

The 2017 Dhaka chikungunya outbreak

Chikungunya is an arboviral disease transmitted between human beings via the bites of infected female aedes mosquitoes (*Aedes aegypti* and *Aedes albopictus*).¹ Millions of chikungunya cases have been reported across more than 60 countries, and this virus is responsible for devastating epidemics across the globe.² Chikungunya is characterised by fever, nausea, fatigue, myalgia, headache, rashes, prolonged joint pain, and arthralgia.²

From the onset of the outbreak in April 1, 2017, to Sept 7, 2017, the Bangladeshi Ministry of Health reported 984 cases confirmed by real-time PCR assay (figure) and more than 13 176 clinically confirmed cases in 17 of 64 districts.³ A major outbreak has been observed in the capital, Dhaka, which is home to more than 18 million people.

A chikungunya outbreak in Bangladesh was anticipated because of the distribution of the aedes vector, suitable climatic conditions, and unusual, excessive rainfalls from January to March, 2017.^{4,5} However, Bangladesh currently lacks a virological testing infrastructure at the district level, which could delay efforts to contain the virus. The Bangladeshi Institute of Epidemiology, Disease Control and Research (IEDCR) has limited resources and is thus

facing challenges to control this huge outbreak in one of the largest megacities in the world.

In response to media reports and to address the public panic, IEDCR has established a hotline for the whole country, with the aim of improving diagnosis and surveillance, and thereby preventing further spread of the chikungunya outbreak.³ The spread of chikungunya to other currently unaffected areas might be inevitable because of the widespread distribution of the vector and the movement of people with chikungunya infection. Sustained efforts to contain the virus are already underway, including an awareness campaign, the use of mosquito-control methods such as insecticide fogging and larvicidal measures in areas with very bad drainage in several parts of Dhaka, the involvement of Bangladesh military personnel and WHO, and mass drug administration.

Bangladeshi newspapers and television channels, as well as several social media outlets such as Twitter, Facebook, and YouTube, have emerged as powerful tools to inform the public and support control of this severe outbreak. Cross referencing between several media sources has helped pinpoint the geographical areas where the outbreak is most likely to spread.

Understanding the spatiotemporal dynamics of this outbreak, increasing human resource capacity

for diagnostic testing, enforcing entomological surveillance and effective vector control, and reaching people in deprived or inaccessible areas for treatment and management of cases will be critical to allay public fears, and provide conclusive evidence for future planning and control of the ongoing chikungunya outbreak in Bangladesh.

We declare no competing interests.

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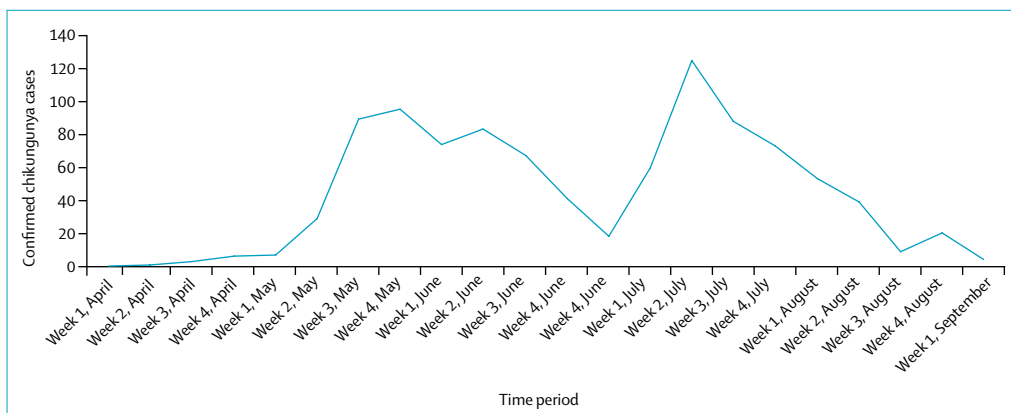


Figure: chikungunya outbreak (cases confirmed by PCR) in 17 districts of Bangladesh, April 1–Sept 7, 2017.

Water, sanitation, and hygiene interventions: an urgent requirement in post-flood Nepal

Another natural disaster struck in Nepal between Aug 11 and Aug 12, 2017, when heavy rainfall caused extensive flooding in 21 Terai (lowland) districts bordering India. By Aug 16, 2017, 75 000 households had