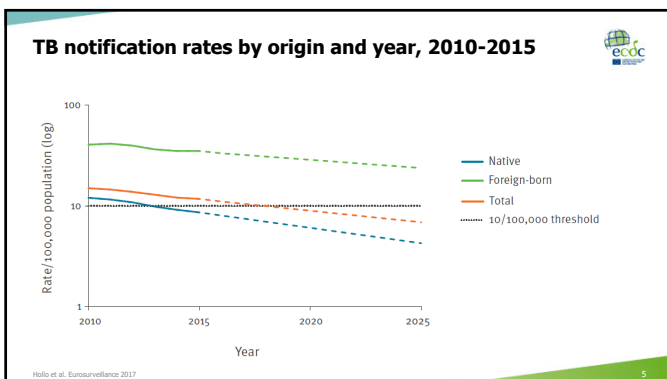
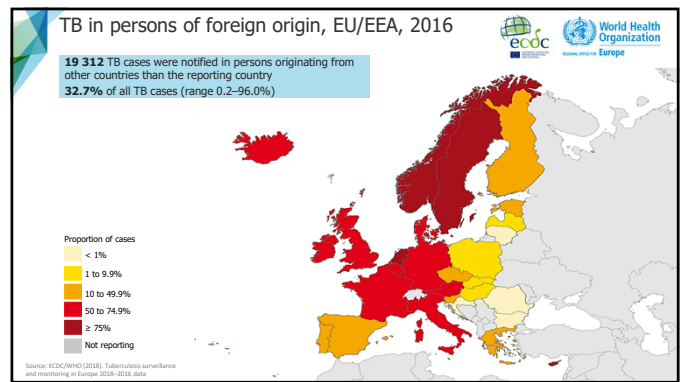
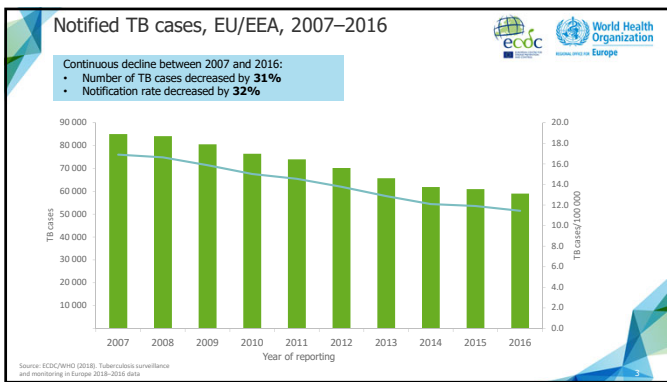
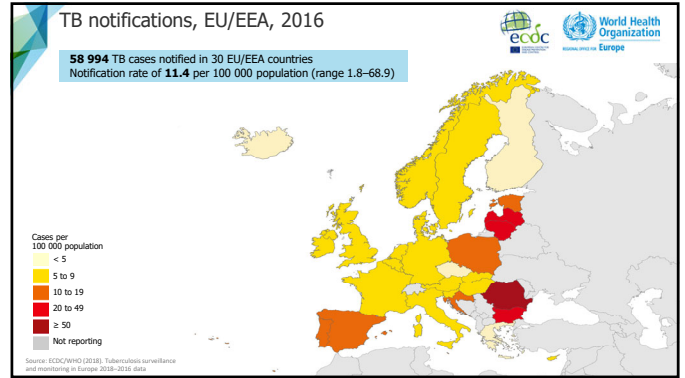




## Screening for Latent TB among Migrants in the European Union

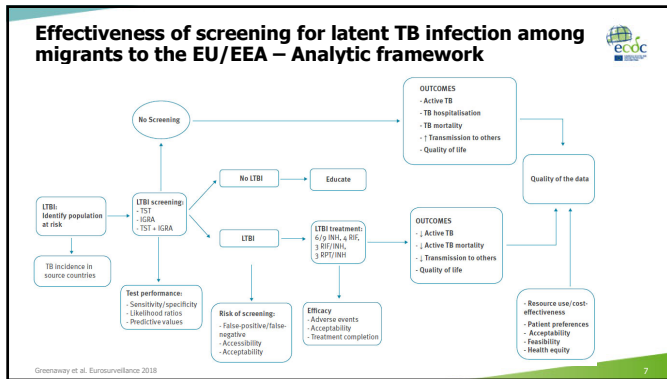
Marieke J. van der Werf  
International Conference on Migration Health (ICMH), Rome, Italy, 2 October 2018



### Latent TB infection screening of migrants

Country	LTBI screening test	WHO-estimated TB incidence in country of origin	Differences in type of migrants screened for LTBI
Belgium	TST	All	Differences in type of migrants screened for LTBI
Finland	NA	Only children	
Germany	NA	None	
Greece	TST	All asylum seekers	Differences in LTBI tests
Italy	NA	None	
Netherlands	TST or IGRA	>50	Differences in LTBI tests
Norway	IGRA	>200	
Spain	TST or IGRA	High-incidence countries	Differences in LTBI tests
Sweden	TST or IGRA	>100 asylum seekers	
Switzerland	NA	None	Differences in LTBI tests
United Kingdom	IGRA	>150	

Kunze et al. STI 2017

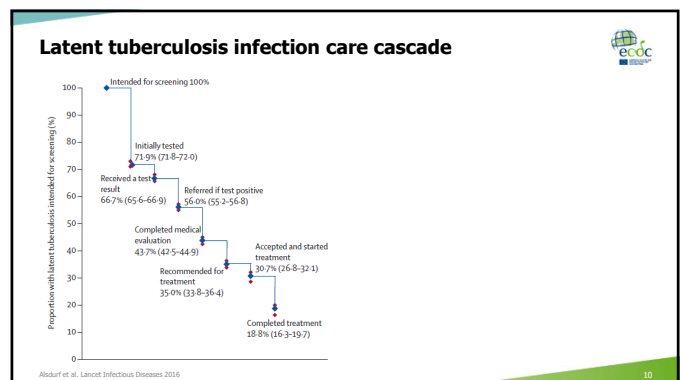


### Performance of diagnostic tests for latent tuberculosis infection

Study	Results
Pai et al. 2008	<p><b>Sensitivity, specificity (95% CI)</b></p> <p>TST overall: sensitivity: 77% (71-82), specificity: 59% (46-73)</p> <p>TST in BCG-vaccinated: sensitivity: 76% (72-80), specificity: 97% (95-99)</p> <p>TST in non-BCG-vaccinated: sensitivity: 70% (63-78), specificity: 96% (94-98)</p> <p>IGRA (QFT): sensitivity: 99% (98-100), specificity: 93% (86-100)</p> <p>IGRA (QFT-3G): sensitivity: 90% (86-93), specificity: 87% (80-92)</p> <p>IGRA in BCG-vaccinated: sensitivity: 99% (98-100), specificity: 93% (86-100)</p> <p>IGRA in non-BCG-vaccinated: sensitivity: 90% (86-93), specificity: 87% (80-92)</p> <p>IGRA (T-SPOT.TB/ ELISpot): sensitivity: 90% (86-93), specificity: 87% (80-92)</p>
Kahwati et al. 2016 (Not BCG vaccinated)	<p><b>Sensitivity, specificity (95% CI)</b></p> <p>TST (10 mm): sensitivity: 79% (71-87), specificity: 97% (96-99)</p> <p>IGRA (T-SPOT.TB): sensitivity: 90% (87-93), specificity: 95% (92-98)</p> <p>IGRA (QFT-3G): sensitivity: 80% (77-84), specificity: 97% (94-99)</p>
Kik et al. 2014	<p><b>Pooled IRR</b></p> <p>TST: 2.07 (95% CI: 1.38-3.11)</p> <p>IGRA: 2.40 (95% CI: 1.26-4.60)</p> <p><b>PPV</b> 1-7%</p> <p><b>NPV</b> 92-100%</p>

### Efficacy of therapy for latent tuberculosis infection

Regimen	OR vs. Placebo (95% CrI)	OR vs. No Treatment (95% CrI)
No treatment	1.62 (1.06-2.47)	1.00 (reference)
Placebo	1.00 (reference)	0.62 (0.41-0.94)
INH 3-4 mo	0.93 (0.55-1.50)	0.57 (0.31-1.02)
INH 6 mo	0.65 (0.50-0.83)	0.40 (0.26-0.60)
INH 9 mo	0.75 (0.35-1.62)	0.46 (0.22-0.95)
INH 12-72 mo	0.50 (0.41-0.62)	0.31 (0.21-0.47)
RFB-INH	0.30 (0.05-1.50)	0.18 (0.03-0.95)
RFB-INH (high)	0.30 (0.05-1.52)	0.19 (0.03-0.98)
RPT-INH	0.58 (0.30-1.12)	0.36 (0.18-0.73)
SMP	0.41 (0.19-0.85)	0.25 (0.11-0.57)
RMP-INH 1 mo	1.05 (0.37-2.77)	0.65 (0.23-1.71)
RMP-INH 3-4 mo	0.53 (0.36-0.78)	0.33 (0.20-0.54)
RMP-INH-PZA	0.35 (0.19-0.61)	0.21 (0.11-0.41)
RMP-PZA	0.53 (0.33-0.84)	0.33 (0.18-0.58)
INH-EMB	0.87 (0.32-2.36)	0.54 (0.19-1.56)
INH-EMB 12 mo	0.20 (0.04-0.82)	0.12 (0.02-0.54)



### Cost effectiveness

16 cost-effectiveness analyses studies  
 Designs and outcomes heterogeneous

Cost-effectiveness of screening strategies dependent on

- LTBI test characteristics
- which tests were being compared
- cost of tests
- BCG vaccination status of population

### Evidence-based statement (Draft)

Offer LTBI screening using a TST or an IGRA soon after arrival for all migrant populations from high TB incidence countries and link to care and treatment where indicated.

*(Certainty of evidence: low)*

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