

Overview of the Macedonia country context

With an area of 25,713 km² the Republic of Macedonia is located in the middle of the Balkan Peninsula. Macedonia's neighbors are Bulgaria to the east, Albania to the west, Kosovo to the northwest, Serbia to the northeast and Greece to the south. In 2013 the total population was estimated to be 2,065,769 inhabitants comprised of 1,034,841 males and 1,030,528 females (Macedonia in Figures-2014, State Statistical Office 2014). Their multiethnic composition is an important characteristic of the country. According to the 2002 census almost two-thirds of the population is ethnic Macedonian (65%); minorities include Albanians (25%), Turks (4%), Roma (3%), Serbs (2%) and Vlachs (1%). Although there was a slight decline in population after independence due to emigration of ethnic non-Macedonians to the new countries that emerged from former Yugoslavia (Croatia, Slovenia, Bosnia and Serbia), the number of inhabitants has been relatively stable throughout the last 20 years. In 2013 population density was around 80 people per square kilometer.

The Republic of Macedonia is one of the countries in the region with the lowest prevalence of HIV and tuberculosis. Although the prevalence of HIV and tuberculosis are currently low, the financing of future preventive and treatment activities, especially HIV and tuberculosis prevention amongst most-at-risk populations (MARPs) remains a great challenge. The Governmental National HIV/AIDS and Tuberculosis preventive programme budget are very limited and therefore majority of the funding in the past 10 years was provided by international donor represented by the Global Fund to fight HIV/AIDS Tuberculosis and Malaria. This programme currently covers almost all of HIV and Tuberculosis preventive services in the country and ensures financial and institutional sustainability of the National HIV/AIDS and Tuberculosis investment plans. There is also low prioritization to the HIV and Tuberculosis prevention in the public health strategic interventions of the Ministry of Health and in prevention activities overall. At the same time, the slow-moving decentralization reforms, low interest of the municipalities in the area of primary health protection and limited funds are serious barriers for the local governments to specifically address the HIV and tuberculosis prevention among MARPS in their local policies and budgets. Notwithstanding, some municipalities have already adopted their own specific policy on HIV and tuberculosis prevention, particularly to address preventive measures among MARPs but there still not funds allocated for local NGO's preventive activities.

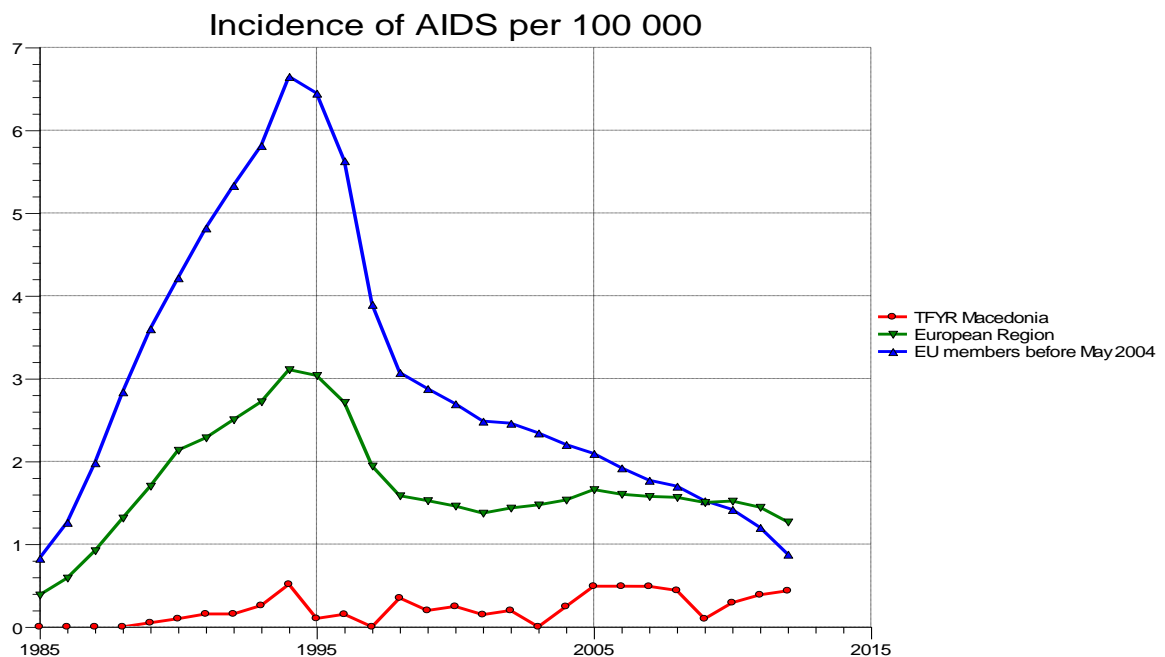
Macedonia won the last project grants for HIV and tuberculosis from the Global Fund to fight HIV/AIDS, Tuberculosis and Malaria in the Round 10 for the period of 2012 – 2016. According to the newest funding criteria of the Global Fund it is very likely that Macedonia will not be eligible to apply in the next rounds. The main reasons lie in the decreased donations to the Global Fund over the last years and greater focus given to the low-income countries as well as those who have middle or higher HIV and tuberculosis prevalence. Therefore Macedonia will need to take up

serious exit strategy measures in the coming period in order to ensure sustainability of its well-developed HIV and Tuberculosis programmes, especially existing preventive services amongst MARPs.

Overview of epidemiological situation about HIV/AIDS and TB in Macedonia

Epidemiological overview of HIV/AIDS and risk groups

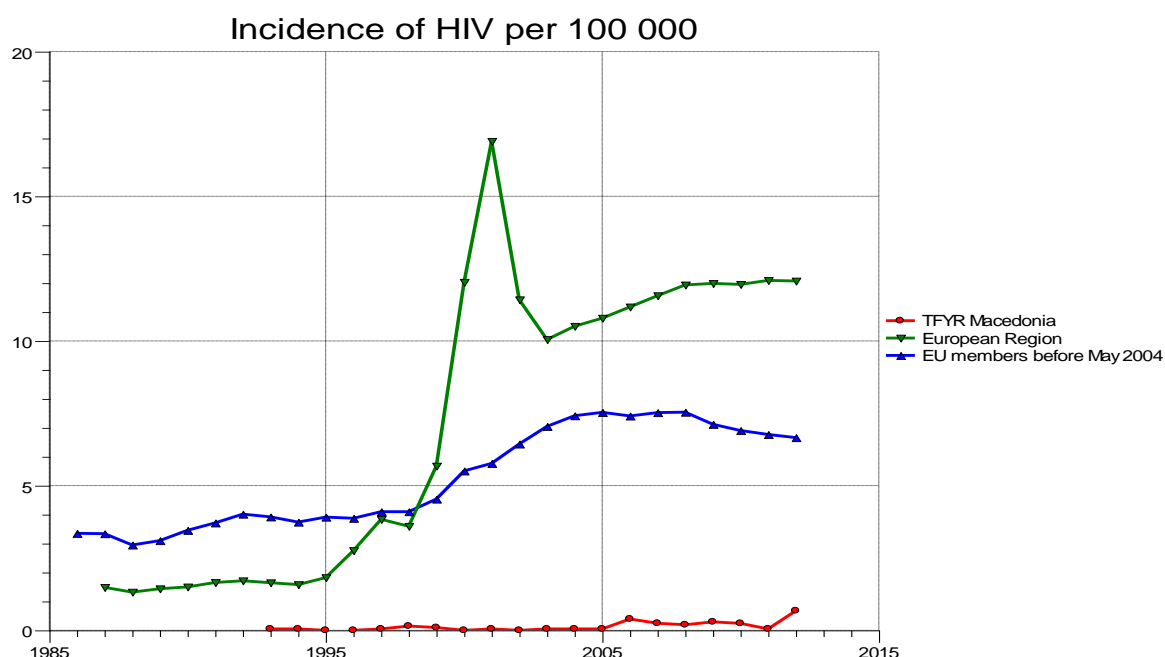
Figure 01. AIDS incidence in Macedonia, EU and Europe, rate per 100000



Source: WHO, Health for all database 2014

The prevalence rate of HIV in Macedonia remains to be on the low level over the past twenty years, including the data for the population most at risk. The first HIV infection was registered in 1987, and the first AIDS case in 1989. Compared to other states in the region and Europe, Macedonia is still amongst the countries with the lowest incidence rate of AIDS – with 0.43 registered cases per 100,000 compared to the European average of 1.27 in 2012 (figure 01). There is an increasing trend of HIV incidence ranging from 0.05 in 1993 to 0.67 in 2012, which is a peak for the whole period. Yet again, incidence rates for HIV are much lower than the European average (figure 01).

Figure 02. HIV incidence in Macedonia, EU and Europe, rate per 100000



Source: WHO, Health for all database 2014

By December 2014 there were 236 cases of HIV/AIDS registered in total, 189 males and 47 females. Of the newly registered cases in 2014, 23 were HIV positive, while 16 had AIDS. 37 of the newly registered cases were males and only 2 were females. The majority of cases (20) were from Skopje, followed by 4 cases from Kochani, 3 from Shtip and Kumanovo, 2 from Kavadarci, Prilep and Sveti Nikole, 1 from Tetovo and Strumica and 1 person was from abroad. The breakdown by age is shown in the following table:

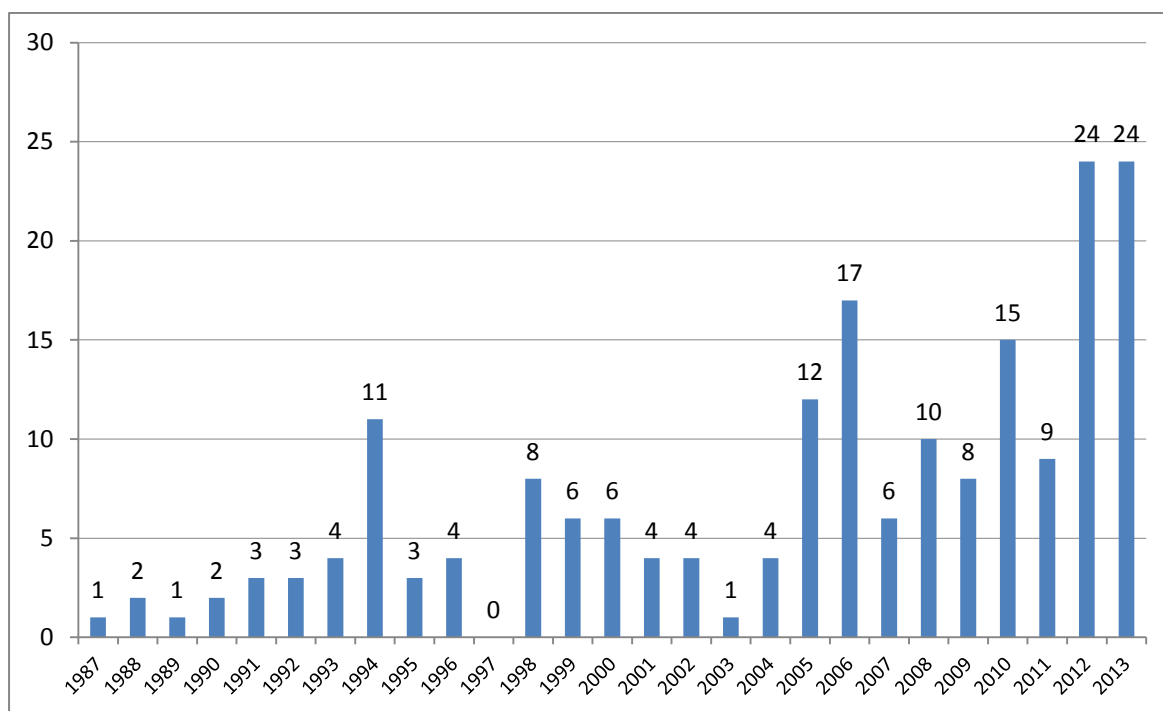
| Age group | Number of cases | % of all cases |
|-------------|-----------------|----------------|
| <20 years | 2 | 5.1 |
| 20-29 years | 16 | 41.1% |
| 30-39 years | 14 | 35.9% |
| 40-49 ears | 3 | 7.7% |
| > 60 years | 4 | 10.2% |

Concerning the transmission mode, the majority of new cases, 25 in total were MSM, 10 were heterosexual, 1 case was injecting drug user, while for 4 cases, the mode of transmission was not determined.

It is very likely that other ways of transmission such as Men who have sex with Men, and intravenous drug users are not fully reported. More than ¾ of the reported cases or around 85% are persons who live in the cities, while much smaller percentage of

15% are inhabitants of smaller cities and villages. The interesting data is that over half of the registered cases were diagnosed over the past 8 years.

Figure 03. Total registered number of HIV/AIDS cases in Macedonia, 1987-2013



Source: Institute of public health of Macedonia, 2014

Distribution by age groups for the HIV/AIDS cases for the period 1987-2014 was as following:

| Age group | Number of cases | % of all cases |
|-------------|-----------------|----------------|
| 0-6 years | 5 | 2.1% |
| 7-14 years | 1 | 0.4% |
| 15-19 years | 5 | 2.1% |
| 20-29 years | 70 | 29.7% |
| 30-39 years | 93 | 39.4% |
| 40-49 years | 35 | 14.8% |
| 50-59 years | 20 | 8.5% |
| >60 years | 7 | 3.0% |

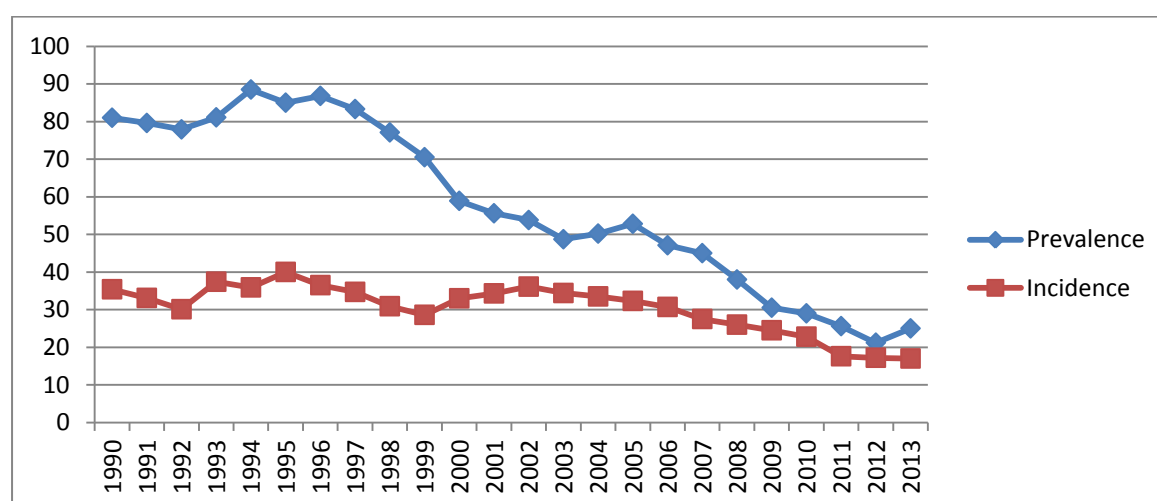
Concerning the transmission pattern, 48.3% of the cases have been infected through heterosexual transfer; 39.4% were MSM; 5.1% were intravenous drug users; 2.5% were hemophiliacs, 2.5% of the cases were vertical, mother-to-baby transfer; and there was no data on transmission pattern for 2.1% of the cases.

Epidemiological overview of TB and risk groups

Tuberculosis is a global medical problem in the developing, but as well in the developed countries. The tuberculosis bacillus may progress into disease in around 10% of the infected individuals. According to the WHO each year there are around 8 million new TB cases, and over 2 million deaths. The existence of resistance forms of TB and HIV/AIDS epidemic contributed towards increasing in the number of TB patients in the world.

There has been a positive development towards reduction of burden with TB in Macedonia in recent years. The prevalence of tuberculosis in Macedonia has been significantly reduced from 81/100,000 in 1990 to 25/100,000, while the incidence rate from 35.4/100,000 in 1990 to 17/100,000 in 2013 (Figure 04). The incidence rate has been oscillating between 17 and 40 per 100,000 in the period 1990 – 20013. In comparative perspective, the incidence rate in Macedonia has been higher than the EU average but lower than that in the countries from the Central and East Europe and similar to that in the neighboring countries.

Figure 04. Prevalence and incidence of TB in Macedonia



Sources: Institute of public health of Macedonia 2013, WHO Health for all data base, 2014

In 2012 in the Republic of Macedonia there were 355 registered TB cases. Out of them, 273 or 77% are cases with pulmonic form of the disease, while 82 or 23% are other types. The percentage of child tuberculosis in the total number of treated patients is somewhat increased but in absolute number there is no difference with the previous years. Total number of fatal cases in 2011 was 19 or 0.9/100 000. In 2012 in Macedonia there are 3 new cases of multi-resistant forms of tuberculosis. Estimates for 2013 burden with TB in Macedonia are given in the following table:

Population 2013

2.1 million

| Estimates of TB burden * 2013 | Number (thousands) | Rate (per 100 000 population) |
|-------------------------------|---------------------|----------------------------------|
| Mortality (excludes HIV+TB) | 0.033 (0.031–0.034) | 1.5 (1.5–1.6) |
| Mortality (HIV+TB only) | 0 (–) | 0 (–) |
| Prevalence (includes HIV+TB) | 0.52 (0.23–0.91) | 25 (11–43) |
| Incidence (includes HIV+TB) | 0.37 (0.32–0.41) | 17 (15–20) |
| Incidence (HIV+TB only) | | |
| Case detection, all forms (%) | 87 (77–99) | |

| Estimates of MDR-TB burden * 2013 | New | Retreatment |
|--|-----------|---------------|
| % of TB cases with MDR-TB | 0 (0–2.2) | 6.3 (0.16–30) |
| MDR-TB cases among notified pulmonary TB cases | 0 (0–5) | 2 (0–9) |

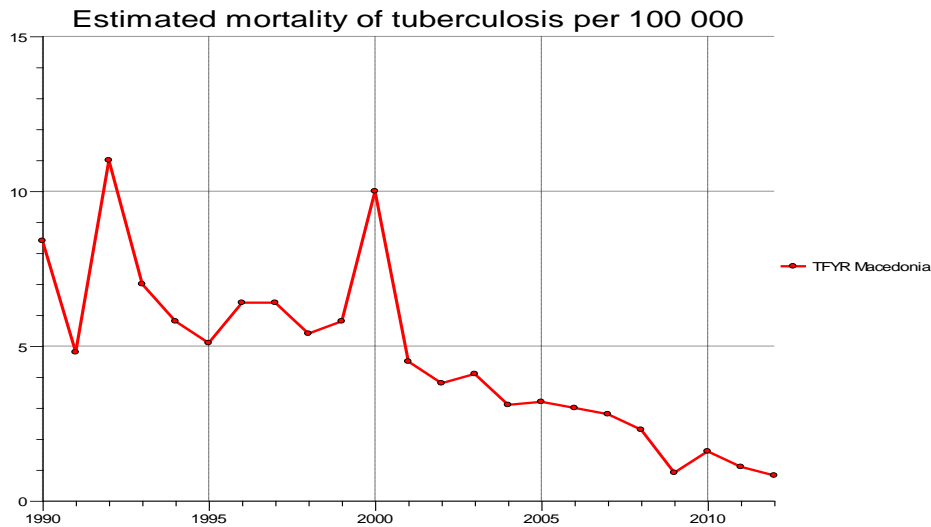
| TB case notifications 2013 | New ** | Relapse |
|--|------------|---------|
| Pulmonary, bacteriologically confirmed | 183 | 23 |
| Pulmonary, clinically diagnosed | 42 | 1 |
| Extrapulmonary | 65 | 4 |
| Total new and relapse | 318 | |
| Previously treated, excluding relapses | 5 | |
| Total cases notified | 323 | |

Among 318 new and relapse cases:

23 (7%) cases aged under 15 years; male:female ratio: 2.1

Respiratory tuberculosis is still dominant, with the mortality rate being higher among men 3.6/100,000, than in women 1.6/100,000 and is most frequent in persons aged over 65. Tuberculosis mortality rate is decreasing (figure 05). Still, tuberculosis is the leading cause of death from infectious diseases among women. Women contract tuberculosis mainly in their economically and reproductively active years, whereby the disease has a strong effect on their children and families.

Figure 05. Mortality from TB in Macedonia, WHO estimation



Source: WHO, Health for all data base 2014

Over the past years there is increasing trend in improvement of epidemiological situation with TB in Macedonia, but there is a need to continue with the intensive measures for better control of TB. The best control measure is careful and on time treatment of each diseased individual with TB thus cutting the chain of spread of the infection. DOTS remains at the heart of the Stop TB Strategy. The DOTS programme is implemented on the entire territory while the directly observed treatment – percentage of cases detected and treated under the DOTS programme, according to the Lung Diseases and Tuberculosis Institute, has been 50.1% in 2005, and it reached 100% in 2011. To enable known constraints to be addressed and new challenges met, further strengthening of the basic five components of the DOTS approach is required.