Increasing access to integrated TB services for people who inject drugs

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Outline of presentation

- Global burden and evidence
- Highlights of TB/HIV recommendations in the updated WHO, UNAIDS and UNODC policy guidance
- Conclusion

PWID with HIV at higher risk of TB

Factors associated with tuberculosis as an AIDS-defining disease

Risk Group	%	OR	95%CI	Adjusted OR	95% CI
MSM	18.2	1			
IDU	40.8	3.10	2.6-3.8	2.58	2.1-3.2
Heterosexual	26.5	1.63	1.3-2.1	1.96	1.5-2.6
Unknown	17.7	0.97	0.6-1.6	1.01	0.6-1.7

(Barcelona 1994-2005), Martin V et al *J Epidemiol 2011 ;21 (2) :108-113*

Association between drug use and MDR-TB

Table 1 Baseline characteristics by resistance profile in Eastern Europe.

	MDR TB (n = 55)	RH-susceptible TB (n = 89)	P-value
Age (median (IQR))	30.2 (25.2–36.0)	31.9 (27.5–39.2)	0.042
Male	41 (74.6)	63 (70.8)	0.62
IDU TB risk factor	47 (85.5)	57 (64.0)	0.0053
Prison TB risk factor	18 (32.7)	21 (23.6)	0.23
Alcohol TB risk factor	14 (25.5)	35 (39.3)	0.088
Family TB, TB risk factor	8 (14.6)	13 (14.6)	0.99
Homeless TB risk factor	0	4 (4.5)	0.11[a]
Other TB risk factor	2 (3.6)	1 (1.1)	0.31[a]

Post et al, *Journal of Infection (2014) 68, 259-263*, (Belarus, Latvia, Romania, Russia & Ukraine)

Lower survival of TB patients who inject drugs

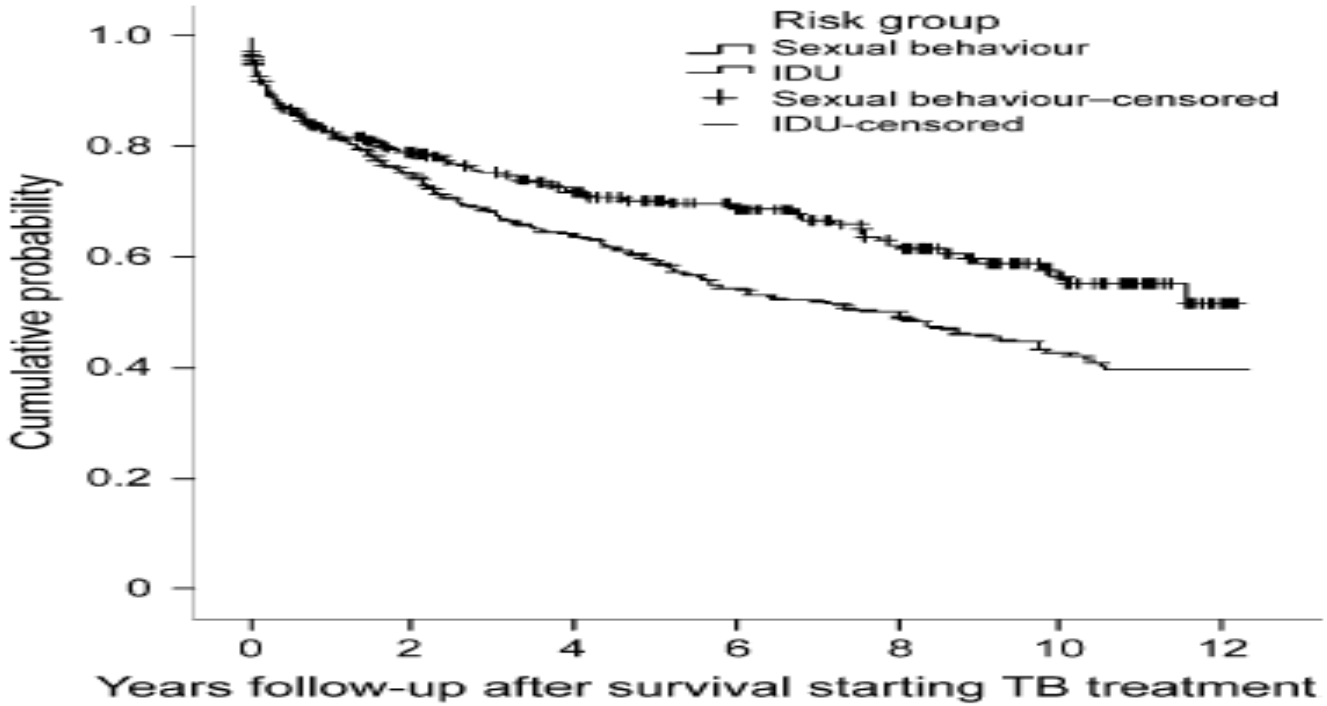


Figure 2 Cumulative survival probability in a cohort of 792 HIV-infected TB patients by category of HIV transmission, Barcelona, 1996–2008. TB = tuberculosis; IDU = injecting drug use; HIV = human immunodeficiency virus. Risk group log rank < 0.001.

INT J TUBERC LUNG DIS 15(2):263–269

HBV and HCV common among TB patients

Table 1. Prevalence of HIV, HBV and HCV among 205 patients with TB in Buenos Aires, Argentina, 2001

Organism	No. positive/ no. studied	% Prevalence (95% CI)
HBV	37/187	19.8 (14.3-26.2)
HCV	22/187	11.8 (7.5-17.3)
HIV	35/205	17.1 (12.2-23.9)

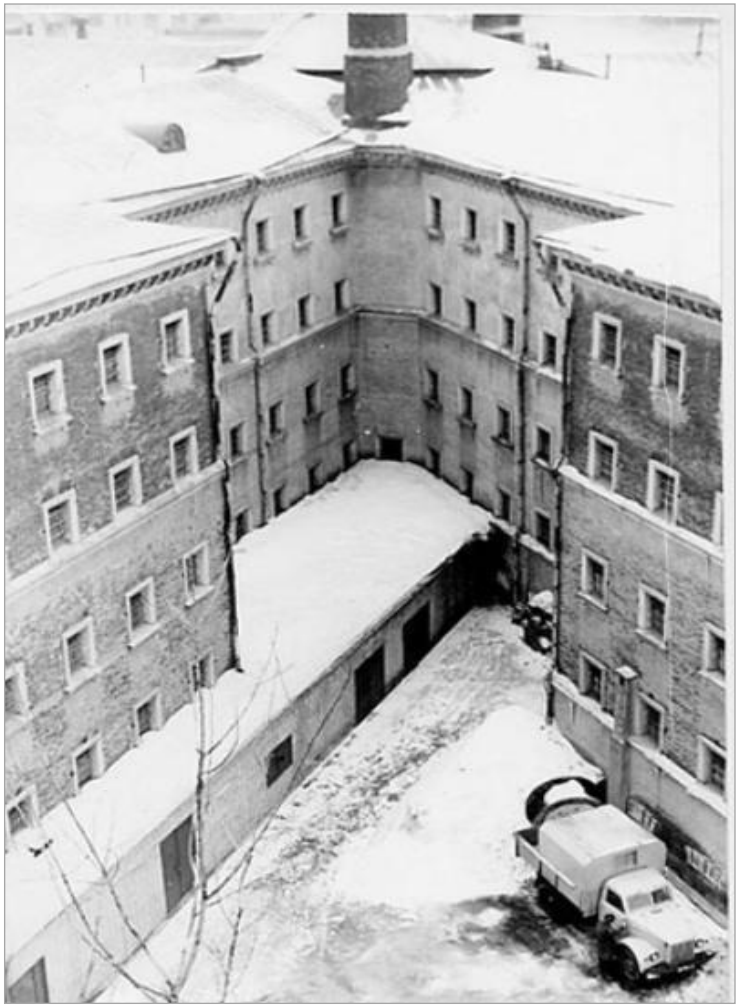
Source: Pando et al *Journal of Medical Microbiology (2008), 57, 190-197*

At least one in three people who inject drugs (PWIDs) and develop tuberculosis (TB) will also have HIV and two out of three will have hepatitis C virus (HCV) antibodies.

Getahun et al, Curr Opin HIV AIDS 2012;7:345-353

Drug use, TB, HIV, Hepatitis and incarceration

- Up to 74% prisoners injected and up to 94% shared equipment while in prison[1]
- 78% PWID reported history of incarceration and 30% injected while in prison[2]
- PWID & ex-PWID 5 times more at risk of TB/HIV after 23 months in prison than at time of admission[3]
- PWID with history of imprisonment 3 times more at risk of HCV[2]



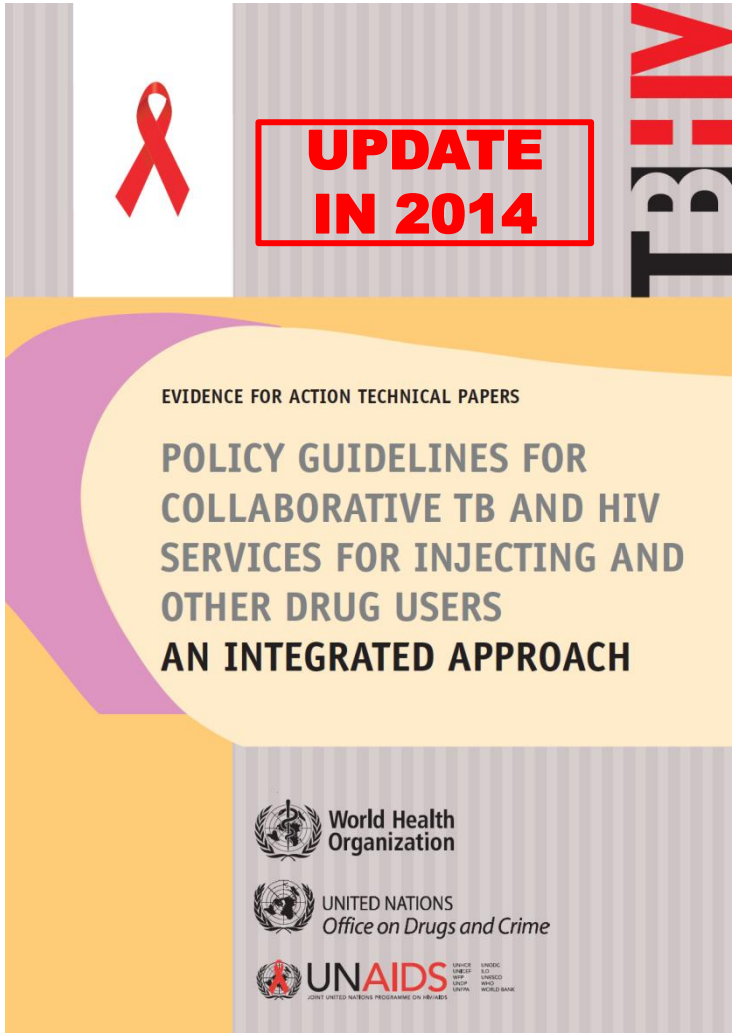
1. Jürgens et al, *Lancet Infec Dis 2009;9:57-66 (Australia)*
2. Hayashi et al, *BMC Public Health 2009, 9:492 doi:10.1186/1471-2458-9-492 (Thailand)*
3. Martin et al, *INT J TUBERC LUNG DIS 4 (1):41-46 (Spain)*
4. March JC et al. *Enferm Infecc Microbiol Clin 2007;25(2):91-7 (Spain, German, Austria, Belgium, Greece, Ireland, England, Portugal and Ireland)*

Challenges and barriers to access

- Multiple morbidities and drug-drug interactions
- Structural barriers
  - Criminalization and unsupportive legislative environment
  - Silo service provision and lack of collaboration
  - Mandatory hospitalisation of TB patients in some countries
- Stigma, discrimination and violence against PWID
- Limited data and lack of ownership
- Low on the list of competing priorities

Policy guidelines updated and consolidated

Key components



Multisectoral coordination and joint planning

Integrated patient-centred care

- ✓ TB screening, prevention and care
- ✓ HIV testing, prevention and care
- ✓ Management of other co-morbidities, including viral hepatitis B and C
- ✓ OST and other evidence based drug dependence treatment
- ✓ Adherence support
- ✓ Community engagement

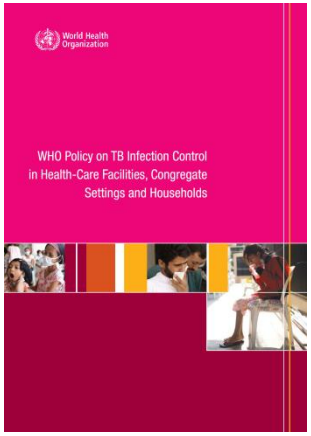
Equivalence of health-care for prisoners

Addressing structural barriers

Combination TB prevention

Studies	IPT alone	ART alone	ART plus IPT
Brazil	68	52	80
South Africa	13	64	89
Botswana	65	67	97

AIDS 2007: 21: 1441-8;
AIDS 2009, 23:631–636;
Lancet 2011: 377:1588-98



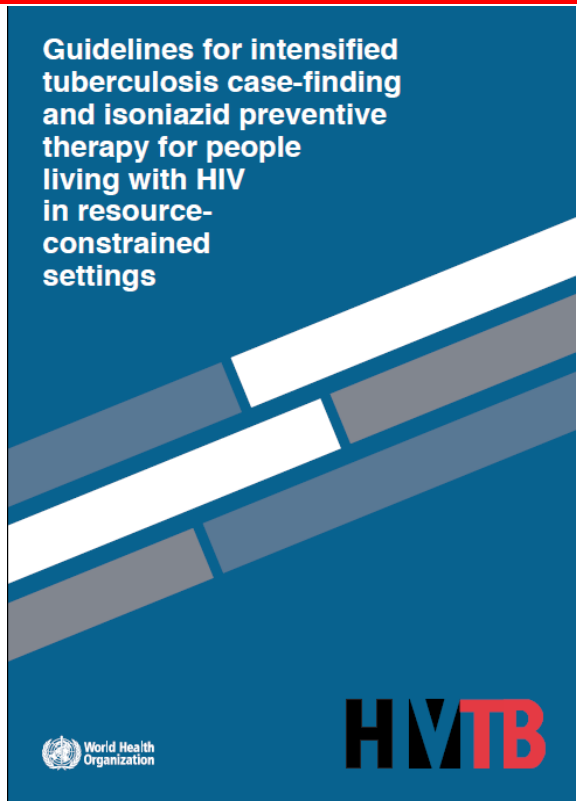
Infection control in treatment facilities, drop-in centres, prisons and other congregate settings

TB screening and isoniazid preventive therapy (IPT) for PWID living with HIV

None of current cough, fever, night sweats or weight loss = No TB = IPT

Setting	Sen (%)	Spe (%)	Negative Predictive Value (95% CI)
Community	76	61	97.3 (96.9-97.7)
Clinical	89	30	98.3 (97.5-98.8
CD4 < 200	94	22	98.9 (95.8-99.5)
CD4≥ 200	83	34	96.9 (95.1-98.0)

Getahun et al PLoS Medicine 2011



Symptom based TB screening is sufficient to exclude TB among PLHIV who use drugs and provide at least 6 months IPT

New diagnostics

World Health Organization

TUBERCULOSIS DIAGNOSTICS Xpert MTB/RIF Test

WHO ENDORSEMENT AND RECOMMENDATIONS

The new rapid TB test – known as Xpert MTB/RIF- is a fully-automated diagnostic molecular test. It has the potential to revolutionize and transform TB care and control. The test:

- simultaneously detects TB and rifampicin drug resistance
- provides accurate results in less than two hours so that patients can be offered proper treatment on the same day
- has minimal bio-safety requirements, training, and can be housed in non-conventional laboratories

Xpert MTB/RIF – a new diagnostic test that could "revolutionize and transform" TB care and control

Xpert MTB/RIF should be used rather than conventional microscopy, culture and DST as the initial diagnostic test in adults suspected of having MDR-TB or HIV-associated TB (strong recommendation, high-quality evidence).

Treatment for HIV-associated TB

- PWID living with HIV-related TB should receive ART within 8 weeks after start of TB treatment, regardless of CD4 count;
- Stable care with support for drug dependence results in successful outcomes;
- OST should be offered with TB, hepatitis or HIV treatment for opioid dependent patients;
- No need to wait for abstinence from opioids to commence either anti-TB medication, treatment for hepatitis or antiretroviral medication

Co morbidities, including viral hepatitis infection (such as hepatitis B and C), should not contraindicate HIV or TB treatment for people who use drugs

Conclusion

- Multi-sectoral and cross service coordination is vital for preventing, diagnosing and treating TB and HIV in people who inject drugs.
- Prisons should not be addressed in isolation.
- Removal of structural and legal barriers to allow integrated comprehensive harm reduction are key to increasing access to care for PWID.
- Prompt accessible prevention, diagnosis and treatment of TB, HIV and drug dependence among PWID saves lives.

Documented examples of integration

http://www.euro.who.int/__data/assets/pdf_file/0005/165119/e96531.pdf
http://www.aidsmap.com/Collaborative-TB-and-HIV-services-for-drug-users/page/1411949/
http://www.euro.who.int/en/where-we-work/member-states/ukraine/publications3/building-integrated-care-services-for-injection-drug-users-in-ukraine