

TB and HIV-TB co-infection in Europe

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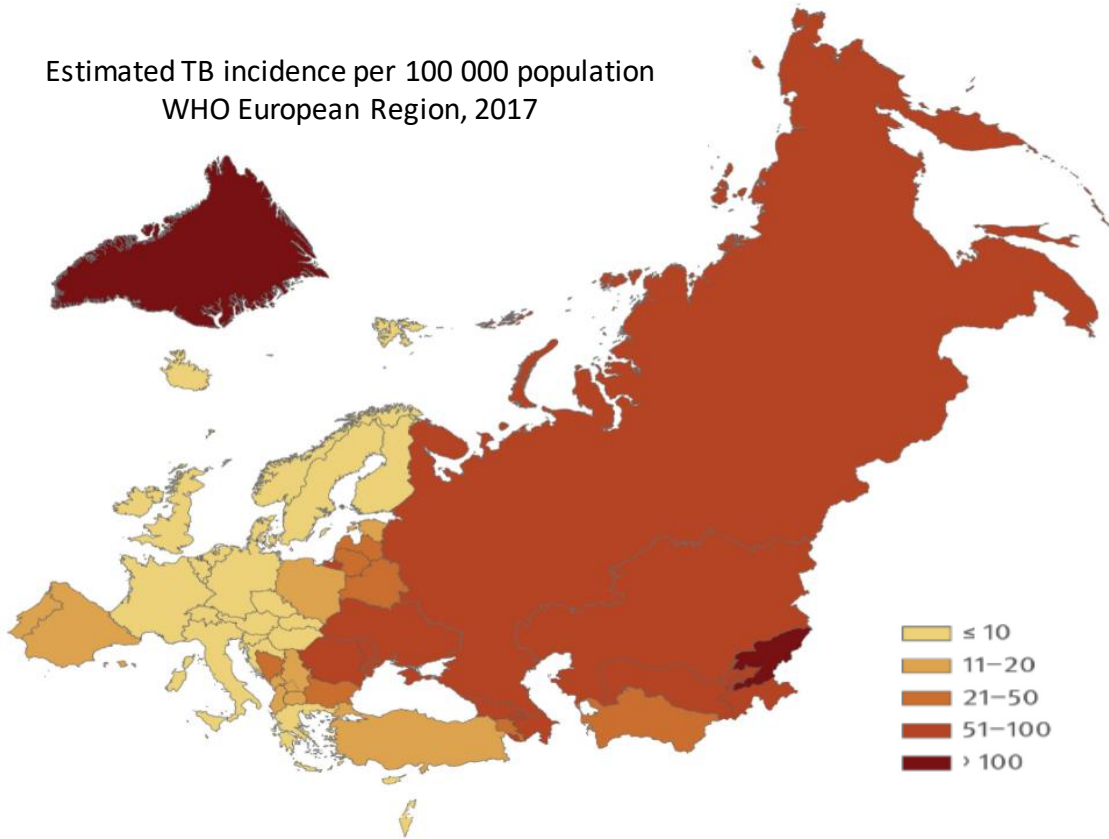
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TB in the WHO European Region 2017 data

275 thousand people fell ill with TB (21 000 are children and 97 000 women)

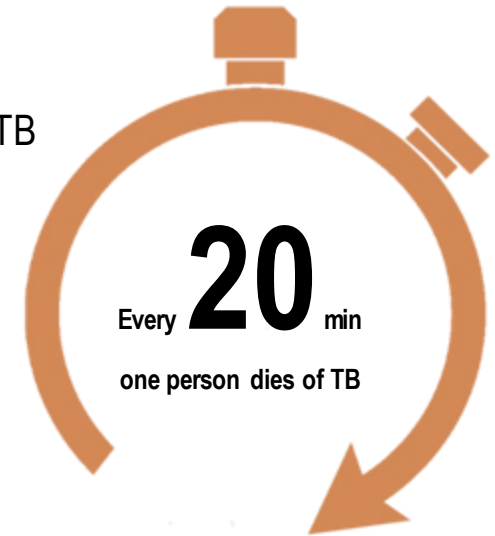
Estimated TB incidence per 100 000 population
WHO European Region, 2017



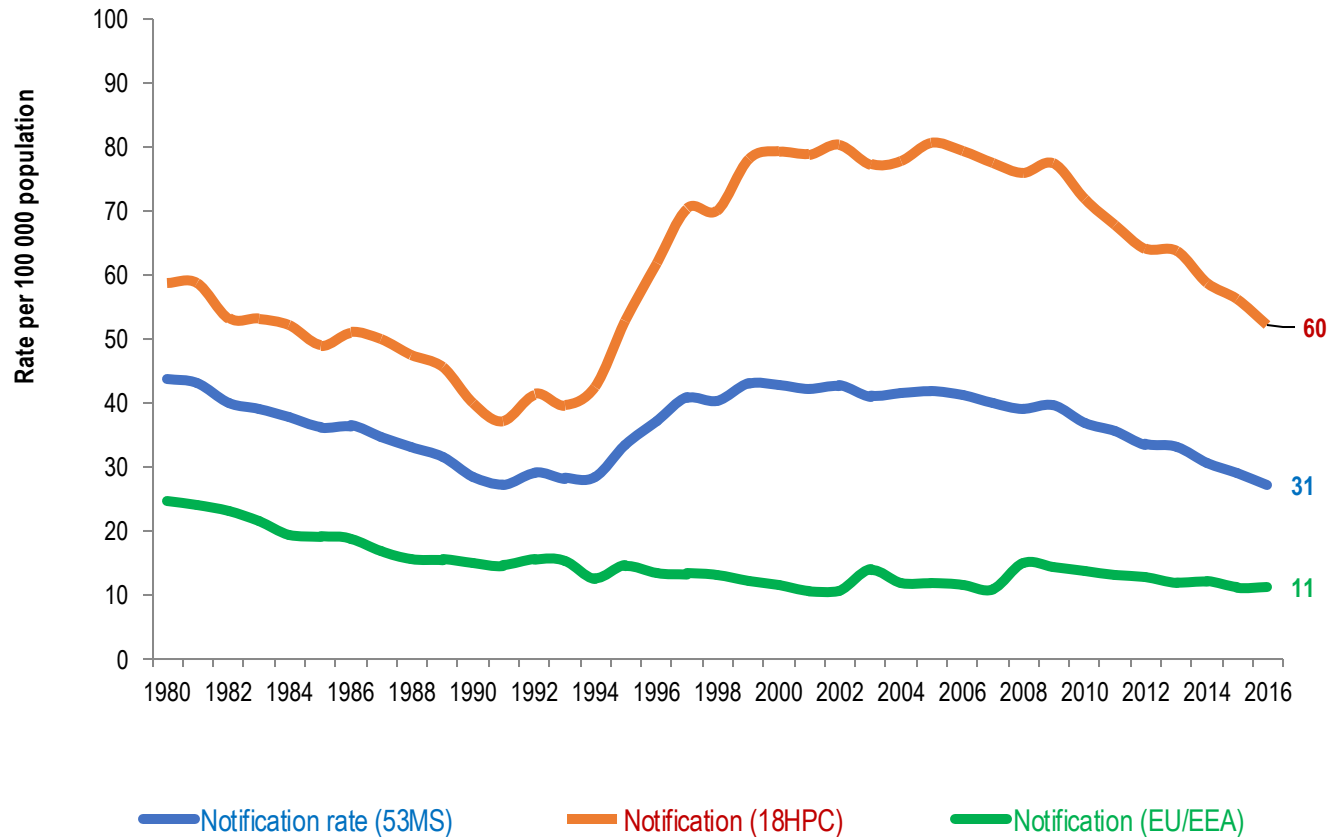
34 thousand TB/HIV

77 thousand MDR-TB among notified TB

24 thousand people DIED FROM TB



Heterogeneous distribution of TB burden in Europe, 2017



Incidence: 30/100 000 population

(< 2 – 144)

Decline is 4.7% per year

Mortality: 2.6/100 000 population

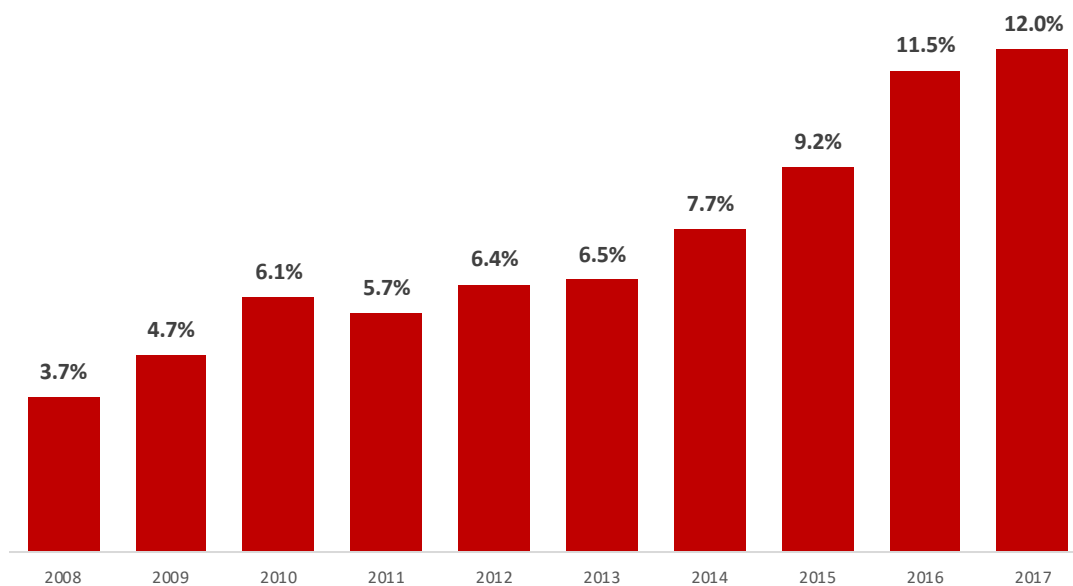
(0 - 10)

*18 high priority countries account for 87% of all TB cases:

Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Rep. Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan

% of HIV co-infection among TB Patients *still rising*

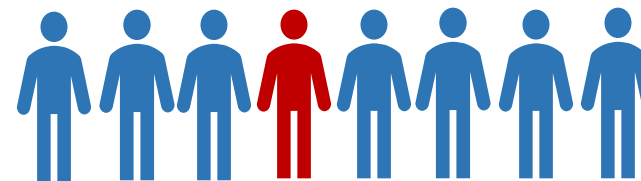
Estimated percent of HIV infection among new TB cases, WHO
European Region, 2008-2017



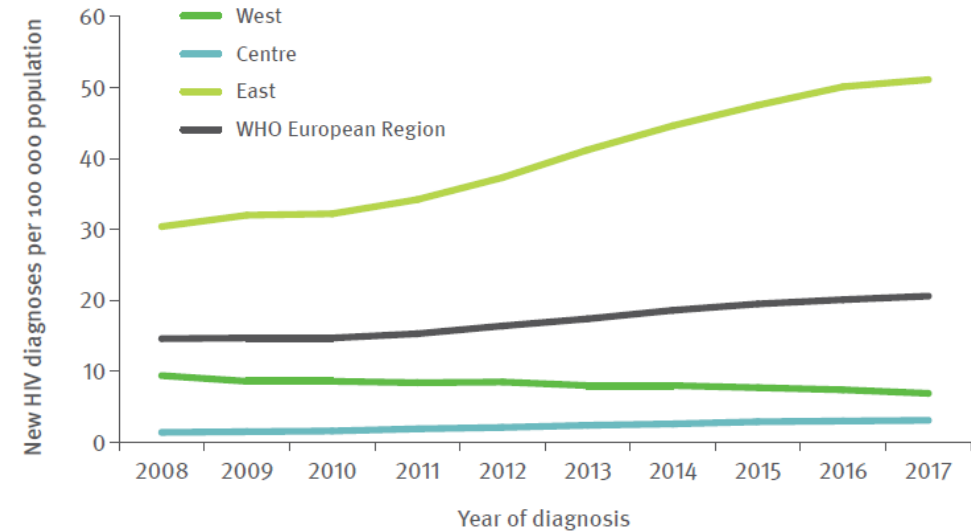
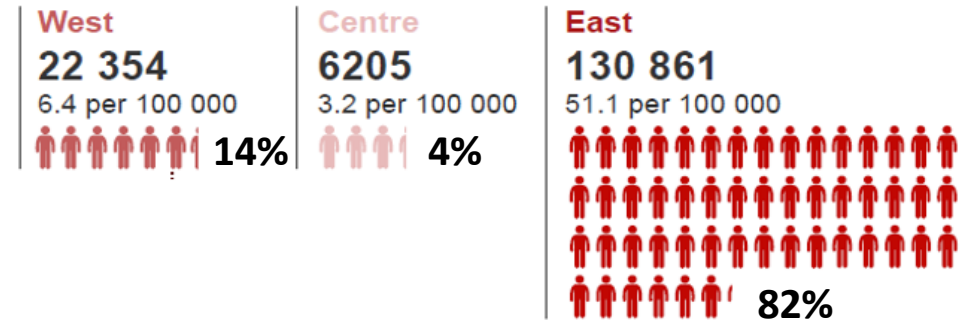
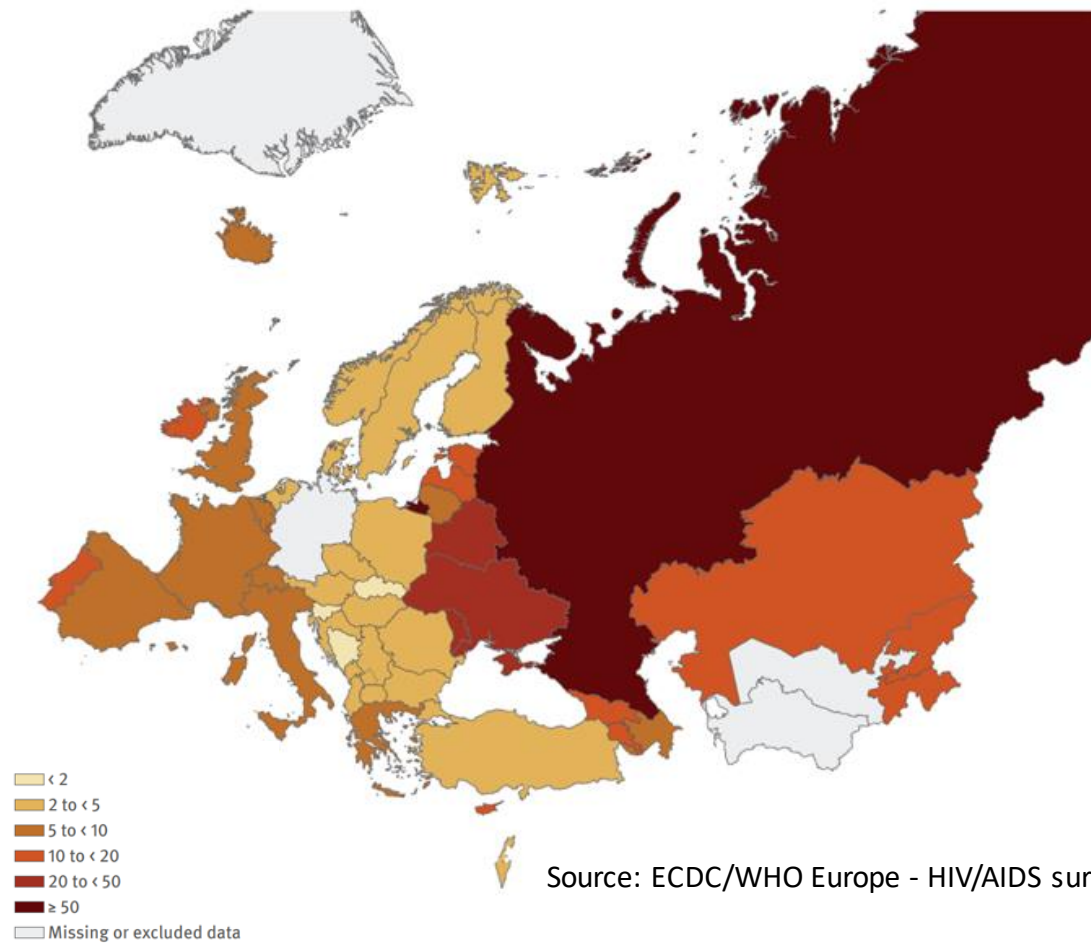
1 in 8

New TB patients notified in
the [WHO European Region](#) in 2017 was

HIV positive



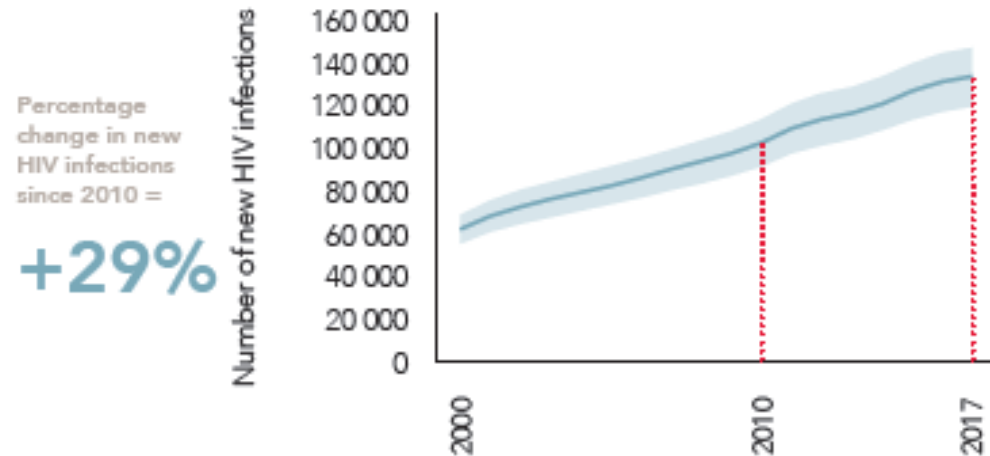
≈160 000 new HIV diagnosis in the WHO European Region in 2017



Source: ECDC/WHO Europe - HIV/AIDS surveillance in Europe 2018 – 2017 data.

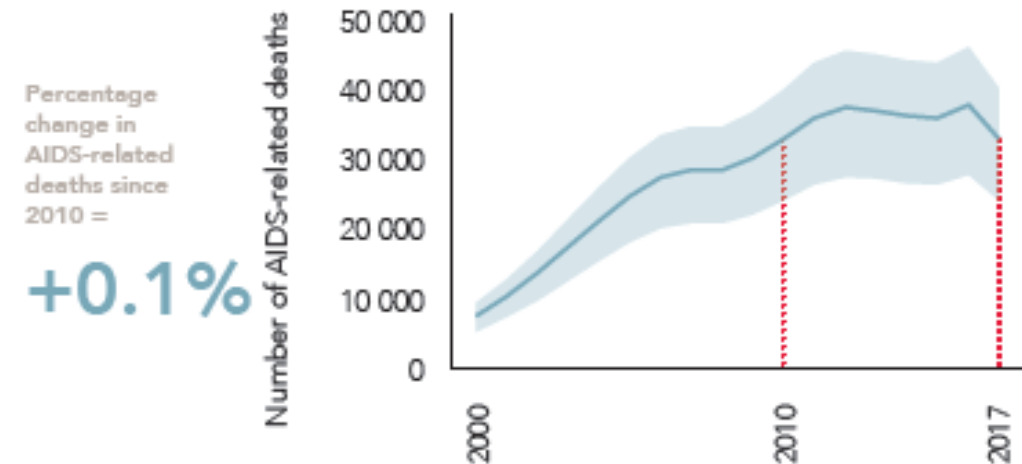
Estimated new HIV infections and AIDS-related deaths (EECA)

Number of new HIV infections, eastern Europe and central Asia, 2000–2017



Source: UNAIDS 2018 estimates.

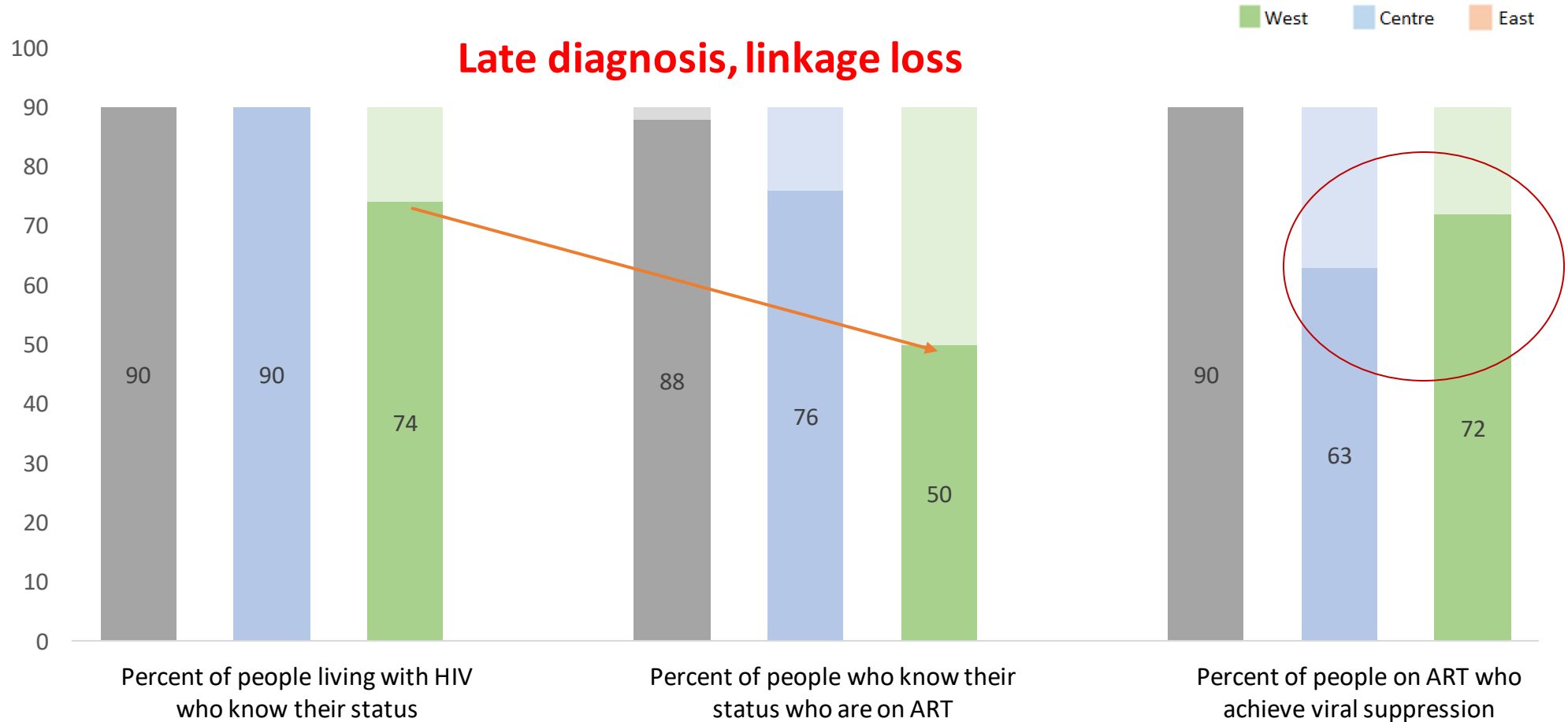
Number of AIDS-related deaths, eastern Europe and central Asia, 2000–2017



Source: UNAIDS 2018 estimates.

Regional Progress towards 90-90-90 target

West, Centre, East (2017) (moving denominator)

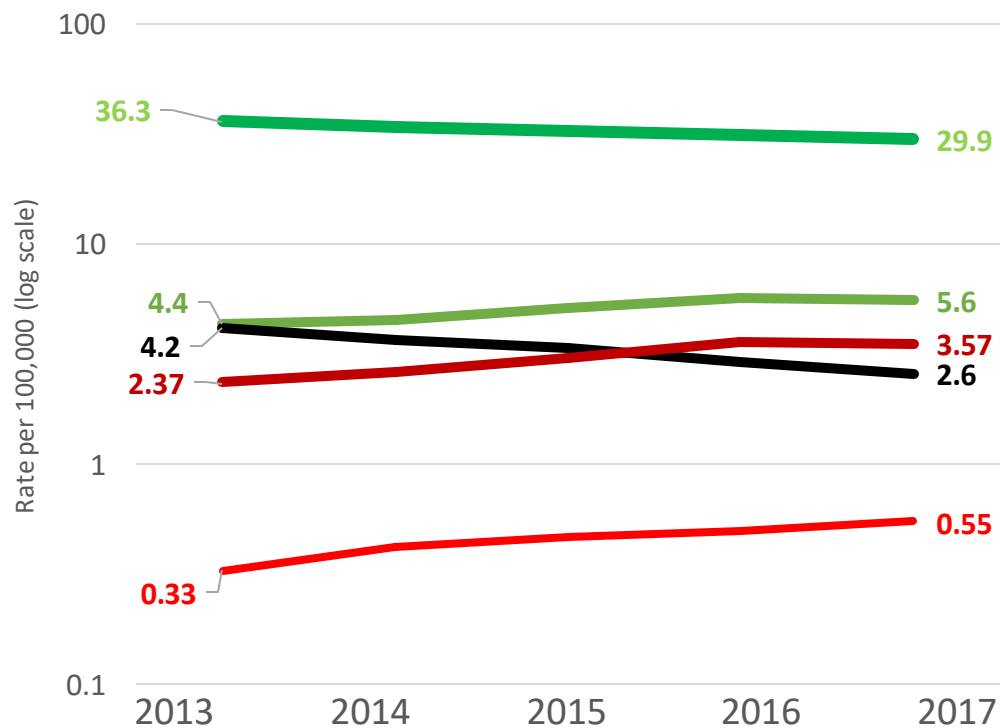


Regional cascade: 82-66-84

Source: GAM, 2017

WHO European Region has fastest decline in TB incidence and TB mortality, halted MDR-TB notification and TB/HIV co-infection and.. still growing TB/HIV mortality

TB incidence, MDR notification, TB/HIV incidence and TB mortality, TB/HIV mortality rates per 100 000 WHO European Region, 2013-2017



TB incidence

-4.7% annual decline

MDR notification

+5.8% annual increase

TB mortality

-10.2% annual decline

TB/HIV incidence

+11.0% annual increase

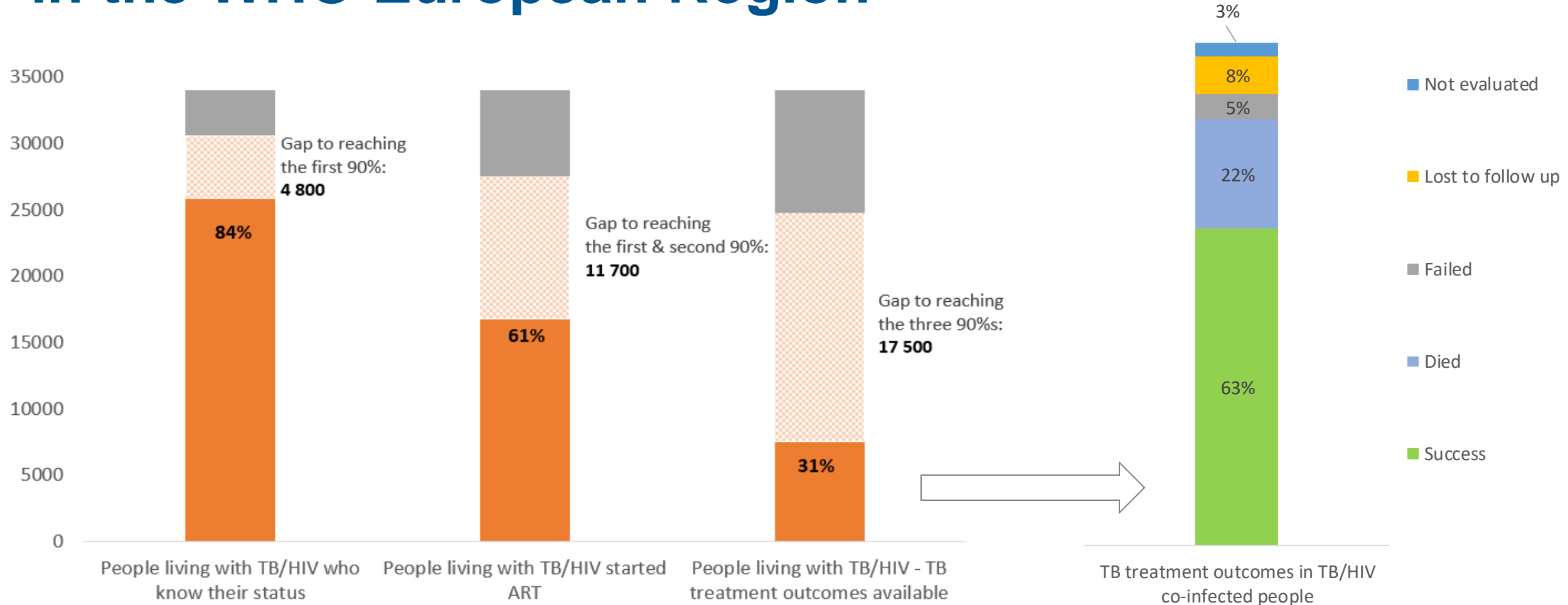
TB/HIV mortality

+13.8% annual increase

Treatment coverage of HIV-positive TB patients is low

- In 2017 **91%** of new TB patients in the WHO European region knew their HIV status.
- Only **67%** of reported HIV-positive TB patients in 2017 started antiretroviral therapy.

TB/HIV co-infection diagnosis and treatment cascade in the WHO European Region



MDR-TB is one of key drivers of the TB epidemic in Europe



EVERY 5TH NEW TB PATIENT



EVERY 2ND PREVIOUSLY TB PATIENT

are found with
MDR TUBERCULOSIS

Source: WHO Europe / ECDC. Tuberculosis surveillance and monitoring in Europe 2017

Only about 62% of MDR-TB patients are detected (2017 data)

77 000



drug-resistant TB cases in WHO European Region

47 697 (62%)



drug-resistant TB cases detected and enrolled on treatment

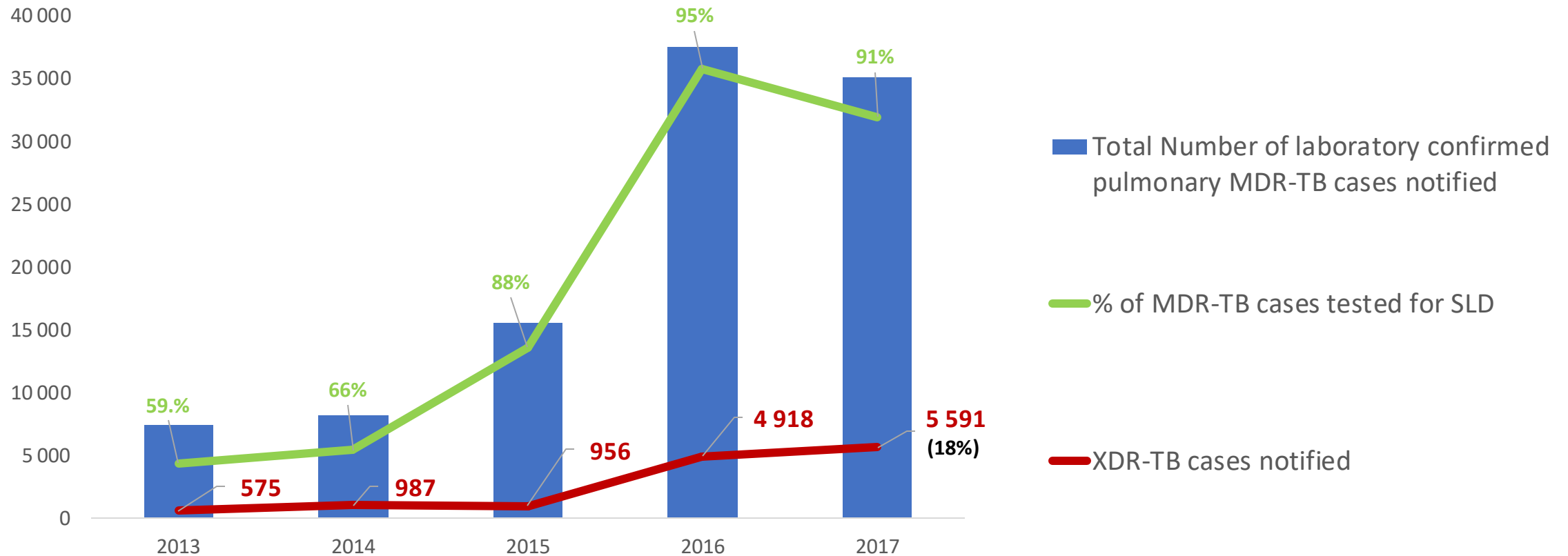
26 404 (57.2%)



drug-resistant TB cases started treatment in 2015 with successful outcome

Source: Tuberculosis surveillance and monitoring in Europe 2017. European Centre for Disease Prevention and Control / WHO Regional Office for Europe.

XDR-TB among Pulmonary MDR-TB (WHO European Region, 2013-2017)



Uptake of new drugs and regimens

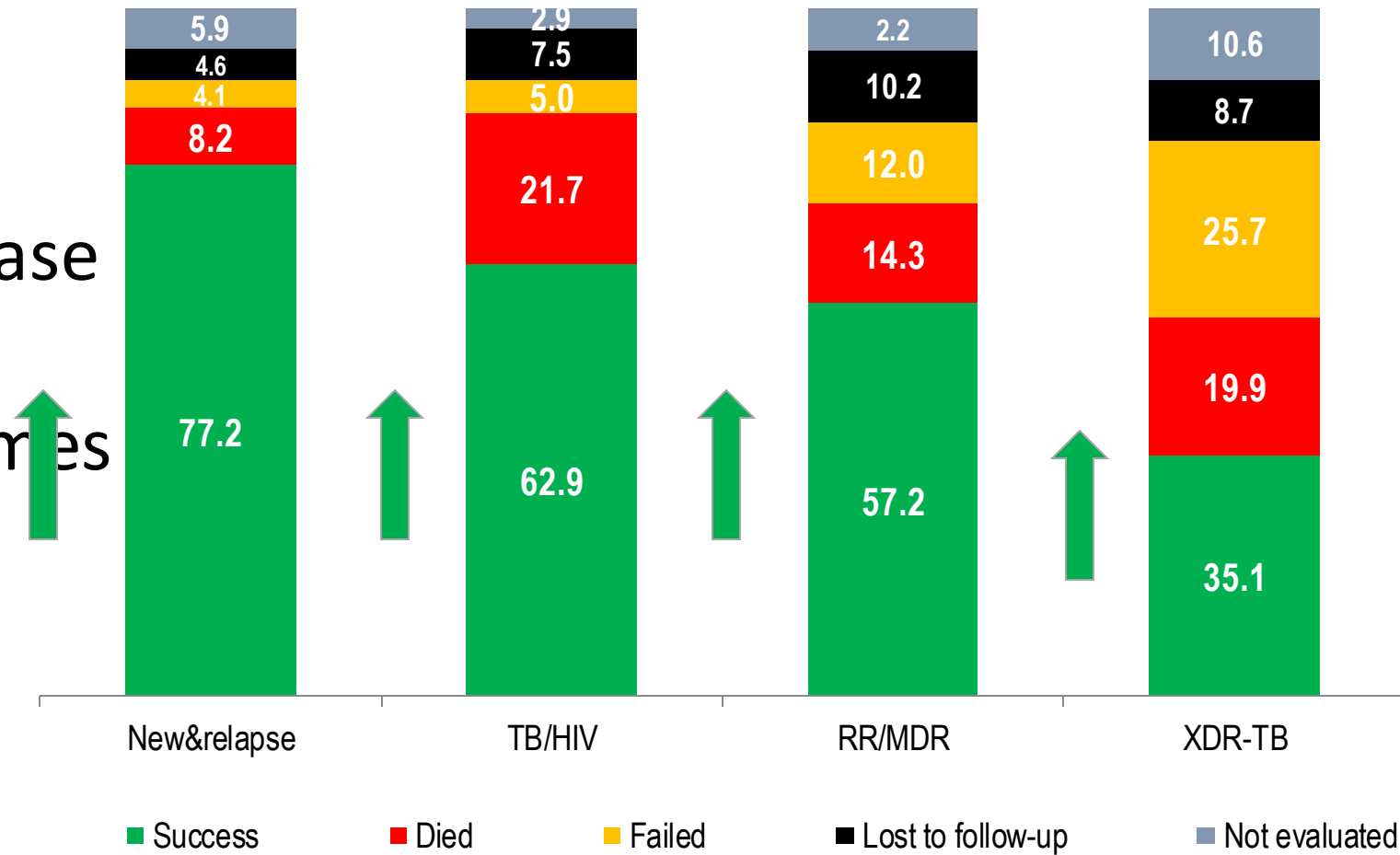
At least **10** countries in the region have introduced **shorter MDR-TB regimens**.

18 countries started using bedaquiline and **18** had used delamanid by end of 2017.

TB Treatment outcomes

WHO European Region; 2017 Data

A slow but sustainable increase in successful treatment outcomes



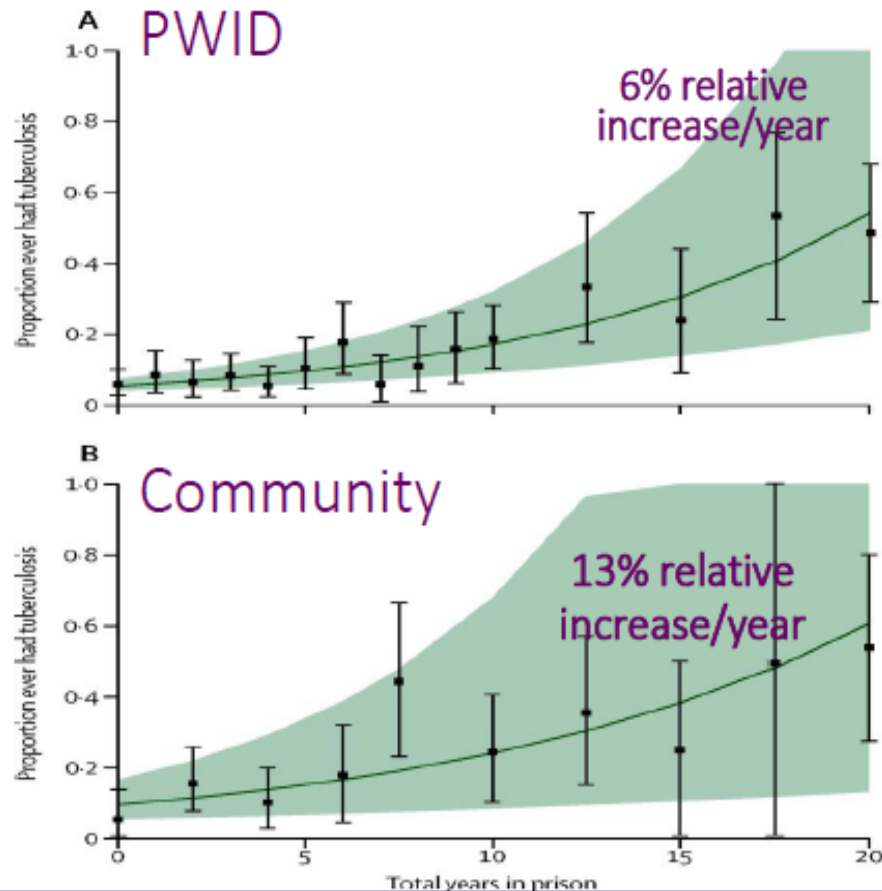
HIV, HCV, TB/MDR-TB and drug use are major and closely interlinked challenges in EECA

- 40 % of the > 3.5 million people who inject drugs in the region are infected with HIV, with large variations between countries.
- Two thirds of them are infected with HCV. Prevalence of HCV RNA among people who inject drugs estimated to be 45%
- HCV co-infection rates among HIV-positive PWID are particularly high, often ranging between 70 and 90 %.
- HIV-positive PWID have a two to six-fold higher risk of contracting TB. Almost all countries in the region are high burden countries for MDR TB.
- Prevalence of HIV and HCV much higher among prison inmates than in the general population.

Eastern Europe and Central Asia: incarceration

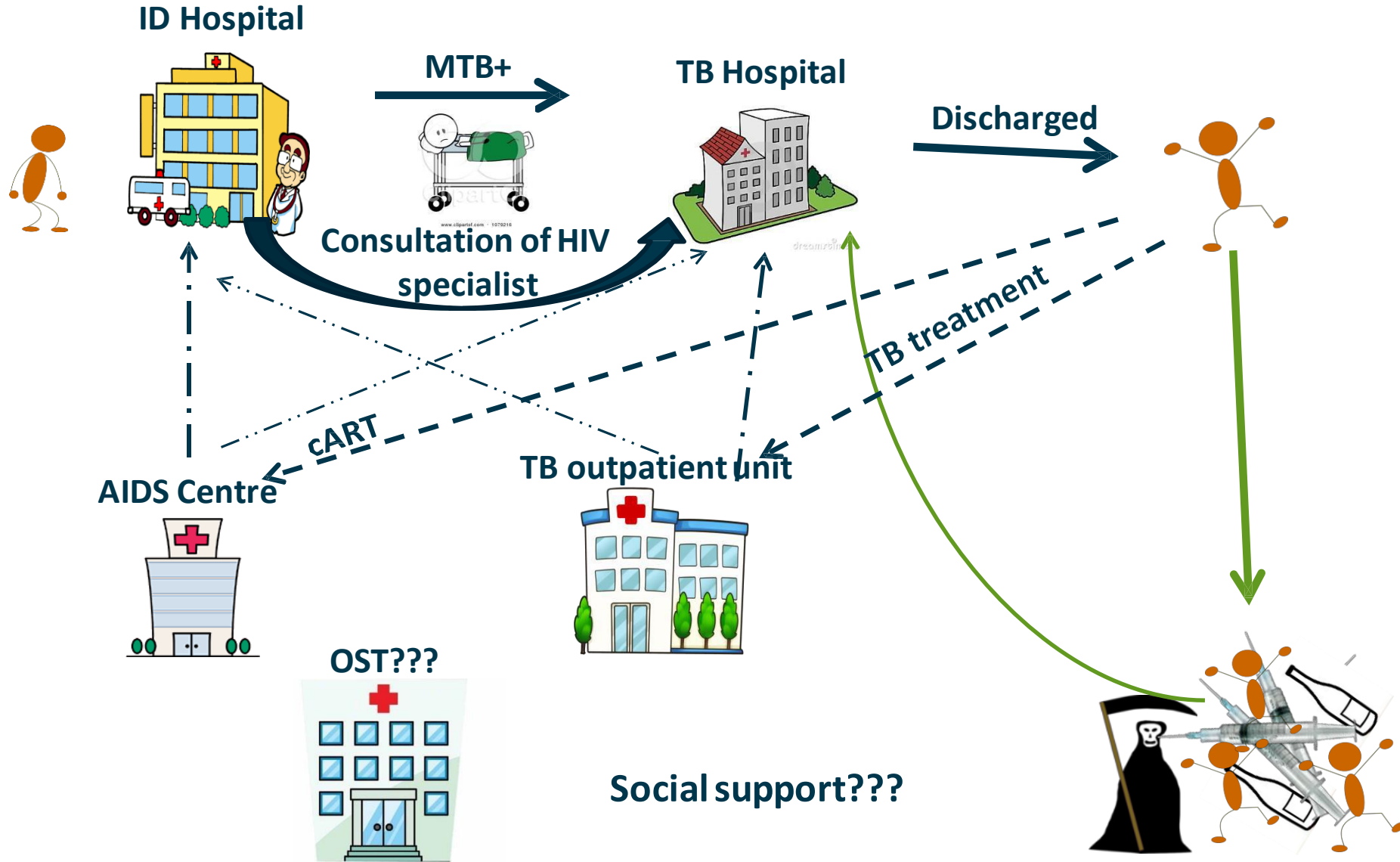
- High levels of incarceration, largely linked to criminalization of drug use.
- People who inject drugs, including those with HIV, hepatitis C and tuberculosis, are concentrated within prisons. There is little if no access to prevention programs in prisons and care may be sub-optimal.
- Mathematical modeling for Ukraine suggests that high levels of incarceration facilitate transmission with 28 -55 % of new infections over the next 15 years predicted to be attributable to increased risk of transmission among currently or previously incarcerated people who inject drugs.
- Altice FL. Lancet 2016

Incarceration and Contribution to TB in Ukraine



- Data derived from nationally-representative prison^{1,2} and PWID community surveys³
- Incarceration accounts for 6.2% of all incident TB cases (population-attributable fraction)
- Among PWID, however, incarceration contributes to 75% of new TB cases in PWID with HIV

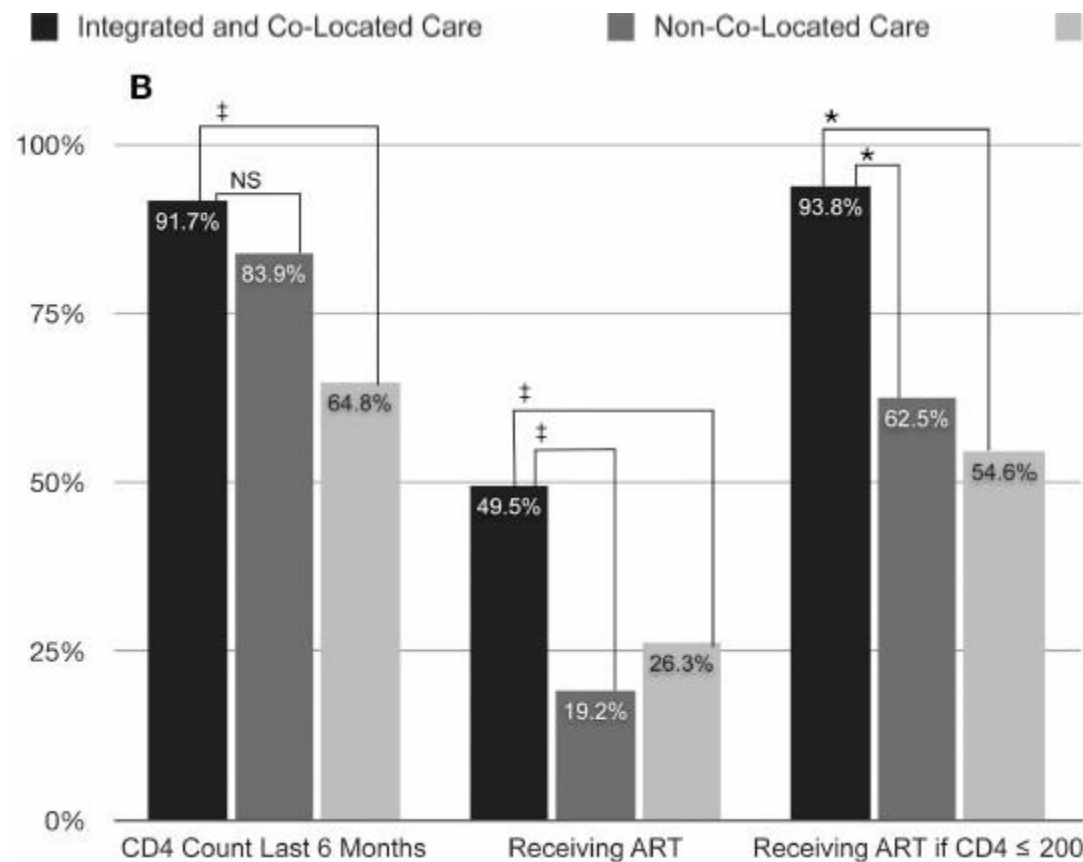
Management of TB/HIV patient in Eastern Europe



Integrated health care

A study from Ukraine

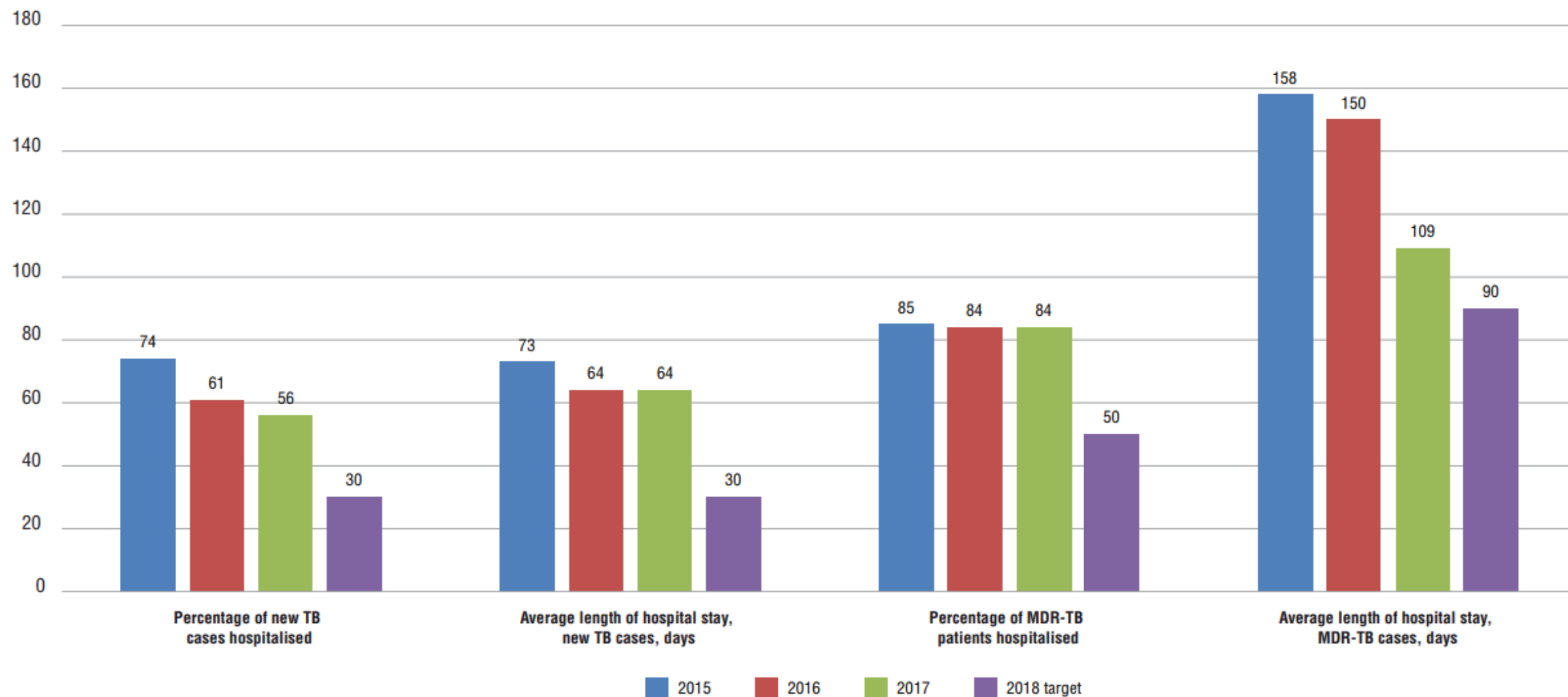
Quality Healthcare Indicators (QHI) based on service delivery setting:
HIV-Related Quality Healthcare Indicators



296 HIV+ IDUs

- Integrated co-located care
 - On site care for HIV, TB, OST
- Non-co-located care
 - OST only
- Harm reduction and outreach
 - but no OST

Figure 1: Overview of quantitative indicators 2015 versus target 2018



Source: TB-REP data

Note: This data was provided in January and is only partial.

Western Europe

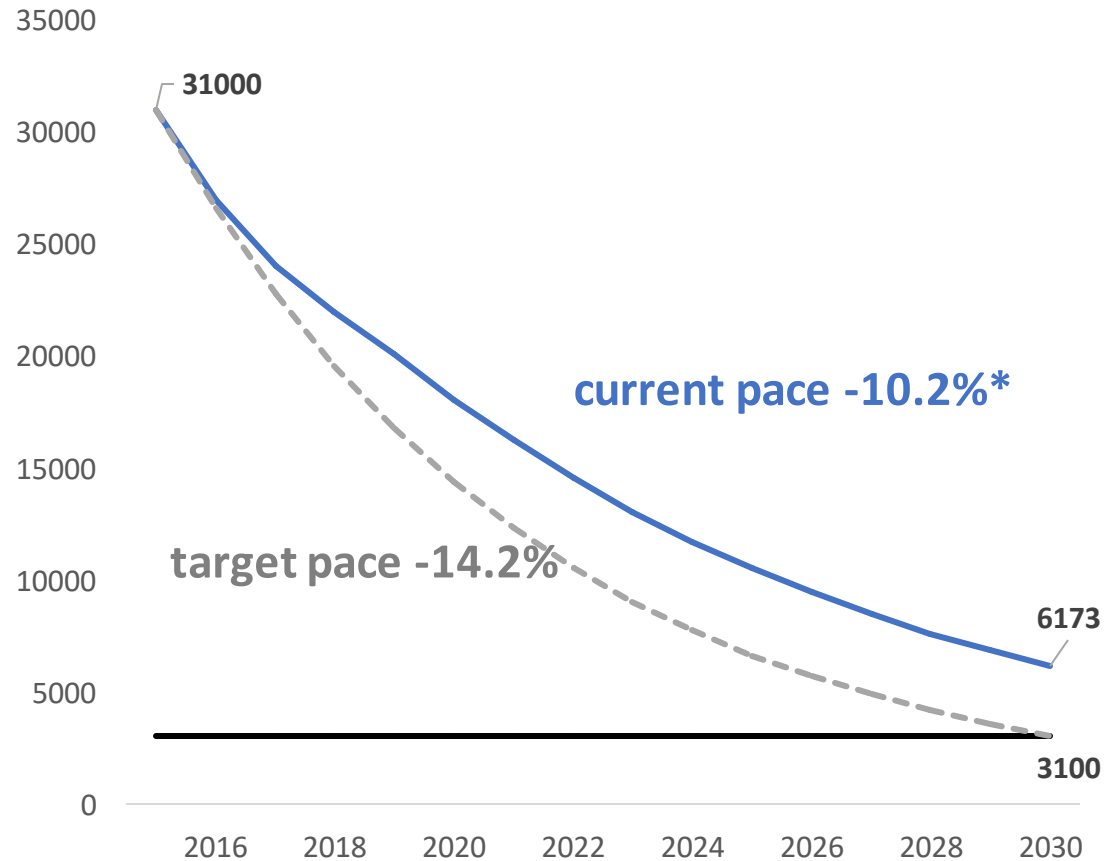
- In high-income Western European countries, the incidence of TB is low, at pre-elimination levels (< 10 cases/ million).
- The epidemiology of TB is characterized by most cases occurring in people from high-incidence countries, often as a result of latent tuberculosis infection. Migrants from high tuberculosis burden countries have an increased risk of developing TB in the initial years after arrival in host country.
- Socio-economic conditions, delayed access to primary care services and not having been screened for TB prior to entry are associated with increased risk of post-entry active TB.

Western Europe

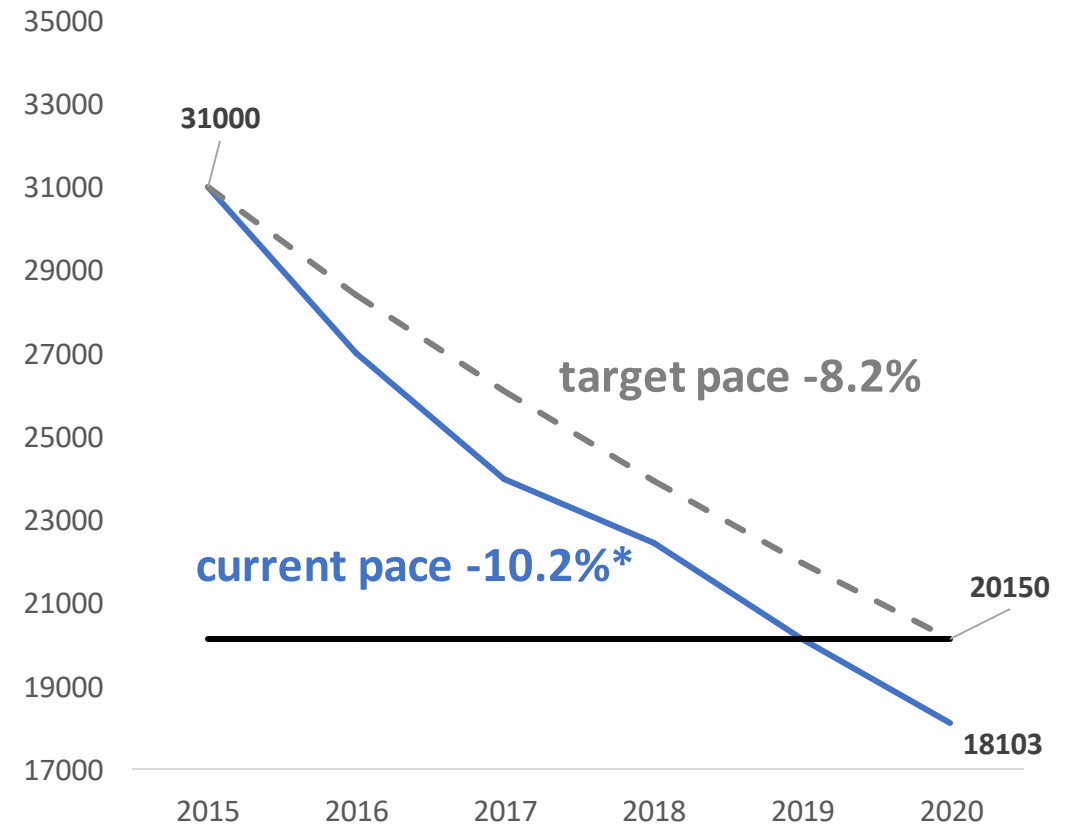
- Pre-entry tuberculosis screening, early primary care registration, post-entry screening for latent tuberculosis infection, are strongly and independently associated with a lower incidence of TB in new entrant migrants.

Progress towards the End-TB targets

SDG target: 90% reduction in number of TB deaths



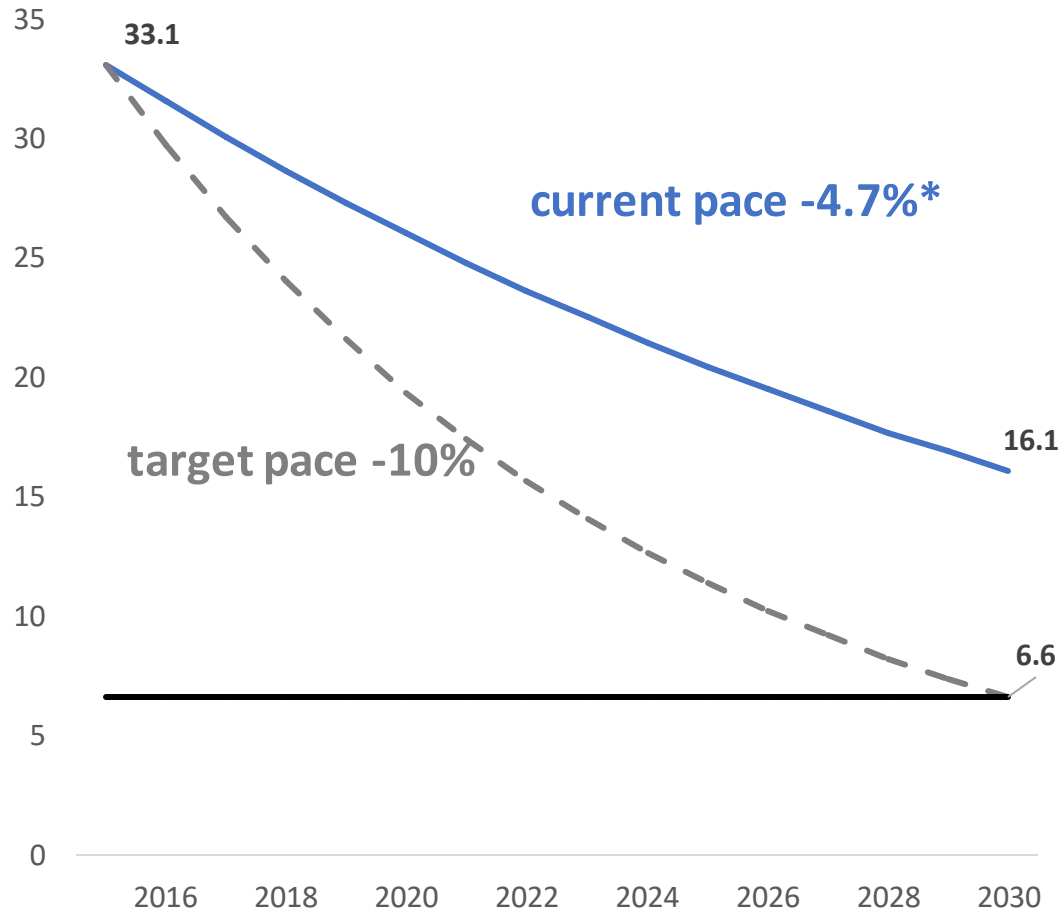
AP target: 35% reduction in number of TB deaths



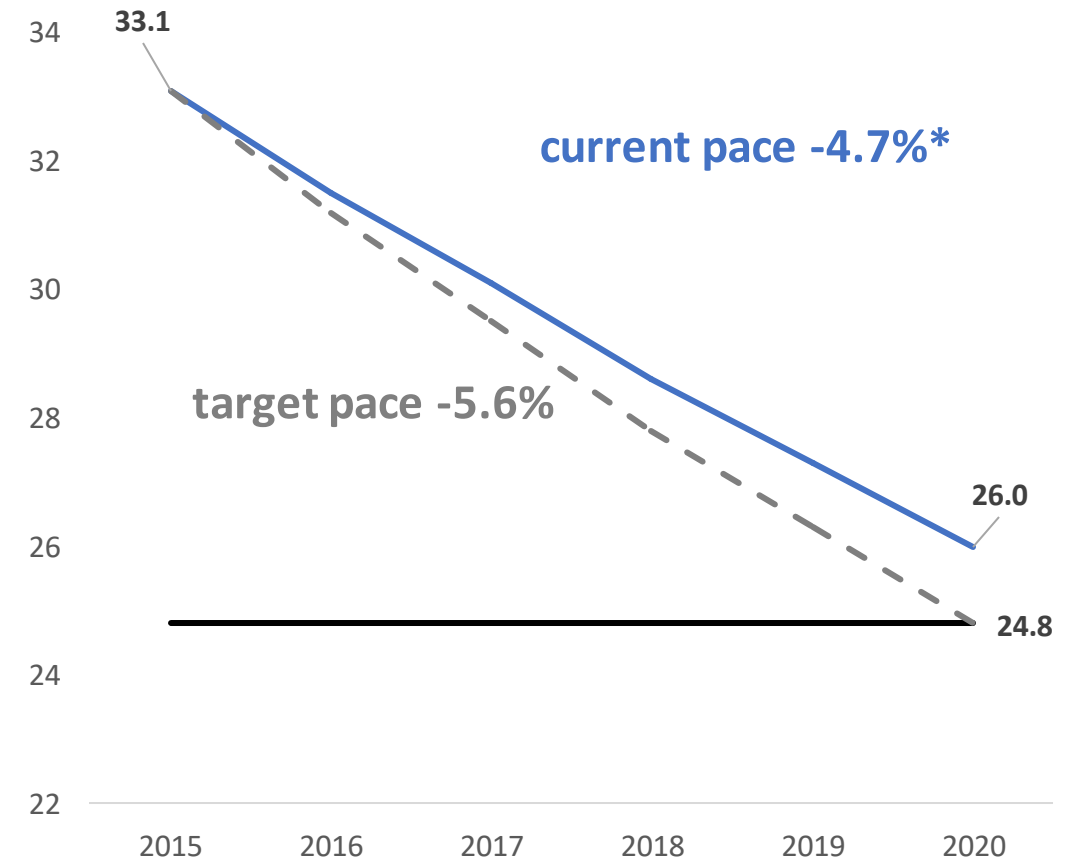
*5 years (2013-2017)

Progress towards the End-TB targets

SDG target: 80% reduction in incidence rate



AP target: 25% reduction in incidence rate



Acknowledgements

- Masoud Dara, Nicole Seguy, WHO Europe, Regional Office, Copenhagen