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The Global Cholera Resurgence: A Preventable Waterborne Disease Crisis Demanding Renewed Investment in Water and Sanitation

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Dear Editor-in-Chief

Cholera is one of the best preventable infections, in theory, that we know how to handle. It is transmitted almost exclusively through water or food contaminated with *Vibrio cholerae*, and where safe water, adequate sanitation, and basic hygiene infrastructure exist, the disease all but disappears [1]. More than two centuries after John Snow first demonstrated a links between a London outbreak of cholera, the town pump, and this killer is running wild once more. In a perverse way, this makes its pattern of resurgence a warning of what life will look like in the absence of sufficient safe drinking water, good public sanitation infrastructure, etcetera for people everywhere else.

The magnitude of the present crisis, however, is striking. The global outbreak of cholera was elevated to grade three emergency, the highest internal alert level, by the WHO in Jan 2023 and has been retained at that level since then [2]. The WHO's figures for this 2024 outbreak show 60 countries reporting cholera, 15 more than the 45 reported last year, with 3 major epidemic centers being represented in Africa and Asia, accounting for approximately 98% of global cholera burden. In this current, ongoing 2024 global cholera situation there have been over 6,000 deaths and 560,000 cholera cases in 60 countries, an increase of more than 50% in deaths compared to last year; i.e., in last year's outbreak of more than 535,000 cases and some 4,000 deaths according to figures compiled by the WHO [3].

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For the last year this would represent 60 countries of outbreak, compare that to the number of affected countries it has nearly doubled since 2017, with threefold increase in the number of extremely large outbreaks [4]. Given this progress, this puts the global cholera control in the 2030 plan for at least a 90% reduction in deaths by now severely behind track, given a WHO statement and recent figures of up to the end of December 2025 show, as a collective sum, that, there has been 614,828 cholera cases reported and 7,598 cholera deaths across 33 countries of 5 different WHO regions during 2025 the 5 regions affected, being those which had the most recorded. Cases in the first half of 2026 have reduced compared to same point in time over 2025 (105,813 cases and 1,216 deaths by 22nd June 2026, comparing to 121,736 cases and 1,576 recorded up to 22 June 2025; 2), but the WHO rate the global threat high; with continued outbreaks in difficult regions (as an example: Yemen, Sudan and Afghanistan) [2, 5].

The crisis for this disease is all the more disturbing, though, as this rise is not in spite of a new evolution in the bug, but is instead precipitated by the confluence of human decisions and environmental conditions. The WHO identified "conflict, population displacement, and climate-related events" that have had the effect of severing people's access to safe water and sanitation and giving cholera optimal opportunities for rapid spread [2, 6]. Conflicts involving armed groups and mass displacement frequently render the water and sanitation facilities nonfunctional or inoperable, packing the displaced into dense, underserved conditions that favor the rapid movement of *V. cholerae* pathogens through the body or the wider community [2, 6]. Many of those same climate and conflict factors have made water and sanitation infrastructure fragile and prone to system failures in outbreaks of waterborne infections like typhoid, shigellosis and hepatitis A, suggesting that cholera can and should serve as the most acute warning sign that we are entering an extended and devastating era of water and sanitation failure exacerbated by climate change.

Historically, cholera has caused epidemic disease throughout Afghanistan. During the Soviet occupation, 58% of troops experienced major gastrointestinal infections due to drinking untreated local water. More than 14,000 cases of cholera-like illness were reported in Kabul in just six weeks of 1999 [7]. This historical burden underscores that Afghanistan's vulnerability to cholera is not new but has been exacerbated by decades of conflict and infrastructure collapse. In Afghanistan, the cholera burden remains among the highest in the WHO Eastern Mediterranean Region. From January to July 2026, Afghanistan reported 80,968 cholera and acute watery diarrhoea cases, the highest in the Region with 45 associated deaths [8]. This follows 175,463 cases and 84 deaths reported in 2024 [9]. Despite the high case burden, the case fatality rate has remained low (0.05% cumulative in 2026), reflecting effective case management when patients access care [10]. However, a recent knowledge, attitudes, and practices (KAP) survey in four high-risk districts of Kandahar Province revealed critical gaps in preventive practices: only 35% of respondents boiled drinking water, 60% practiced open defecation, and just 30% demonstrated adequate overall knowledge, attitudes, and practices [11]. These findings underscore the urgent need for strengthened WASH infrastructure, targeted community education, and improved surveillance in Afghanistan's cholera hotspots.

Exacerbated by a prolonged and dire shortage of oral cholera vaccine (OCV), this has resulted in escalating risk for multiple and protracted outbreaks. For instance, between January 2023 and February 2024 alone, 79 million doses were requested by 14 countries, double the 40 million doses available [12]. As of mid-2024, this demand had risen to 102 to 105 million doses with global production of fewer than 55 million doses and frequent draining of the global vac-

cine supply cache for a 12-month period [13]. Because of shortages, the international vaccine stockpile, which has frequently drawn down its reserves, has rationed vaccine and been compelled, in many outbreak scenarios, to administer single doses instead of two-dose OCV vaccination protocols, which provide greater protection [2, 6, 12, 13]. The possible solution of using vaccination as an interim and as a form of long-term management of potential contamination, instead of as a permanent remedy to be applied whilst permanent and secure drinking water and sanitation infrastructure is being built [2].

This situation requires responses on two fronts, neither of which can replace the other. In the short term, the international community has to bridge the gaps in the supply of OCV through new production and systematic supply pooling and stockpiling, not always in short-supplied reactive capacity for an emergency response. This has to run parallel to supporting the WHO and the regional networks to have resilient and swift outbreak detection, capacity and response, particularly among populations living in vulnerable, conflict-torn regions vulnerable to climate change.

In the long-term, however, emergency response and vaccines will only buy us time. The reality is that cholera will always bounce back, someplace or other, as long as hundreds of millions have an unsecured route to safe water and decent latrines [14] Sustained action to achieve real, long-term control for cholera and all other diseases spread through water depends on substantial sustained investment in water and sanitation that clearly prioritizes war- ravaged, climate- exposed populations that are now the majority world's case holders, and that cross-links heath, humanitarian assistance, WASH and climate finance. It is time our governments acknowledged investment in water, sanitation and hygiene as a top-priority intervention to ward off infections disease, not a secondary consideration.

Cholera is what we might call, in the most fundamental terms, a disease of disparity and system deficiency. Its return to grade three emergency status is not a mystery to be solved through new science, but a warning about systems we have allowed eroding. The solutions to be rid of it-access to clean water, working waste removal systems and sufficient doses of vaccine-not just exist but are available. What has been lacking has been the kind of enduring public health support in the form of money and the commitment it symbolizes that would be sufficient to scale them to respond to the most current outbreak.

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Conflicts of interest

The authors declare no competing interests.

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