



MINISTRY OF HEALTH & SOCIAL SOLIDARITY
HELLENIC CENTER FOR
DISEASE CONTROL & PREVENTION

Epidemiological data on tuberculosis in Greece, 2004-2010

Tuberculosis (TB) is one of the most common infectious diseases worldwide and continues to be a major public health problem despite the fact that there is effective treatment for it.

It causes annually over one million deaths mainly in the developing countries and approximately 140 new cases per 100000 population, worldwide.

In Greece the notification of TB is mandatory according to the following:

1. The Royal Decree/ Gazette of the Government of Greece 262A/1950 "on measures against epidemics and mandatory declaration of these".
2. The Law 3204/2003- Gazette of the Government of Greece 296A/24-12-2003, Article 44, Paragraph 1: "At the Center for Infectious Disease Control in Greece each infectious disease is archived and any public or private provider offering healthcare services or an individual practitioner, within legitimate operation, is required to report to the Center for Infectious Disease Control in Greece cases of infectious disease that is aware of".

Under current law, the Department of Epidemiological Surveillance and Intervention of the Hellenic Center for Disease Control and Prevention (HCCDP, former Center for Infectious Disease Control in Greece) is authorized by the Data Protection Authority to keep a relevant filing system for public health reasons.

The notification is made via a special bulletin, «INFECTIOUS DISEASE STATEMENT - TUBERCULOSIS». This record is comprised of all necessary data, so as to enable the epidemiological recording of the disease through data analysis and implement public health measures for the TB cases' immediate environment.

Additionally, the systematic surveillance of the disease is necessary to monitor the indicators set by the World Health Organization (WHO) and European Centre for Disease Control (ECDC), in order to control TB on a European and international level. Based on these goals by 2015 the prevalence and deaths due to tuberculosis should be reduced to 50% in comparison to 1990 data and by 2050 the disease should not be a public health problem anymore.

An analysis of data collected annually through the mandatory notification system for the period 2004 - 2010 shows that in our country an average of 600 cases is reported each year. Also there is a gradual reduction of notified cases, specifically from 761 in 2004 to 490 in 2010. With regard to the reported cases in Greeks and the percentage of all reported cases, a decrease trend is observed. On the contrary, in reported cases of migrants the trend is increasing (Diagram 1 and Diagram 2). It should be noted though that studies that have calculated the number of new TB cases through the consumption of anti-TB drugs, have shown significant underreporting of the disease.

Also, we do not actually know the exact rate of TB increase in the number of persons with foreign nationality, from 2004 to 2010. Hence we are unable to determine exactly how much of the decrease trend of cases is due to underreporting and in what extent the increased trend in migrants is due to a recent possible increase in their population.

Overall, during the period 2004-2010 the 64.1% of the total number of reported cases were Greeks, 34% were of foreign nationality, while in 1.9% of cases the nationality is not determined (Diagram 3).

Most Greek TB cases occurred in persons aged 65 and older, while most TB cases in foreigners occurred in those aged 25 to 34 years (Diagram 4). The difference between Greeks and foreigners

in the age distribution is consistent with the fact that the majority of migrants in our country are people of working age. The average incidence rate per 100000 population by geographic region (NUTS-I, Nomenclature of Territorial Units for Statistics) was higher in Central Greece and Attica, while the lower incidence rate was recorded in the area of the Aegean Islands and Crete (Diagram 5). Regarding the type of the disease, the largest proportion (66.4%-74.9%) of cases was pulmonary, whereas the rate of the extra pulmonary location and forms was low. Also in 20.4% of the reported Greek cases as well as in 16.2% of cases occurring in foreign-born persons their chest x-rays showed cavities (Diagram 6). The presence of cavities is important in the epidemiology of the disease because these cases are more contagious.

Finally, regarding the recording of cases based on prior anti-tuberculosis treatment, the highest rate (60.2 -83.2%) occurred in new cases that were not previously diagnosed with tuberculosis (Diagram 7).

Diagram 1: Reported cases of tuberculosis, Greece 2004-2010

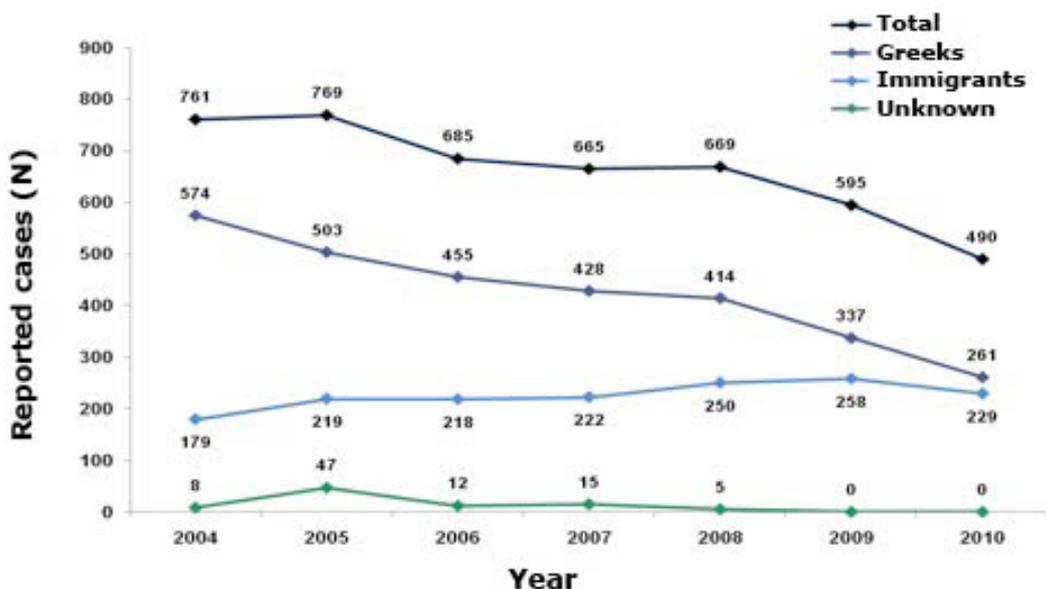


Diagram 2: Frequency distribution of TB reported cases by nationality, Greece 2004-2010

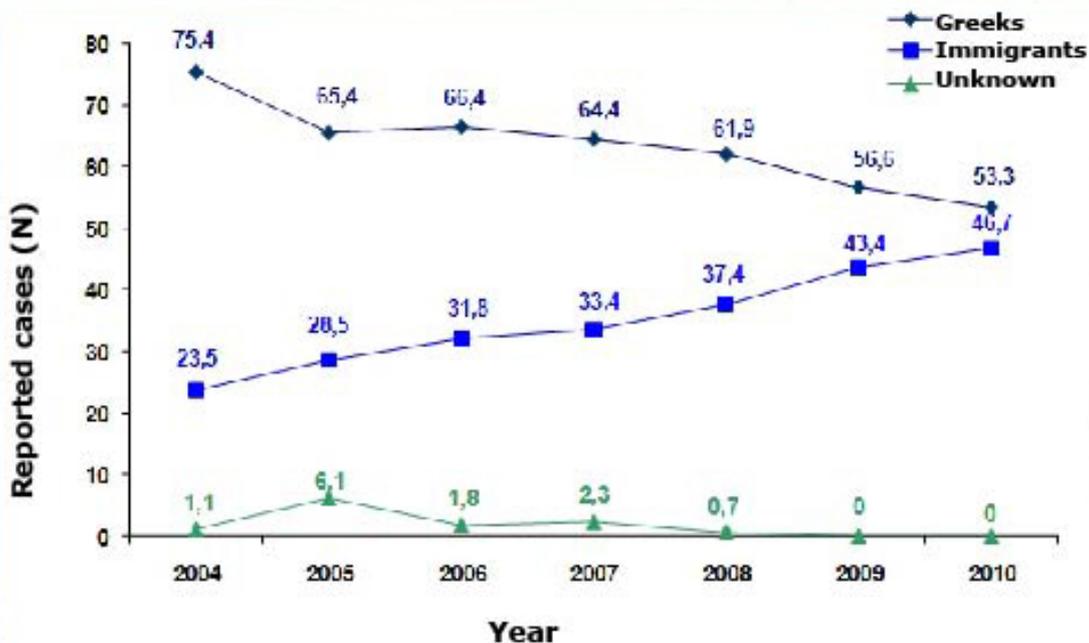


Diagram 3: Frequency distribution of TB reported cases by nationality, Greece 2004-2010

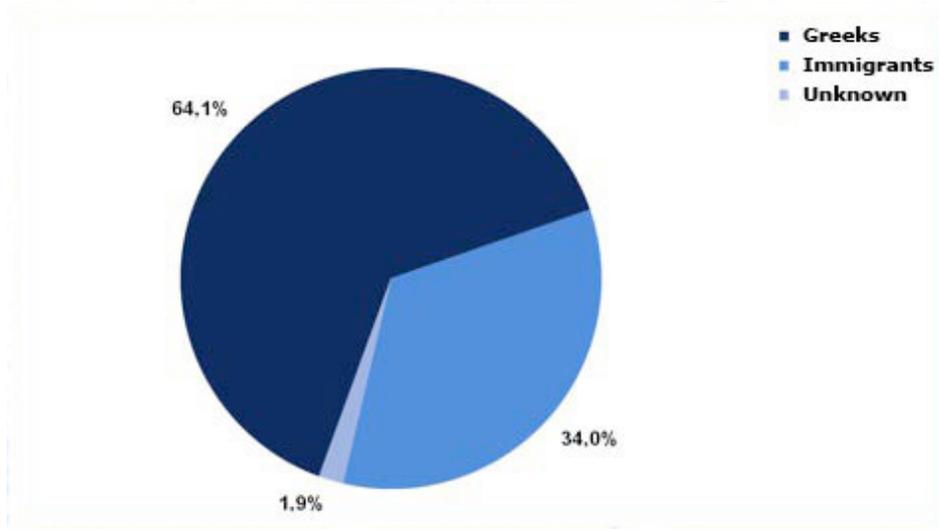


Diagram 4: Age distribution of the TB reported cases by nationality, Greece 2004-2010

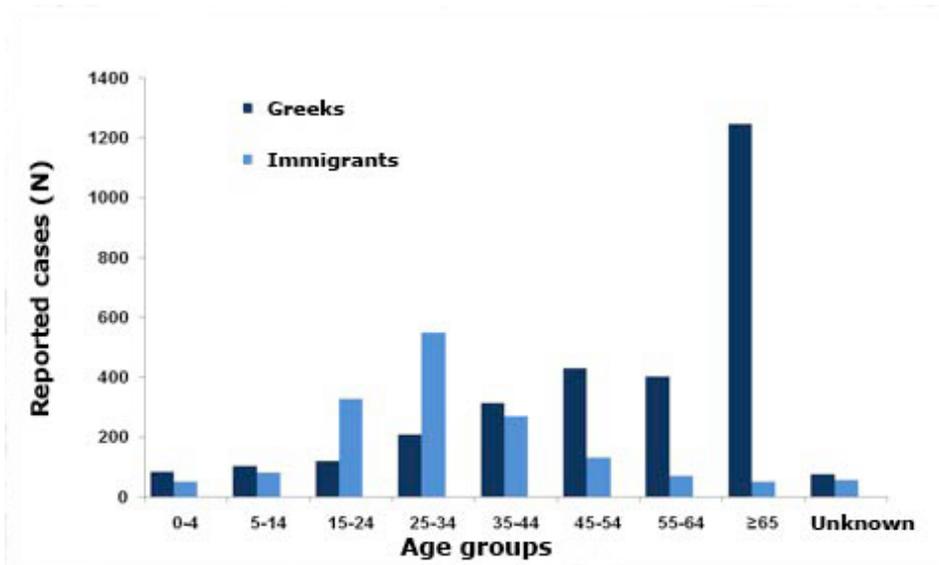


Diagram 5: Average TB reported incidence rate by geographic region (NUTS-I), Greece 2004-2010

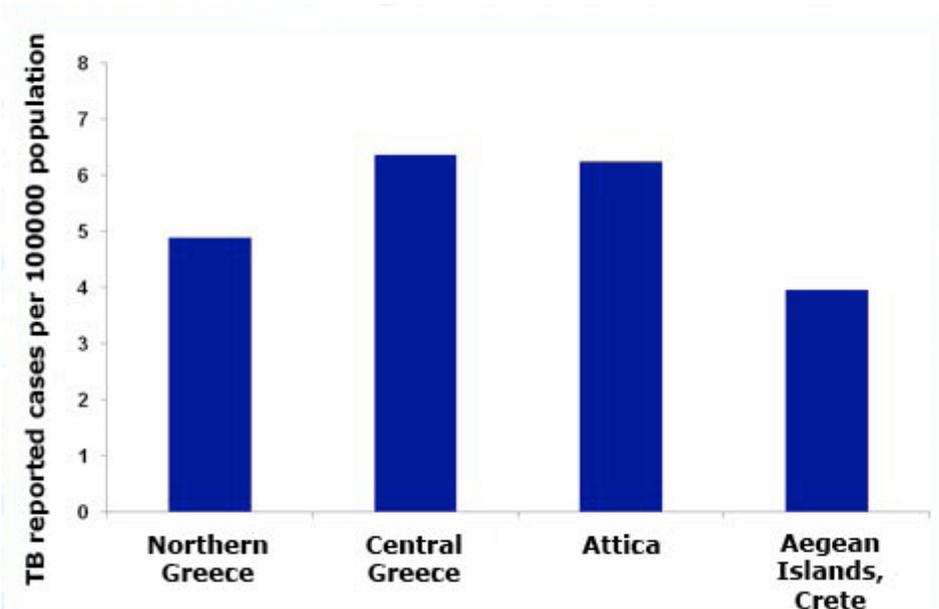


Diagram 6: Frequency distribution of reported cases of pulmonary tuberculosis based on the presence of cave by nationality, Greece 2004 – 2010

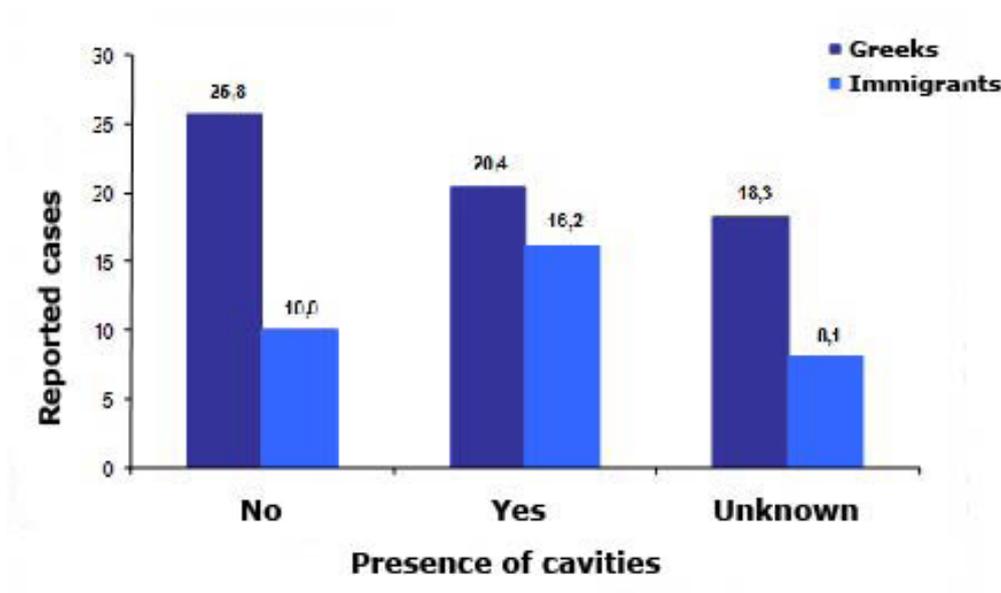


Diagram 7: Frequency distribution of TB recorded cases based on prior anti-tuberculosis treatment, Greece 2004-2010

