


## Letter to the Editor

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# Plague Outbreaks in Africa – A Gesture of New Pandemic

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The plague is notoriously known in history as the black death.<sup>1</sup> Occurring over centuries around the globe in the form of 3 pandemics, it is estimated that globally in the second pandemic alone, approximately 200 million people fell prey to the deadly disease.<sup>2</sup> The number of new plague cases fell dramatically from the 20th century onward, and between 2010 and 2015 only 3248 cases had been reported globally, with 584 deaths.<sup>2,3</sup> All 3 of the pandemics have been reported to have originated from Central Asia.<sup>2</sup> Despite the global eradication of the disease, the disease remains endemic in the Democratic Republic of Congo (DRC), Madagascar, and Peru. Today, around 95% of the cases reported from sub-Saharan Africa and the Madagascar region.<sup>2,3</sup>

An outbreak of the bubonic plague has been reported in the Ituri province of DRC, where 15 cases have been reported between April and May 2021, with 11 deaths so far.<sup>4</sup> The remaining suspects showing the same symptoms are under treatment in the health facilities in the Bule and Bukachele health zones, where deaths were reported as well. According to the report, victims showed the symptoms of headache, fever, cough, and vomiting blood and died after that.<sup>4</sup> This outbreak comes as a series of outbreaks that have been reported in Ituri since June 2020.<sup>5</sup> A total of 461 cases, including 31 deaths, have been reported in 8 health zones in the region before this recent outbreak.<sup>4</sup>

Apart from Ituri in DRC, the plague wreaked havoc in the Madagascar region in 2017, claiming 195 lives with 2267 confirmed cases.<sup>6</sup> Analyzing these past crises that plague has caused in the same geographical region, if the current series of outbreaks is not contained in Ituri, the possibility of it becoming a full-blown epidemic is not unlikely.

The persistence of plague in DRC and eventually Ituri is attributable to several factors, including the conflict in the 1990s, the consequential annihilation of the health-care system, and the expulsion of the people.<sup>7</sup> The tropical mountain ecosystem of the region and low socio-economic status are important factors for the persistence and acquisition of infection.<sup>8,9</sup> Unfortunately, the current focus is likely to expand further due to extreme poverty, lack of resources and expertise, the inefficient surveillance system, and inadequate diagnostic facilities.

In the light of such devastating history and the continuous loss of lives, it is crucial for proper interventions to be made. The key to tackling bubonic plague, the primary infection acquired from a flea bite, is immediate medical intervention to stop its progression to pneumonic or septicemic type, as the case fatality ratio rises from 30% to 100%.<sup>3</sup> The countermeasures can include the establishment of proper sanitary conditions, rodent and insect elimination, establishing surveillance teams, improvement in the diagnostic facilities, elimination of rat meat from the diet, creating public awareness about the symptoms and the need to seek immediate professional medical help and avoid taking medical aid from traditional practitioners.

Considering the destruction that plague has caused over centuries and its history of multiple pandemics, it should never be dealt with lightly. Especially now, the vulnerability for another pandemic is high as the world is emerging from the coronavirus disease 2019 (COVID-19) pandemic. The lack of plague vaccine further compounds the already existing risk.<sup>10</sup> To prevent the re-emergence of the plague, a single intervention will not suffice; the need of the hour is a customized, systematic intervention plan that can prove to be significantly more effective, with a special focus on the objective population and that should include, but not be limited to, the public awareness campaigns regarding the spread of plague.

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