

# Defining and targeting high-risk populations in Buruli ulcer

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► **To cite this version:**

Jordi Landier, Arnaud Fontanet, Gaëtan Texier. Defining and targeting high-risk populations in Buruli ulcer. *The Lancet global health*, Elsevier, 2014, 2, pp.E629-E629. 10.1016/S2214-109X(14)70311-0 . hal-01243538

**HAL Id: hal-01243538**

**<https://hal-amu.archives-ouvertes.fr/hal-01243538>**

Submitted on 15 Dec 2015

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## Defining and targeting high-risk populations in Buruli ulcer

In their article in *The Lancet Global Health*, Quentin Vincent and colleagues (July issue)<sup>1</sup> analysed 1227 laboratory-confirmed cases of Buruli ulcer and provided clinically relevant results such as an operational classification of lesions. They reported unbalanced age and sex groups, as previously noted,<sup>2</sup> and an over-representation of Buruli ulcer cases in children. Quantification of this over-representation is challenging—proper comparisons between age groups need estimation of age-specific incidence rates, which are rarely reported.<sup>2,3</sup> Furthermore, most studies of risk factors rely on age-matched and sex-matched case-control designs, precluding comparative analysis by age and sex.<sup>4</sup>

Here we report incidence rates for men and women by 5 year age-groups for 814 laboratory-confirmed cases in the Nyong River region in Cameroon (figure). Estimates were obtained using Buruli ulcer surveillance data from the

Centre Pasteur du Cameroun (National Reference Laboratory for Mycobacteria, Yaoundé, Cameroon) from 2002 to 2012, and detailed 2010 population census data. Incidence rate was twice as high for children aged 5–14 years (165 per 100 000 person-years) as for adults older than 15 years (87 per 100 000 person-years). Incidence rate was stable among adults, suggesting lifelong exposure and possibly increasing susceptibility to disease development among older individuals. The overall women–men incidence rate ratio was 1.01 (95% CI 0.88–1.15). Incidence rate ratio was 0.81 (0.67–0.98) for children aged 0–14 years, 1.55 (1.22–1.98) for adults aged 15–49 years, and 0.85 (0.57–1.28) for adults older than 50 years.

Vincent and colleagues<sup>1</sup> defined age-specific and sex-specific subgroups relevant for clinical considerations.<sup>1</sup> We define three subgroups—boys younger than 15 years, women aged 15–50 years, and elderly people—which are likely to have different exposures, behaviours, immunity, and treatment-seeking attitudes. We advocate that this risk categorisation is relevant for

epidemiological studies and public health programmes such as prevention or case-detection campaigns.

We declare no competing interests.

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- 1 Vincent QB, Ardant MF, Adeye A, et al. Clinical epidemiology of laboratory-confirmed Buruli ulcer in Benin: a cohort study. *Lancet Glob Health* 2014; **2**: e422–30.
- 2 Debacker M, Aguiar J, Steunou C, et al. *Mycobacterium ulcerans* disease: role of age and gender in incidence and morbidity. *Trop Med Int Health* 2004; **9**: 1297–304.
- 3 Revill WLD, Barker DJP. Seasonal distribution of mycobacterial skin ulcers. *Brit J Prev Soc Med* 1972; **26**: 23–27.
- 4 Jacobsen KH, Padgett JJ. Risk factors for *Mycobacterium ulcerans* infection. *Int J Infect Dis* 2010; **14**: e677–81.

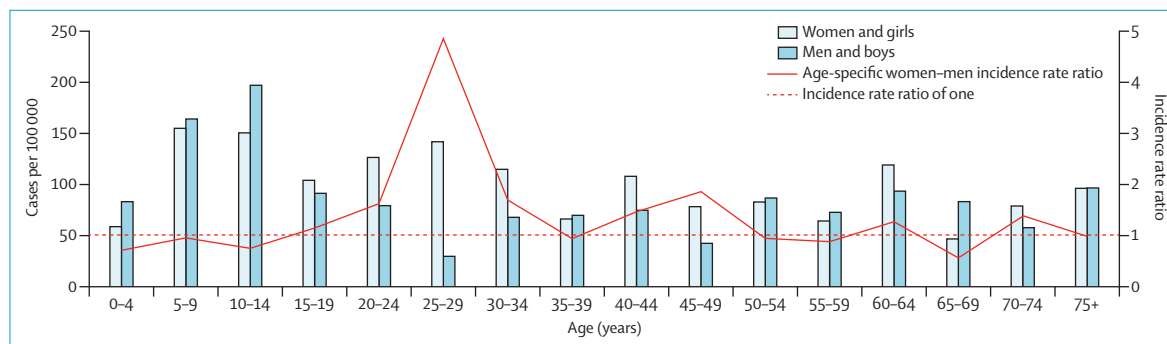


Figure: Incidence rate and women–men incidence rate ratio of Buruli ulcer in the Nyong River valley (cases per 100 000 person-years), 2002–12, Cameroon