Time to rethink approaches to migrant health screening

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The elimination of tuberculosis in Europe is a key public health priority,[1] yet unprecedented levels of migration, especially from low-income or middle-income countries, pose challenges to achieving this goal. The overall incidence of tuberculosis in migrants is increasing in several countries, and—for example—migrants comprise more than 70% of all newly diagnosed cases in the UK, Sweden, the Netherlands, and Norway.[2] Migrants are at higher risk of clinical tuberculosis as a result of coming from countries with a high burden of infection, the poverty they might face on arrival, and a plethora of barriers to accessing free statutory health care and screening.[3] Yet what constitutes a cost-effective approach to migrant screening and understanding what to screen for, and who, where, and when to screen, remain contentious.

In *The Lancet*, Robert W Aldridge and colleagues[4] report the findings of a large retrospective cohort study of more than half a million migrants requesting a long-term entry visa to the UK (2005–12) who were screened for active tuberculosis in 15 high-incidence countries of origin before migration. Pre-entry screening data for this cohort are published elsewhere.[5] In the present study, the researchers explored what happens to migrants, free from active disease at the time of migration, after their arrival to the UK (mean follow-up 2·45 years per person). This research is timely, amid growing consensus that identification and treatment of latent tuberculosis before the disease becomes active could support elimination efforts,[6,7] representing a shift from the historical Europe-wide approach of screening for active disease on, or soon after, arrival.

Aldridge and colleagues report that migrants screened before entry pose a negligible public health risk in terms of onward transmission (only 35 assumed index cases with an estimated crude rate of five per 100 000 person-years [95% CI 4–8]) but are at risk of developing active tuberculosis after arrival to the UK, with 79·6% of cases notified after migration. The incidence of all forms of tuberculosis was lowest in the first year after arrival, and then peaked in the fourth year (222 per 100 000 person-years [95% CI 198–249]) before declining, with many cases resulting from reactivation of latent infection (301 cases with crude estimated incidence of 46 per 100 000 person-years [95% CI 42–52]). The data show, not unexpectedly, that some groups of migrants were over-represented among reactivation cases, including migrants from high-incidence countries (ie, countries with >350 cases per 100 000 people) and those with a chest radiograph compatible with tuberculosis but not bacteriologically confirmed when pre-screened in their countries of origin. Why the authors did not address the extent to which key risk factors such as socioeconomic deprivation in the host country and comorbidities (eg, HIV, diabetes mellitus) drive tuberculosis reactivation is unclear.

Although these data are limited to a particular subset of migrants requesting a long-term entry visa to the UK, they have potential implications for screening policies for the wider population of migrants across Europe, and suggest that screening and treatment for latent tuberculosis in migrants from high-incidence countries before departure, and within 5 years of arrival in the host country, could strengthen control efforts. This approach is likely to be cost-effective.[6,7]

Aldridge and colleagues' data support the notion that to eliminate tuberculosis in low-burden settings multiple initiatives will be needed. The UK is one of a few European countries now screening individuals before they migrate,[8] and is pioneering a national strategy for latent tuberculosis testing in newly arrived migrants.[9,10] We strongly support innovations in migrant screening and health-care delivery. However, policy makers need to be aware that thousands of migrants in the UK



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and Europe—including refugees, asylum seekers, and undocumented migrants from high-incidence countries—will completely bypass national screening programmes. Underlying all these new developments in the field of migrant health care, therefore, is the crucial need for innovative strategies to improve migrants' access to host health systems, which will ensure timely screening for not only tuberculosis, but also other common infections that disproportionately affect migrants, as well as delivery of vaccinations and affordable health care and treatment. We, for example, are exploring one-stop testing for latent tuberculosis, hepatitis B and C virus infections, and HIV through emergency departments, where a high number of migrants are thought to present.

Another essential consideration is that once screened, poor follow-up and low treatment completion rates are well documented in migrant patients—particularly for latent tuberculosis—which might render screening programmes ineffective and will necessitate unique approaches.[2,11] Although the evidence base is incomplete, the European Centre for Disease Prevention and Control is currently developing much-awaited guidance on migrant screening.[12] Aldridge and colleagues' study therefore is a welcome contribution to evolving policy discussions around improving health outcomes in migrants across Europe.

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We declare no competing interests.

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