

# ZAMBIA

## I.) BACKGROUND INFORMATION

Zambia covers 752,618 sq km and shares its borders with Angola, Democratic Republic of Congo, Malawi, Mozambique, Namibia, Tanzania and Zimbabwe. Zambia's population is estimated to be around 14.2 million (July 2013), with about 36 percent living in urban areas (2010). Its GDP per capita (PPP) amounts to 1,700 USD. 64 percent of the population lived below the poverty line in 2006. With a subsequently high income inequality (GINI index of 50.8 in 2004) it is ranked according to the Human Development Index of 2013 on 163th place, amongst the countries with low human development.<sup>i ii</sup>

In Southern Africa, 4 genotypes of the lyssavirus, which cause rabies, are endemic. The most common is Genotype 1 (Rabies virus, RABV). Others are Genotype 2 (Lagos bat virus, LBV), Genotype 3 (Mokola virus, MOKV) and Genotype 4 (Duvenhage virus, DUVV). Human infections are mostly due to the canine biotype of RABV.<sup>iii</sup>

Rabies is a notifiable disease in Zambia under the Animal Health Act no. 27 of 2010 and the Public Health Act. There are three veterinary laboratories in the country, which can carry out fluorescent antibody testing (FAT), the Central Veterinary Research Institute (CVRI) in Lusaka, the CHOMA Regional laboratory and the University of Zambia Veterinary School in Lusaka. In those institutions predominantly animal samples are tested.<sup>iv</sup>

## II.) HUMAN RABIES EPIDEMIOLOGY

Rabies in humans in Zambia is mostly diagnosed on clinical signs only. However, in 2009 one human rabies case was FAT confirmed.<sup>v</sup> According to SEARG data<sup>vi</sup>, 3 human rabies cases diagnosed on clinical grounds only were reported in 2011, and 5 in 2012. The total number of people bitten by dogs was 732 in 2011 and 595 in 2012. The number of people who received pre-exposure prophylaxis was 72 in 2011, and 112 in 2012. For post-exposure prophylaxis it's 73 people in 2011 and 94 people in 2012. The main source of exposure to rabies for humans in Zambia is the domestic dog and wild foxes.

## III.) RABIES VECTORS

The most common animal reported to be rabies positive is the domestic dog. In 2011, 36 cases and in 2012 24 cases were confirmed with dogs, while other domestic animals accounted for 5 and 3 in 2011 and 2012, respectively. One positive wildlife rabies case was each reported in 2011 and 2012.<sup>vii</sup>

Data reported to the OIE World Animal Health Information System for 2012, though, show 322 dogs who have died from rabies and 5 cattle.<sup>viii</sup> In the first half of 2011 it was 163 dogs and 8 cattle<sup>ix</sup>. In the second half of 2011 36 dogs were reported to have succumbed to rabies<sup>x</sup>.

#### IV.) RABIES BIOLOGICS AVAILABILITY

Rabies post-exposure prophylaxis is available in Zambia. Annually, 15,000 doses of cell culture vaccines are imported.<sup>xi</sup>

#### V.) OTHER

n/a

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<sup>i</sup> CIA (2013). The World Factbook: Zambia. <https://www.cia.gov/library/publications/the-world-factbook/geos/za.html#top> [accessed 1.6.2013]

<sup>ii</sup> UNDP (2013). The Rise of the South: Human Progress in a Diverse World. Human Development Report 2013. New York: UNDP.

<http://www.undp.org/content/dam/undp/library/corporate/HDR/2013GlobalHDR/English/HDR2013%20Report%20English.pdf> [accessed 1.6.2013]

<sup>iii</sup> Rupprecht CE, J Barret, D Briggs, F Cliquet, AR Fooks, B Lumlerdacha, FX Meslin, T Muller, L Nel, C Schneider, N Tordo and A Wandeler (2008). Can rabies be eradicated? *Emerg Infect Dis*; 13(1):25-7.

<sup>iv</sup> SEARG (2013). Zambia country report: 2010-2012.

<http://searg.info/doku.php?id=aboutrabies:rabiesepidemiology:2013reportzambia> [accessed 1.6.2013]

<sup>v</sup> SEARG (2011). Zambia country report. <http://searg.info/fichiers/articles/2011021021d.pdf> [accessed 1.6.2013]

<sup>vi</sup> SEARG (2013). Zambia country report: 2010-2012.

<http://searg.info/doku.php?id=aboutrabies:rabiesepidemiology:2013reportzambia> [accessed 1.6.2013]

<sup>vii</sup> SEARG (2013). Zambia country report: 2010-2012.

<http://searg.info/doku.php?id=aboutrabies:rabiesepidemiology:2013reportzambia> [accessed 1.6.2013]

<sup>viii</sup> OIE World Animal Health Information System. Zambia, 2012.

[http://www.oie.int/wahis\\_2/public/wahid.php/Reviewreport/semestrial/review?year=2012&semester=0&wild=0&country=ZMB&this\\_country\\_code=ZMB&detailed=1](http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/semestrial/review?year=2012&semester=0&wild=0&country=ZMB&this_country_code=ZMB&detailed=1) [accessed 1.6.2013]

<sup>ix</sup> OIE World Animal Health Information System. Zambia, 2011 (1).

[http://www.oie.int/wahis\\_2/public/wahid.php/Reviewreport/semestrial/review?year=2011&semester=1&wild=0&country=ZMB&this\\_country\\_code=ZMB&detailed=1](http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/semestrial/review?year=2011&semester=1&wild=0&country=ZMB&this_country_code=ZMB&detailed=1) [accessed 1.6.2013]

<sup>x</sup> OIE World Animal Health Information System. Zambia, 2011 (2).

[http://www.oie.int/wahis\\_2/public/wahid.php/Reviewreport/semestrial/review?year=2011&semester=2&wild=0&country=ZMB&this\\_country\\_code=ZMB&detailed=1](http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/semestrial/review?year=2011&semester=2&wild=0&country=ZMB&this_country_code=ZMB&detailed=1) [accessed 1.6.2013]

<sup>xi</sup> SEARG (2013). Zambia country report: 2010-2012.

<http://searg.info/doku.php?id=aboutrabies:rabiesepidemiology:2013reportzambia> [accessed 1.6.2013]