1. Annual report on the agreed workplan

Describe progress made on the agreed workplan. For each activity, detail (1) the actions taken, (2) the outputs delivered, as well as (3) any difficulties that may have been encountered. Three responses are expected. [maximum 200 words per activity]. Indicate, if an activity has been completed previously, has not yet started or has been placed on hold.

Activity 1

Title: Development of training courses in Telemedicine

Description: In collaboration with the PAHO Telemedicine Program, the UOC will develop 1 virtual course on the implementation of Telemedicine projects, free of charge for WHO and directed exclusively to external participants selected and contributed by PAHO/WHO. To this end, the UOC will use the PAHO document "Marco de Implementación de un Servicio de Telemedicina" ("Framework for the Implementation of a Telemedicine Service") (Novillo-Ortiz, David [ed.], 2016) in order to enhance its use throughout the Region of the Americas. The UOC will adapt the reference material to useful learning units for the course (seven didactic units, one per chapter of the reference document) and will contribute its teaching methodology and the UOC virtual campus to the students proposed by PAHO (a total of 20 per group). The WHO name and emblem will not be used on certificates of attendance, diplomas or similar awards to participants in training or other courses, organized as part of this activity.

Status: ongoing

On 13th May 2019, the Information Systems and Platforms Unit of PAHO's Department of Evidence and Intelligence for Health Actions suggested changing this first activity to a training program entitled "Telemedicine and an in-service training activity. Amazon basin" (see 1st Annual Report) in a "Writeshop" format at PAHO Headquarters (Washington, D.C., USA) from June 18-20, 2019, with the aim of developing a PAHO Technical Note on the potential of Information Technologies and Systems to reach all populations in vulnerable situations. On the 26th of June 2019, I was asked to finalise the Technical Note for later consensus.

On 11th March 2020, WHO declared COVID-19 as a global pandemic. It was then that PAHO undertook the development of a series of technical notes to help Latin American countries overcome the pandemic through the appropriate use of ICTs. Our CC actively participated in the development of the following technical notes: "Teleconsultations during a pandemic", "Electronic Health Records (EHR) and Interoperability: Understanding two key concepts for a better Public Health response", "Understanding the Infodemic and Misinformation in the fight against COVID-19", "The potential of frequently used information technologies during the pandemic", "Why Data Disaggregation is key during a pandemic" [see https://www3.paho.org/ish/index.php/en/covid-19-factsheets]

Activity 2
Title: Promote the use of eHealth in the countries of the region of the Americas
Description: In collaboration with the PAHO Digital Health Strategy in the Region of the Americas, the UOC will design and validate a shared health model (Sharing Health) and study how it could contribute in reducing social inequalities in health.
In addition, the UOC will collaborate with PAHO on regional eHealth reports and contribute to the analysis, results and conclusions of PAHO's First Regional Report on eHealth during the designation period. To this end, PAHO will provide the UOC with access to the necessary database(s) so that the UOC can proceed with the corresponding analysis. The WHO name and emblem will not be used on certificates of attendance, diplomas or similar awards to participants in training or other courses, organized as part of this activity.

Status: ongoing
A Sharing Health model based on the use of digital platforms has been developed. Blood donation via digital platforms has been used as a case study for new strategies for blood recruitment and donation due to the restrictions imposed during the COVID-19 pandemic. This first study is pending to be published.

The main motivations of people and their trust in robotics and artificial intelligence devices in healthcare have also been analysed. A Eurobarometer database of 28,000 users has been used. This second study is pending to be published.

On the other hand, in response to COVID-19, a prototype was developed to address the saturation of national emergency services phone numbers. The proposal was submitted to the national call for research projects on Sars-COV-2 and COVID-19 disease (Spain) with the title “CoVBot-IA: Digitalization and Artificial Intelligence against COVID-19 and confinement”. The proposal was also shared with PAHO and with all RITMOS network members for submission to their national calls for proposals. Thus, on April 28 the proposal was sent to the Chilean CONACyT call for proposals (application number: 000000000312690).

Activity 3
Title: Study on the adoption and use of mobile health (mHealth) between and with the countries of Latin America and the Caribbean
Description: To contribute to the work of PAHO / WHO in the implementation of health policies in the Region of the Americas, the UOC is committed to working on the identification of the main variables related to the development of mobile health (mHealth) in Latin America and the Caribbean, with special emphasis on health problems that can be addressed through the use of mobile technology, and the factors that either drive and weaken its progress.

Additionally, in order to strengthen this regional collaboration, two virtual debates will be developed, led by the UOC on the PAHO ICT4Health Community platform. Participants will be selected by PAHO and will include members contributed by PAHO itself, as well as those members of health governments, experts and health professionals who are interested in the adoption and use of mHealth in the Region of the Americas. The WHO name and emblem will not be used on certificates of attendance, diplomas or similar awards to participants in training or other courses, organized as part of this activity.

Status: ongoing
In the set of technical recommendations of the technical note "The potential of information technologies and systems to reach indigenous peoples" and in the technical note "The potential of frequently used information technologies during the pandemic", some recommendations linked to the development of mobile health in Latin America and the Caribbean was made.

On the other hand, this activity is developed as well in the framework of the RITMOS network, the Latin American mHealth Technologies Network which aim is to foster the use of mobile devices to promote health and improve the patient's wellbeing and care processes. On November 21, the “RITMOS Workshop Ecuador 2019” took place in Quito, an event led by the RITMOS Network and in collaboration with El Consejo Nacional de Salud, El Estudio Jurídico Cevallos & Noboa, La Red Académica de Posgrados en Salud Pública, La Sociedad Ecuatoriana de Salud Pública; And with the sponsorship of UOC, El Instituto Ecuatoriano de Seguridad Social IESS, and Universidad Técnica Particular de Loja). Among its objectives was to contribute to the design and implementation of Ecuador's National e-Health Strategy; and to initiate the process of preparing a Telemedicine Law Project in Ecuador.
2. Annual report on other activities requested

Should WHO have requested activities in addition to the agreed workplan, please describe related actions taken by your institution [maximum 200 words]. Please do not include in this report any activity done by your institution that was not requested by and agreed with WHO.

At the request of the WHO Regional Office for Europe (May 9, 2019), the technical review of the “Spanish translation of the WHO Guide on Digital Interventions for Health Systems Strengthening” was performed.

3. Resources

Indicate staff time spent on the implementation of activities agreed with WHO (i.e. those mentioned in questions no. 1 and no. 2 above). Do not include any data related to other activities done by your institution without the agreement of WHO. Please indicate staff time using the number of “full-day equivalents” – a day of work comprising 8 hours (e.g. 4 hours work per day for 7 days should be recorded as 3.5 full-day equivalents).

Number of staff involved (either partially or fully)

<table>
<thead>
<tr>
<th>Senior staff</th>
<th>Mid-career staff</th>
<th>Junior staff, PhD students</th>
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<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>

Number of full-day equivalents, total for all staff involved

<table>
<thead>
<tr>
<th>Senior staff</th>
<th>Mid-career staff</th>
<th>Junior staff, PhD students</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>14</td>
<td>48</td>
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</tbody>
</table>

Implementation of the agreed workplan activities (i.e. those mentioned in questions no. 1 and no. 2 above) normally require resources beyond staff-time, such as the use of laboratory facilities, purchasing of materials, travel, etc. Please estimate the costs of these other resources as a percentage of the total costs incurred (e.g. if you incurred costs of USD 100 and the value of your staff time was USD 50 which makes the total of USD 150, please report 33.3% and 66.7%).

<table>
<thead>
<tr>
<th>Percentage of costs associated with staff time</th>
<th>Percentage of costs associated with other resources</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>80.00</td>
<td>20.00</td>
<td>100.00</td>
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</tbody>
</table>

4. Networking

Describe any interactions or collaboration with other WHO Collaborating Centres in the context of the implementation of the agreed activities. If you are part of a network of WHO Collaborating Centres, please also mention the name of the network and describe your involvement in that network [maximum 200 words].

During the preparation of the different technical notes (see Activity 1), we have interacted and collaborated with the PAHO/WHO Collaborating center for Information Systems and Digital Health (Hospital Italiano de Buenos Aires, Department of Medical Informatics) and with the PAHO/WHO Collaborating center for Information Systems and Digital Health (Center for Health Informatics, University of Illinois USA).