AFRICA HEALTH ORGANISATION

Madagascar TB: Graphical Representations & Policy Brief

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Tuberculosis Incidence in Madagascar

Tuberculosis is a bacterial disease spread through the air that affects the lungs. It is preventable and curable. Over 95% of cases and deaths are in developing countries. People with impaired immune systems such as those with HIV or with undernutrition are more at risk.

Tuberculosis incidence refers to new cases of the disease. The high incidence level is indicative of the rate of increase in cases each year, not counting those cases that already exist which can be a much higher number.

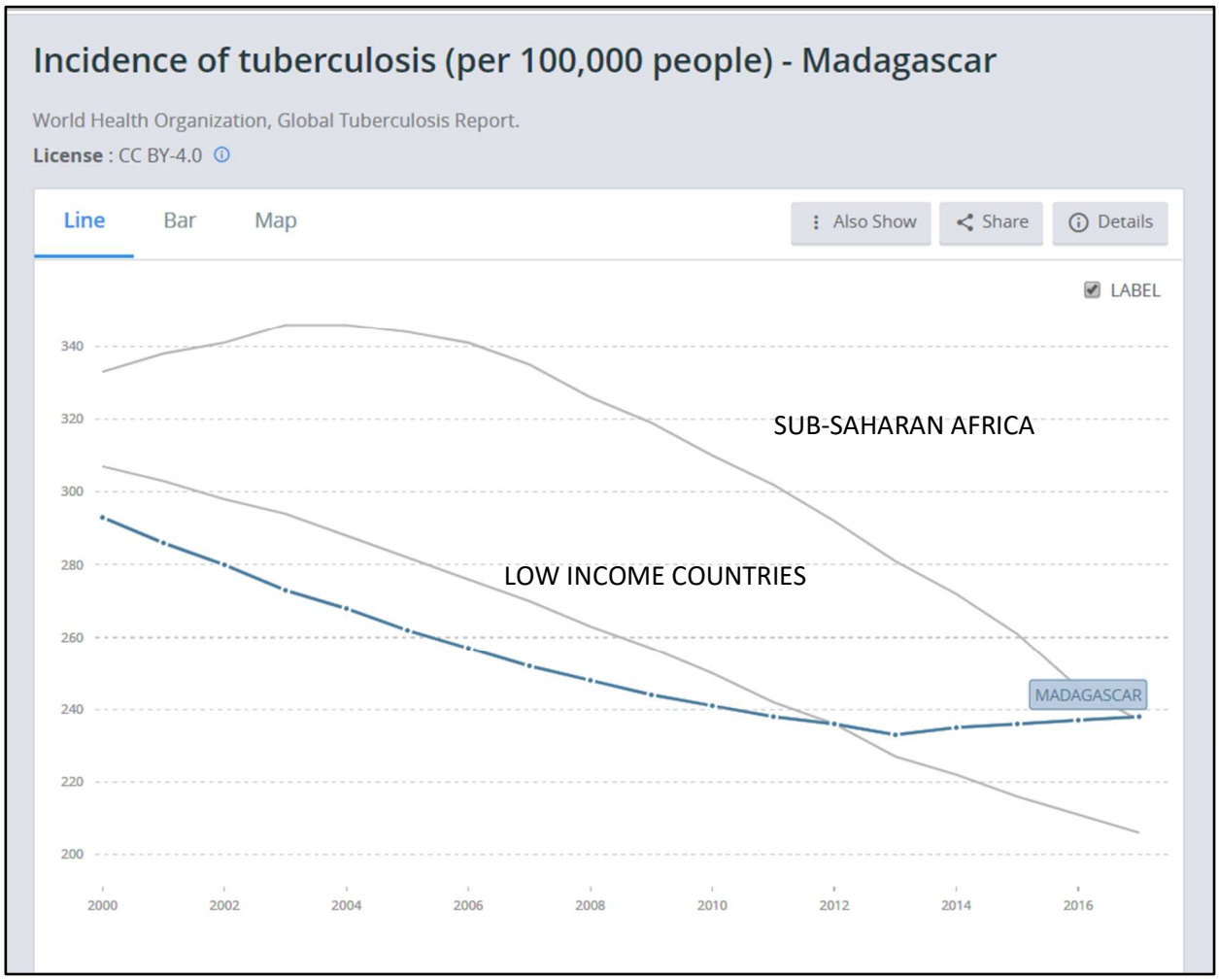


Table 1 *(World Health Organization, 2020)*

Table 1 shows the incidence of Tuberculosis for Sub-Saharan Africa, other low-income countries, and Madagascar. In comparison to other low-income countries, it falls in line with expectations, the two lines are nearly identical but cross around 2012 when Madagascar's rate plateaus while the rate for low income countries continues to drop. Sub-Saharan Africa has a concave distribution, a large proportion of the disease burden in the early 2000's that has been decreasing linearly since the mid-2000's. This graph indicates that it is possible to improve incidence rates of tuberculosis even in low-income countries.

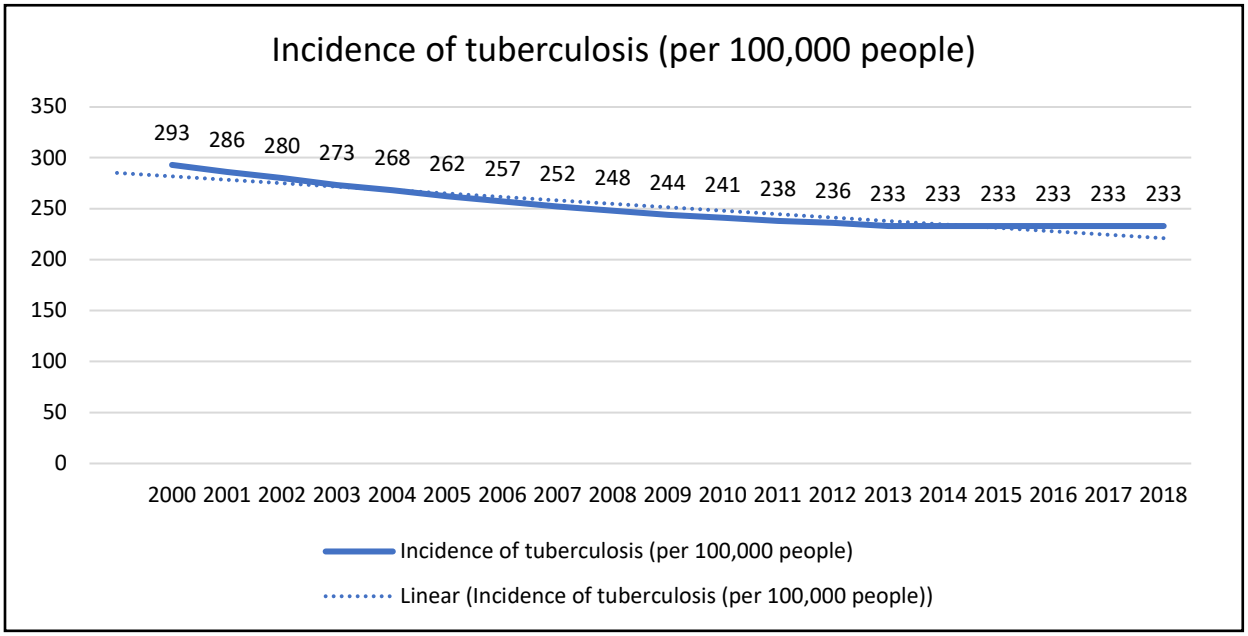


Table 2 *(World Health Organization, 2020)*

Table 2 shows the incidence of tuberculosis with corresponding figures per year. The linearity of the decline slows around 2012-2013 and levels out at 233 per 100,000 population. To get a better idea of how high the tuberculosis levels of Madagascar are comparatively, the United States levels are shown. In Table 3. The vast difference between the two gives an indication of the severity of the problem.

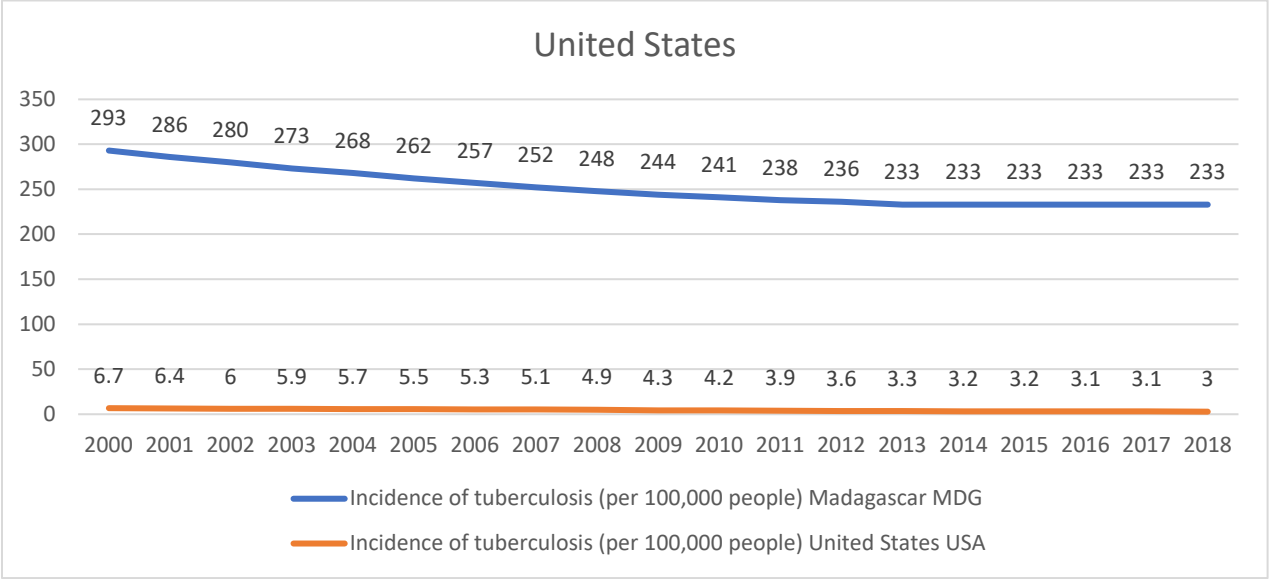


Table 3 *(World Health Organization, 2020)*

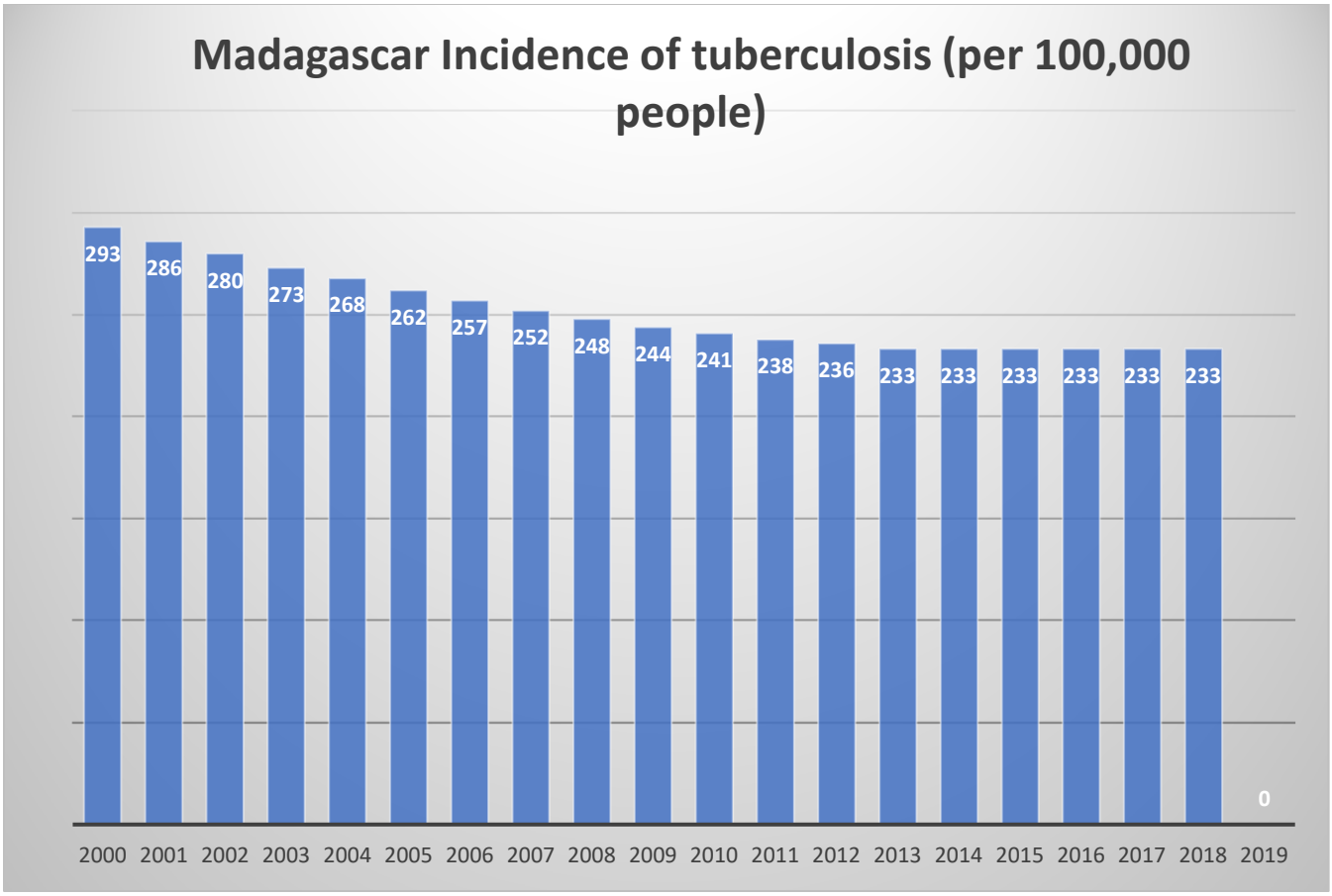
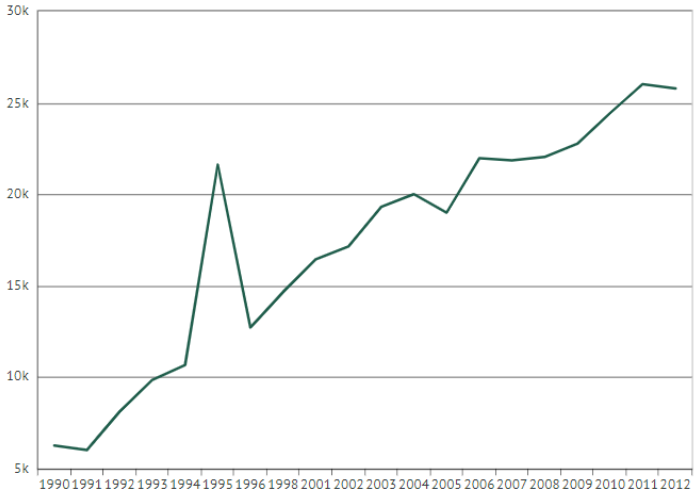


Table 4 *(World Health Organization, 2020)*

Table 4 shows the incidence level in another format.

Reported Cases of TB

What is Madagascar tuberculosis cases?



Source: UN World Health Statistics

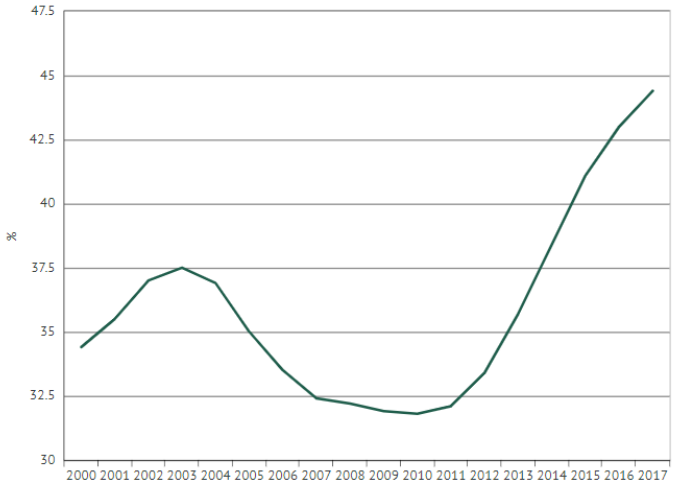
DATE	VALUE	CHANGE, %
2012	25,782	-0.91 %
2011	26,019	6.50 %
2010	24,432	7.36 %
2009	22,758	3.29 %
2008	22,034	0.81 %
2007	21,857	-0.50 %
2006	21,966	15.65 %
2005	18,993	-5.04 %
2004	20,001	3.58 %
2003	19,309	12.65 %
2002	17,140	4.21 %
2001	16,447	

Table 5 *(Knoema, 2020)*

Table 5 shows the number of reported Tuberculosis cases. Overall, the number has been increasing since 2001. During the 1990s there was a spike in number of cases reported, this could be due to better health monitoring systems in the country or perhaps an outbreak in the country that caused the cases to increase.

Nutrition Indicators

What is Madagascar prevalence of undernourishment?



Source: World Development Indicators (WDI)

DATE	VALUE	CHANGE, %
2017	44.4	3.26 %
2016	43.0	4.62 %
2015	41.1	7.03 %
2014	38.4	7.56 %
2013	35.7	6.89 %
2012	33.4	4.05 %
2011	32.1	0.94 %
2010	31.8	-0.31 %
2009	31.9	-0.93 %
2008	32.2	-0.62 %
2007	32.4	-3.28 %
2006	33.5	

Table 6 *(Knoema, 2020)*

One of the primary factors of tuberculosis incidence is undernourishment. Table 6 shows the prevalence of undernourishment in the country from 2000-2017. This has been increasing around the year 2012 when it increases at a higher rate than previous years. It is possible that this could be related to the plateau of incidence rates shown in Table 1.

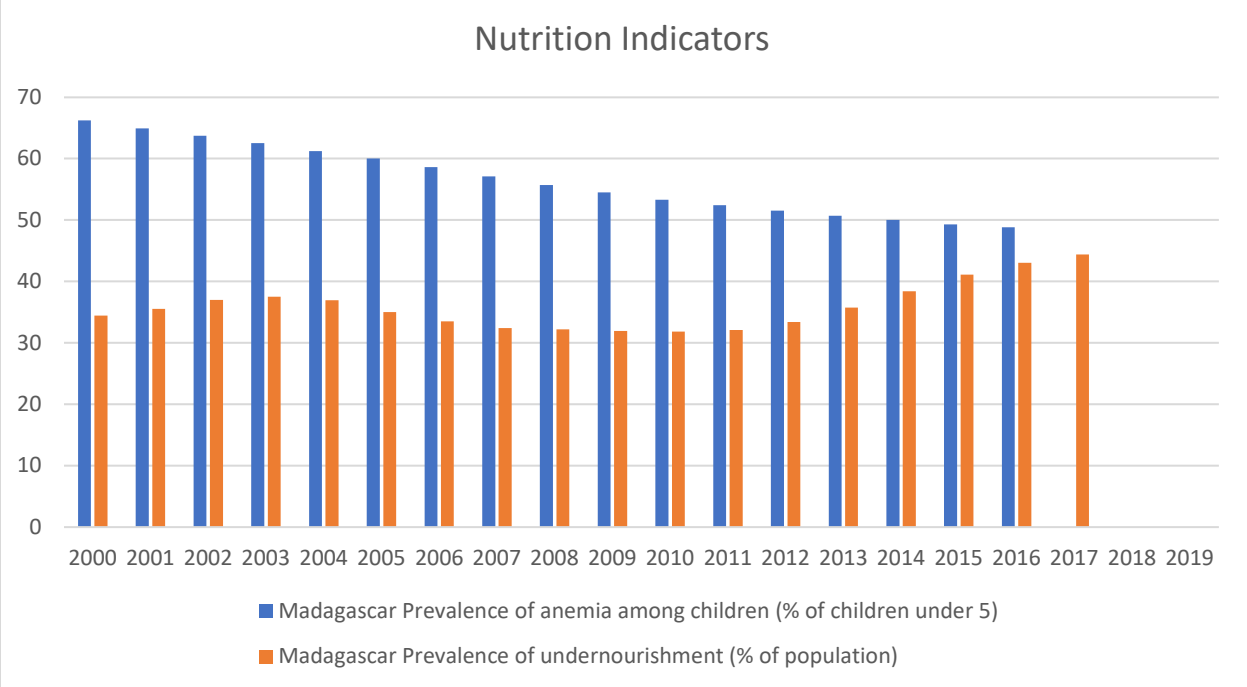


Table 7 *(World Health Organization, 2020)*

The prevalence of undernourishment of the population shown in a different way. Here the prevalence of anemia of children under 5, another indicator of undernourishment of the population.

HIV Prevalence

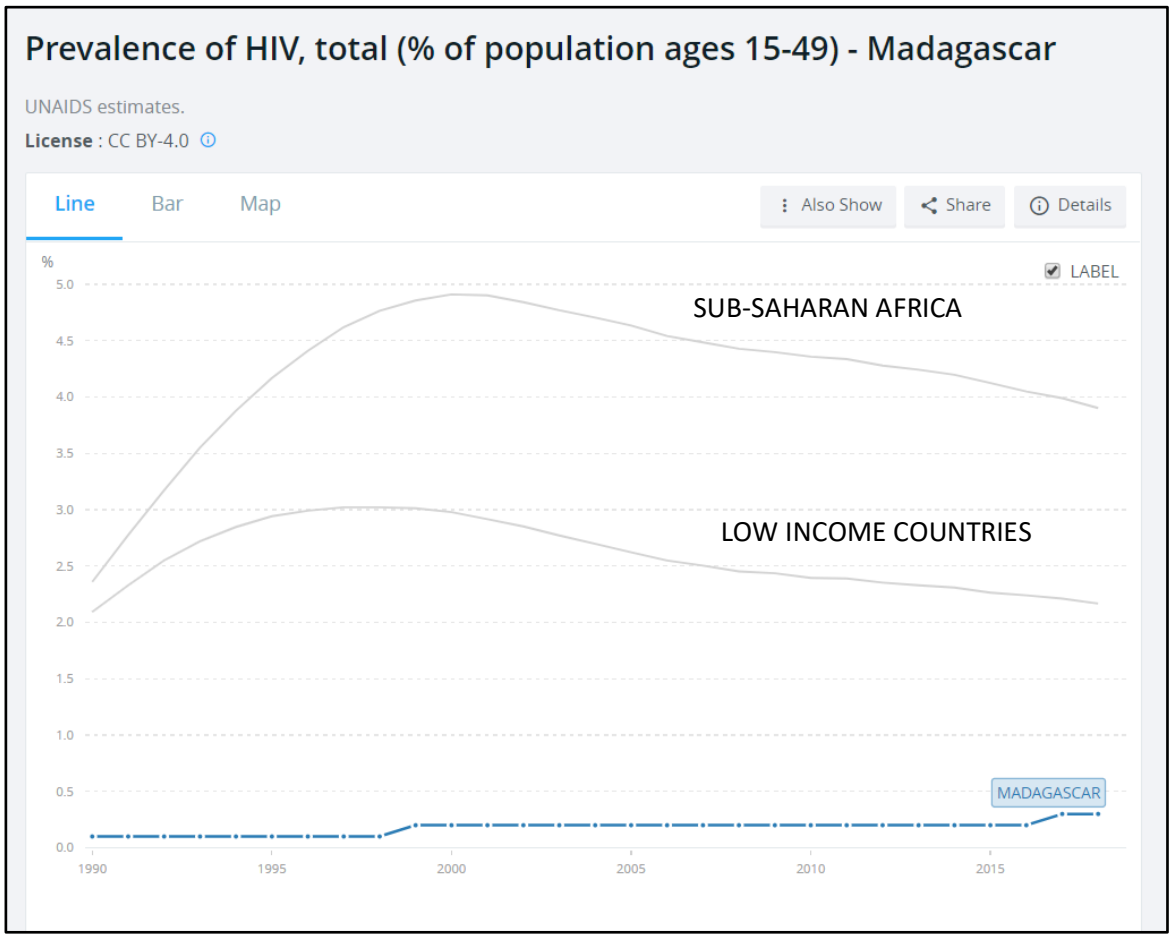


Table 8 *(World Health Organization, 2020)*

Commonly, tuberculosis is associated with a population prevalence of HIV/AIDS. As the immune system is compromised, tuberculosis infection is commonly contracted. Interestingly, in Madagascar the prevalence of HIV in the population is quite low. This means that the high incidence of tuberculosis is perhaps due to malnutrition versus co-infection with HIV/AIDS.

Outside Aid Received

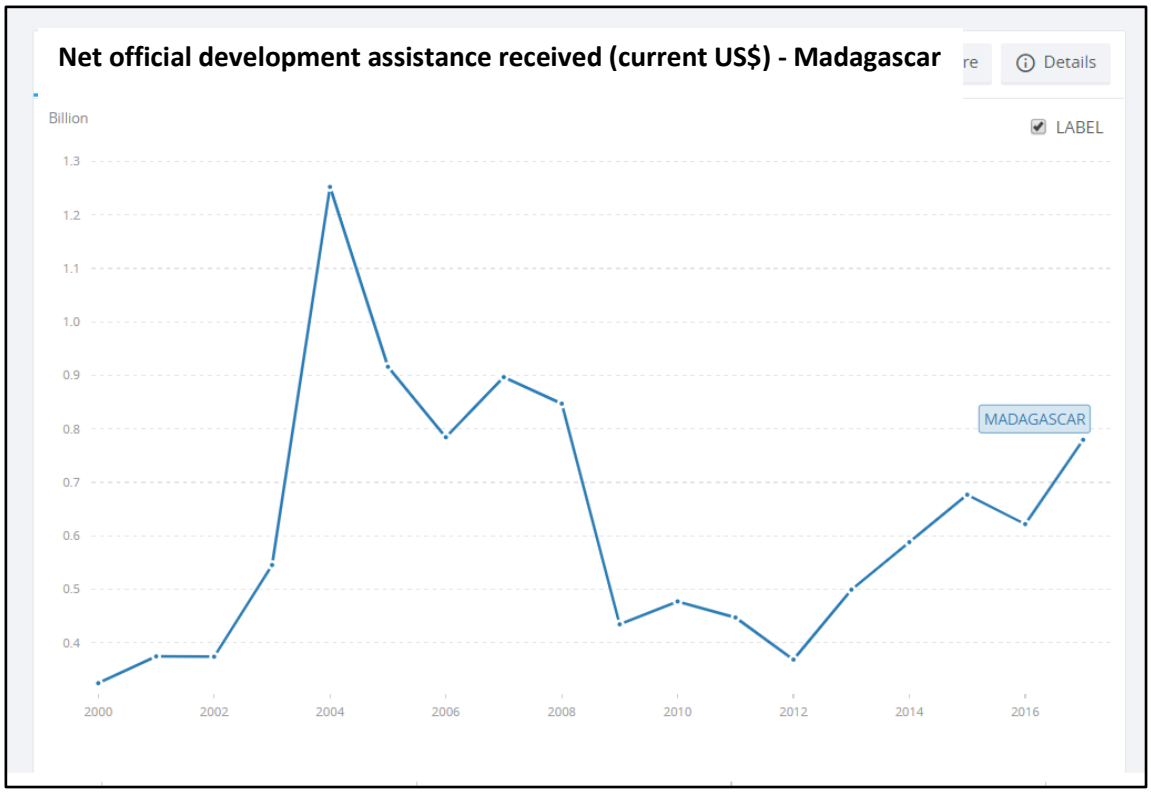


Table 9 *(Knoema, 2020)*

Development assistance is a key factor in controlling communicable disease in Madagascar, aid flows show in Table 9 have been sporadic, decreasing in 2004 and then intermittently increasing and decreasing until 2016. As aid flows have decreased, the incidence of disease has increased.

TB Death Rate

What is Madagascar tuberculosis death rate?

DATE	VALUE	CHANGE, %
2017	52.0	-1.89 %
2016	53.0	1.92 %
2015	52.0	1.96 %
2014	51.0	-3.77 %
2013	53.0	-1.85 %
2012	54.0	0.00 %
2011	54.0	-3.57 %
2010	56.0	-6.67 %
2009	60.0	-1.64 %
2008	61.0	-1.61 %
2007	62.0	-1.59 %
2006	63.0	

Table 10 *(Knoema, 2020)*

Table 10 depicts the death rate of tuberculosis in the country. From 2012-2017 the death rate has been decreasing at a lower rate than previous years. Overall, 52 per 100,000 population is a high rate of death although it has been generally in decline.

References

Knoema. (2020). *Madagascar Tuberculosis death rate, 1960-2017 - knoema.com*. [online] Available at: https://knoema.com/atlas/Madagascar/topics/Health/Risk-factors/Tuberculosis-death-rate [Accessed 1 Jan. 2020].

World Health Organization. (2020). *The data repository*. [online] Available at: https://www.who.int/gho/database/en/ [Accessed 1 Jan. 2020].