Intra Action Reviews as a New Tool in Public Health Emergency Management and Pandemic Response: A Summary of Uses and Applications, 2020-2021

Corresponding author:
Ryan Scott Houser,
Email: houser.ryanscott@gmailcom.

Ryan Scott Houser MPH, MS, EMPS, NREMT

Atlantic Health System, Florham Park, NJ, USA

Following the 4th Coronavirus Disease 2019 International Health Regulations (COVID-19 IHR) Emergency Committee meeting, the WHO secretariat was asked to support countries in conducting Intra Action Reviews (IARs) to document and share the best practices of response to COVID-19 and identify challenges and make recommendations to improve the response.[1] The WHO developed IAR guidance and tools to support the conducting of IARs at the national and subnational levels. IARs are crucial opportunities for countries to learn and improve their responses to protracted incidents. After Action Reviews (AARs) are the only component of 4 within the International Health Regulations Monitoring and Evaluation framework which systematically reviews the functional capabilities and capacities following a real-world health emergency. While these AARs follow similar principles, with on-going and prolonged incidents, the IARs afford countries the ability to make immediate changes to improve the on-going response or to institutionalize actions into the overall preparedness and response plans. AARs are suggested by the WHO to be conducted immediately to 3 mo after a national declaration of the end of a significant public health event.[2] With on-going spread of COVID-19 a delayed evaluation of functional capabilities and capacities could lead to persistent community transmission or a resurgence of cases. IARs thus would allow countries to effectively and continually reflect on and adapt their response at the national and subnational level improve their strategies to limit the morbidity and mortality within their country.

Purpose and IAR Formats

IARs are a facilitated process that brings together key stakeholders with knowledge of the public health response pillars to discuss success and challenges to make recommendations for improvements in response. IARs assess the national functional capacity of public health and emergency response systems. The IAR will assist with the development of practical areas for immediate remediation and sustained improvement for an ongoing response, such as the COVID-19 pandemic or other public health emergencies. The IAR guidance supplied by the WHO aligns with the WHO's COVID-19 Strategic Preparedness and Response Plan and its 9 response pillars.[3] A tenth pillar was established for other potential response concentrations that may arise or for cross-cutting issues that span multiple pillars. The tenth pillar was also intended to share diverse information relevant to the specific contexts of each country, such as the care for vulnerable populations in conflict zones or assisting refugees or internally displaced persons.

The WHO guidance includes 10 customizable tools to ensure that countries can easily plan and conduct an IAR.[4] Resources in multiple languages can be found on the WHO extranet and https://www.epidemic-em.org/. The database of tools includes a concept note template, facilitators manual, generic presentation template, a database of COVID-19 trigger questions for facilitators to stimulate discussion, success story template, final report template, and both online and onsite support documents. Through these documents, especially the final report and success story, countries are encouraged to participate in peer to peer learning and sharing of best practices to build or implement new capacities.

Future of IARs

An evaluation of the IARs highlighted key similarities in challenges and best practices that if shared on a more widely distributed network, such as the WHO extranet could facilitate more widespread improvements to the global response to public health emergencies. The interventions that are adopted by each individual country should be built upon data and experience that can be a collaboration of various countries around the world. With national health having implications for global health, the seamless sharing of data and lessons learned from response experiences can be crucial to improving the overall global response to a public health emergency. Sharing best practices from the IARs before an AAR may be possible can assist countries with

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improving their responses and successful reopenings while mitigating the resurgence of the public health emergency. The IAR findings can support decision making for immediate improvements and strategic and operational planning for sustained response or to prepare the country for the next novel or emerging threat. The dialog between multisectoral responders and diverse decision makers can also assist countries with becoming adaptable in their response to improve collaboration and the safe effective response to on-going emergencies. While IARs have found extensive use during the COVID-19 pandemic, their potential extends beyond pandemics and into other public health emergencies and endemics. Other Public Health Emergencies of International Concern (PHEICs), such as the Ebola crisis of 2014, are additional public health events in which IARs could be crucial to improving the effectiveness, efficiency, and safety of a response. IARs could be a dynamic tool for emergency managers and policy-makers in addition to supporting the transfer of knowledge about best practices and challenges in response throughout the world.

References

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Appendix 1.: Country-specific IAR implementation by region

African Region	
Conducted	Planned
Angola, Cameroon, Botswana, Kenya, Madagascar, Central African Republic, United Republic of Tanzania, South Africa, Senegal, South Sudan, Botswana, Namibia, Uganda, Mali, Mauritius, Ethiopia, Nigeria, Sierra Leone, Liberia, Zambia, Zimbabwe, Niger, Mozambique, Gabon, Malawi, Rwanda, Burkina Faso, Democratic Republic of The Congo, Gambia, Lesotho, Benin, Burundi, Sao Tome And Principe, Guinea, Côte d'Ivoire, Ghana, Chad, Guinea-bissau, Togo	Central African Republic, Guinea, Côte d'Ivoire, Zambia, Sierra Leone, Cameroon, Lesotho, Madagascar, South Africa, Guinea-bissau, Namibia, Niger, Mozambique, Togo, Kenya
Eastern Mediterranean Region	
Conducted	Planned
Syrian Arab Republic, Afghanistan, Pakistan, Tunisia, Lebanon, Oman, Jordan, Sudan, Somalia	Oman, Jordan, Sudan, Somalia, Tunisia, Syrian Arab Republic, Lebanon, Morocco
European Region	
Conducted	Planned
Ukraine, Greece, Uzbekistan, Kyrgyzstan, Republic of Moldova, Netherlands, Montenegro, Germany, Switzerland	Greece, Uzbekistan, Kyrgyzstan, Republic Of Moldova, Netherlands, Montenegro, Germany, Albania, Azerbaijan, Georgia, North Macedonia
Region of the Americas	
Conducted	Planned
Brazil	None
South-East Asia Region	
Conducted	Planned
Bhutan, India, Bangladesh, Thailand, Indonesia, Maldives, Myanmar, Timor-leste	Maldives, Myanmar, Timor-leste
Western Pacific Region	
Conducted	Planned
Mongolia, New Zealand, Viet Nam, Lao People's Democratic Republic	Cambodia, Papua New Guinea, New Zealand

Abbreviations: AFRO, WHO African Region; EMRO, WHO Eastern Mediterranean Region; EURO, European Region; SEARO, South-East Asia Region; WPRO, Western Pacific Region.
Note: IAR implementation by region. In 2020, the AFRO region made up the largest majority of completed IARs (62%) followed by EMRO (12%). WPRO, SEARO, and EURO regions each made up 8% of the completed IARs and AMRO made up 2%. In 2021, AFRO continued to make up the largest majority of completed IARs at 74.3% followed by EURO at 14.3%. SEARO has made up 8.6% while EMRO has made up 2.9%.

Appendix 2.: Emergency response pillars reviewed according to the WHO Extranet Dashboard

Emergency response pillars	Number of activities for each pillar in 2020	Number of activities for each pillar in 2021
Pillar 1 – Country-level coordination, planning, and monitoring	18	0
Pillar 2 – Risk communication, community engagement, and infodemic management	15	0
Pillar 3 – Surveillance, case investigation, and contact tracing	19	0
Pillar 4 – Points of entry	15	0
Pillar 5 – National laboratory system	19	0
Pillar 6 – Infection prevention and control	17	0
Pillar 7 – Case management and knowledge sharing about innovations and the latest research	19	0
Pillar 8 – Operational support and logistics in the management of supply chains and workforce resilience	13	0
Pillar 9 – Strengthening essential health services during the COVID-19 outbreak	13	0
Pillar 10 – COVID-19 vaccination	0	1
Pillar 11 – Vulnerable and marginalized populations	0	0
Pillar 12 – National legislation and financing	0	0
Pillar 13 – Public health and social measures	0	0
Pillar 14 – Other possible topics and cross-cutting issues	8	0