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Letter to editor

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Reflections on Ebola virus infection

Carlos Miguel Rios-González^{1*}, Ginno Alessandro De Benedictis-Serrano²

¹Faculty of Medical Sciences, National University of Caaguazú, Cnel. Oviedo, Paraguay

²Faculty of Health Sciences, University of Carabobo, Headquarters Aragua, Venezuela

Dear editor,

The Ebola virus (EBOV) is the cause of Ebola virus disease (EVD), which is found in the Filoviridae family along with the Marburg virus (MARV). The virus is transmitted primarily by direct contact with blood or other body fluids such as vomit, urine, semen and sweat from infected patients or animals considered as natural reservoirs (fruit bats of the family Pteropodidae), and other wild animals (chimpanzees, monkeys, antelopes, *etc.*) thus increasing the risk of transmission during patient care, consumption of infected game meat or traditional burial practices[1].

The first recorded EBOV outbreak occurred in 1976 in Northern Zaire, now known as the Democratic Republic of the Congo, and Southern Sudan where it resulted in approximately 430 deaths[2]. Since then, there have been other EBOV outbreaks, mainly in tropical regions of sub-Saharan Africa, including the 1995 Kikwit outbreak, which killed 245 of the 317 infected people and the 2000 Uganda outbreak that killed 224 of the 425 infected persons.

The most recent outbreak (2014–2016) was the largest recorded to date, killing more than 11 316 people out of 28 639 infected, although these numbers are almost certainly underestimated

due to difficulties in presenting epidemiological data, however according to data from the World Health Organization (WHO), up to 2016 there have been 11 323 deaths related to this infection (Figure 1), and the WHO Consultative Group on Response to the EVD[3].

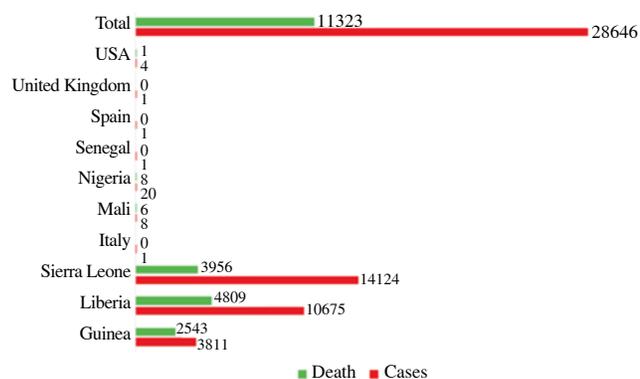


Figure 1. Confirmed, probable and suspicious EBOV cases worldwide (data up to 27 March 2016)[3].

At the same time it is important to highlight the social and economic impact of this infection; an estimated 3 600 children lost both parents and 16 600 children lost at least one of their parents, and these orphans were particularly vulnerable to stigma and discrimination, in turn an estimated five million children lost nearly a year of education due to closure of schools[4].

*Corresponding author: Carlos Miguel Rios González, Sargento Toribio Valinoti c/ Sgto. Iro Lorenzo Ayala Rolon, 1721, Asunción, Paraguay.

Tel: +595971708328

E-mail: carlosmiguel_rios@live.com

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The outbreak has weakened relationships and conflicts within families, within communities and between communities, with an increase in opportunistic crimes, sexual and domestic violence[5].

On the economic side, the World Bank described the effect of the Ebola outbreak on the economies of the three countries as “disabling”, with an estimated value of \$ 1.6 billion (> 12% of combined GDP) lost only in 2015, with the consequences for households being the increase in prices and the reduction of employment with the most economically disadvantaged[6].

Another interesting point to note is that compromised health systems were overwhelmed, a large number of health workers died and health systems were unable to meet the needs of populations. Outbreak and outbreak response led to a deep collapse of trust between communities and the health system and led to reduced access and dramatic reductions in health care utilization[7].

Although there is an experimental vaccine for Ebola (rVSV-ZEBOV), which was applied to about 12 000 volunteers in Guinea in 2015, EVE represents a low risk faced by all countries outside the African continent, where all is known of this virus, in addition where the health conditions and access to the services are deficient.

In recent months the scientific information on Ebola has increased due to globalization and the risk it represents[8]. Therefore, any country that is in precarious conditions of health or has deficiencies in the health system, can be affected with the arrival of EBOV due to the high mobilization of the population[9].

In conclusion, EBOV infection has been causing a number of impacts, both at a well-known epidemiological, social and economic level, and is even estimated to be spread to other continents. However, there are still doubts such as: Is the knowledge of doctors worldwide adequate to deal with outbreaks? Are the different health systems in the countries prepared to isolate and address possible outbreaks? And are the authorities aware of the seriousness it can produce an outbreak in different countries?

Conflict of interest statement

We declare that we have no conflict of interest.

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