An Analysis of the Growth in Uptake of OpenWHO's Online Learning Resources for COVID-19

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Abstract. From 26 January – 21 April 2020, 9 online courses for COVID-19 were published on OpenWHO.org. The courses are available in 18 different languages, totalling 53 learning resources and more than 1.5 million course enrolments. This paper analyses key trends in the growth of enrolments in these resources. The number of enrolments increased significantly between 26 January and 21 April, with distinct spikes in growth preceded by important global milestones in the timeline of the outbreak. The surge in users demonstrates that the platform is serving as a source of digitized learning for COVID-19, helping meet the broad demand for outbreak-related information.

Keywords. OpenWHO, WHO, online learning, pandemic, COVID-19

1. Introduction

OpenWHO is the World Health Organization's (WHO) online platform for transferring life-saving knowledge to frontline responders, health care workers and the public during health emergencies. Designed in 2017 with a pandemic in mind, the platform has been put to the test by the global spread of the novel coronavirus. The objective of this research is to identify and examine patterns in the unprecedented growth in uptake of OpenWHO's learning resources for COVID-19.

The WHO's Health Emergencies Programme, which is responsible for OpenWHO, has devised an expedited course creation process for infectious disease outbreaks and acute health emergencies, turning WHO technical guidance into learning products within 72 hours and publishing the resources on OpenWHO.org, offering open, free and unlimited access to the materials in low-bandwidth friendly formats accessible via mobile or desktop devices. Initial course production is followed by multi-language translation into, in most cases, the official languages of the United Nations, Portuguese and the national and local languages most relevant to the context of the outbreak.

The learning response to COVID-19 was triggered by the WHO Emergency Committee meeting on 22-23 January. On 26 January 2020, following the 72-hour expedited course production process, an introductory COVID-19 course was launched on OpenWHO.org. First published in English, the course has since been translated into

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15 languages, including one sign language, with translation into a further 13 languages underway. The platform hosts a total of 9 distinct courses for COVID-19, each focused on a different topic relevant to preparedness and response for the outbreak, in various languages, totalling 53 resources:

1. *Emerging respiratory viruses, including COVID-19: methods for detection, prevention, response and control* was released on 26 January and is an introduction to COVID-19.
2. *Clinical Care Severe Acute Respiratory Infection (SARI)* was published 6 February and is a hands-on practical guide for health care professionals involved in clinical care management during outbreaks of respiratory diseases. It is available in 7 languages.
3. *ePROTECT Respiratory Infections* was released 14 February. The course provides a general introduction to acute respiratory infections and basic hygiene measures and is also available in 7 languages.
4. *Infection Prevention and Control (IPC) for Novel Coronavirus (COVID-19)* was launched 25 February and outlines the IPC measures needed to prevent transmission of COVID-19 in health care settings. One of the most popular COVID-19 courses on the platform, it is available in 12 languages.
5. *COVID-19: Operational Planning Guidelines and COVID-19 Partners Platform to support country preparedness and response* was launched 3 March to assist UN Country Teams (UNCT) in scaling up country preparedness and response to COVID-19. It is available in 5 languages.
6. *SARI Treatment Facility Design* was launched 24 March and provides an overview of the principles that drive the design process of COVID-19 screening areas for health care facilities. It is available in 3 languages.
7. *Introduction to Go.Data – Field data collection, chains of transmission and contact follow-up* was launched 9 April as a primer on Go.Data, a field data collection platform focusing on case and contact data. This course, as well as the two that follow, are available in English with translation into other languages underway.
8. *COVID-19: How to put on and remove personal protective equipment (PPE)* was launched 15 April as a video guide for health care workers involved in patient care activities in a health care setting.
9. *Standard precautions: Hand hygiene* was launched 21 April and outlines the WHO guidelines on hand hygiene, and associated tools and ideas for effective implementation to prevent health care-associated infections.

2. Methods

Quantitative data on platform overall use and course enrolments was extracted from the OpenWHO statistical capacity and analysed and visualised using Excel.

3. Results

As of 21 April 2020, there were 1 532 010 enrolments in OpenWHO's COVID-19 resources, reflecting an average increase of 17 814 enrolments per day since the launch of the first COVID-19 resource on the platform on 26 January 2020. This daily increase

peaked at 66 681 new enrolments on 31 March 2020 and increased from an average of 2494.33 new enrolments per day in January to 3796.97 new enrolments per day in February, 29 374.71 new enrolments per day in March and 36 784.00 new enrolments per day in April.

As illustrated by Figure 1, the increase in enrolments in OpenWHO's COVID-19 resources was significant, acting as the primary driving force behind the 1099.44% increase in total course enrolments across the entire platform between 26 January and 21 April, from 165 000 to 1 979 076. The enrolments in COVID-19 resources accounted for 84.45% of this increase.
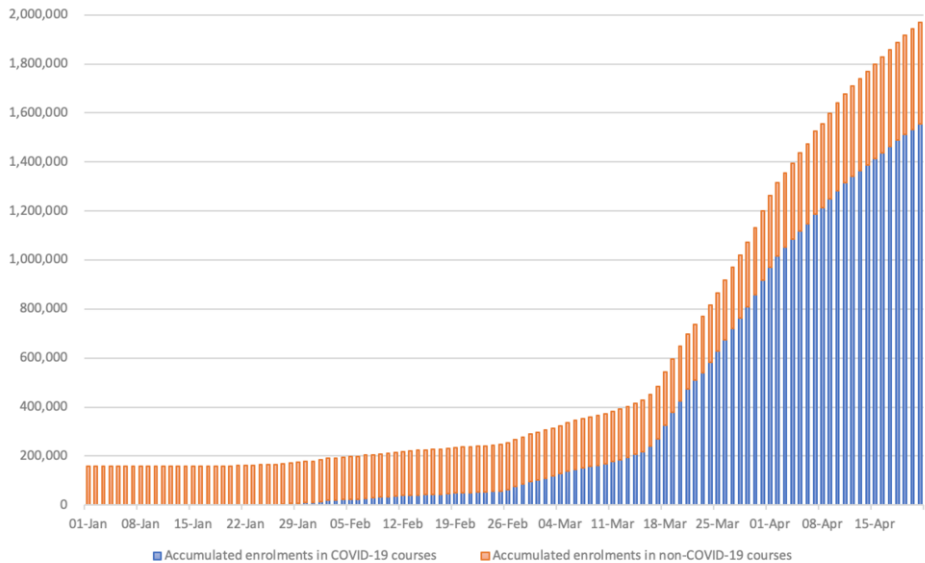

Figure 1. Accumulated course enrolments on OpenWHO from 1 January to 21 April broken down into enrolments in COVID-19 and non-COVID-19 courses.

The use of OpenWHO's COVID-19 resources, as measured by the number of enrolments in each course, followed a general upward trend following the launch of the first COVID-19 course on the platform on 26 January, as evidenced by Figure 2.

The most notable spike in enrolments followed the characterisation of the outbreak as a pandemic by WHO on 11 March. For example, the course for UNCT increased from 15 289 total enrolments on 10 March to 58 089 on 22 March and from 158 953 on 28 March to 292 375 on 3 April, reflecting an increase of 1812.32% from 10 March to 3 April or an average increase of 11 545.25 enrolments per day. This is compared to an average increase of 3057 enrolments per day during the same number of days prior to 11 March. In the same period before and after 11 March, the daily increase in total enrolments in the introductory COVID-19 course went from an average of 2276.29 new enrolments per day to an average of 8491.70 new enrolments per day and the daily increase in total enrolments in the IPC course also increased from an average of 2615.38 new enrolments per day to an average of 11 527.25 new enrolments per day.
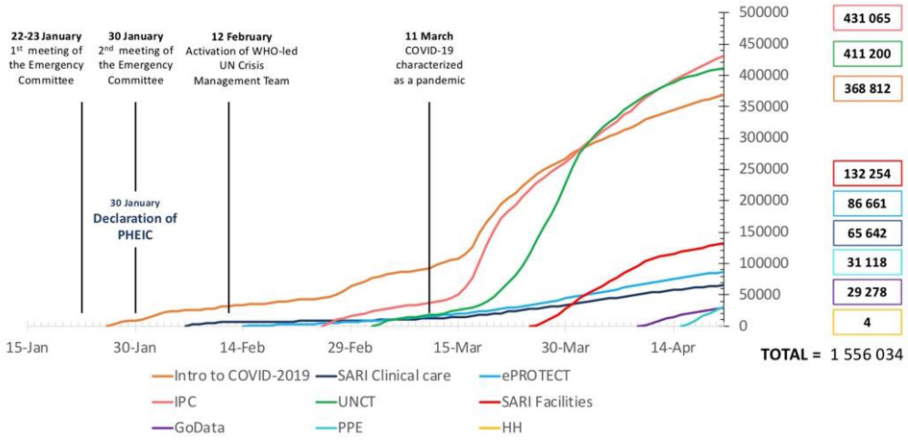
Figure 2. Accumulated course enrolments in each of OpenWHO's COVID-19 courses from 15 January to 21 April 2020, juxtaposed with critical outbreak milestones in the same period.

4. Discussion

The significant increase in enrolments in OpenWHO's online courses for COVID-19 was driven by spikes in growth which followed key events that occurred over the course of outbreak, most notably WHO's declaration of a pandemic on 11 March. These events heightened public and professional interest in the outbreak and, as a result, fuelled an increase in traffic towards OpenWHO's COVID-19 materials, particularly from users in Europe and the Americas, areas with the largest COVID-19 transmission in Feb – April.

As a result of the COVID-19 pandemic, OpenWHO's public health learning resources are in high demand not only among its traditional audiences (health care workers, students and UN staff) but also the general public. This aligns with a previous analysis of OpenWHO data which suggested that the introductory COVID-19 course attracted learners outside of traditional health professions, in line with the broad reach of the pandemic. [1] Research into user demographics is central to understanding the drivers which motivate individuals to consume learning resources for COVID-19.

5. Conclusions

That the unprecedented growth in popularity of OpenWHO's online courses coincided with milestones in the COVID-19 outbreak is a testament to the critical role that timely, free and accessible online learning platforms play during a pandemic, by facilitating the rapid, global sharing of life-saving knowledge to the audiences who need it, when they need it, in formats and languages they can understand, anywhere in the world.

References

[1]   Utunen H, Ndiaye N, Piroux C, George R, Attias M, Gamhewage G, Global Reach of an Online COVID-19 Course in Multiple Languages on OpenWHO in the First Quarter of 2020: Analysis of Platform Use Data, J Med Internet Res. 22 (2020) e19076. doi:10.2196/19076.