Dear Editor,

We read with interest the article entitled ‘Minimal essential data to document contact tracing and single dose rifampicin (SDR) for leprosy control in routine settings: a practical guide’. They considered a minimal set of data required to appropriately document contact tracing activities and SDR administration for leprosy control in a routine setting. This work merited serious consideration as a means to improve the control of leprosy.

The main objective of a leprosy control programme is to break the chain of transmission in the community. It requires early diagnosis and prompt multidrug therapy for all patients.

Cuba is a low endemic country for leprosy. This disease ceased to be regarded as a public health problem in 1993, and its prevalence has remained steady at 0·2 per 10,000 population since 2002.

Since 2008, the Cuban guidelines for leprosy control (unpublished document) recommend that all contacts of a leprosy index case receive chemoprophylaxis with single dose of rifampicin (SDR) - previously it was given associated to other drugs and in dependence of lepromin test results. The effects of these interventions during this time have not been systematically determined.

Richardus et al., taking as a start point the index case, established some definitions in their article in order to trace the contacts and administration of chemoprophylaxis with SDR. They considered household/neighbor contacts and community contacts and they also established indicators and two generic forms to capture relevant information, which might be modified according to local requirements.

Certainly, household/neighbor contacts of patients with leprosy have a higher risk of developing this disease than does the general population. However, we consider that to measure the impact of this strategy it would be reasonable to stratify these contacts according
to the physical distance to the index case due to the risk of developing the disease varies and so the response that could be expected after the SDR administration.

Cuban current guidelines establish several risk categories: i) intradomiciliary contact of first level: those people who live with the index case at the moment of diagnosis; ii) intradomiciliary contact of second level: those persons who do not live with the index case anymore, but used to live under the same roof for a period of up to 5 years before; iii) extradomiciliary: includes social, laboural and academic contacts; and iv) population at risk: those persons who live in the same block of the index case. We consider these categories allow to stratify the risk according to the exposure and also to evaluate the effectiveness of chemoprophylaxis.

Another aspect to take into consideration to measure the impact of SDR administration on the new case detection rate is the genetic relationship with the index case where the protective effect of SDR in blood relatives should be analyzed. There are many data to suggest a genetic predisposition for leprosy. For instance, in 2006, Moet et al.,\(^4\) in their study concluded that a genetic relationship is a relevant risk factor, independent of physical distance. It was very close from the review on this topic carried out by Fitness et al., in 2002, where they concluded that several genes could be involved in susceptibility of leprosy.\(^5\) About the Cuban contribution of genetic factor for leprosy, the dermatoglyphic patterns of Cuban patients with lepromatous leprosy showed evidential signs of the existence of genetic predisposition to the development of this disease.\(^6\)

In conclusion, in low prevalence countries like Cuba, control programmes might be strengthened in the setting of contact tracing and prevention strategies if the contact groups were stratified and coded according the specific type of risk and predisposing genetic factors of developing clinical leprosy, which are probably playing a part in susceptibility to the disease.

References