

# TB/HIV co-infection: WHO policy frameworks and recommendations

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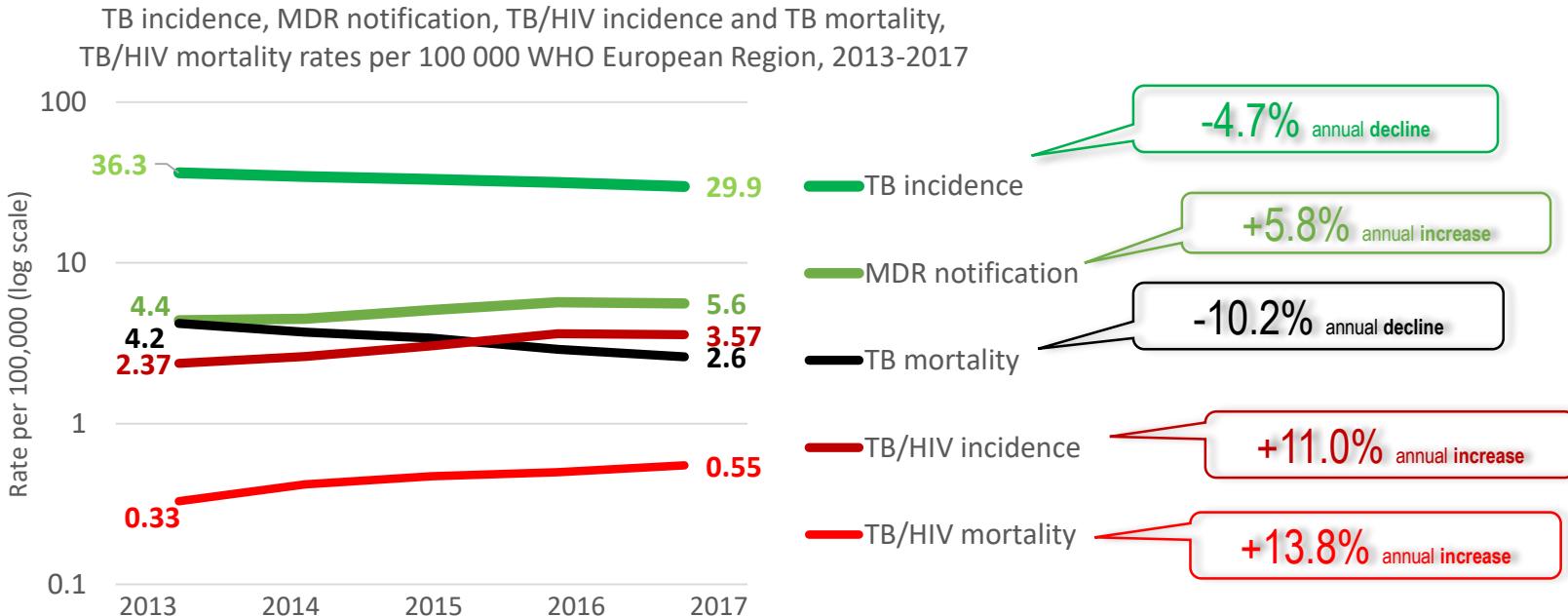
# Outline

- TB/HIV epidemiological situation in WHO European region
- WHO policy frameworks for TB/HIV collaboration
- WHO guidelines and recommendations on management of TB/HIV coinfection
- Conclusion

# TB/HIV epidemiological situation in the WHO European region



# Europe has the fastest decline in TB new diagnoses and TB mortality, but MDR-TB and TB/HIV co-infection is growing

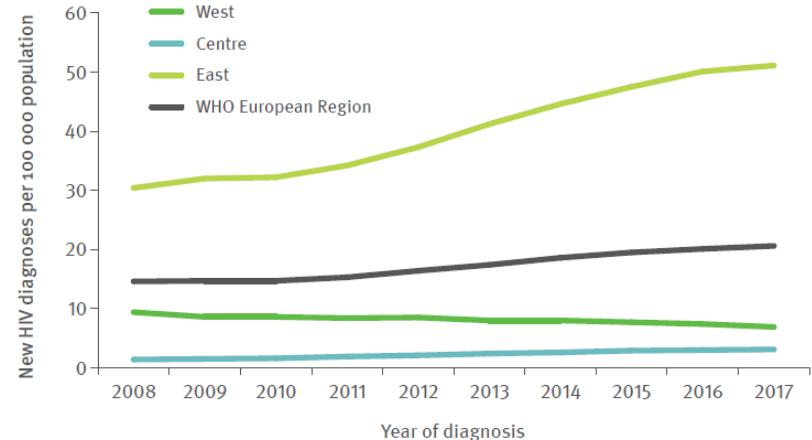
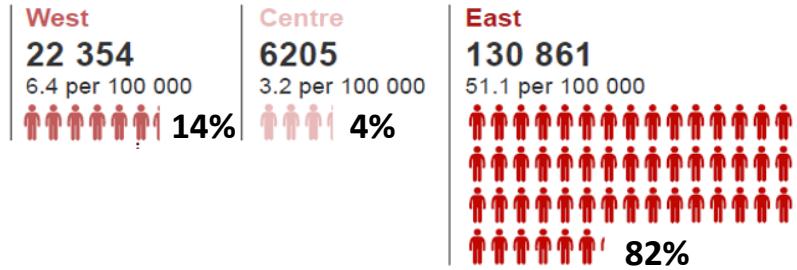


# ≈160 000 new HIV diagnosis in the WHO European Region in 2017

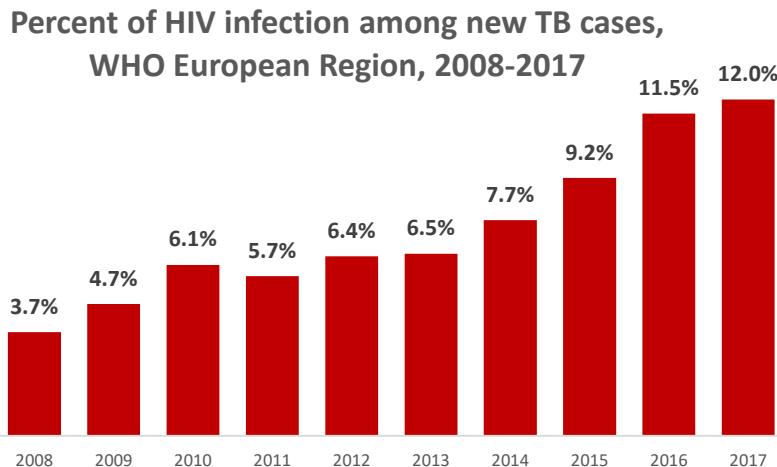


Source: ECDC/WHO Europe - HIV/AIDS surveillance in Europe 2018 – 2017 data.

Missing or excluded data



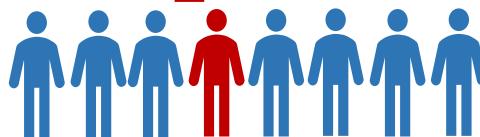
# HIV co-infection among TB patients still rising



1  
in  
8

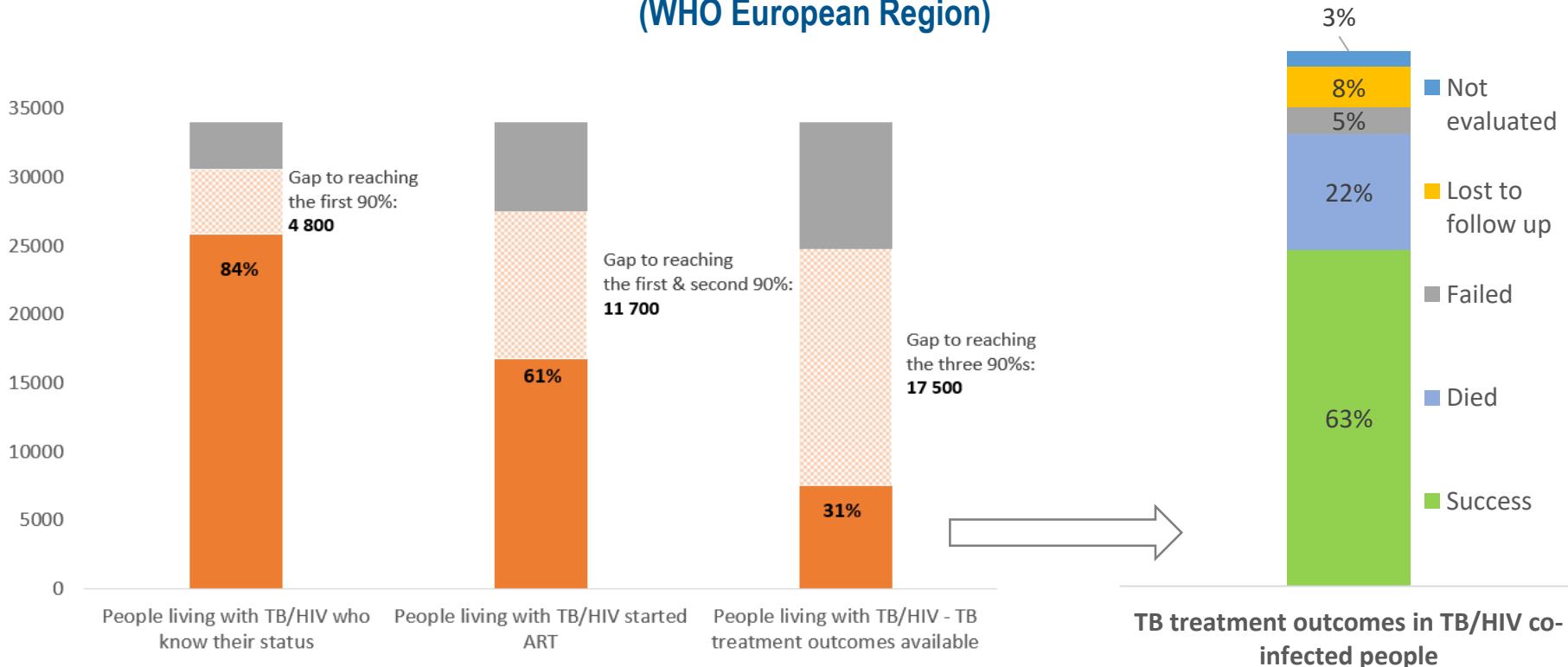
New TB patients notified in  
the [WHO European Region](#) in 2017 was

**HIV positive**



# TB/HIV co-infection diagnosis and treatment cascade

(WHO European Region)



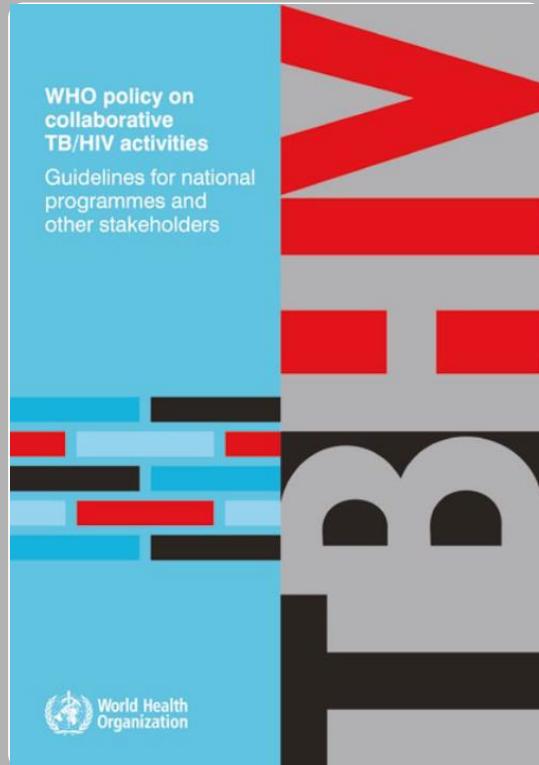
# WHO policy frameworks for TB/HIV collaborative activities



# Towards integrated care



# WHO policy on collaborative TB/HIV activities, 2014



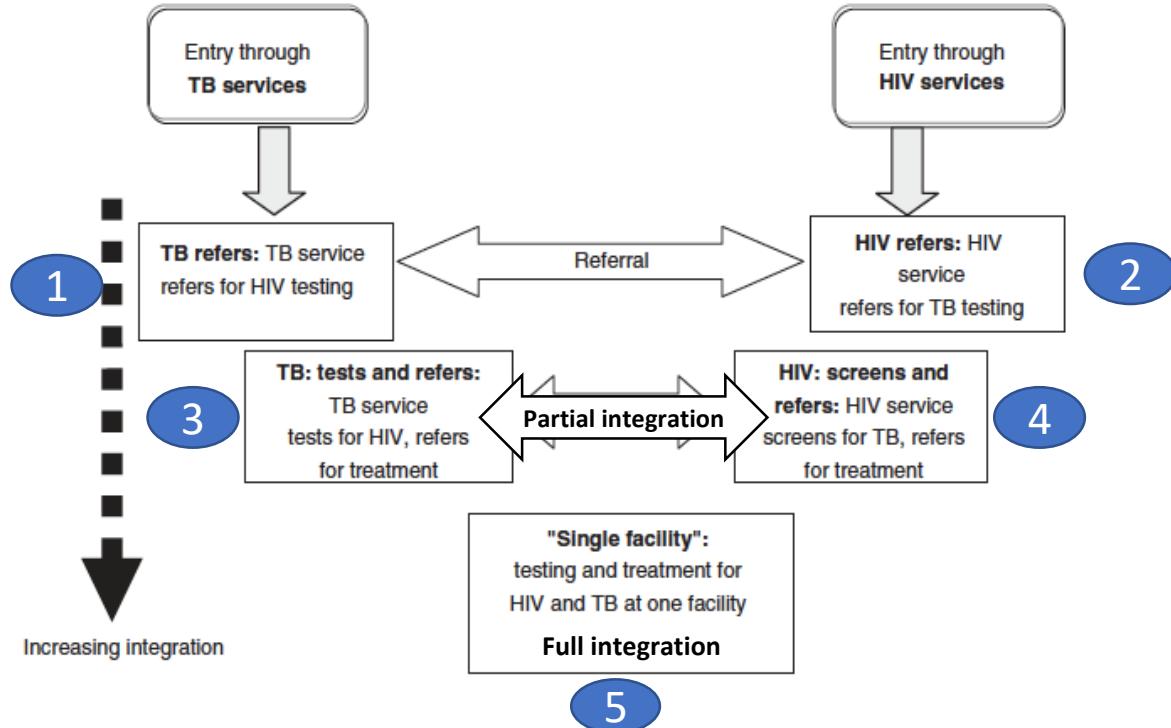
## WHO-recommended collaborative TB/HIV activities

- A. Establish and strengthen the mechanisms for delivering integrated TB and HIV services**
  - A.1. Set up and strengthen a coordinating body for collaborative TB/HIV activities functional at all levels
  - A.2. Determine HIV prevalence among TB patients and TB prevalence among people living with HIV
  - A.3. Carry out joint TB/HIV planning to integrate the delivery of TB and HIV services
  - A.4. Monitor and evaluate collaborative TB/HIV activities
- B. Reduce the burden of TB in people living with HIV and initiate early antiretroviral therapy (the *Three I's for HIV/TB*)**
  - B.1. Intensify TB case-finding and ensure high quality antituberculosis treatment
  - B.2. Initiate TB prevention with Isoniazid preventive therapy and early antiretroviral therapy
  - B.3. Ensure control of TB Infection in health-care facilities and congregate settings
- C. Reduce the burden of HIV in patients with presumptive and diagnosed TB**
  - C.1. Provide HIV testing and counselling to patients with presumptive and diagnosed TB
  - C.2. Provide HIV prevention interventions for patients with presumptive and diagnosed TB
  - C.3. Provide co-trimoxazole preventive therapy for TB patients living with HIV
  - C.4. Ensure HIV prevention interventions, treatment and care for TB patients living with HIV
  - C.5. Provide antiretroviral therapy for TB patients living with HIV

# Levels of TB and HIV integration: 5 models of care for TB and HIV collaboration

## Principles of TB/HV services

- No one size fits all
- Design the system based on patients' need/satisfaction and to improve outcomes
- Monitor the result and adapt accordingly



Ref: Legido-Quigley H et al 2013, Integrating tuberculosis and HIV services in low- and middle-income countries: a systematic review. *Trop Med Int Health*

## ROADMAP TO IMPLEMENT THE TUBERCULOSIS ACTION PLAN FOR THE WHO EUROPEA REGION 2016-2020

Towards ending tuberculosis and  
multidrug-resistant tuberculosis



# TB action plan for WHO European region 2016-2020

## Area1: Integrated patient-centred care and prevention

### Intervention D: Collaborative TB/HIV activities and management of comorbidities

WHO Europe/partners assist Member States to establish coordination mechanisms at national/regional levels to facilitate the delivery of integrated TB & HIV services

Member States ensure:

- all TB patients have access to HIV counselling and testing
- all people leaving with HIV are screened and treated for latent and active TB and provide IPT where indicated
- all TB/HIV patients have access to early and monitored ART and CPT

The WHO Europe/partners provide assistance for development of collaborative frameworks and mechanisms for integrated management of TB and its most common comorbidities

# Action plan for the health sector response to HIV in the WHO European Region

Action plan for the health sector response to HIV in the WHO European Region

## Strategic direction related to TB

### Delivery for equity

- Ensure the implementation of an essential package of services that is equitable, accessible and employs differentiated care;
- Ensure people-centred and integrated services (prevention, diagnostic and treatment) for patients with co-infections and co-morbidities (TB, viral hepatitis, STIs and drug dependence..)





## United Nations Common Position on Ending HIV, TB and Viral Hepatitis through Intersectoral Collaboration



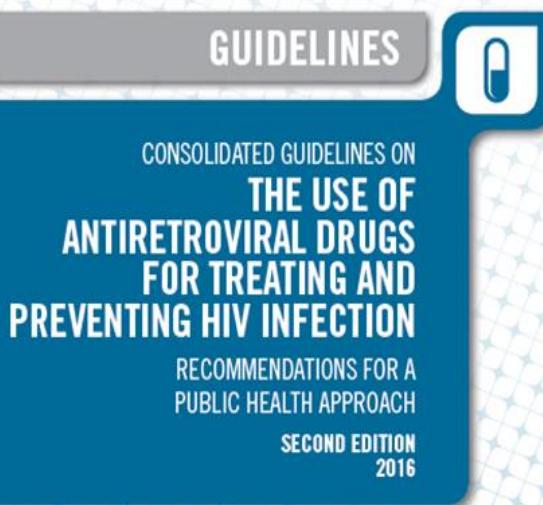
In the framework of the United Nations Sustainable Development Goals Issue-based Coalition on Health and Well-being for All at All Ages in Europe and Central Asia



# One UN approach to address HIV, TB and viral Hepatitis

# WHO guidelines and recommendations for TB/HIV collaborative activities





Persons living with HIV should be screened for TB by using a clinical algorithm

Xpert MTB/RIF should be used rather than conventional microscopy, culture and DST as the initial diagnostic test

For TB settings, routine HIV testing should be offered to all clients with presumptive and diagnosed TB

HIV and TB programmes should coordinate to ensure that patients with TB/HIV co-infection receive timely and integrated provision of TB treatment, CPT and ART wherever they receive their care

TB treatment should be initiated first, and ART should be started within the first 8 weeks of TB treatment (*Strong recommendation, high grade of evidence*)

HIV-positive TB patients should receive at least 6 months of rifampicin-containing treatment regimen (*Strong recommendation, high grade of evidence*)

ART should be started in all TB patients living with HIV, regardless of their CD4 cell count

# WHO consolidated Guideline on drug-resistant tuberculosis treatment, 2019

ART is recommended for all patients co-infected with HIV and DR-TB:

- irrespective of CD4 cell count, and
- as early as possible (within 2 weeks and no later than 8 weeks) after initiation of TB treatment

*(strong recommendation, very low quality evidence)*

# Latent tuberculosis infection

Updated and  
consolidated  
guidelines for  
programmatic  
management



World Health  
Organization

THE  
**END TB**  
STRATEGY

# Latent tuberculosis infection (LTBI)

Updated and consolidated guidelines for  
programmatic management, 2018

- Either a tuberculin skin test (TST) or interferon-gamma release assay (IGRA) can be used to test for LTBI (*Strong recommendation, very low-quality evidence. New recommendation*)
- People living with HIV with a positive LTBI test benefit more from preventive treatment than those who have a negative LTBI test. (*Strong recommendation, high-quality evidence*)
- LTBI testing by TST or IGRA is not a requirement for initiating preventive treatment in people living with HIV or child household contacts aged < 5 years. (*Strong recommendation, moderate-quality evidence. Updated recommendation*)
- In high TB incidence settings, people living with HIV and without active TB should receive at least 36 months of Isoniazid Preventive Therapy (IPT), regardless of receiving ART.

Organisation  
 mondiale de la Santé  
Europe

Weltgesundheitsorganisation  
REGIONALBÜRO FÜR Europa

Всемирная организация  
здравоохранения  
Европейское региональное бюро

# WHO guidelines on prevention and control (2019 update)

## Summary of recommendations

### Administrative controls

**Recommendation 1:** Triage of people with TB signs and symptoms, or with TB disease, is recommended to reduce *M. tuberculosis* transmission to health workers (including community health workers), persons attending health care facilities or other persons in settings with a high risk of transmission. (*Conditional recommendation based on very low certainty in the estimates of effects*)

**Recommendation 2:** Respiratory separation / isolation of people with presumed or demonstrated infectious TB is recommended to reduce *M. tuberculosis* transmission to health workers or other persons attending health care facilities. (*Conditional recommendation based on very low certainty in the estimates of effects*)

**Recommendation 3:** Prompt initiation of effective TB treatment of people with TB disease is recommended to reduce *M. tuberculosis* transmission to health workers, persons attending health care facilities or other persons in settings with a high risk of transmission. (*Strong recommendation based on very low certainty in the estimates of effects*)

**Recommendation 4:** Respiratory hygiene (including cough etiquette) in people with presumed or confirmed TB is recommended to reduce *M. tuberculosis* transmission to health workers, persons attending health care facilities or other persons in settings with a high risk of transmission. (*Strong recommendation based on low certainty in the estimates of effects*)

### Environmental controls

**Recommendation 5:** Upper-room germicidal ultraviolet (GUV) systems are recommended to reduce *M. tuberculosis* transmission to health workers, persons attending health care facilities or other persons in settings with a high risk of transmission. (*Conditional recommendation based on moderate certainty in the estimates of effects*)

**Recommendation 6:** Ventilation systems (including natural, mixed-mode, mechanical ventilation and recirculated air through high-efficiency particulate air [HEPA] filters) are recommended to reduce *M. tuberculosis* transmission to health workers, persons attending health care facilities or other persons in settings with a high risk of transmission. (*Conditional recommendation based on very low certainty in the estimates of effects*)

### Respiratory protection

**Recommendation 7:** Particulate respirators, within the framework of a respiratory protection programme, are recommended to reduce *M. tuberculosis* transmission to health workers, persons attending health care facilities or other persons in settings with a high risk of transmission. (*Conditional recommendation based on very low certainty in the estimates of effects*)

WHO guidelines on  
tuberculosis infection  
prevention and control

2019 update



THE  
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# Integrating collaborative TB and HIV services for people who inject drugs (PWID)

*(Consolidated Guidelines, 2016)*

A. Establish and strengthen mechanisms for the integrated delivery of services for PWID:

B. Reduce the joint burden of TB, HIV, viral hepatitis and other comorbidities among PWID through the integrated delivery of comprehensive services:

C. Ensure a standard of health care in prisons equivalent to outside prisons, through the linkage to services in the community.

Integrating collaborative  
TB and HIV services within a  
comprehensive package of care  
for people who inject drugs

Consolidated Guidelines  
Geneva, 2016



# Ongoing monitoring of implementation and scale-up of collaborative TB/HIV activities and evaluation of their impact is critically important

7 core indicators for Global and National level

13 core indicators for only National level

16 Optional indicators

## Priority indicators for health management information system

A.1	Proportion of registered new and relapse TB patients with <b>documented HIV</b> status
A.2	Proportion of registered new and relapse TB patients with documented <b>HIV-positive</b> status
A.3	Proportion of <b>people living with HIV</b> newly enrolled in HIV care with <b>active TB</b> disease
A.4	Proportion of HIV-positive new and relapse TB patients on <b>ART during TB treatment</b>
A.5	Proportion of people living with HIV newly enrolled in HIV care, <b>started on TB preventive therapy</b>
A.6	<b>Mortality</b> among HIV-positive new and relapse TB patients
A.7	Risk of <b>TB among health care workers</b> relative to the general population, adjusted for age and sex

## A guide to monitoring and evaluation for collaborative TB/HIV activities

2015 revision



# Conclusions

- TB/HIV epidemic is growing in WHO European region
- Better coordination between TB and HIV services and integrated people-centered model of care is critical for better results of both HIV and TB national programmes
- Prioritize WHO recommendations and adopt their implementation in the country-specific contexts
- Prioritize prompt diagnosis and treatment of patients with TB/HIV co-infection, especially in advanced HIV cases
- Better document data and practices and share good examples to boost scale up



# Acknowledgements

WHO Regional Office and Country Offices  
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Member States and partners

WHO headquarters and ECDC



- ADDITIONAL SLIDES

# Latent tuberculosis infection

Updated and  
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# LTBI treatment options for TB patients (without HIV)

## Countries with high and low TB incidence

- Isoniazid monotherapy \* 6 months in both adults and children (*Strong recommendation, high-quality evidence*)

**High TB incidence** settings: regimens offered as an alternative to 6 months of isoniazid monotherapy:

- (a) rifampicin + isoniazid daily \* 3 months for children and adolescents aged < 15 years;
- (b) rifapentine + isoniazid weekly \* 3 months for adults and children

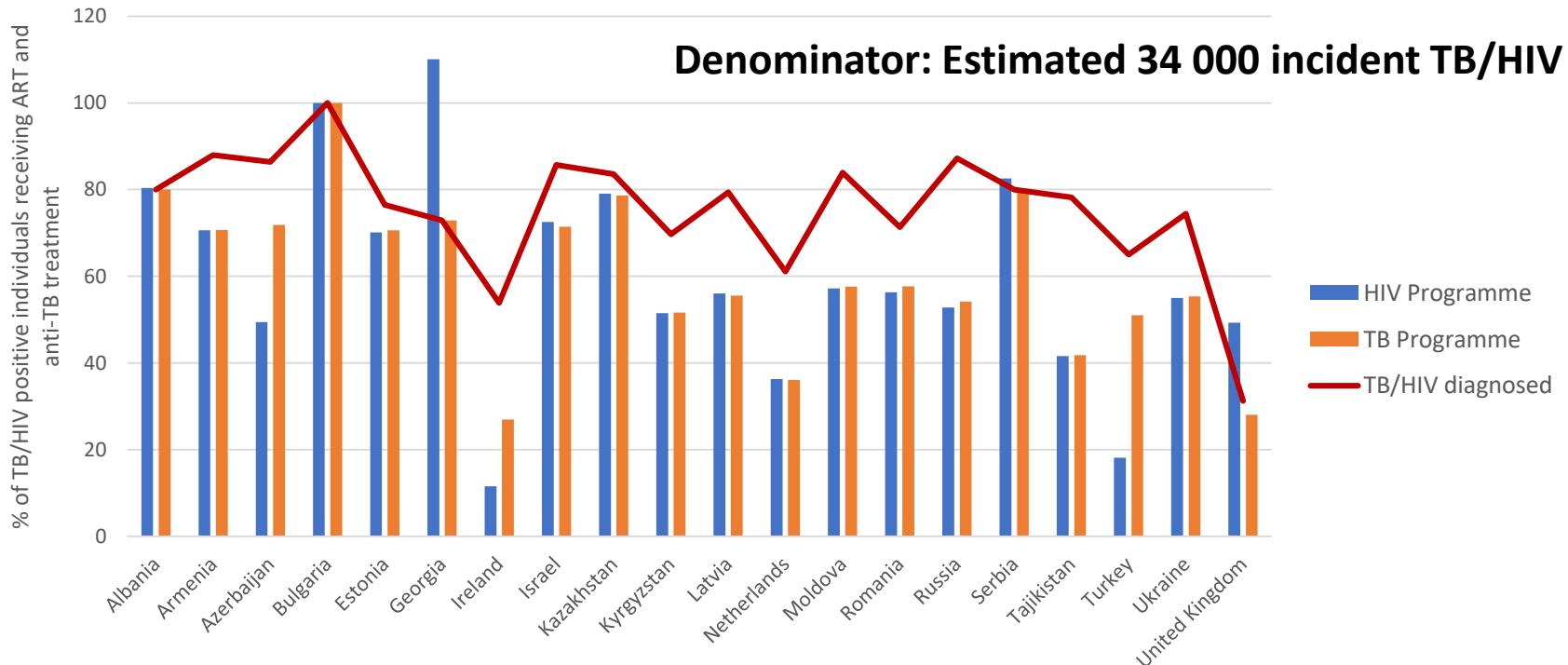
**Low TB incidence:** regimens as an alternative to 6 months of isoniazid monotherapy:

- (a) 9 months of isoniazid, or
- (b) a 3-month rifapentine + isoniazid, weekly; or
- (c) 3–4 months isoniazid + rifampicin, or
- (d) 3–4 months of rifampicin alone.

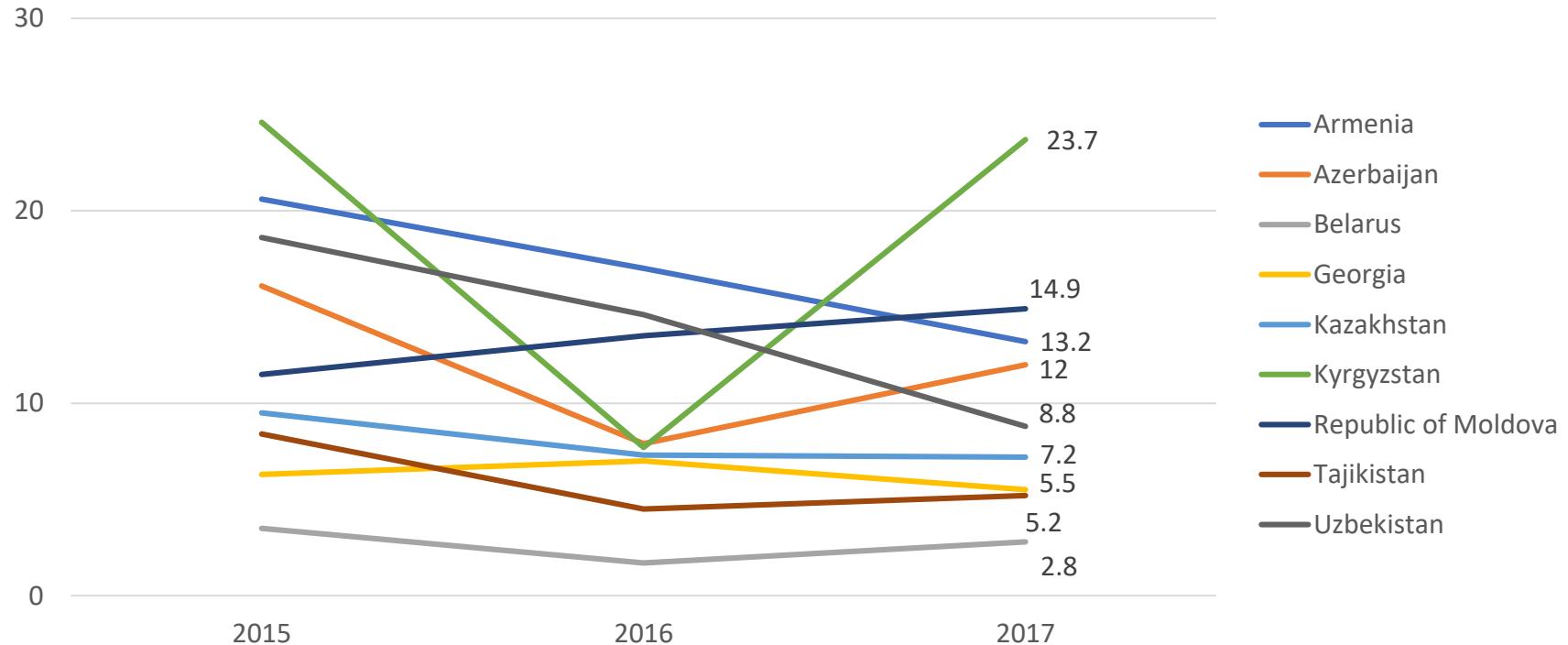
# Management of TB-HIV co-infection

% of HIV-positive incident tuberculosis (TB) cases that received treatment for both TB and HIV (HIV programme)

% of HIV-positive incident tuberculosis (TB) cases that received treatment for both TB and HIV (TB programme)



# People living with HIV with active TB disease (%)



# People living with HIV who started TB preventive therapy (%)

