



COVID-19 and clean water, sanitation and wastewater management

In a perspective published in May 2020 in *The Lancet*, Honigsbaum (2020) revisits the 1957 and 1968 influenza pandemics, both of which were caused by influenza viruses. The author explains that both influenzas, the knowledge available in those years, the way they were approached globally in terms of public health and the subsequent new influenza subtype viruses resulted in 1–4 million deaths worldwide. In the case of the 1968 pandemic, half the people infected were younger than 65 years of age.

However, the most severe pandemic in recent history is considered to have been the so-called ‘Spanish flu’ (Centers for Disease Control and Prevention (CDC), [n.d.](#)). The CDC notes that there is no universal consensus on where the flu originated, but it was first observed in military personnel in the United States in 1918. Within only two years (1918–19), it had spread all over the world. Approximately 500 million people were infected, and some 50 million people died. The high mortality rate in healthy people, including those between 20 and 40 years, was a unique feature of this pandemic.

As of 13 January 2021, what is now known as the coronavirus disease (COVID-19) caused by SARS-CoV-2, has globally infected more than 90 million people and has resulted in 2 million deaths globally (World Health Organization (WHO), [2021a](#)). As knowledge has advanced, public health capacities all over the world have steadily improved, and the world has been able to handle this pandemic better than the earlier ones. On the negative side, regrettably several influential political leaders have downplayed its seriousness. This has reduced the effectiveness of public health responses.

As COVID-19 infections have spread around the world, the importance of frequent hand-washing with clean water and practicing proper sanitation and wastewater management have been rediscovered, advancing the cause of clean water significantly. All eyes have been watching the cities of the developing world, where the availability of clean water has traditionally been a concern, and which one have received additional attention. In cities in the developed world, millions of people have also faced numerous problems because they did not have access to clean water to start with (WHO, [2021b](#)), and thus the basic task of washing one’s hands and practicing hygiene both before and at present has become an important consideration.

There is also an increased risk that water provision may be interrupted because households may not be able to pay their water bills. As a response, several city governments and water utilities have tried to provide some support. In California, for example, water and wastewater utilities have suspended service disconnection due to non-payment to residential and commercial customers who have not paid their bills. Companies have also tried to reconnect customers who had been disconnected earlier. While this is a temporary solution, long-term viable policy options have to be found to ensure that underprivileged people continue to have access to clean water and sanitation.

The international community had planned to reach, or at least to establish, the necessary legal, policy, institutional and financial frameworks to achieve the water-related Sustainable Development Goals (SDG) by 2030. This goal, especially after the current pandemic, appears to be unachievable. With COVID-19 and the measures to contain it, national debt levels of all countries have ballooned; supply chains have been seriously affected; the provision of services (many of them essential) has often been curtailed; employment have been lost all over the world on a massive scale; educational systems have been severely disrupted, and so on. There are simply far too many other urgent issues that require the immediate and urgent attention of policy-makers. It was going to be a challenge for most developing countries to achieve their SDG targets by 2030. COVID-19 has ensured that very few of them will actually achieve them on time.

The COVID-19 crisis may turn out to be a turning point in the battle to provide universal access to clean water and sanitation. While these two issues have been on the world's radar since the late 1970s, the current pandemic has elevated them to be a universal priority. Frequent handwashing is widely considered one of the most effective ways to prevent the transmission of COVID-19. Unfortunately, over 3 billion people worldwide lack facilities to do so. With the pandemic underscoring the link between clean water and public health, the bar for what constitutes clean water has been raised (Tortajada & Biswas, 2020).

From the perspective of the academic and the research communities, it is essential to discuss what should be our contributions to try to mitigate the impacts of the current situation. Should contributions be in terms of advancing academic knowledge and their extensive dissemination? If so, a paradigm shift is necessary where impacts are measured not only by the number of publications that research projects result in, but also by their impacts on society as well as on developing research capacity in the places where research is actually carried out.

Should priority research agendas in terms of the provision of clean water, promotion of good personal hygiene and sanitation be redesigned? These important issues need urgent attention from both the academia and the policy-making areas.

In this issue we include three articles that are technical and management in nature (Alexander et al., 2020; Basheer et al., 2019; Prince et al., 2020). Others discuss political change and transnational politics (Adeniran & Daniell, 2020); understanding of water governance systems in extreme droughts (Nguyen et al., 2020); vulnerabilities and capacities for adaptation to water shortages (Schlamovitz & Becker, 2020); meeting water requirements during dry seasons (Goes et al., 2020); and promotion of multiple-use water services (Holm et al., 2020). With the aim of promoting dissemination for those authors who cannot pay for open access, we will continue to choose one article per issue and make it free-to-view online for three months.

This issue also has a call for papers for a special issue on 'Global Water Management under COVID-19 and Beyond: Challenges and Lessons Learned'. With this special issue we hope to publish papers that discuss in depth how water supply, sanitation and wastewater management have been approached during the current pandemic with the objective to provide the population efficient services in spite of the many constraints, in addition to analyses of the types of policies that have been enacted, what management decisions have been implemented and how they have worked. And most importantly, what lessons can be learned. We invite our authors and the overall readership to submit

papers for this special issue, with which we hope to document the water and water-related situation during COVID-19, and where we go from there.

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