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Tuberculosis and migration

The issue

Historically, human migration has had a major impact on the spread of tuberculosis (TB). Early in the nineteenth century, 25% of deaths in western Europe were attributable to TB. Western Europeans subsequently carried TB to central Africa, south and south-east Asia and the Americas, resulting in major epidemics in these regions. While TB incidence has fallen dramatically in western Europe since the 1950s, it has remained high in most low-income countries.

Since 1980, human migration has reached an unprecedented scale. According to a recent estimate, more than 150 million people are long-term residents of a country other than their country of birth. The number of short-term travellers from high- to low-TB-incidence countries is 50 times more than those who enter seeking permanent resident status. Most migrants travel from countries where the TB rate is more than 40 cases per 100 000 population (i.e. defined as high-TB incidence) to countries where the rate is less than 20 per 100 000 (defined as low-TB incidence). The incidence of TB is often higher among foreign-born than native-born populations. This is true in western Europe. The increased risk among foreign-born individuals may continue for 20 years after migration. As a result, the foreign-born population accounts for a large proportion of reported TB cases, ranging from 20% to 70% of the total number of cases notified in European countries.

The majority of European countries continue to use chest radiography screening for detection of TB among applicants for permanent residence. However, chest radiography is of varying sensitivity and specificity according to the epidemiological level of TB in the applicant's country. Chest radiography is even less sensitive to and specific of TB in HIV-positive individuals. The ideal screening should be comprehensive and easy to administer, cause no discomfort or stigma to the patient, and be sensitive and specific.

TB control is based on rapid diagnosis and effective treatment of cases, including those among immigrants. The evaluation of close contacts of active pulmonary TB cases has been established as a cost-effective method for detecting as well as preventing TB.

The facts

- Human migration from high-incidence countries to Europe is a relevant phenomenon, increasing over time.
- The incidence of TB among foreign-born populations living in Europe is up to 50 times higher than that of native populations.
- Foreign-born populations settled in Europe have an increased risk of developing TB, due to reactivation of latent TB infection contracted in their country of origin.

- A significant proportion (up to 70%) of TB cases notified in Europe are in foreign-born populations.
- In western Europe, more and more cases of multidrug-resistant TB (MDR-TB) are diagnosed in immigrants from eastern European countries; they are very difficult and expensive to treat.
- The transmission of TB from foreign-born to native European populations is well documented.
- The economic impact of TB among foreign-born populations in low-incidence countries is substantial.

The policy considerations

Culturally-sensitive TB services in Europe should offer easy access to high-quality TB diagnosis and treatment to immigrants, in compliance with individual human rights and strategies to control TB in the community.

Contact tracing within foreign-born communities in primary care services is more cost-effective than general screening of new entrants at borders. Detecting and treating latent TB infection is even more effective.

Increased investment in global and regional TB control (e.g. in eastern Europe) will be effective in reducing TB transmission and human suffering in Europe.

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