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  
In the beginning, it was agreed to develop the course on-site in Bogota during the week of 22 October 2018, leveraging the RITMOS International Workshop 2018 organized by the same CC coordinator. On 18 September 2018, the Information Systems and Platforms Unit in the PAHO’s Department of Evidence and Intelligence for Actions in Health suggested changing this first proposal. Instead, it proposed developing a training programme with the title “Telemedicine and an in-service training activity. Amazon basin” grounded on the local research of 3-5 telemedicine experiences undertaken in remote, isolated centres in the Amazon jungle, Brazil. The idea would be to share them with countries whose socioeconomic condition identified them as being most able to benefit from this knowledge. This training programme would draw from multimedia resources obtained from the on-site research (videos and images, interviews with key players, technical documentation and operating guides, etc).  
Concurrently with this, the CC is developing an online self-training course on the implementation of telemedicine services, which will be accessible via the website and the mobile phone (via app). It will contain self-assessable activities that, once they have been passed, may qualify for obtaining a certificate that will certify completion of the 50-hour course.

### 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

With respect to this second activity, we are considering investigating first of all the relationship between e-health, understood as the use of ICTs and the internet in the health field, and (with) robotics and artificial intelligence (IA), also in the health field. In the activity’s current phase, we have obtained some preliminary results after analysing a Eurobarometer database, with 28,000 users, and we are in the process of writing the first preliminary report and the corresponding article.

Second, we propose building an e-health database that, when complemented with other socio-demographic, economic and social data, will enable us to carry out international comparative dynamics studies, with the primary goal of providing supporting data for public health policies. In the first step in this activity, we have used the database “The status of health in the Americas: Basic indicators 2018” published by the PAHO [http://www.paho.org/data/index.php/es/indicadores.html]. In the current phase, we are developing the database on which the leaflet is based in SPSS format. With its original online format, this database has had to be downloaded one table at a time and then converted to SPSS.

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

With respect to this third activity, a draft project has been sent to the Inter-American Development Bank’s (IDB) call for “2019 Proposals for the Regional Public Goods (RPG) Initiative”, with a requested budget of USD 1,052,000. The proposal comes as a natural extension of the Ibero-American Network for Mobile Technologies in Health (CYTED-RITMOS Network - 515RT0498), led by the CC’s coordinator and which includes Peru, Uruguay and Argentina. With this project, it is planned to generate useful evidence, technical documentation and operating guides with public policy and health strategy recommendations for designing and implementing m-health systems in Latin America and the Caribbean. At the time of writing this report, the project proposal was undergoing eligibility and technical review by the IDB. The call is expected to be decided in mid-April.

Within the framework of this second activity, it is also planned to perform two online debates jointly with the CYTED-RITMOS Network, although led by the UOC, to encourage uptake and use of m-health in the Americas region.

2. Annual report on other activities requested
Collaborating Centres
ANNUAL REPORT

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.

Collaboration with the PAHO has been very fruitful, with several online meetings about Activity 1 and to discuss how e-health can improve health systems in the WHO Member States. In particular, the CC has been collaborating as a member of the Global Observatory for eHealth's Expert Advisory Group in the PAHO project “Information Systems for Health (IS4H) in the Americas”. Within the framework of this PAHO initiative, on 10 September, the Information Systems and Platforms Unit in the PAHO’s Department of Evidence and Intelligence for Actions in Health provided us with the IS4H Guiding Principles and asked us to review the draft document “IS4H Monitoring and Evaluation Framework”. In addition, on 3 March, it asked us perform a critical review of the draft for the “Plan of Action on Information Systems for Health (IS4H) in the Americas”. On 6 March, the call was answered with an exhaustive review of the document requested.

In addition, on 26 July, we were asked to review the galley proof of the document Recomendaciones para el desarrollo de aplicativos móviles de salud (Recommendations for the development of m-health apps, in Spanish). It was commissioned by the PAHO to the CC coordinator on 11 July 2017.

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>
</tr>
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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>38</td>
<td>28</td>
<td>56</td>
</tr>
</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>65.00</td>
<td>35.00</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 this first year of activity, preliminary contact has been made with the WHO European Office for Prevention and Control of NCDs and the Programme Manager for Nutrition, Physical Activity and Obesity (Moscow) and a WHO Collaborating Centre for Tobacco Control (Barcelona), with the goal of establishing future collaborations in e-health and m-health. It is planned to develop both contacts during the next year of activity.