The political determinants of the cholera outbreak in Yemen

At the end of June, 2017, UNICEF and WHO released a statement declaring that Yemen is “facing the worst cholera outbreak in the world”.1 The statement points out that the outbreak is caused by the civil war that began in 2015, but it does not suggest that one party is more responsible than another, simply noting that “two years of heavy conflict” have resulted in “collapsing health, water and sanitation systems”. Nor does it point to one side being more affected by the outbreak, stating that “cholera has spread to almost every governorate”.

When one combines WHO’s latest epidemiological data for the period April 27 to July 31, 2017,2 with data from Risk Intelligence that maps areas of government and rebel control,3 it is clear that the cholera outbreak disproportionately affects areas controlled by Houthi rebels (table). 67·1% of Yemenis live in governorates wholly or mostly controlled by Houthis, whereas 22·7% live in government-controlled governorates. (The remainder live in Taizz governorate, significant parts of which are controlled by both sides.)

When one combines WHO’s latest epidemiological data for the period April 27 to July 31, 2017,2 with data from Risk Intelligence that maps areas of government and rebel control,3 it is clear that the cholera outbreak disproportionately affects areas controlled by Houthi rebels (table). 67·1% of Yemenis live in governorates wholly or mostly controlled by Houthis, whereas 22·7% live in government-controlled governorates. (The remainder live in Taizz governorate, significant parts of which are controlled by both sides.)

77·7% of cholera cases (339 061 of 436 625) and 80·7% of deaths from cholera (1545 of 1915) occurred in Houthi-controlled governorates, compared to 15·4% of cases and 10·4% of deaths in government-controlled governorates. The attack rate was 17·9 per 1000 population in Houthi-controlled areas compared with 10·0 per 1000 population in government-controlled areas, while the case–fatality rate was 0·46% in Houthi-controlled areas compared to 0·30% in government-controlled areas.4 One tailed t-tests demonstrate that attack rates (t=–1·882, p=0·038) and case–fatality rates (t=–2·435, p=0·013) are statistically higher in Houthi-controlled governorates than in those under government control.

Both sides have been accused of disregarding the wellbeing of civilians and breaching international humanitarian law. However, the government is supported by a Saudi-led coalition and this alliance commands far greater resources than the rebels. As a result, Houthi-controlled areas have been disproportionately affected by the conflict, which has created conditions conducive to the spread of cholera.4 Saudi-led airstrikes have destroyed vital infrastructure, including hospitals and public water systems, hit civilian areas, and displaced people into crowded and insanitary conditions. A Saudi-enforced blockade of imports has caused shortages of, among other things, food, medical supplies, fuel, and chlorine, and restricted humanitarian access. As the Saudi-led coalition has played a key role in the collapse of health, water, and sanitation systems in rebel-controlled areas, it is bizarre that UNICEF recently published a press release welcoming Saudi Arabian "generosity" after the Kingdom donated US$67 million to the cholera response in Yemen.5

We declare no competing interests.

*Jonathan Kennedy, Andrew Harmer, David McCoy

j.kennedy@qmul.ac.uk

Copyright © The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY 4.0 license.

*Jonathan Kennedy, Andrew Harmer, David McCoy

j.kennedy@qmul.ac.uk

Copyright © The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY 4.0 license.


