Dear Editor,

The coronavirus disease-2019 (COVID-19) pandemic has tested health care delivery capacity and function all around the world. Throughout its erratic course, health care services have been put under unprecedented pressure, requiring remarkable effort and resource reallocation. In the wake of the earliest assessments of health care delivery throughout this emergency, an important question arises: what opportunities has the pandemic provided to jumpstart the evolution of health delivery services for future public health emergencies?

The complex nature of public health emergencies delivers lessons that are often difficult to apply. Unlike routine health care services, these emergencies are typically singular, unrepeated events, which take place under unique circumstances. As a consequence, standard statistical analyses and outcome measures used to assess public health events fall short, and instead, in-depth analyses of individual cases are required.1

For some time, the World Health Organization (WHO) has promoted after-action reviews (AARs) in response to infectious disease outbreaks, environmental or natural disasters, and societal crises.2 The goal is to optimize organizational learning after public health events. After-action reviews are structured, qualitative reviews of the responses to public health emergencies, in order to obtain preparedness system assessments, collective learning, and continuous operational improvement.3

In 2020, due to the prolonged nature of the COVID-19 pandemic, the WHO adapted their AAR into a new tool, called intra-action review, used to assess the response to a single phase of a larger event.4 As the first region of Europe hit hard by the COVID-19 pandemic since February 2020, Italy served as a test case of hospital capacity and emergency preparedness.5 At San Raffaele Scientific Institute, a large university tertiary care hospital in Milan, which treated over 951 COVID-19 cases during the first epidemic wave (between February 22 and May 3, 2020), we decided to apply the principles of the WHO AAR for a comprehensive assessment of the hospital’s response during the pandemic’s first wave.

At the end of the first epidemic wave, in June 2020, a team responsible for AAR planning and analysis completed a preliminary assessment of the competencies and available resources prior to the pandemic’s start. From this, 4 macro-areas were identified for investigation: staff management; resources and supplies; COVID-19 diagnosis and clinical management; and communication strategies. An ad hoc questionnaire was then designed, adapted from WHO AAR models, to stimulate participants’ reflections and suggestions on the organizational functions under review.

The AAR comprised semistructured interviews with participants throughout multiple career levels, spanning health, management, and administrative areas. This ensured a comprehensive and interdisciplinary analysis that helped the health department identify bottlenecks and receive valuable suggestions for gap remediations of the health care delivery strategy. Following the results of the study, the health department organized discussion sessions with key stakeholders and designed a follow-up team to monitor the implementation of the proposed activities. The results highlighted the dual function of the AAR: both as a systematic and multidisciplinary assessment tool and as a mechanism for fostering intersectoral cohesion among participants. From our AAR, many interviewees gained enhanced awareness of their contribution to the decision-making process of the hospital during the COVID-19 emergency response. The result was a growing sense of belonging, which was especially impactful for frontline staff, bearing the brunt of the pandemic.

We believe that the AAR, a tool intended for national agencies, should be extended to subnational agencies and individual organizations. Our experience shows that continuous progress assessment, through both AARs and multidisciplinary team meetings, allows decision-makers to shorten the feedback cycle and better implement changes during rapidly mutable events. We propose the adoption of this effective approach across multiple health care sectors and settings.

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Institutions designing and implementing their own AARs that fit their unique settings will allow for better understanding of the true impact and nature of the event within that specific center, vital information for future preparedness strategies. Moreover, hospitals that may not have the opportunity to conduct their own comprehensive AARs can derive useful information from the results of AARs done at facilities in similar settings. This benefits hospitals and care centers of all sizes, allowing them to derive suggestions for continuous operations improvement. Our hope is that the adoption of the AAR will aid in faster and more efficient triage and response, both for the current evolving pandemic and for future emergencies.

Sincerely,

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