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incidences were large. These results support birth cohort effects and higher rates of sexual infection in women postulated by prevalence studies. They also suggest that HTLV-1 incidence will continue to fall in Japan as the higher risk cohorts age and die.

Only a few other studies have attempted to determine the incidence of HTLV-1 and even fewer have used representative samples of general populations. Two studies in the USA and one in Brazil estimated incidence in repetitive blood donors and found results that are probably lower than, but of similar magnitude as, general population rates. Glynn and colleagues1 and Zou and colleagues2 in the USA reported incidence rates of 1.6 new infections per 100 000 person-years and 0.21 new infections per 100 000 person-years, respectively. The difference between them is probably due to differing geographic areas served by the sampled blood centres. In Brazil, Carneiro-Proietti and colleagues3 reported a rate of 3.6 per 100 000 person-years, quite similar to Sataké’s estimate for Japan and about three times higher than in the USA, consistent with known HTLV-1 epidemiology. Three other studies found much higher incidence, probably because they studied higher-risk populations, including a hyperendemic island in Okinawa, Japan (1.0 per 1000 person-years),4 a sexually transmitted infection clinic in Jamaica (9.0 per 1000 person-years),5 and a community sample with high HIV prevalence in Guinea-Bissau (1.7 per 1000 person-years).6

Two main conclusions can be drawn. First, incidence data for HTLV-1 are scarce in many countries and therefore insufficient to responsibly inform and assess prevention efforts by public health agencies and allow for international comparisons. Second, since large population-based incidence studies are unlikely to be done for HTLV-1, studies that include repeat blood donors are a practical and reasonable alternative for international comparisons and monitoring secular trends.

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We declare no competing interests.


Comment

Tuberculosis: a private and public health and data mix

The clue in the title lies in the phrase public health. Data for understanding the health status of communities and nations comprise a fundamental public good.1 Public health data can only be captured and curated effectively if sufficient resources and determination are deployed for the purpose. But, from private sector perspectives of profits and shareholders, it might seem entirely reasonable not to prioritise the collection of public health data.

In The Lancet Infectious Diseases, Nimalan Arinaminpathy and colleagues1 tackle a specific manifestation of this public-private dichotomy in examining the complex mix of tuberculosis treatment uptake in India. India is a country where health services are undergoing a rapid transition from the former domination of the government sector into a public-private plurality. In a country of over 1 billion people, with huge socioeconomic...
inequities, this plurality of health services is likely to persist for a long time. Managing infectious diseases associated with poverty, like tuberculosis, would traditionally have been regarded as a governmental responsibility. The new findings suggest that about two-thirds of tuberculosis treatment in India is now being delivered by the private sector. How can that important private sector input best be monitored?

The USA, with arguably the world’s largest private-dominated health-care system, provides an interesting comparison. The Centers for Disease Control and Prevention, as the national health protection agency, carries responsibility for documenting tuberculosis (which has long been a nationally notifiable disease), in the form of an annual report. Nevertheless, as in India, delivery of tuberculosis treatment is a public-private mix, with a quarter of clinical care for tuberculosis delivered through the private sector. One has to assume in the USA that the procedures required of the private sector for notifying tuberculosis cases to the public authorities are sufficiently robust and well-enforced.

India only made tuberculosis a notifiable disease in 2012, following reports of multiple drug-resistant disease. To what extent mandatory reporting has facilitated the extraction of reliable data from the private sector is uncertain, particularly given that half of private practitioners in a survey cited lack of time as a reason for failing to notify tuberculosis cases in Chennai. The compliance of the Indian private health sector in terms of notifying tuberculosis (and possibly other diseases) thus seems to be a major obstacle to gathering public health data. Alternative and less direct approaches are therefore important for reaching any realistic national picture of tuberculosis treatment in India, where a substantial proportion of worldwide cases occur. But are such indirect methods appropriate and relevant?

Arinaminpathy and colleagues chose to move their focus upstream from data at the patient-provider level to drug supply statistics. Since there is no single drug uniquely and solely indicated for treating tuberculosis, this approach involved some fairly brave assumptions. Sales of drugs containing rifampicin were chosen as the key indicator on the basis of having fewer indications than other drugs for non-tuberculosis treatment. Patient-months of treatment had to be measured, since there were no direct data on individual treatment duration. The contribution of false-positive diagnoses of tuberculosis had to be considered. Putting everything into the pot, the public health burden of tuberculosis in India appears to be even higher than has often been assumed, thus representing a major challenge to both the public and private health sectors. The approach taken here seems to be useful, but is by no means equivalent to having the individual-level data one would wish for.

In an era of global concern about tuberculosis, including HIV co-infection and multiple drug-resistant organisms, complacency about gathering tuberculosis treatment data and establishing the corresponding magnitude of public health burdens is not acceptable. An increasing number of countries with high tuberculosis burdens are also encountering growth in their private health sectors. Private sector involvement might not be a bad thing in itself, but mechanisms to extract reliable public health data from private health providers on tuberculosis and other diseases of public health concern are essential. Just as public health systems implicitly capture data as one of their intrinsic functions, public resources must be more effectively deployed for capturing and curating data of public interest from the private sector.

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