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EDITORIALS

Is the world ready for the next pandemic threat?

Local successes in sporadic outbreaks mask serious gaps in global planning

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Growing antimicrobial resistance combined with the risk of infectious diseases transform the global health agenda. New cases of Ebola reported last week in the Democratic Republic of Congo (DRC) after apparently successful control of an outbreak in May[1 2] revive memories of the Ebola epidemic in west Africa n 2014-16. An equally alarming outbreak of Nipah virus occurred in Kerala, India, earlier this year.[3] Although the Nipah outbreak was contained locally and quite rapidly, both recent outbreaks of Ebola in DRC underline the importance of avoiding neglect and complacency after a serious epidemic has been resolved.[4]

In a linked article, Leigh and colleagues (doi:10.1136/bmj.k3254) analyse whether the global community has improved its capacity to collectively manage such outbreaks.[5] They describe how, despite various initiatives, we are still far from secure, with gaps in funding, monitoring global capacity, and global leadership. Jonas and colleagues recently called for a global independent mechanism to monitor outbreak preparedness to break the usual cycle of panic and neglect.[4] Such a mechanism should focus on country level preparedness; improving science, technology, and access; identifying and communicating risks; and strengthening global mechanisms.[5]

Attention to global preparedness and coordination mechanisms is important.[4 6] The recent Ebola and Nipah outbreaks, however, show that the immediate reaction of frontline health workers and the community where the first cases occur is equally important.[7] Local skilled health workers can recognise cases, organise an appropriate community response, and avoid initial panic.

The first cases of Nipah virus were diagnosed by private health facilities, but the Kerala government introduced strong public health measures immediately, including contact tracing and quarantine of all probable cases.[3] Similarly, when the first Ebola outbreak in DRC reached the north western city Mbandaka, rapid control was probably the result of public health measures implemented by Congolese teams with longstanding experience with Ebola.

Whether the new heat sensitive Ebola vaccine administered to contacts and health workers was decisive in the initial containment remains uncertain,[8] but its fast and effective deployment may have helped to decrease fear among people at the frontline. Deployment in such a difficult environment was a remarkable achievement by the Congolese Ministry of Health and the World Health Organization led coalition—and we can only hope it remains possible in the conflict affected Beni District in North Kivu, where access and contact tracing of the new cases is a serious challenge.[9]

Effective local response

Although the preparedness of local community workers and health systems is vital for early containment of outbreaks, it's far from clear that similar preparedness will be present for future infectious disease alerts. This depends on local context and event specific elements; on local concepts of disease transmission,[7] and on the trust communities have in frontline health workers and local authorities.

It also depends on the links between local and higher authorities, the leadership provided by the authorities, and the resources that can be mobilised rapidly to support the local response, including international support and resources. This local trust, preparedness, and reactivity is most doubtful in places affected by conflict. These settings are of greatest concern to the international community because trust in public authorities cannot be assumed, governance on all levels is contested, security is uncertain, and the humanitarian system is already overburdened.[10]

Whether better preparedness for such challenging contexts can be obtained through the application of International Health Regulations and WHO led global initiatives remains uncertain.[5] If conflict, lack of accountability, and distrust are uncontrolled, effective engagement of independent and neutral humanitarian organisations will remain challenging, as shown by the recent cholera epidemic in Yemen.[11]

Collaborations with groups outside the health sector are increasingly needed, but difficulties remain despite growing

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experience. Collaboration with the military is already happening,[12] and the role of the private sector is growing as new forms of public-private partnership have emerged in, for example, the UN Global Compact in 2000 and the One Health Initiative in 2016.[13 14]

Private parties such as drug and vaccine manufacturers will continue to have a role in epidemic preparedness, response, and management, and the risks of private partnership must be considered when planning the overall governance of crises.[15 16] Developing this governance environment requires a whole UN approach (considering international politics and legal frameworks), of the kind already advocated in the fight against antimicrobial resistance.[17]

The recent Ebola and Nipah outbreaks were stress tests for global preparedness in managing outbreaks—both with some positive outcomes. Without better global governance, however, positive outcomes are substantially more uncertain in conflict zones, amid a humanitarian crisis such as that in North Kivu, and in any outbreak that develops into a wider scale epidemic.

Further analysis of recent outbreaks and near misses is needed, as well as scenario planning for alerts in areas affected by conflict. Action is urgent if we are to prepare an effective 21st century response to the further alerts, outbreaks, and epidemics of lethal infectious diseases that will almost certainly occur.

We have read and understood BMJ policy on declaration of interests and declare that ND has professional links with the health secretary of Kerala.

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