

Foreign-born TB patients and TB control in Japan

Introduction

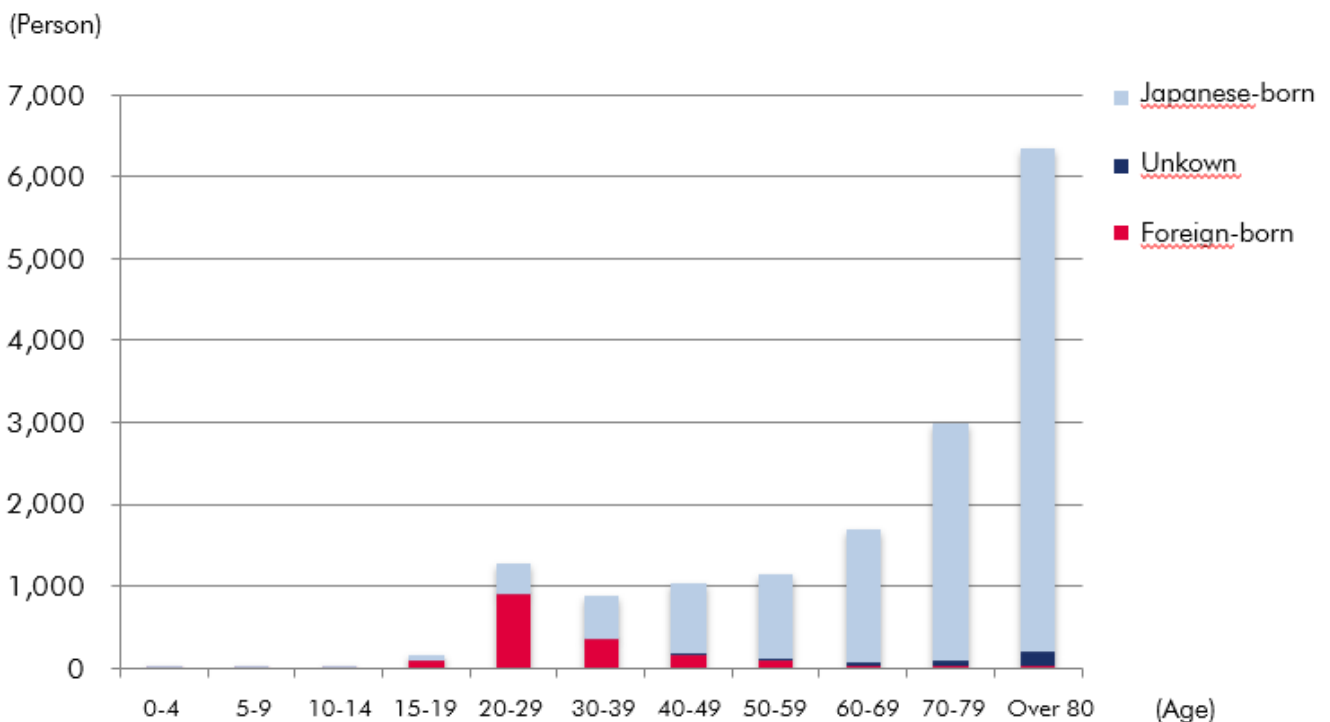
This time I would like to describe about increasing number of foreign-born (FB) TB patients in Japan.

Increasing number of foreign-born TB patients 2018 (1)

Number of newly notified TB cases (notified TB) is 15,590 in 2018 Japan. There was an overall decrease of 1,199 cases (7.1%) from the previous year, and a decrease of 7.5% in the rate of notified TB per 100,000 population from 13.3 (2017) to 12.3.

However, among the foreign-born (FB), TB case notifications increased by 137 cases from the previous year to 1,667 and accounted for 10.7% of the total national TB cases, exceeding 10% for the first time. The majority of the increase in cases were from the 20 to 29 years age group, increasing by 122 from the previous year to 896.

Figure 1 shows the number of notified TB age in 2018, distinguishing between foreign and Japanese origin.



Created data from "Statistics of TB.2019" Ministry of Health, Labor and Welfare.

Figure 1. The number of notified TB age in 2018

Breakdown of foreign residents in Japan

The foreign residence status “Study in Japan” accounted for the largest increase in migrants to Japan in 2018. “Foreign workers through Technical Intern Training Program” increased by 19.7% (up 54,127 persons) totaling 328,360 while the remaining students accounted for an increase of 8.2% (25,495 students) totaling 337,000 (2) (3).

From these facts, the increase in the number of young tuberculosis patients is mainly related to foreign students and technical interns from high TB burden countries. Young people from these countries are considerably higher rates of tuberculosis infection and disease than in Japan at the same age (4, 5).

Immigration control for TB patients in Japan (6)

Refugee law that came into force in April 2019. Migrants from the following six countries, Philippines,

China, Vietnam, Nepal, Indonesia and Myanmar have to pass pre-entry TB screening for the visa issuance for staying more than 90 days in Japan.

Japan’s pre-entry TB screening for these individuals is subject to the submission of a certificate of non-active TB or completion of treatment for active TB from national hospitals collaborated with Japanese government in these six countries.

These recent disease interventions focused on immigration are important pre-entry measures against active TB and is a big first step for Japan’s control of TB among FB persons.

Immigration control for people came from high TB burden countries in the world (7).

Most countries of the EU (European Union) countries, Australia, and the United States are low TB burden countries (incidence rate of less than 10 per 100,000

Table 1. Rate of foreign-born TB patients in Japan and the other low TB burden Countries

Country	TB Incidence rate/100K	Rate of foreign - born TB (%)	Year
UK	8.0	68.2	2017
France	7.2	58.8	2017
Italy	6.3	66.2	2017
Germany	6.5	69.6	2017
Denmark	4.4	66.9	2017
Norway	4.5	88.5	2017
The Netherlands	4.5	74.5	2017
Sweden	4.9	90.0	201
Australia	5.6	86.0	2014 (Annual report)
USA	2.8	70.0	2017 (CDC)
Japan	12.3	10.7	2018

Tuberculosis surveillance and monitoring in Europe 2019, 2017 data.

people). Table 1 shows rate of foreign-born TB patients in Japan and the other low TB burden countries. In the EU / EEA, Australia and the United States, the proportion of FB-TB among incidence TB is significantly higher than that in Japan (8). In these countries, FB persons entering from high TB burden countries are targeted for pre or at-entry TB screening, which will be a reference for future TB control in Japan.

The introduction of TB control measures in the above the countries such as UK (9, 10) and the US (11, 12) has revealed that TB screening is a precondition for visa issuance for those originating in countries with a high incidence rate of TB or those who are at high risk of TB infection. Visas are not issued by the receiving country if disease is detected until treatment completion and cure is documented. This prevents domestic spread of tuberculosis in the receiving country.

Young people (2 years old, 5 years old and older, and under 15 years old) and pregnant women are TB screened by IGRA. In Europe and the US, CXR radiation exposure is avoided in these populations.

The follow-up post-entry is implemented at the local administrative level and primary care level. As in the UK and the US, post-entry management seems to be shifting to follow-up for LTBI patients.

For example, , since 2015, an LTBI program (post-entry screening) has been conducted for new entrants to England. The migrant receives LTBI testing based on the following eligibility criteria: Birth or residence in a country with high prevalence of tuberculosis (over 150 cases/100,000 or from sub-Saharan Africa) or living in the UK within the past 5 years (including entry from other countries) and are 16-35 year of age with no prior history of TB or LTBI and no previous LTBI screening in the UK. The LTBI program is performed at primary care centers. As a result of these interventions for six years, it has been evaluated as useful in the UK since cases fell to the lowest incidence rate in the country since 1960 (13).

A comment on TB control for FB people from high TB burden countries

As a matter of concern, in the case of TB patients from high TB burden countries, the proportion of drug resistant and multidrug-resistant tuberculosis is significantly higher than in Japan (14). Additionally, breaks in active TB treatment from international transfer may further cause drug resistance. (15). The proportion of FB TB patients among TB patients in Japan is still low compared to those in EC and the United States.

However, in anticipation of the future in 10 years from now, the dependence on young FB people due to labor shortages in Japan will continue to increase, while on the other hand, a decline of domestic elderly TB patients is expected to due the natural decline of the elderly population. From the 2 phenomena, the proportion of tuberculosis sufferers among FB TB persons in Japan will increase dramatically as we are witnessing now while a gradual decrease the peak age group of TB can be expected from declines in elderly TB.

The follow-up post-entry is implemented at the local administrative level and primary care level. As in the UK and the US, post-entry management seems to be shifting to follow-up for LTBI patients.

As the Japanese economy becomes increasingly reliant on foreign labor, longer term residencies such as students and employees can be expected to increase TB rates and the proportion of FB cases, especially in younger working age groups. The pending counter measures to prevent entry of active TB in Japan is an important first intervention however, following the advanced examples of other low-burden countries, post-entry LTBI screening and LTBI treatment should be considered necessary as a countermeasure for Japan to become a low TB burden country and eliminate TB in the future.

Mr. QFT



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