Correspondence

What do we actually know about leprosy worldwide?

A recent Comment1 in The Lancet Infectious Diseases spoke about the possibility of attaining zero leprosy transmission globally. We believe the real-world leprosy situation needs to be considered carefully before conclusions can be made. Since 2009, our group has been doing leprosy field research in several cities in Pará, Brazil, in the Amazon region. Our team consists of three leprologists who are supported by well-trained physiotherapists, nurses, and laboratory personnel. Importantly, they also receive assistance from local community health agents and health authorities from the basic health units who know about the local leprosy situation. Our focus has been to diagnose cases in schoolchildren and then visit their household contacts. During our 1–2 week field trips, the proportion of schoolchildren and their contacts newly diagnosed in all of the cities surveyed ranged from 3·4% in Acará to 13·4% in Senador José Porfírio, and averages 4% in schoolchildren and 8% in household contacts, indicating an extremely high number of hidden leprosy cases. All newly diagnosed cases are reported to the regional leprosy control coordinators with recommendations for multidrug therapy based solely on their clinical signs.

Unfortunately, regional leprosy control coordinators have repeatedly refused to enrol all the cases we diagnose into the national leprosy database (SINAN), and frequently send other physicians to re-examine and validate our diagnoses. For example, Mosqueiro island—an idyllic tourist destination only 1 hour’s drive from the state capital, Belém—reportedly had a new case detection rate of 14·1 per 100 000 people in 2013, while the rate in Pará was 50·7 per 100 000. The family health strategy provides basic health coverage for only 50% of the Pará population, and 22% of those residing in Mosqueiro. In May, 2014, our group visited the island and diagnosed 110 new cases out of 1000 individuals examined (11·0%). Only 13 (11·8%) were validated as having leprosy (although only 69 patients were revisited): the remainder were not treated. Using mathematical modelling of the same dataset to project scenarios of leprosy elimination in Pará, two back-to-back reports predicted leprosy elimination by either 2026 or 2030.2 These predictions about case detection rates are not based on what is truly occurring, but these citations might be exploited by health authorities. These reports imply that further active surveillance activity and chemoprophylaxis will not influence the trend substantially, and the disease will subside by continuing and maintaining the present health structure. Conversely, WHO suggests we need early case detection and contact tracing3 and we completely agree. Our work shows that it is feasible to find more leprosy cases using geographical information systems and serological analysis to target specific schools for surveillance in hyperendemic areas.5

Nonetheless, the real question is why the percentage of children with leprosy varies from 1·2% to 39·8% (or why grade 2 disability ranges from 0·0% to 28·0%)4 in different, but all equally poor, countries? The answers will only be possible when we understand that absence of diagnosis of leprosy is not the same as the absence of leprosy. The elimination target has become the mantra everywhere, but it is now meaningless. Although the zero-transmission strategy4 is highly desirable, comprehension and acknowledgment of the real worldwide leprosy situation is imperative first.

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