Team of Water and Sanitation) of the PAHO/WHO on the WASH services at the healthcare units in countries of Latin America and the Caribbean. Thus, out of the ten selected countries, seven participated on this previous study (Peru, Bolivia, Panama, Mexico, Guatemala, Honduras and Paraguay). The other three countries were selected to ensure regional representativeness and for the following reasons: (a) Nicaragua for its geographic location in the Caribbean, (b) Brazil for being one of the leading countries in presenting Resolution EB144.R5 at the World Assembly, and (c) Colombia for its interest and commitment with the subject matter.

It was done three meetings with the countries that participated on the study. In these meetings the importance of advancing in the improvements on WASH at the healthcare units was highlighted, in accordance with the commitment of the countries to sheltering Resolution EB144.R5 of 2019; the eight practical steps to improve the WASH conditions at the healthcare units were presented; and the results of the WASH studies at the healthcare units, carried out by the ETRAS on the seven countries of Latin America were disclosed. In addition, each of the countries made a presentation with the key information about the situation of the WASH services at the healthcare units and the progresses and challenges for achieving the eight steps in each country.

In addition, each of the countries expressed their needs and lines of action that must be strengthened to comply with Resolution EB144.R5. After the meetings it was organized three

workshops with the countries using the methodology SWOT to analyze the strengths, weakness, opportunities and threats of each country to achieve the compliance of the Resolution.

In preparation to the workshops, a table was previously sent to the countries for the preliminary development of the roadmaps for WASH at the HCFs and that was complemented both on the workshop and on the days after the workshop. The countries had a certain deadline to fill out the table and forward it to the consulting team. Out of the ten countries, seven sent the tables completely filled out and three remained pending (Mexico, Bolivia, Honduras). The reason for not presenting them had to do with difficulties of the healthcare sectors in performing this exercise in the context of the Covid-19 pandemic (see the tables received in the Attachment I).

These tables were analyzed in this report. For this analysis, the surveyors first carried out a descriptive analysis for each country and, next, a comparative analysis between the countries. As a result of the analysis, general recommendations were identified for the countries with the purpose of supporting them in applying the eight steps and practical measures from Resolution EB144.R5 de 2019.

3. EN ROUTE TO THE ROADMAPS FOR IMPROVING THE WASH CONDITIONS AT THE HCFS

This section presents the results and analysis resulting from the information collected on the workshops carried out by the teams from FIOCRUZ and ETRAS of PAHO/WHO. A brief synthesis was made of the main points highlighted by each country for adopting each step required to fulfill the commitments described in the Resolution EB144.R5.

3.1. BOLIVIA

Due to the change of government in Bolivia, it was not possible to coordinate the participation of the Ministry of Health (MINSA) and the Ministry of the Environment and Water (MAYA) for the joint preparation of a preliminary version of the roadmap to achieve Resolution EB144.R5 in accordance with the SWOT methodology proposed by FIOCRUZ for the group of countries, in the scope of this project.

In the preparatory meetings we had the participation of the employees from MAYA, however, the sector of MINSA responsible for the matter is still in a restoration phase, reason for which up to that moment of the meetings, the parties responsible still hadn't been appointed. The WASH at the HCFs requires an intersectoral work; therefore, this situation has limited the capacity of putting together and prioritizing the proposed exercise.

However, in the presentations of the country in the preliminary meetings, a few potentialities can be inferred to advance in the improvement of WASH at the HCFs.

The country has a governmental structure with laws, rules and regulations that favor the adoption and implementation of the eight steps established for achieving the purposes displayed on Resolution EB144.R5. The ETRAS report on the assessment of the situation of the WASH services at the healthcare units produced preliminary data on the country's situation. However, the country acknowledges the absence of systemized national information on the situation of water, sanitation and hygiene at the healthcare units. Likewise, this weak point can be corrected with the applying of a survey about the WASH situation at all the HCFs at national level. A proposal already exists of a survey form prepared by the PNGSA (National Program of Environmental Health Management) – Healthy Habitat Area.

National Standards were developed for services and infrastructures of water, sanitation and hygiene at the healthcare units and the standards were updated. It also has a few rules and regulations for the solid waste management at the healthcare units. It also counts with a rule for the characterization of first and second level hospitals. However, these rules are

not updated and contain very general aspects about water and sanitation, requiring a greater focus on intersectionality.

They also indicated that they are going to initiate a project with UNICEF for developing national standards for the WASH infrastructure services. Even so, there is no plan for development and improvement of infrastructure. As well as gaps in the access to the potable water, sanitation and sanitary, hygiene installations and solid waste management.

In the context of Covid-19, biosafety measures were promoted for the personnel that provide water and sanitation services.

3.2 BRAZIL

Brazil has developed a realistic analysis of the favorable factors and the limitations for implementing an amplified national effort to implement adequate water and sanitation services at the country's healthcare units. Brazil presents many challenges in this aspect, among which are: the country's great territorial extension, its increased population, the federal administrative structure, the decentralized healthcare system and the few efforts developed on the matter up to the moment. On the other hand, the Ministry of Health is motivated to start a coordinated effort to move forward with the planning of the improving of the services at the HCFs.

To do that, national data bases are available that allow tracing an approximate baseline as a starting point for the planning. Even so, the country has no tradition of destining specific budgetary lines for this kind of intervention, this kind of budget remaining under the general forecast of investments at the physical network of the Single Healthcare System (SUS).

It can be said that currently the disposition and the political will are identified on the part of the intermediate management of the federal sphere of the health sector to perform on the advancement of this agenda. Even so, there are no guarantees of how the effort of a few technicians to develop the preliminary roadmap shall evolve. The future uncertainties are important monitoring elements, for they shall determine in which measure the current motivation shall result in actual progress in the agenda. These uncertainties include: future political changes that can determine the degree of priority of these actions; the involvement of the upper echelons of the federal administration; the motivation of other related sectors, such as that of water and sanitation; the adherence of the states and municipalities to this agenda.

3.2.1. Context and actions planned for each step

Step 1 – To carry out an analysis and assessment of the situation

Brazil has a tradition of adequate planning and is provided with some data that allow tracing an approximate panorama of the WASH situation at the HCFs. To do that, there are some data bases on water and sanitation, health and demographic data. There are also federal entities with institutional missions related to the subject matter. Together with these strong points, the country identifies that the pandemic has brought opportunities, such as the strengthening of remote work tools and communication with teams spread out in the national territory.

Even so, the country recognizes the challenge of ensuring quality data, since the in-feeding of the data bases by various states and municipalities not always has the same quality

or the same timeliness. The work overload, mainly in the period of the Covid-19 pandemic and the heterogeneity of the HCFs in the country are identified further as threats.

The actions foreseen to map the current situation include the identification of institutions that can contribute with the assessment; the forming of a specific work group, officially formalized, with the participation of the healthcare, water and sanitation sectors.

Step 2 – To establish goals and roadmaps

The country identifies as the main strong point for this step is the installed planning capacity of the healthcare, water and sanitation sectors. The recent change in the ministerial structure, with the merger of the Ministries of Finance; Planning, Budget and Management; and Economy, is considered an opportunity, for it ensures a greater rationalization in the public planning.

Even so, the low integration between the different sectors and the country's diversity are considered weak points. Likewise, the possible low adhesion to the project by other sectors other than that of healthcare is considered a threat.

In the quality of actions, it is intended to include the initiative in the annual plan of the linked institutions and in the existing national plans, involve the private healthcare units and organize the goals by size, types of services and location.

Step 3 – To review or establish national rules and mechanisms of rendering of accounts

For this step, it is considered as strong points the fact that the Ministry of Health already has a solid system of control and rendering of accounts and, nationally, an information technology system existing at national level for controlling financial revenues and expenses. The country has a legal framework adequate for the rendering of accounts, which is seen as an opportunity.

However, the lack of governance of the healthcare sectors on the systems of rendering of accounts is considered a weak point and, as a threat, the fact that national control agencies have a limited capacity to inspect the public action required for the entire national coverage.

The country did not go into details about the favorable and unfavorable conditions for reviewing and establishing the national rules for WASH at the HCFs.

The actions foreseen in these steps include the involvement of the health surveillance sector to make the existing rules compatible and the creation of mechanisms for checking the compliance with the rules. Actions related to the rendering of accounts were not presented.

Step 4 – To improve and maintain the infrastructure

The existence of budgetary forecast for investments in the physical network of the Single Healthcare System, including the recuperation, reform, expansion and construction of public HCFs is considered a strong point. As opportunities, the country considers positive the studies to include the maintenance of the public HCFs in public-private partnership program.

As weak points related to the infrastructure, the high number of HCFs in the country is identified (324,289, being 27.2% public, 72.7% private and 0.02% of mixed economy). As

a threat, there are budgetary restrictions for investments in public HCFs and the possible resistance of the private sector to adhere to the initiative.

The collection and consolidation of information on the infrastructure of the HCFs and the later discussion of proposals for maintenance and improvements in the facilities are visualized as actions.

Step 5 – To monitor and review data

For the monitoring and review of data, a strong point is the installed capacity of monitoring and assessment of the healthcare actions and an opportunity is the recent expansion of the use of devices for remote work, or that amplifies the capacity of communication with the teams in the entire national territory.

However, the possible asymmetry in the quality of the data, due to the dispersion of the states and municipalities is a weak point, and the work overload of the healthcare teams, mainly in the context of the Covid-19 pandemic, is considered a threat to this step.

The following are projected as actions: the identification of the existing data and institutions responsible for the HCFs (action already foreseen in step 1), the intersectoral articulation to organize an integrated performance and the future discussion of systematization strategies and data analysis.

Step 6 – To boost the professional development of the healthcare personnel

The fact of existing a specific secretary for the subject matter in the Ministry of Health (Secretary of Healthcare Work Management and Education) is considered a strong point, in addition to initiatives in the scope of the Sergio Arouca National School of Public Health (FIOCRUZ) and the Open University of the Single Healthcare System (UNASUS). The recent expansion of the use of devices for remote work, already mentioned, is once again considered an opportunity.

The lack of governance of the healthcare sector on the educational processes for graduating the healthcare professional is assumed as a weak point and the work overload in the pandemic context, a threat.

The two actions planned are: identification of gaps of knowledge and of priority questions for the WASH approach at the HCFs and proposals for a permanent education program for the healthcare professionals and other workers from the HCFs.

Step 7 – To involve the communities

The country is provided with a legal framework ruled in the principles of social participation in preparing and implementing the healthcare policies, having that the Ministry of Health counts with a specific secretary for this coordination. This is considered a strong point. The opportunities are the recent modification of the national regulatory board of water and sanitation, which places the sector in evidence and can encourage the participation of social players. The Covid-19 pandemic has been a pocket of opportunity awareness about the importance of WASH at the HCFs.

The pandemic, on the other hand, compromises the capacity of the Ministry of Health to operationalize its instruments of planning and regionalization in the popular participation, which is a current weak point. As a threat, the pandemic itself is identified, which makes it difficult for people to participate in these processes.

As future actions, it is intended to discuss strategies of awareness and actions of education in healthcare for the communities attended by the HCFs, with emphasis in the local specificities.

Step 8 – To carry out operational surveys and convey the lessons learned

In relation to step eight, Brazil has the capacity of monitoring and assessing the healthcare actions and of a consolidated practice of disclosure of good practices and lessons learned. In addition to these strong points, the already mentioned expansion of tools for remote work is also considered an opportunity for step 8.

The pandemic imposes weak points making the work in loco difficult for surveys on the work in the territories and by the overload of teams, which are limited in the activity of disclosing information about the subject matter.

As actions, the performance of periodic meetings is proposed for assessment and monitoring of WASH actions at the HCFs and interchange of national and international experiences.

3.3. COLOMBIA

Colombia has concentrated on identifying the favorable conditions that the country has currently to assume the eight steps and fulfill the objectives set forth by Resolution EB144. R5. In this manner, the exercise proposes feasible actions and identifies synchronicity with actions that are already in progress and favor the eight steps' fulfillment.

A normative picture is identified on the course of the exercise, as well as a few plans and programs that make the implementation of the eight steps easier. In the first place, [Law 715 of 2001](#), is identified, which provides that the Departmental and District Secretaries of Health prepare every two years a biannual public investments plan, in which the ones destined to infrastructure are included. In the second place, [Resolution 3100 of 2019](#) is presented, which defines the procedures and conditions for the registering of healthcare services providers and the authorization of the healthcare services, the Manual of Registering Providers and Authorization of Healthcare Services is adopted. Here, it is highlighted that with this Resolution the healthcare services providers are obliged to have “the respective concept of healthcare that fulfills the provisions of the health rules in force in aspects such as water for human consumption, waste management, vector control, order and cleanliness, locative conditions, among others¹”.

In the third place, actions developed by the Strategy of Healthy Settings are pointed out, in particular the chapter of Institutional Setting, as a favorable condition for the development of some of the eight steps. The importance of the Strategy of Healthy Institutional Setting is stressed as the one that guarantees full attention to the users' health by means of individual and collective interventions, taking into consideration the availability of skilled services in the territory and the attributes of quality of the attending in healthcare.

1 Note made on the presentation of Colombia at the meeting held on October 1st, 2020.

In the case of the information and monitoring systems, the Special Register of Healthcare Service Providers (REPS in Spanish) and the System for Surveillance of the Quality of Potable Water (SIVICAP in Spanish) are identified. The intersectoral instances that can make the implementing of the Resolution easier are also mentioned, such as (a) the Intersectoral National Technical Commission of Environmental (CONASA in Spanish), which coordinates and guides the design, formulation, follow-up and checking of the implementation of the In-depth Environmental Health Policy (PISA); and (b) the Territorial Environmental Health Boards (COTSA in Spanish), which are conceived as “relevant technical spaces for decision making, management and intersectoral agreement in the approach of the social determinants that affect the quality of life and health of the population, as well as form implementing the PISA.

According to the exercise, it can be said that political disposition and will exists on the part of the Ministry of Health and Social Protection mainly, with lesser interest of the Ministry of Housing, City and Territory. The exercise that seeks to identify the synchronicity of the existing actions with the eight steps. However, the doubt remains about the real possibility of performing new actions proposed. Likewise, Colombia presents a high rotation of personnel at ministerial level and in the Territorial Healthcare Directions, which generates uncertainty as to the fulfillment of the eight steps.

1.1.1. Context and actions proposed for each step

Step 1 – To carry out an analysis and assessment of the situation

Colombia has favorable conditions to fulfill the performance of step one. In the first place, the country counts with a normative board that regulates the rendering of the healthcare services, including the compliance with the health facilities. The regulatory milestone is presented in Resolution 3100 of 2019 and Law 715, which establishes the health surveillance competencies for the healthcare providing entities.

In the second place, although Colombia does not count with itemized information about water, sanitation and hygiene (WASH) at the healthcare units; it counts, rather, with information of the health surveillance actions and quality of the water by department and municipalities. According to the latter, one of the challenges for this point is to generate more detailed information in terms of WASH for each healthcare unit by department and municipality.

As to the actions to move ahead with this point, it is proposed on one hand, to consolidate and analyze the information produced by the health surveillance and the control of the potable water and sanitation sector. The latter with the purpose of itemizing the information by healthcare units. On the other hand, taking into consideration the information from the special register of healthcare service providers (REPS), the challenges that the healthcare units face regarding potable water, basic sanitation and hygiene could be analyzed.

Step 2 – To establish goals and roadmaps

Currently, Colombia counts with the coordination space of the Territorial Environmental Health Board (COTSA). This space is intersectoral and allows the territories to coordinate actions around the environmental health of the different departments of the country. Among the themes dealt with are those of water and sanitation.

The COTSA, therefore, are an opportunity to integrate in an itemized and particular manner, the analyses and assessments of the WASH sector at the healthcare units. Likewise, it

is pointed out that the Report of Quality of the Water for Human Consumption could be adapted to itemize the data of quality of the water for human consumption at the healthcare units that is collected on the Information System for the Surveillance of the Quality of the Water Human Consumption SIVICAP. This report is prepared and published by the Ministry of Health and Social Protection, the Ministry of Housing, City and Territory, the Superintendence of Public de Domicile Services and the National Healthcare Institute.

In the quality of specific actions, it is proposed to identify the healthcare units that supply water coming from municipal distribution, the quality of water of which is known. This with the purpose of making use of the data that is being collected by the SIVICAP. On the other hand, it is proposed to establish an action plan by means of the water table and sanitation of the COTSA to carry out the improvement processes of the WASH sector at the healthcare units.

Step 3 – To review or establish national rules and mechanisms of rendering of accounts

For step three, Colombia counts with a normative board that the provision of the healthcare services where the compliance with the healthcare facilities is included (Resolution 3100 of 2019 and Law 715) that establishes the competences of health surveillance in relation to the healthcare providing entities. Additionally, it counts with the [Strategy of a Healthy Institutional Environment](#). This environment encompasses “the intramural spaces of the Institutions Providing Healthcare Services (public and private), the institutions that provide social services or of full protection” (MinSalud, 2016), and interact the health and social services to ensure the full attention in healthcare to people, it is in this sense that this strategy:

- Favors the inclusion, the respect and the acknowledgement of the diversity: course of life, gender, ethnicity, particular conditions (handicap, special talents, among others) social situations as displacements, victims of the conflict, street dweller, among others.
- Promotes and articulates strategies such as safe hospitals, green and healthy hospitals, among others.
- Supports the improvement of adequate health conditions.
- Develops capacities of the social and community networks, for broaching situations related with the well-being and the quality of life of their communities.
- Establishes alliances and commitments for a full intervention by means of sectoral and intersectoral coordination.

However, new actions are not proposed in the exercise to provide the compliance with this measure three, but it is presumed that the work that the ministry is already carrying out regarding said regulatory milestone and the ongoing Institutional Environment Strategy.

Step 4 – To improve and maintain the infrastructure

In the exercise that Colombia carried out, it is proposed that Resolution 3100 of 2019 adopts an enrollment manual of healthcare providers, in which a few standards of infrastructure are displayed that allow improving and maintaining the infrastructure of the healthcare units. It is mentioned among the standards the importance of counting with the following equipment:

- Potable water reserve tank;
- Water supply;

- Electric power;
- Communications;
- Extramural unit: supply of potable water and waste water.

It is pointed out among the challenges to fulfill this step the demographic change that Colombia is going through and the lack of resources for the healthcare units of a public nature for complying with the standards set forth in Resolution 3100 of 2019.

Just as in step three, new actions in addition to those already proposed in said Resolution are not proposed.

Step 5 – To monitor and review data

Currently Colombia counts with the information resulting from the inspection, surveillance and control (IVC in Spanish) system both in the quality of the water supplied as of the healthcare providing institutions.

In the case of the quality of water, there is a national information system where the results of the water supply in the urban areas supplied by the healthcare entities present therein are reported periodically. However, this information is not cleansed or itemized per healthcare unit, and is not consolidated at national level.

Among the actions for improving the data monitoring and reviewing conditions, it is proposed to conclude preparation process of the IVC information system, in which information itemized by the healthcare services providers is included. Therefore, it is necessary to suggest that territorial healthcare authorities (DTS) include follow-up indicators that take into consideration the quality of the water and basic sanitation in the institutions providing healthcare services.

Step 6 – To boost the professional development of the healthcare personnel

For step six, the IVC actions to the institutions providing healthcare services in which the good repute of the healthcare personnel is taken into consideration are identified as a strong point. It is considered that it is necessary to move forward in other actions such as the promotion of information, education and communication strategies in the management of water for human consumption and basic sanitation in the institutions providing healthcare services.

Step 7 – To involve the communities

In the exercise carried out by Colombia, implementing the healthy settings strategy with population and collective interventions is seen as an advance in this step. However, it is considered that, as a challenge, the country has inequalities between regions and population groups that sometimes make it difficult to have a healthy settings strategy differentiated territorially.

Besides, greater emphasis should be placed on promoting information, education, and communication strategies on water management for human consumption and basic sanitation.

Step 8 – To carry out operational surveys and convey the lessons learned

For this step, it is evident that the information resulting from the IVC both on the quality of the water provided and the healthcare providing institutions are a strong point to advance in the survey actions and collect the lessons learned. Additionally, it is proposed that other necessary actions are the performance of pilot studies in prioritized zones and the consolidation of the information collected on the IVC actions itemized by potable water and basic sanitation.

3.4. GUATEMALA

As to the WASH at the HCFs, Guatemala counts with an important multisectoral institutional network, which guiding role is exercised by the Ministry of Public Health and Social Assistance (MSPAS).

The action of the institutions involved are ruled in the country's constitutional milestone and in various infraconstitutional laws and regulations, that encompass coverage and quality of the potable water, medical installations, rainwater sewers, solid waste, hygiene and control of vectors with various degrees of efficacy.

Guatemala has several sources of financing for the WASH sector. This scenario creates favorable for adopting Resolution EB144.R5 of the WHO, with the purpose of establishing an assessment program of the situation of the HCFs in terms of availability and functionality of their WASH facilities.

The Great Nutrition Crusade, as one of the important elements to achieve an improvement in the nutritional situation of the Guatemalan population, includes the WASH, which creates an important impeller motor for implementing Resolution EB144.R5 in Guatemala.

On the MSPAS there is the National Program of Monitoring the Quality of the Water for Human Consumption (PROVIAGUA), established in the year 2004, which general objective is “to establish the technical mechanisms most adequate for developing the health surveillance of the quality of the water, supplying the population, by means of water supply system for human consumption, whether public or private, in such a manner as to provide the information required to ensure that seawater is supplied in potable quality in a continuous manner”.

In the context of the COVID-19, several measures related to WASH have been adopted. However, the country still has no roadmap, for there are no plans or programs to implement Res. EB144.R5.

3.4.1. Context and actions proposed for each step

Step 1 – To carry out an analysis and assessment of the situation

In Guatemala there is a diagnosis of the situation of the water, sanitation and hygiene, carried out in 2018, at the healthcare units, in each of the levels of attention.

Today, the situation of the healthcare units in relation to the WASH units is known, by means of a sample with a level of trust of 95% or more. The last survey carried out constitutes an opportunity for establishing a permanent program of assessment of the physical and functional situation of the WASH conditions in the country.

The need of establishing a permanent program of assessment of the physical and functional situation of the WASH services at the healthcare units is identified.

Step 2 - To establish goals and roadmaps

At the Ministry of Public Health and Social Assistance there are technical-administrative instances that, duly reinforced, can work in the establishment of goals and roadmaps for improving the WASH services at the healthcare units.

It is possible to establish a program that, within their distinct stages or steps, includes the establishment of goals and roadmaps.

To do that, it is essential that the MSPAS counts with the sufficient technical and financial resources for the preparation of plans and their respective goals and roadmaps.

Step 3 - To review or establish national rules and mechanisms of rendering of accounts

In Guatemala national rules of quality of the water services for human consumption, that apply to all the supply systems already exist; logically, this includes the healthcare units as their users. There is also a Regulation for the Handling of Solid Hospital Waste and a work of development of national rules for the sanitation and hygiene services is about to be developed.

With the establishment of goals and roadmaps, opportunities are opened to extend the applying of national regulations, as well as to consider other specific aspects in their review and updating.

Step 4 - To improve and maintain the infrastructure

The third level establishments generally have an internal technical body responsible for maintaining the infrastructure (mainly facilities) although many of them have limited technical capacities. The first and second level units, in many opportunities, count with the support of the municipalities, communities and cooperation entities for the improvement and maintenance of the infrastructure.

When carrying out an improvement program of the WASH installations at the healthcare units, there is the opportunity of including matters concerned with the maintenance of the infrastructures, where one of the possible strategies would be the establishment of technical-administrative frameworks responsible for this matter, which up to now has represented a very low priority in the management of the healthcare units.

It is necessary to allocate adequate financial resources to the maintenance services and the ones corresponding to the operation of the equipment and installations of water, sanitation and hygiene. In general, the first level units and the majority of the second level units do not have an instance dedicated to the maintenance of the installations. Also, there is no technical body that ensures the rehabilitation of the installations when required.

Step 5 - To monitor and review data

The MSPAS counts with an information system on the quality of the water for human consumption (SIVIAGUA/SIGSA) that is fed by the results of the surveillance of the supply services in the country.

The monitoring and review of the data can be improved when reinforcing the SIVIAGUA/SIGSA and when expanding this information system, also considering the data on sanitation and hygiene at the healthcare units.

It is necessary to provide the MSPAS, in what concerns the surveillance of the water and sanitation services, of human resources, financial and sufficient materials for fulfilling this function, this mainly at operational level.

Step 6 - To boost the professional development of the healthcare personnel

The MSPAS, in addition to being responsible for the inspection of the water and sanitation services in the country, it has instances of graduating Environmental Sanitations Inspectors and Rural Health Technicians, which constitutes a strong point by the fact of making the creation of other careers that may be considered necessary easier.

Based on what already exists, the MSPAS can create other courses for graduating technicians and professionals concerning the WASH services at the healthcare units, which include, among others, the operation, maintenance, monitoring the quality and management of the information.

Political support and will are necessary for the graduation and education of the personnel in aspects not related to healthcare assistance.

Step 7 – To involve the communities

In the case of the units of level I and II of attention, there has been some support from the communities, municipalities and instances of civil society, in the sense of ensuring the improvement and maintenance of the general infrastructure. In turn, the level III healthcare units have been supported by patronages and a few private companies.

In the immediate future, the more consistent participation of the communities can be promoted, especially to support the improvement and maintenance of the WASH infrastructure.

Step 8 – To carry out operational surveys and convey the lessons learned

In the MSPAS there are technical-administrative bodies that can, duly reinforced, carry out operational surveys and on the lessons learned in WASH at the healthcare units.

The establishment of plans for improving the WASH conditions at the healthcare units can include the reinforcement of the entities that can carry out operational surveys.

3.5. HONDURAS

Honduras did not develop the preparation exercise of a preliminary version of the roadmap based on the SWOT methodology, in the scope of this study. The hurricanes that ravaged the country during the development period of the study required that the teams of the Ministry of Health and of other areas related to this initiative prioritize the attending the healthcare emergencies that took place at that moment, limiting their capacity to advance in the proposed exercise.

However, in the presentations of the country made at the workshop of November 11th, 2020, a few potentialities can be inferred for advancing in the improvement of WASH at the HCFs.

On the other hand, the country has a governmental structure, as well as laws, rules, regulations and programs that favor the adopting and implementing of the eight steps set forth in Resolution EB144.R5. The ETRAS report on the assessment of the situation of the WASH services at the healthcare units is a very important starting point to continue the planning of this initiative. The report can be complemented with information on the levels of WASH services in rural healthcare centers, compiled by the Information System of Rural Water and Sanitation (SIASAR). In SIASAR, currently 97 healthcare units are included, within a universe of 3,731 “aldeas”, according to the 2013 XVII Population Census and the VI Household Census. A strong point of the SIASAR is its conception of encouraging the participation and constituting a platform of monitoring and assessment of these services in the rural environment. An important limitation is that no similar platform was identified for urban areas.

On the other hand, the opportunity of the context of the pandemic is identified, which emphasized the importance of the practices of hygiene at the HCFs for preventing the transmission of the COVID-19. This context evidenced the need of practices of hygienization of the hands and guarantee of the availability of raw materials necessary to hygiene.

3.6. MEXICO

On account of the COVID-19, it was not possible to coordinate the participation of the Ministry of Health and the National Waters Commission (CONAGUA) for the joint preparation of a preliminary version of the roadmap for the scope of Resolution EB144.R5 in accordance with the SWOT methodology proposed by FIOCRUZ to the set of countries, in the scope of this project. In the preparatory meetings we had the participation of authorities of the Water and Health sectors, during the meeting of November 19th, 2020, it was agreed that a second meeting would be summoned by the Ministry of Health to agree on the intersectoral proposal of the national roadmap; however, due to the health emergency, the scheduled meeting was cancelled.

Based on the presentations of the country on the preliminary meetings, we have identified a few elements that can be configured in milestones for the coordinated construction of the national roadmap to advance in the improvement of WASH at the HCFs.

The country has a governmental structure with laws, rules and regulations that favor the adoption and implementation of the eight steps established to achieve the purposes displayed in Resolution EB144.R5.

The ETRAS report, carried out in 2018 on the assessment of the situation of the WASH services at the healthcare units, produced preliminary data of the country's situation.

Mexico also counts with rules of infrastructure in the matter of water and sanitation at the HCFs with potential for effective actions for the advance of a national plan en route to the compliance with the Resolution EB144.R5.

In the context of the Covid-19 the monitoring of the residual free chlorine was carried out, >0.5 mg/l (recommended by the WHO) at the HCFs.

3.7. NICARAGUA

Nicaragua has presented many strengths and opportunities for the development of the roadmap and the adoption of the eight steps. One of the main points pointed out by the country is the intersectoral bench for the scope of the SDGS 6, and the interest of the different players in improving the WASH services at the HCFs.

The existence of the intersectoral bench can help in the analysis and assessment of the situation of the WASH services at the HCFs, and in the preparation of goals and the roadmap, but, as it was highlighted by the country, it is necessary to include a line, in the budget, for the subject matter. In addition, the country has few regulations on the WASH services in HCFs and needs to prioritize its preparation.

The country has no robust and integrated informative system to carry out the monitoring of the WASH data at the healthcare units, but intends to implement it, together with the epidemiological surveillance.

Nicaragua has no budgetary item for the infrastructure of WASH, but wants to promote it. However, the support of the international cooperation in the context of the COVID-19 has been a great opportunity for improving the infrastructure of WASH at the HCFs. According to the country, the international support can also support the development of workshops with healthcare professionals promoting the professional development.

In regard to the participation of the community on the theme, the country identifies that, in spite of having a model of attention to extramural healthcare, with active participation of the community, the question of WASH is not worked on together with the community, needing more attention.

One of the points to be improved is the investigation of the theme in the country, but, to do that, the intersectoral bench of the SDGS 6, which counts with the participation of the academy, can help to advance in this step.

3.7.1. Context and actions planned for each step

Step 1 – To carry out an analysis and assessment of the situation

The main strong points of Nicaragua to manage to carry out an analysis of the situation of the WASH services at the HCFs have been the applying of the ETRAS protocol and the review of the indicators of the Joint Monitoring Program (JMP) of UNICEF-OMS. For reviewing the data of the JMP, the country carried out, in 2019 and 2020, an administrative register of the information about the WASH service of schools, healthcare units and communities.

The intersectoral bench on the SDGS 6 is seen as an opportunity for the country since it proposes to collect information on the WASH services at the HCFs to achieve the SDGS 6. However, one of the fragilities is in identifying the access to the services according to the grid adopted by the JMP, needing a review of the forms for improving the pick-up of the necessary information. In addition, Nicaragua still did not manage to systemize the information collected on the WASH service in schools, healthcare units and communities, which is considered a possible threat.

As main future actions, it is planned to improve the instruments for collecting information, strengthen the institutional work of the sectoral bench on the SDGS 6, learn and adapt the WASHFIT methodology and articulate the healthcare units, the communities and schools, the survey of information.

Step 2 - To establish goals and roadmaps

To establish goals and roadmaps, Nicaragua identified as one of its strong points the existence of a sectoral bench of the SDGS 6 that can work in its construction. In addition, it highlighted the will of the institutions in advancing to achieve the fulfillment of the SDGS 6.

The COVID-19 pandemic created the opportunity of promoting guidelines to improve the WASH services at the HCFs, but the country identifies that one of the weak points is the difficulty of articulating short and medium-term actions and the non-inclusion of a budget for the WASH services at the HCFs can be a threat.

The country suggests that it is possible to start to put together the goals with the perspective proposed for the SDGS 6 and, therefore, the construction of the roadmap shall be related to the plan that comes out of the intersectoral table of the SDGS 6.

Step 3 - To review or establish national rules and mechanisms of rendering of accounts

Nicaragua has a few normative rulings in relation to the habilitation of the HCFs from the WASH services; for preventing and controlling infections/diseases at the HCFs; for the disinfection and cleaning; and for the quality of the water. The normative rulings of the WHO are used as a reference when there is no national normative ruling.

The country has no rules in relation to the waste from the hospital centers and has no environmental cleaning protocols at the HCFs. The absence of priority to the normative rulings related with the WASH services can be a threat to the fulfillment of step 3. Therefore, the country thinks about making the construction of the rules, inexistent in relation to the waste at the HCFs; the hazardous waste; the environmental cleaning protocols; and the protocols for the sanitation part (waste waters).

Step 4 - To improve and maintain the infrastructure

In relation to the infrastructure, Nicaragua has an infrastructure department and an environment management unit with environmental safeguards programs with components in hospital waste and water. In the pandemic the country had the opportunity of improving the conditions of the WASH services at the HCFs with investments from the international cooperation.

One of the problems that the country faces is not having specific budgetary lines to improve the infrastructure of the HCFs, the problems are faced when there are emergencies. With this, the country proposes to design protocols for the preventive and corrective management of the infrastructure and promote the inclusion of a budgetary line for maintenance activities of WASH at the HCFs.

Step 5 - To monitor and review data

As to the monitoring and review of data, Nicaragua highlights that it has an informative system (SIASAR) at rural zone and that includes information on the HCFs. From 1002 health care centers at the rural zone in the country, there are 755 registered at the system, as information from the SIASAR website. In addition, in the next few years, they intend to implement the surveys of the MICS and the UNICEF.

In spite of having the SIASAR information system, the country has no robust centralized system at the Ministry of Health, but proposes to integrate it to the epidemiological surveillance system. The problem is to have a good connectivity and a team to collect, register and analyze the information. As future actions plan to consolidate the information and monitor the progress; to put together an information technology system to register the situation of the

WASH services at the HCFs in conjunction with the epidemiological surveillance; to articulate the monitoring at the ministry and integrate it to other national information systems; to share monitoring tools within the Ministry of Health; and generate spaces of articulation between the different ministry departments. It is important that the country includes the urban area in the information technology system, in addition to the rural area.

Step 6 - To boost the professional development of the healthcare personnel

Nicaragua has developed awareness workshops for the healthcare personnel to learn about the WASHFIT tool, in addition to identifying the WASH indicators in HCFs and in handwashing campaigns.

Once again, the international cooperation is seen as an opportunity to take this step. The country has no personnel trained to internalize the questions broached in the WASHFIT campaigns and workshops, which is considered a weakness of the country. In addition, the constant rotation of the healthcare personnel is seen as a threat to advance in this step, since it prevents the adequate follow-up of the actions.

In this manner, they consider as main actions to improve and write the protocols so that the leaders in the performance of the training in WASH at the HCFs have better guidelines and tools; and have a diploma in WASHFIT to promote the professional development of the healthcare personnel.

Step 7 – To involve the communities

The healthcare model in the country is considered extramural next to the communities. To have coordination between the family and community healthcare teams with the community leaders and members of the healthcare brigade. But the subject matter of the WASH is not included on the themes debated with the community and the country sees as a threat not to prioritize the subject matter WASH at the HCFs as a matter of guaranteeing good health.

Therefore, as priority actions, the country has the purpose of reinforcing the articulation they have with the community, improve the health education in relation to the subject matter of WASH at the HCFs and integrate the potable water and sanitation committees in the community actions.

Step 8 – To carry out operational surveys and convey the lessons learned

In relation to step eight, Nicaragua counts with the participation of the academy in the intersectoral bench of SDGS 6. But the country has little survey culture and gives no priority to the matter, the latter is seen as a possible threat.

As future actions Nicaragua intends to promote the survey that integrates and correlates the epidemiological data with the quality of the water; and promote the education of the workers who work in the maintenance of the water, sanitation and hygiene systems at the HCFs.

3.8. PANAMA

Panama presents many strong points for applying the eight steps. The country has an evolution protocol of the WASH services at the healthcare units and a baseline of the conditions of these services in 186 units. There is an international interest to make the data survey and the construction of the roadmap and a national plan for supporting the implementing of the actions. The country counts, also, with a commission at the Ministry of Health to provide follow-up to the preparation of the roadmap. However, there is a scarcity of capacitated personnel and of resources, high mobility of capacitated personnel and discontinuity of public policies due to the changes of government.

Panama has rules for complying with Resolution EB144.R5, but the existing rules are dispersed and are not specific in the aspect of water, sanitation and hygiene at the healthcare units. In addition, the assessment protocol results are not used as a mechanism of rendering of accounts on WASH at the healthcare units.

As the country does not use the data in the decision making, currently it has no plans of improvement of the WASH systems at the healthcare units of the Ministry of Health based on the results of the assessment, and the Healthcare Regional Units are not aware of the baseline results, which, together with the lack of resources, damages the improvement of the infrastructure.

According to the country, there is interest in interest establishing a data monitoring and review system of the WASH conditions at the healthcare units. The country is part of the SIASAR, which receives the coverage data of water, sanitation and hygiene at the healthcare facilities located in the rural zone. There are 128 health care centers registered at the system, as information from the SIASAR website. However, in the majority of the regions, there are few technical personnel for monitoring and reviewing the data, the access to the internet at the healthcare units is limited, it is needed to create a working methodology and the resources destined to carry out the actions are scarce.

Panama counts with technical personnel to assume new responsibilities and acquire knowledge, but lacks technological resources to improve the professional development of the healthcare personnel and is afraid of replacing older technicians on account of the risk of not being provided clear mechanisms of conveying the knowledge and the technical capacity acquired.

In regard to the community participation, the country counts with Healthcare Committees, consultive councils, local boards and congresses, mainly at the rural and urban areas. Likewise, according to the country, the NGOs linked to the healthcare sector can also be involved. There is still the possibility of empowering the communities to monitor and inspect the WASH conditions of their healthcare units, so as to make them acceptable. The main problem is the politicization of the assessment problem by groups of interest of the community.

Lastly, the country has a baseline of 2018, with data that can be used by academics or NGOs in research projects. However, Panama informs that it lacks continuity in the monitoring process of using the information obtained and the administrative and decision-making mechanisms to provide the data for use in investigations still weren't defined.

As future actions, the country proposes, among other things, create an action plan, establish a date for putting together the roadmap; carry out the periodic intersectoral coordination for performance and follow-up of the guides; allocate resources for issuing the WASH services at the healthcare units; carry out training of personnel; update information

on the WASH services in healthcare units; use the collected data in decision making; make the population sensitive to their active role in the surveillance and inspection of the WASH conditions at the healthcare units; and define and approve the mechanisms of authorization for the utilization of the data collected by the academy in their research projects.

3.8.1. Context and actions planned for each step

Step 1 – To carry out an analysis and assessment of the situation

The main strong points of Panama to achieve stage 1 is the existence of an assessment protocol of WASH at the healthcare units, a baseline of the conditions of the WASH service in 186 healthcare units, technical personnel at community level in the majority of the healthcare units, a coordination unit of the activities (Directorate of the Subsector of Potable Water and Sanitary Sewage - DISAPAS), database for collecting data and experience with NGOs for applying the assessment protocol.

The country highlights that there is an international interest in collecting data in healthcare units and an action plan of the national government to support the Ministry of Health in the implementing of prevention actions against infection by the COVID-19. However, it lacks trained personnel to apply the assessment protocol, resources are lacking to complete the collection of data in all the healthcare units and, the already collected data has to be used for decision making. The resources are allocated to the Covid-19 pandemic and disasters caused by climatic problems.

As future actions, the country intends to create an action plan for facing the current situation, with sufficient personnel and trained to carry out its operation. To carry out the disclosure of the of the data collected at the sectors of the Ministry of Health for decision making, with the purpose of improving the WASH conditions at the healthcare units. To update the information from the census contained in the country's report and prepare plan for searching of resources.

Step 2 - To establish goals and roadmaps

The study developed by ETRAS/PAHO/WHO allows establishing a medium-term roadmap that can cover all the healthcare units. In addition, there is a commission inside the Ministry of Health for treating and monitoring the program. The interest of the international organizations in a roadmap creates an opportunity for its preparation, but the mobility of capacitated personnel and the continuity of the public policies affected by the changes of government are considered, by the country, as fragilities to achieve stage 2. As actions in the future, the country intends to establish a date for putting together the roadmap; carry out periodic intersectoral articulations for performing and follow-up the roadmaps; create a prioritization matrix by means of bottom-up planning and establishing success indicators; and allocate resources.

Step 3 - To review or establish national rules and mechanisms of rendering of accounts

Panama counts with rules for complying with Resolution EB144.R5, but the existing rules are dispersed and are not specific in the water sanitation and hygiene area in healthcare units. Therefore, according to the country, it is necessary to update and standardize the

existing rules in the areas of water and sanitation. In addition, the results of the assessment are not published as an accountability mechanism for WASH at the healthcare units. As future actions to fulfill stage 3, Panama believes that it shall be important to carry out an inventory of the rules related with the matter of WASH at the healthcare units; to promote a process of dissemination of these rules at multisectoral, institutional level (head office and regional) and reinforce the responsibilities; obtain feedback on the weak points of the existing regulations for its development or updating; to develop an action plan that contemplates the fulfillment of the objectives of rendering of accounts, allocate resources to achieve accountability; and publish the baseline results of the WASH in healthcare units at the Ministry of Health website, in addition to all the information related to the subject matter.

Step 4 - To improve and maintain the infrastructure

According to the country, currently there is no decision making nor plans for improvement of the WASH systems at the healthcare units of the Ministry of Health based on the assessment results. The country lacks resources to attend the problems of infrastructure and the Healthcare Regional Units are unaware of the baseline results. Notwithstanding, the healthcare regional offices can sustain a preliminary draft of budget to improve and maintain the infrastructure conditions of the healthcare facilities, with the information collected by means of the baseline, and search for funds from the ministry and other sources of financing.

Another problem pointed out by the country is that the climatic changes and the latest natural disasters caused by the rainfall affect the conditions of the WASH systems at the healthcare units, and no one is aware of who monitors if the conditions of those that were affected are repaired at optimum levels.

To advance with step 4, the country suggests sharing the information from the assessment results of each healthcare so that they can prepare their improvement plan; to monitor the attending on the part of the Regional Healthcare units and their actions for solving the situations identified and motivate the preparation of a maintenance plan with allocation of resources.

Step 5 - To monitor and review data

The country has data in 186 healthcare units at national level. In addition, Panama is a party to the SIASAR (joint initiative started by the governments of Honduras, Nicaragua and Panama) that receives data coverage of water, sanitation and hygiene at the healthcare facilities located on the rural zone. There are 31 healthcare units of Panama in the SIASAR. There is, further, the SIMEPLANS (Monitoring and Assessment System of the National Healthcare Plan) as a planning and follow-up mechanism.

According to the country, interest exists in establishing a data monitoring and review system of the WASH conditions in healthcare facilities. The World Bank and the countries that are a party to the Regional SIASAR are interested in using the platform for collecting and uploading the most complete data of WASH at the healthcare units and educative centers. The idea is that this data is processed to project their resultant indicators in maps and graphs.

However, there are few technical personnel in the majority of the Regional Units for monitoring and reviewing data. The resource allocated for carrying out these actions is low and still isn't present on the regional budget. It remains to be created a work methodology that incorporates the entire process that goes from the survey strategy up to the utilization of the

data for decision making. In addition, a review of the indicators is lacking to determine if the protocol fulfilled the information needs in accordance with the requisites of the interested parties and the access to the Internet is limited in the majority of the healthcare units and administrative offices.

So, to fulfill stage 5, the country suggests establishing the information collection strategy at the other healthcare units; train technical personnel to collect information; collect information in the field; process the data and present the results.

Step 6 - To boost the professional development of the healthcare personnel

Panama counts with technical personnel to assume new responsibilities and acquire knowledge. In addition, there is the possibility of incorporation of new knowledge that improves the administrative and operational capabilities of the technical, healthcare and managerial levels. However, there are technical personnel in late middle age that have not been managed adequately for a generational change and transfer of knowledge and, in addition, lack technological resources to improve the professional development of the healthcare personnel. The country also reports a resistance from the elderly healthcare professionals to the continuous professional development and points out that there are many professionals at risk age that can be affected by the COVID-19 pandemic, which limits their participation. To fulfill stage 6, Panama suggests motivating the establishing an ordinate process of generational renewal with the transfer of knowledge and the development of a graduation plan (ongoing induction and graduation) in all the disciplines of WASH.

Step 7 – To involve the communities

In Panama there are Healthcare Committees, which are a kind of community organization linked to the healthcare sector, but there are also local consultive councils, local boards and congresses that can involve, especially in the rural areas. In the urban areas, according to the country, NGOs linked to the healthcare sector can get involved and there is the possibility of empowering the communities on the surveillance and inspection of the WASH conditions of their healthcare units so that they are acceptable. According to the country, the COVID-19 pandemic has generated interest and awareness to maintain high levels of personal and family health to prevent contagion by the disease. A problem pointed out by Panama is the politicization of the assessment process by groups of interest of the community. Thus, to fulfill stage 7, the country proposes to make the population sensitive to its active role on the surveillance and inspection of the WASH conditions at the healthcare units.

Step 8 – To carry out operational surveys and convey the lessons learned

According to the country, it is possible to made available to the Academy and NGOs all the data they have to carry out operational surveys on this matter. The data can be used for carrying out surveys that seek to identify and measure gaps of inequalities between rural and urban, between non-indigenous rural and indigenous rural and other kinds on inequalities. The data is used to correct deviations and inadequate distributions of the supply chain or to attend the need of improvements, repair of WASH systems or lack of resources. However, the lack of continuity in the monitoring process of the use of the information obtained to be shared is a problem placed by the country. In addition, the administrative and decision-making mechanisms for supplying the basic data for use in surveys were not defined. Thus, the country proposes as a future action to define the mechanisms of authorizing the baseline data and approving it.

3.9. PARAGUAY

The exercise carried out by Paraguay remained under the responsibility mainly of the National Environmental Sanitation Service - SENASA, a technical board linked to the Ministry of Public and Social Security. The SENASA has, among other functions, the planning, promotion, performance of works for supplying potable water and sanitation in Rural Communities of up to 10,000 inhabitants. However, the information provided is based on the attending provided by means of providers that are within their area of competence, such as Commissions and Boards of Sanitation, the latter are Community Organizations with Legal Status organized by SENASA for the administration, operation and maintenance of the Water and Sanitation Systems, for which they considered that they could only contribute in a general manner on the WASH sector, providing information about the healthcare units provided by these Sanitation Councils and without specifying about WASH at the healthcare units provided by other providers or with independent systems. Likewise, Paraguay participated on the survey carried out by the ETRAS in 2017. Because of that, what is presented next represents only what the SENASA has worked on and a few elements of the ETRAS report are taken, inferring a few potentialities to apply the eight stages and, thus, advance in the improvement of WASH at the HCFs. The lines that follow describe the favorable conditions and the challenges that the consultancy team infers for the applying of each stage or practical measure. The actions proposed by the SENASA are explicated in the document, however, it is important to clarify that they filled out only the first column of the exercise, where they include a SWOT analysis without itemizing each stage or practical measure, for this reason the consultancy team made the itemization of the SWOT analysis at their own discretion for the stages one, two, three, four, five and seven. There was no information to explain stages six and eight.

3.9.1. Context and actions proposed for each step

Step 1 – To carry out an analysis and assessment of the situation

Within their strong points, Paraguay counts with studies and surveys such as “Assessment of the water, sanitation and hygiene situation in healthcare attending units” carried out in collaboration between the ETRAS of the PAHO/WHO and the Interamerican Association of Health and Environmental Engineering – AIDIS. SENASA informs that Paraguay also counts with a study of the World Bank published on the year 2020 “The water and sanitation service in Paraguay”.

The performance of these studies allows the country to have an assessment of the situation, and shall be a first step for performing a roadmap for complying with the Resolution.

As proposed by the SENASA, it is mentioned that as action for this stage it is necessary that the Ministry of Health carries out “a diagnosis of the conditions of the hospitals and the Family Healthcare Unit (USF) from the point of view of the infrastructure of potable water, sanitation and hygiene”.

Step 2 – To establish goals and roadmaps

Within the strong points it is formulated that currently there is a National Water and Sanitation Plan in validation process. This plan raises the need of organizing and having a sole window for the management of resources for investments in the water and sanitation sectors and that these can promote a greater investment for the expansion and improvement of the water, potable water and sanitation systems at the healthcare units.

Likewise, the SENASA describes as an opportunity, but also as a challenge, that the water and sanitation sector in Paraguay involves several institutions. It can be an opportunity of intra and intersectoral work, but at the same time it creates challenges for the governance of the sector due “to the duplication and overlapping of functions and actions in the water and sanitation sector, with no coordination between the intervening parties”.

The SENASA is promoting new strategies that seek the sustainability of the Water and Sanitation Systems in the rural medium, for which the integration of small suppliers is proposed so as to avoid the atomization of the systems, increase the coverage by means of expanding and improvement of the existing systems, promoting micro-measurement and improvement of the quality of the water for which it is in process of acquiring chlorination equipment that shall be delivered to the Health Boards which systems do not have this kind of purification. All these strategies constitute the roadmap that shall allow that these community organizations responsible for the management of water and sanitation and that today attend 75% of Paraguayan population by means of Sanitation Commissions and Councils be more sustainable and, at the same time, offer greater quality in providing their services.

This, in turn shall allow the healthcare units that are in the scope of these Sanitation Councils can be supplied with quality services by the same, without needing any other kind of intervention in their infrastructures of ASH, allowing the optimization of the resources.

Step 3 – To review or establish national rules and mechanisms of rendering of accounts

The regulation of the primary healthcare attention sector (APS) in the country is under the responsibility of the Health Services Regulating Entity (ERSSAN).

The ERSSAN is an autonomous entity dependent of the Presidency of the Republic created in 2000 with the promulgation of Law No. 1614/2000. It is responsible for the development of the regulation, supervision and administration activities. It has as its main mission to regulate the provision of the service, inspect the level of quality and efficiency, control and check the correct applying of the rules, obligation and sanctions established in the Regulatory Board.

In the case of the providers that institute Sanitation Boards, the rendering of accounts is clearly regulate, for in accordance with their By-Laws they must hold annual meetings in which the powers are renewed in accordance with the periods set forth, in addition to the rendering of accounts of their activities by means of presenting accounting balances that can be approved or rejected by the users.

In relation to the institutional and regulatory board, the SENASA asserts that, in accordance with the last report published by the World Bank, “the governance scheme of water and sanitation is fragmented, with functions divided, overlapped, uncoordinated, divided and duplicated among the main state players” (World Bank, 2020). For his reason, the SENASA includes among the fragilities for implementing this stage, the low-quality control of the provision and the fragilities to impose quality standards of the services with greater strictness. And if this happens, there is no budget to rehabilitate or build an infrastructure.

No actions of explicit adoption are presented for this stage, seen that it is mentioned that this process must be conducted by the Ministry of Public Health and Social Security.

Step 4 – To improve and maintain the infrastructure

The SENASA alludes that Paraguay has a differentiated availability of hydric resources. In the eastern region of the country, where the largest part of the population is concentrated,

has the greater part of the health infrastructures. Another strong point is concerned with the institutional resources, which have broad experience in WASH, mainly SENASA, as a technical unit of the Ministry of Public Health and Social Security, and specialized bodies with the Directorate of Infrastructure of the Ministry, which is in charge of everything related to the infrastructure and basic services of hospitals in general.

On the other hand, currently Paraguay counts with infrastructure projects with outside financing. The Ministry of Health is also provided with financing for reform and construction of Family Healthcare Units². In both cases, investments can be included to improve the healthcare units and potable water infrastructures in hospitals and HCFFs.

Likewise, due to the pandemic caused by the COVID-19, there has been institutional intervention to improve the healthcare infrastructures of the hospitals, attending the demand from the authorities in different levels.

However, the SENASA asserts that there is still a lot of work to be done in the areas of hygiene and handwashing. There are still small suppliers unsustainable to grow on their own account, and that carry out the provision of services with many problems of sustainability and quality, including the services provided to the HCFFs that are within their areas of attending.

Another point that is taken as a threat to the improvement and maintenance of is the aggravation of the draught situation and the search for potable water in the cities with greater populational concentration, also affecting hospitals and healthcare centers.

Among the actions proposed, it is suggested to be incorporated in the management that attends the infrastructures or inspects them at the Ministry of Health, a periodic supervision plan of the situation of provision of the potable water service, the periodic diagnosis of the situation of the sanitation units and the equipment to remedy the situations of hospitals, healthcare posts and HCFFs in able time. Likewise, incorporate it to the budget progressively according to the importance.

Another action proposed is to coordinate the investment actions to avoid the duplication of interventions and to complement the actions. The SENASA clarifies that it intervenes based on the demands from the hospitals and, when it does, it is at the request of the parties. However, currently considering the health emergency situation, the Contest for Construction of Water and Sanitation Systems in Healthcare units and acquisition of Handwashing Posts is in course, which distribution is coordinated with the General-Direction of Development, of Healthcare Services and Networks, also dependent of the Ministry of Public Health and Social Security, defend, therefore, that in the very Ministry of Health there is a specific institutional mechanism for improvements of infrastructure and monitoring of the construction conditions. This with the purpose of diagnosing, assessing and preparing an investment plan to improve the conditions of the health infrastructures related with the water and the sanitation in different levels of the national healthcare system.

Step 5 – To monitor and review data

One of the strong points identified is that data exists available at sectoral level on the coverage in the rural and urban areas of water and sanitation. However, the Ministry of Public Health and Social Security does not have a systematic assessment of the conditions and infrastructure of potable water, hygiene and sanitation at the hospitals and HCFFs,

² In Paraguay the Family Healthcare Unit – HCFF is the physical structure where the family healthcare team works; the team is comprised of a physician, a licensee in nursing or obstetrics accompanied by an assistant or technician in nursing or obstetrics and community agents.

among others. It lacks an inventory and monitoring of their annual situation. It is mentioned, further, that among the actions currently developed by the SENASA is the monitoring of the chlorination, the micromasurement and the tariffs of the Health Boards adequate to continue providing the service with quality and, if they detect these deficiencies, give support to the technical assistance necessary to correct these deficiencies.

Step 6 – To boost the professional development of the healthcare personnel

With the purpose of reaching vulnerable populations and distant from large urban centers, the Ministry of Public Health and Social Security promotes the creation of the Family Healthcare Units - HCFFs, that are constituted in Infrastructures and healthcare services and that, in their majority, are provided with a healthcare procedures room, clinical, pediatric, gynecological and dental offices: vaccination, pharmacy, pantry, toilets by sex and for handicapped people, shed for pathological and non-pathological waste.

In relation to the professional development, permanent induction courses are carried out in the Basic Attention to Healthcare, directed mainly to the different regions of healthcare of the country, where employees are capacitated to the close to 1,000 HCFFs distributed in the whole country. These, in addition to the specialized attending, develop preventive activities, such as teaching to live with health, by means of adopting habits of hygiene and the promotion of guidelines of the strategy Basic Attention to Healthcare that implies knocking door to door, arriving at the residences of the community and become a part of it.

Step 7 – To involve the communities

As described previously, the management of water and sanitation in Paraguay involves strongly the communities, since 75% of the countrywide coverage is due to the Sanitation Commissions and Boards, in the case of the latter that are organized in Assembly by the SENASA, they have the legal entity and approved by-laws that govern its function, in addition to receiving permanent capacitation from the SENASA. This training is divided into three stages: the first one before the Construction of the Systems where the legal and organizational aspects are broached, the second one during the Construction where the social, environmental, operational and technical questions are included and the third one is after the conclusion of the works where the areas related with administration, accounting, operation and maintenance of the systems and sustainability are worked on.

During the training, themes are broached in accordance with the target population, such as members of the directive commission, users, operators and technicians, teachers and students from learning institutions, healthcare personnel and other people that participate on the management of water and sanitation at local level.” (SENASA, 2021).

Among the priority actions is the effort of integrating small suppliers such as the Sanitation Boards, promotion of improving the quality of the water and incorporation and readout of micrometers to improve the efficiency of the services.

Step 8 – To carry out operational surveys and convey the lessons learned

We have identified no information for this step.

3.10. PERU

In relation to WASH at the HCFs, Peru counts with an important multisectoral institutional network, which guiding role is exercised by the Ministry of Health (MINSA).

The actions of the institutions involved are sustained on the board of the Supreme Decree that establishes the General Policy of the Government until 2021 (period 2018/2021) with five main axes, among which is the Social Development and the Well-Being of the Population. To increase the sustainable coverage of the water and sanitation services is one of the priorities of this axis.

According to the organization system of the Ministry of Health (MINSA), there are two bodies responsible for the competences in the areas of water, sanitation and hygiene at the healthcare units: the General Direction of Environmental Health and Alimentary Safety and the General Direction of Healthcare Operations. The corresponding actions are supported by a set of laws and rules, such as the General Law of Health, technical rules of infrastructure and equipment of healthcare units, and technical rules of solid waste management, vectors, quality of the water and cleaning and disinfection on environments in healthcare units.

Peru has an assessment carried out by ETRAS/PAHO/WHO in 2017, in which a protocol was prepared for assessing the condition of the institutions providing healthcare services (IPRESS), taking into consideration the conditions of potable water, sewage and drainage, waste management, hygiene and control of vectors.

Peru has several sources of financing to the WASH sector in healthcare units: ordinary resources, directly collected resources, mining canon and public-private partnerships.

To comply with Resolution EB 144.R5 of the WHO, the health guideline “Surveillance of the quality of the water for human consumption in healthcare units” was prepared, a document that seeks to establish the inspection procedures of the quality of the water for human consumption in public and private healthcare units that comprise the healthcare sector at national level, still in process of homologation.

At the MINSA there is the National Program of Monitoring the Quality of the Water for Human Consumption (PROVIAGUA), established in the year 2004, which general purpose is “to establish and implement the technical mechanisms most adequate for developing the health surveillance of the quality of the water, supply to the population, by means of water supply systems for human consumption, whether public or private; in such a manner as to provide the necessary information to ensure that seawater is provided in potable quality in a continuous manner”.

In the context of the Covid-19, several measures related to WASH have been adopted, such as rules, procedures and protocols.

A matrix of opportunities, challenges and difficulties was developed to implement Resolution EB 144.R5.

3.10.1. Context and actions planned for each step

Step 1 – To carry out an analysis and assessment of the situation

The country is provided with personnel and counts with a base diagnosis.

Step 2 - To establish goals and roadmaps

There are personnel available and the Technical Norm of Healthcare NTS No. 144-MINSA/2018/DIGESA: “Full Management and Handling of Solid Waste in Healthcare units, Medical Services of Support and Investigation Centers”, approved by the Ministerial Resolution 1295-2018/MINSA dated 12.11.2018, said regulation establishes the guidelines for medical surveillance in all the healthcare units of the country.

The 2030 agenda offers the opportunity of work articulated with sectors such as the MINAM and the local government.

The existence of international mandates and commitments in the country boosts the actions of Resolution EB144.R5.

Step 3 - To review or establish national rules and mechanisms of rendering of accounts

The country counts with the NTS No. 144-MINSA/2018/DIGESA for the Full Management Surveillance and Handling of Solid Waste Management in Healthcare Units.

A guideline was established in the homologation process for the Surveillance of the quality of the water for human consumption in the IPRESS.

The attending to the health emergency by the COVID-19 offers the space for reviewing the normalization in relation to the prevention and control of infections related to the environmental determinants at the healthcare units and in emergency situations.

Step 4 - To improve and maintain the infrastructure

There are offices and personnel responsible for the maintenance and an investment cabinet in healthcare infrastructures.

It is necessary to allocate adequate financial resources for the maintenance services and the ones corresponding to the operation of the equipment and installations of water, sanitation and hygiene.

Step 5 - To monitor and review data

The HCFs do not report technical-administrative documents (manifest of hazardous solid waste management and annual declaration).

The DIGESA has no sectoral information system for reporting the inspections by the DIRESA/GERESA/DIRIS/RED.

The Ministry of the Environment has the SIGERSOL platform that administrates the input of information.

Step 6 - To boost the professional development of the healthcare personnel

The personnel of the HCFs are multifunctional and of great rotation. An adequate professional profile is not counted with for developing the surveillance.

Step 7 – To involve the communities

An articulating instrument that allows this involvement is not counted with.

Step 8 – To carry out operational surveys and convey the lessons learned

The personnel of the HCFs are multifunctional and there is no record of institutional memories of lessons learned.

4. ANALYSIS OF THE RESULTS ENCOUNTERED

4.1. SITUATION AND PERSPECTIVES OF EACH COUNTRY

Next, an analysis is presented of the information collected with the countries on the diagnosis of the situation of the WASH sector at the HCFs of the ten countries participating in the project; the processes of institutionalization and planning; the existence of specific rules related to WASH at the HCFs; the current state and the conditions of implanting the infrastructure; the professional qualification of the healthcare teams; and participative mechanisms. For each aspect mentioned, the current state of the aspect is analyzed; and the potential of advance.

4.1.1. Diagnosis of the situation

Out of the ten countries studied, eight applied the ETRAS Protocol for the Assessment of the Situation of Water, Sanitation and Hygiene (WASH) in Healthcare Units. The study carried out by the ETRAS has as a basis a sample of the HCFs from the public network of each country, therefore, it does not represent the national reality, although it is an important approximation of the WASH situation at the HCFs.

Brazil and Colombia did not participate on the ETRAS study. However, in relation to the diagnosis of the situation, Brazil already has a national database with the basic data available, needing the preparation of systemized analytical reports. Colombia still hasn't organized intersectoral information and, therefore, the current diagnosis is incomplete. Likewise, Nicaragua has applied the ETRAS Protocol by its own initiative, contrary to the other seven countries already mentioned, also has carried out the exercise of providing the data and information required for the OMS/UNICEF joint monitoring program.

In regard to the perspective of completing the diagnosis of the situation in the ten countries, the information collected in this project reflects favorable conditions exist to reinforce their diagnosis of the WASH situation at the HCFs for having well-organized national sectoral structures. However, a great challenge is to strengthen the intersectoral work, which is essential to advance with success in the improvements in water, sanitation and hygiene at the healthcare units.

4.1.2. Institutionalization

Among the ten countries studied, all of them in one way or another, have institutions that can carry improvements in water, sanitation and hygiene in their respective healthcare units. The great challenge to achieve the objective of having HCFs with WASH infrastructure is that the institutions, based on the national leadership, be structured to advance effectively in both intersectoral and infrasectorial work. To do that, it is essential to recognize that the budgets are destined to both the intersectoral and infrasectorial work of the countries for implementing Resolution EB144.R5. The rules and mechanisms of rendering of accounts are also included in the national mandate for both the intersectoral and infrasectorial work.

Colombia already has a national structure with hierarchies up to the local level that makes this intersectoral work easier. It is a model that can guide the countries to adapt to the national realities. Likewise, in Colombia, the CONASA and its subnational structures still do not contemplate specifically the work for complying with Resolution EB144.R5, requiring a specific coordination for the case.

In Brazil, the consolidated Unified Health System is characterized precisely by the integration between the three levels of government, having joint work experiences between the health sector with the water and sanitation sector. Mainly understanding the role of the health sector as a national health authority.

4.1.3. Planning

It can be said that in all the countries currently there is not any concrete planning, specific and long term for the improvement of the WASH services at the HCFs. Maybe the exercise of discussing with the PAHO/WHO and Fiocruz in the context of this project and of reflecting on the situation of the theme from the SWOT methodology have been the first institutional initiatives in the countries to broach theme from a planning perspective. In this sense, it can be argued that the current situation, in terms of planning, establishment of roadmaps and viewing of short, medium and long term, is more favorable in Brazil, Colombia, Guatemala, Nicaragua, Panama, Paraguay and Peru. In the case of Bolivia, Honduras and Mexico did not have the opportunity of carrying out the SWOT exercise. It remains to know how each initiative developed in the seven aforementioned countries shall evolve in the future. The latter shall depend on political and institutional factors of the countries, as well their capacity of coordination, integration and planning. The involvement of different sectors in this task and the integration of the different local levels of government can also be critical.

Looking at the future potentialities, a group of countries is identified where there are institutional spaces favorable to the planning. In Colombia, the Territorial Environmental Health Boards (COTSA) can make the planning easier. In Panama, the specific commission of the Ministry of Health for dealing with and following up the theme is an important start and, in addition, the country declares its disposition to carrying out periodic intersectoral articulations for performing and following up the roadmap, to do that. In Guatemala, it is identified that the current technical-administrative instance of the Ministry of Public Health and Social Assistance, as long as duly reinforced, can work on the establishment of goals and roadmaps for the theme.

Paraguay identifies, as a window of opportunity to explicit the planning of the HCFs, the National Water and Sanitation Plan, which is being validated. But identifies fragilities in the duplicating and overlapping of functions and actions in the water and sanitation sector and in the limited capacity of coordination between the agents.

Brazil identifies as a strong point installed capacity of planning in the healthcare and water and sanitation sectors, but also points the low integration and tradition of integrated work between the sectors, as well as the country's diversity. Likewise, it foresees that this initiative can be included in annual plans and in long term national plans.

Two countries, Nicaragua and Peru, identify in the 2030 Agenda an opportunity for the advance of the theme. Nicaragua sees this opportunity on the sectorial bench of the SDGS 6 and Peru mentions the 2030 Agenda in a more generic manner. It is important to highlight that the question of WASH at the HCFs is intersectoral and is situated in the confluence of at least the SDGS 6 and SDG 3.

4.1.4. Existence of rules specific for or related to WASH at the HCFs

The national regulations are a central element to ensure the good governance in the implementing of Resolution EB144.R5. Taking as a reference the nine countries analyzed herein, it can be observed that, although laws and regulations exist, directed towards water, sanitation and hygiene at the healthcare units, there are gaps and important gaps to be faced and overcome. The performance of surveys on the WASH situation on all the HCFs at national level, as presented by Bolivia, Panama and Brazil, seems to be an important strategy to comprehend and monitor the national realities. The review, updating and harmonization of rules is also a crucial aspect, as suggested by the majority of the countries included in this analysis.

4.1.5. Current state and conditions for implementing the infrastructure

The infrastructure is one of the main problems for the majority of the analyzed countries and many of them still don't have a consolidated implementation plan. In Bolivia there is no infrastructure development and improvement plan, they shall start a project with the UNICEF for developing national standards for WASH infrastructure services. Panama doesn't use the data in decision making, currently there are no plans for improving the WASH systems at the healthcare units of the Ministry of Health based on the results of the assessment, and the Healthcare Regional Units are not aware of the baseline results, which, together with the lack of resources, makes the infrastructure improvement difficult. In Guatemala, it is necessary to establish technical and administrative structures responsible for the maintenance of the infrastructure, in addition to allocating adequate financial resources for the maintenance services and corresponding to the operation of the equipment and installations of water, sanitation and hygiene. In Peru, in spite of having training workshops for the maintenance personnel and a workshop in healthcare infrastructure investment, it is still necessary to allocate adequate economic resources for maintenance services and the ones corresponding to the operation of equipment and installations of water, sanitation and hygiene. Colombia faces challenges such as the demographic change that the country is going through and the lack of allocation of resources to the public healthcare units to fulfill the established standards.

In relation to the infrastructure Nicaragua has a department of infrastructure and an environmental management unit with programs of environmental safeguards with components in hospital waste and water. However, one of the problems that the country faces is not having specific lines of budget for improving the infrastructure of the HCFs, the problems are faced when emergencies. With this, the country proposes to design protocols for the preventive and corrective handling of the infrastructure and promote the inclusion of a budgetary line for maintenance activities of WASH at the HCFs.

Paraguay in spite of different availabilities of hydric resources in the eastern region of the country, where the largest part of the country's population is concentrated and also a great part of the healthcare infrastructure. It still suffers with the draught and the demand for potable water in the cities with greater populational concentration, which strikes hospitals and healthcare centers. In addition, in spite of counting with professionals with large experience in WASH, there is need of investments para improvement the healthcare units and infrastructure of potable water and Family Healthcare Units (HCFFs).

Brazil, due to its continental dimension, has the disadvantage of having many healthcare units, in their majority private, in spite of a robust Single Healthcare System. It is necessary to collect and consolidate information on the infrastructure of the HCFs and the later discussion of proposals of maintenance and improvements at the WASH installations.

We have not managed to obtain sufficient data from Mexico and Honduras for assessing the current conditions for implementing program for improvement of the infrastructure at the HCFs.

4.1.6. Professional training for WASH

The countries present strong points and a few opportunities in terms of professional development of the healthcare personnel. Many countries describe this professional development as something internal to the healthcare sector, only Brazil mentions the importance of the role of the upper education for the professional development of the healthcare professionals, although it is still necessary to generate mechanisms of articulation between the healthcare sector and the education sector in this country to achieve greater progress in the reinforcement of the healthcare personnel. Between the programs and strategies, we can mention: the training in actions of inspection, surveillance and control for institutions providing healthcare services and their healthcare personnel that are carried out in Colombia; training programs environmental health inspectors and rural healthcare technicians in Guatemala; workshops of awareness on the WASHFIT tools for healthcare professionals of Nicaragua; the induction courses of Primary Attention to Healthcare directed to the employees of the Family Healthcare Units in the different healthcare regions of Paraguay. Bolivia and Honduras highlight that the pandemic caused by the COVID-19 has been an opportunity to reinforce the training of the healthcare personnel in practices of hygiene and provide to the healthcare professionals the supplies required for a better hygiene in the attending. Mexico, Panama, Honduras and Peru make no specific mention to the programs or strategies of professional development for healthcare professionals that are being implemented.

As actions to advance and reinforce the professional development and the reinforcement processes of the of the healthcare professionals, the countries present a few proposals, such as Brazil, that considers necessary an analysis of capabilities and knowledge on WASH in HCFs, as well as a permanent education program for healthcare professionals and other workers from the das HCFs; Colombia proposes the reinforcement of the education and communication strategies for management of the water for human consumption and basic sanitation in institutions providing healthcare services; Guatemala mentions that within their training program for environmental sanitation inspectors and rural healthcare technicians, other lines of training can be created in relation to the management of the WASH services in healthcare units, which include, among others, the operation, the maintenance, the monitoring of the quality and the management of information; Nicaragua proposes that within the training plan that they are working on for with the WASHFIT project, they can carry out actions relative to the improvement of the WASH protocols in HCFs so that

they are a part of the training in the WASHFIT tool that they are already carrying out for the healthcare personnel, they also mention the possibility of creating a graduate in WASHFIT; Panama describes that among their actions they could develop a permanent training plan (that serves for continuous induction and training) in WASH at the HCFs. In general, the countries mention that political will is necessary to bring about the graduation processes. Likewise, it is mentioned that, since the pandemic, the technological tools for remote work were reinforced, which could make virtual and remote training easier. On the other hand, there are challenges to the professional development of the healthcare personnel that have to do with the constant rotation of healthcare personnel and the overload of work and functions.

4.1.7. Participative mechanisms

Many of the countries have developed mechanisms that favor the participation of the community. As trends and mechanisms already implemented we can mention: the strategy of healthy environments with populational and collective interventions, made by Colombia; the Sanitation Boards of Paraguay; the healthcare committee and consultive councils and local congresses local do Panama; the existence of a legal framework ruled on the principles of social participation in Brazil with a specific secretary for this coordination at the Ministry of Health; the model of healthcare of Nicaragua, next to the communities, with articulation between the family and community healthcare teams with community leaderships and healthcare brigades, which makes the participation easier; and the support to the communities, municipalities and instances of the civil society to ensure the improvement and maintenance of the general infrastructure of the establishments of level I and II of attention in Guatemala. We don't have sufficient data from Mexico, Honduras and Bolivia to assess participative trends and mechanisms in these countries, and Peru still has no instrument of articulation that allows community participation.

As an advance to improve the participation of the community, the countries present a few goals such as Colombia, that intends to give greater emphasis to the promotion of strategies of information, education and communication in the management of water for human consumption and basic sanitation; Paraguay intends to integrate small providers to improve the efficiency of the services; Panama, to improve the participation of the community in the urban area, intends to involve the NGOs linked to the healthcare sector and empower the communities in the surveillance and supervision of the WASH conditions of the healthcare units to that they are acceptable; Nicaragua wants to reinforce the articulation they have with the community, seeking to improve the healthcare education in relation to the question of WASH at the HCFs and integrate the potable water and sanitation committees to the communities; Brazil, with the recent modification of the national regulatory milestone of water and sanitation, intends to encourage the participation of social players and discuss awareness strategies and healthcare education actions for the communities attended by the HCFs, with emphasis in the local specificities; Honduras, by means of their participation in the SIASAR, can encourage the participation of the community from there, and Guatemala plans to promote a more consistent participation from the community, especially to support the improvement and maintenance of the WASH infrastructure.

Table 2 - Synthesis of the situation and perspectives (persp.) per country to make the WASH programs effective at the HCFs

COUNTRY	ATTRIBUTE													
	Diagnostics		Institutionalization		Planning		Normativity		Infrastructure		Capacitation		Participation	
	Current	Persp.	Current	Persp.	Current	Persp.	Current	Persp.	Current	Persp.	Current	Persp.	Current	Persp.
Brasil	Yellow	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Green
Bolivia	Yellow	Green	Red	Green	Red	Grey	Yellow	Yellow	Red	Yellow	Yellow	Grey	Grey	Grey
Colombia	Red	Green	Yellow	Green	Yellow	Green	Yellow	Green	Yellow	Yellow	Yellow	Green	Yellow	Green
Guatemala	Yellow	Green	Yellow	Green	Yellow	Green	Yellow	Green	Red	Red	Yellow	Green	Yellow	Green
Honduras	Yellow	Green	Yellow	Green	Red	Grey	Yellow	Yellow	Grey	Grey	Yellow	Grey	Grey	Green
Mexico	Yellow	Green	Yellow	Green	Red	Grey	Yellow	Yellow	Grey	Grey	Grey	Grey	Grey	Grey
Nicaragua	Green	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Green
Panama	Yellow	Green	Yellow	Green	Yellow	Green	Yellow	Green	Red	Red	Yellow	Yellow	Yellow	Green
Paraguay	Yellow	Green	Yellow	Green	Yellow	Yellow	Red	Yellow	Yellow	Yellow	Green	Grey	Yellow	Yellow
Peru	Yellow	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Grey	Red	Grey

Color key: Green (good), Yellow (medium), Red (bad), Grey (no data)

4.2. STRENGTHENS, WEAKNESSES, OPPORTUNITIES, AND THREATS TO ACHIEVE PROGRESS IN WASH AT THE HCFS - REGIONAL TRENDS

According to the previous analysis, it is possible to say that the countries have many potentialities for implementing Resolution EB144.R5. Although gaps between the current status and the full compliance with the Resolution are still identified, the countries are committed to seek the tools to achieve the scope of the eight stages. The applying of the ETRAS PAHO/WHO protocol to the Assessment of the Water, Sanitation and Hygiene Situation in Healthcare units by eight of the ten countries is a strong point to achieve the progress in WASH at the HCFs, for it encourages the countries to think about the situation of these services and the points that require more attention. The existence of institutions, in all the countries, capable of performing seeking the improvement of the WASH services at the HCFs and making the planning of the actions easier is another important point to achieve the coverage of the stages. However, the countries have to develop a more specific planning for the sector and few are those who propose a more effective action in this point. The regulations existing in the countries, at national level, are also strong points to obtain the implementing of Resolution EB144.R5, but just like with the planning, few are the countries that seek and extended improvement in this point. The capability of some countries in forming healthcare personnel, expanding their knowledge on the subject matter, is another strong point, insofar as these professionals could collect data to assess the situation of the WASH services at the HCFs with greater accuracy. It is necessary to highlight the importance of the participation of the community so that the countries obtain the implementation of the Resolution, therefore, the participative mechanisms, which many of the countries seek to implement, are also seen as strong points.

As it was briefly evidenced in the previous paragraph, the countries still have a few obstacles and challenges that can be a risk to advance in the eight stages to improve the WASH conditions at the HCFs. Although all the countries have a number of diagnoses and assessments, it is

considered important to work on a feedback plan and updated them so that the diagnoses are update on the course of time. This can be done thanks to their articulation with stage eight, which is related to the survey on the function of the WASH systems and the identification of the lessons learned. In relation to the institutionalization process, there is still the great challenge of strengthening the articulation and coordination between the sectors, as well as a greater institutional appropriation of Resolution EB144.R35. The countries plans and programs for improvement of the WASH, but are not necessarily focused in complying with Resolution EB144.R35, therefore, one of the great challenges is to reinforce the political will of planning that adopts the eight stages to fulfill the objectives in the Resolution.

Likewise, as it happens with the specific regulations for WASH at the HCFs, it is still a challenge to review, update and harmonize the regulations that truly seek the compliance with Resolution. Among the challenges identified are also those related to the scarcity of resources to invest in infrastructure with the objectives of intersectoral improvements and the lack of contingency plans in view of crises such as the climatic and health crises, which increase the pressure on the infrastructure dos healthcare units. Challenges arise in view of the professional development of the healthcare personnel, such as the high rotation of personnel, the lack of analysis of skills of the personnel and graduation programs that last in time, as well as the updating for reinforcing the tools and knowledge administered on the trainings.

In general, it can be said that the most important challenge to promote improvements in the water, sanitation and hygiene services in HCFs in the region of Latin America and the Caribbean is to include the theme in a substantive manner in the national agendas. There are obstacles in different levels to that. The countries, and mainly their healthcare sectors, are currently overloaded with fighting the COVID-19 pandemic. They are involved, among other cares, with orienting the population on preventive measures, with the preparation of the healthcare units for sheltering the sick and, more recently, with the complex organization of the vaccination. Therefore, the current moment might not be most adequate one for conveying a new demand for the countries to incorporate the theme in their healthcare agendas. The relationship with the healthcare sectors in each country must take this particular in account, so that the initiative is not exhausted by presenting itself at an inopportune moment. This became clear in the contact with several of the 10 countries for carrying out the SWOT exercise, in the context of this project.

On the other, at the opportune moment, the leadership of international agents that perform in the Region, highlighting the benefits of implementing the commitments entered into under Resolution EB144.R5, is a strong point for advancing the initiative. Above all, the PAHO/WHO shall have a central role in the advocacy and support to the countries in this sense, but also the mobilization of other international organisms with some relation with this theme can prove itself to be an appropriate strategy. Agencies of the United Nations (Unicef, UNO-Habitat, PNUD), organizations concerned with the implementing and monitoring of the SDGS and entities from the civil society that perform in water and sanitation can be considered as financing organisms (BID, for instance).

Another challenge is to reinforce the intersectoral action in the countries, at least among the healthcare and water and sanitation sectors, to create an institutional environment favorable to facing the theme. This would be a critical point and a priority in the strategies to advance the theme in each country.

In addition, the other fragilities pointed out above suggest a set of actions to be taken into consideration in each context. Each country has its specific economic, political and institutional conditions, which determine bottlenecks to the implementing of the improvements in WASH at the HCFs. The exercise of mapping these constraints must be developed carefully, so as to ensure that the initiative complies with the particulars of each reality and achieves the best conditions of success.

5. RECOMMENDATIONS

5.1. FOR THE SET OF COUNTRIES

As evidenced in the previous paragraphs, the countries have a few initiatives in WASH at the healthcare units, which have to be reinforced from the national leadership for the institutionalization of an intersectoral coordination mechanism that allows complying with the Resolution by means of adopting and applying eight steps.

The countries are advised to:

- In relation to information, both in the healthcare sector and the water and sanitation section, additional chapters be prepared in a coordinated manner in their information systems to describe and analyze the reality updated on the course of time of their WASH infrastructure at the HCFs.
- Coordinate the formation of a leadership with intersectoral coverage to advance in the financing, planning and normative rulings for improving the WASH infrastructure at the HCFs.
- Implement mechanisms of rendering of accounts that favor the participation of relevant players in complying with the Resolution.
- Promote surveys on the themes in question, reinforcing alliances between the WASH and healthcare sectors with the academy and the research centers for the development of researches directed to knowing the WASH sector at the HCFs, in their technological, social and economic aspects.

5.2. FOR THE PAHO/WHO

The PAHO/WHO shall have a relevant role in promoting this initiative in the entire region of Latin America and the Caribbean. Therefore, it is recommended that the PAHO/WHO:

- Maintains the countries systematically informed about all the updated assessment of the joint WHO/UNICEF monitoring program, highlighting its scope and challenges, so as to generate discussions in the for reviewing the available information and/or adjust their programs to improve their WASH infrastructures at the HCFs.
- Promote an inter-institutional program in the region to reinforce the national capacities for complying with Resolution in each country, having the eight practical steps as a guideline to improve the water, sanitation and hygiene at the healthcare units.
- Structure a program for reinforcing the national capacities in the short term, in regard to the WASH services at the HCFs and Resolution EB144.R5, at level of the Region of the Americas, by means of cooperation between the PAHO/WHO, Fiocruz and other forming centers in this competence.

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7. ANNEX

