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Access to TB screening and health services for new migrants in Europe

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Migration to Europe

- Europe has witnessed a dramatic rise in immigration
- 4 of the top 10 migrant-receiving countries globally are in the EU
  Germany>UK>France>Spain

- Europe hosts 31% of global migrant stock [IOM 2014]
  - » 25 million living in the EU: 70% from Eastern Europe and North Africa [ECDC 2009]

- Migrant workers, students, family, seeking asylum, victims of trafficking, unaccompanied children: diverse group/very difficult to generalise about their health needs

- An expanding population of irregular/“illegal” migrants
  - » 1.9 to 3.8 million; 10-15% total flows (IOM, 2014)
  - » Failed asylum seekers: no entitlement to health care and social support
  - » Poor health status and widespread destitution

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"Ensuring migrants' access to timely screening and health services is now a key issue facing migrant health in Europe…."

- Migrants have resource and organisational impacts on host health services
- EU health systems are not designed to collect data on migration status (IOM/ECDC)
- Increased risk of infectious diseases
  - » Tuberculosis
  - » ↑Hepatitis B and C in migrants/data lacking (www.hepscreen.eu)
  - » HIV: Sub-Saharan Africans (60% new cases; late presentation)
  - » Increased susceptibility to vaccine-preventable diseases

- Refugees (OR 2.31; 95% CI 1.1-4.9) and low-income migrants (1.5; 1.3-1.7) shown to have a rapid decline in self-reported health after arrival (Pottie K et al CMAJ 2011)
- New migrants face multiple legal and social barriers to healthcare: ↑ restrictive EU approach

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"I have a service user that died here .... he was very ill for many months, he didn't look for a doctor or anything because he was illegal. So the people that were living with him said that if he goes to the doctor maybe they call immigration, they call the police"
Male, Latin American, age 31 years, UK

"I wouldn't even dare go near a hospital. If they catch me they will arrest me. The first thing they ask you at a hospital is for your identification number"
Woman, age 28 years, African, Sweden

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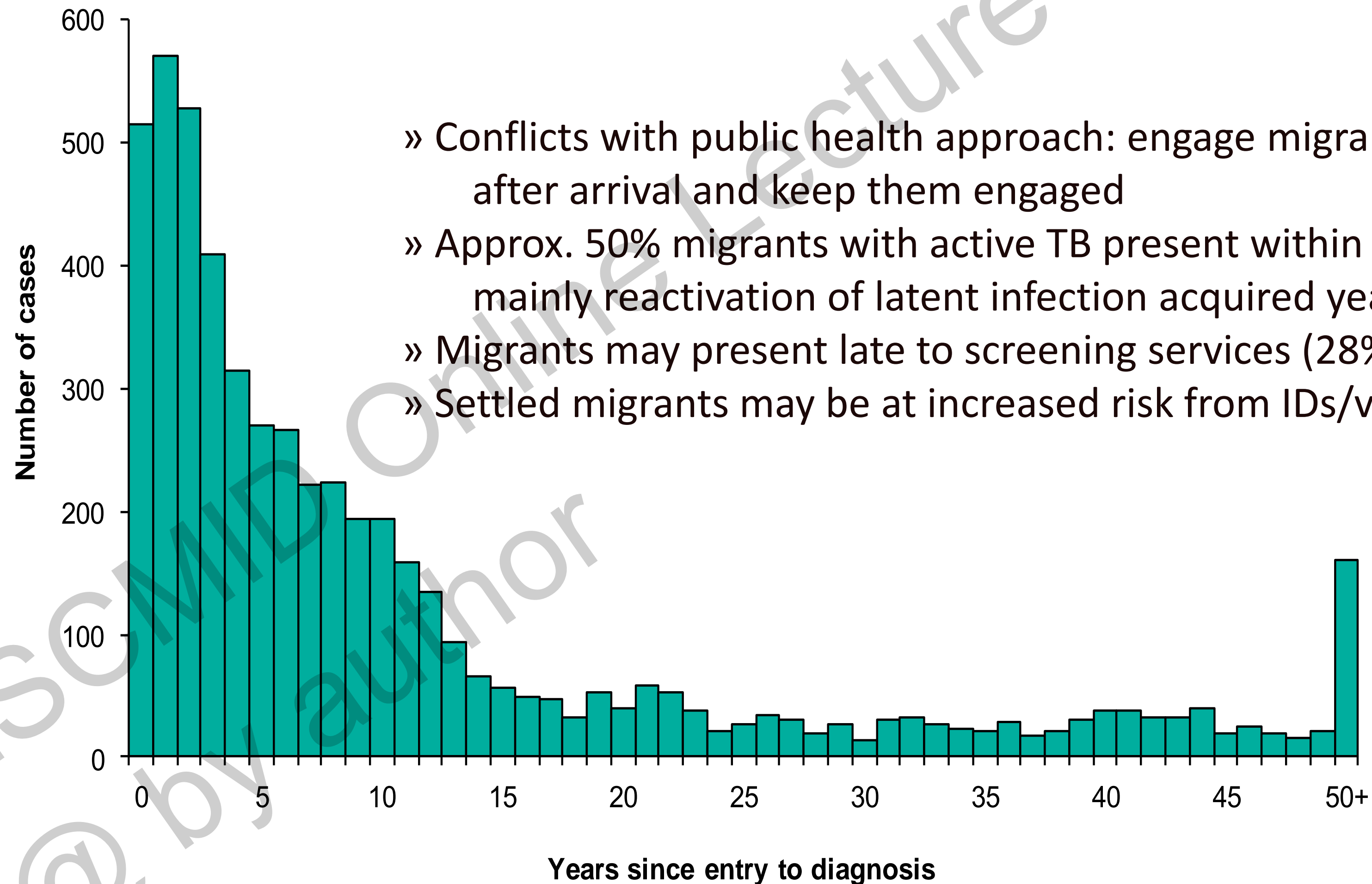
Foreign-born TB cases in UK: time from entry to diagnosis 2012 [PHE 2013]



- » Conflicts with public health approach: engage migrants soon after arrival and keep them engaged
- » Approx. 50% migrants with active TB present within 5 years: mainly reactivation of latent infection acquired years earlier
- » Migrants may present late to screening services (28%/UK)
- » Settled migrants may be at increased risk from IDs/visits home

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Migrants and TB

- Despite notable progress, TB remains a public health concern in the EU
  - » Epidemic in EU is driven by migration of individuals from high-burden countries
  - » 64,844 cases of TB in 2013, foreign-born/males over-represented [ECDC, 2015]
  - » New WHO framework for TB elimination in low-incidence countries [*Eur Respir J* 2015]
  - » Shift towards more proactive approach to screening of high-risk groups

- UK has one of the highest TB rates in Western Europe
  - » Non-UK born account for 73% of cases (7892 cases in 2013)
  - » 47% cases are non-pulmonary (lymph /gastrointestinal)

- Limited evidence that migrants pose a TB threat to host communities: enhanced spread of TB within migrant communities

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EU approach to TB screening

Screening locations

- Reception centres/transit camps
- Migrant centres
- ID units/antenatal services
- Non-clinical community settings (churches, temples)
- Primary care/General Practice
- At the border
- Pre-entry screening
- A combination of settings

- Service models vary widely: the factors influencing the chosen practices are unclear
- Most screening programmes focus on TB (Hepatitis B and C and HIV)
- Debate as to what approach works best (uptake/yield/Rx completion)
- Cost-effectiveness of pre and post-entry screening in migrants is unknown

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EU approach to TB screening

- Questionnaire survey/experts in 28 EU countries [T Karki et al Environ Res Pub Hlth 2014]
  - » 59% (16/27) countries offer formal screening to new migrants
  - » 50% had national guidelines on screening for IDs
- Where screening does take place, the approach varies: different TB incidence thresholds used, contact tracing, vaccination
- Mandatory *vs* voluntary screening
  - »The Netherlands targets all migrants from high burden TB countries staying for >3months if they apply for residence permit, then voluntary
  - » Norway/Switzerland transit camps for asylum seekers/refugees: entry conditional upon screening
  - » UK: community-based screening/voluntary

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Latent TB screening

- Mounting evidence suggests that implementing latent TB screening for newly arrived migrants from intermediate/high incidence countries could cost-effectively reduce TB
- Screening aims to detect the presence of *M tuberculosis* organisms in people without symptoms of TB and offer chemoprophylaxis
- Intradermal Mantoux (skin) test and interferon gamma release assay (IGRA) blood test now adopted in most EU countries (targeting migrants from country with TB incidence of 40 per 100,000 or higher)
- Extent to which guidance is adopted on the ground varies widely

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Screening best practice for adult migrants

Pottie K, et al. Evidence-based clinical guidelines for immigrants and refugees. CMAJ 2011; DOI:10.1503/cmaj.090313

Infection	Approach
Measles, mumps, rubella	Vaccinate all adult immigrants without immunization records using one dose of measles–mumps–rubella vaccine.
Diphtheria, pertussis, tetanus and polio	Vaccinate all adult immigrants without immunization records using a primary series of tetanus, diphtheria and inactivated polio vaccine (three doses), the first of which should include acellular pertussis vaccine.
Varicella	Screen all immigrants and refugees from tropical countries □13 years of age for serum varicella antibodies, and vaccinate.
Hepatitis B	Screen adults from countries where sero-prevalence of chronic hepatitis B virus infection is moderate or high (≥ 2% positive for hepatitis B surface antigen), such as Africa, Asia and Eastern Europe, for hepatitis B surface antigen, anti-hepatitis B core antibody and anti- hepatitis B surface antibody. Vaccinate susceptible (negative for all three markers).
Tuberculosis	Screen adolescents < 20 years of age and refugees between 20 and 50 years of age from countries with a high incidence of tuberculosis as soon as possible after their arrival in Canada with a tuberculin skin test. If test results are positive, rule out active tuberculosis and then treat latent TB.
HIV	Screen for HIV from countries where HIV prevalence is greater than 1% (sub-Saharan Africa, parts of the Caribbean and Thailand).
Hepatitis C	Screen for antibody to hepatitis C virus in all immigrants and refugees from regions with prevalence of disease ≥ 3% (this excludes South Asia, Western Europe, North America, Central America and South America).
Intestinal parasites	*Strongyloides:* Screen refugees newly arriving from Southeast Asia and Africa with serologic tests for *Strongyloides*. *Schistosoma:* Screen refugees newly arriving from Africa with serologic tests for *Schistosoma.*
Malaria	Do not conduct routine screening for malaria but be alert in migrants who have lived or travelled in malaria-endemic regions in previous 3 months.

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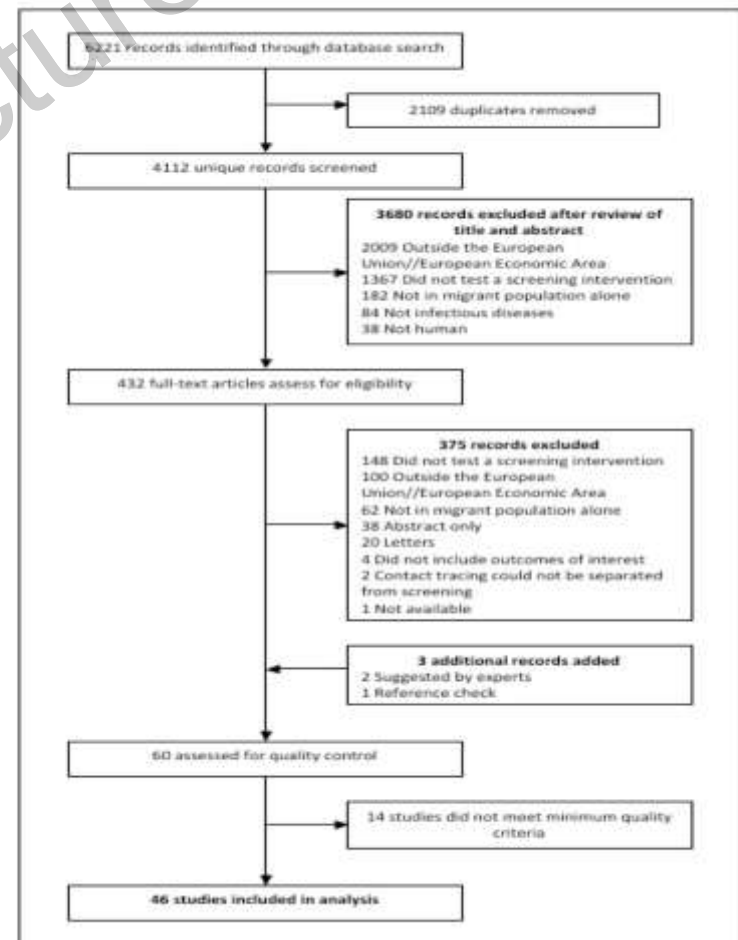
Systematic Review of the effectiveness of screening programmes for migrants in Europe

- »PRISMA guidelines/expert panel
- »Primary research studies that assessed screening intervention in migrants



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Key Findings

- 46 studies in multiple settings: majority targeting single diseases rather than multiple diseases (mainly TB, Hep B and C, HIV, parasites)

- Most screening done in specialist migrant centres targeting migrants from high-burden TB countries; others asylum seekers/refugees or nationality specific

- Uptake high in migrants: 80% [Seedat F et al 2015; Brewin P 2006; WHO 2013]

- Poor follow up in migrants
  - » 25% begin screening but drop out before a diagnosis is made
  - » 16% start treatment but don't ultimately complete it

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Latent TB pooled data

Outcome	Observation	Mean N per observation (SD)	Median % (range)
Start screening but drop out before a diagnosis is made	4	818.75 (514.87)	26.67 (0.16-67.18)
Of migrants diagnosed +'ve, how many start treatment?	4	20.50 (15.89)	54.45 (35.71-72.27)
Start treatment but do not complete it	4	20.50 (15.89)	45.56 (22.72-64.29)

Screening is acceptable to migrants but we need to improve diagnosis and treatment completion rates, especially for latent TB

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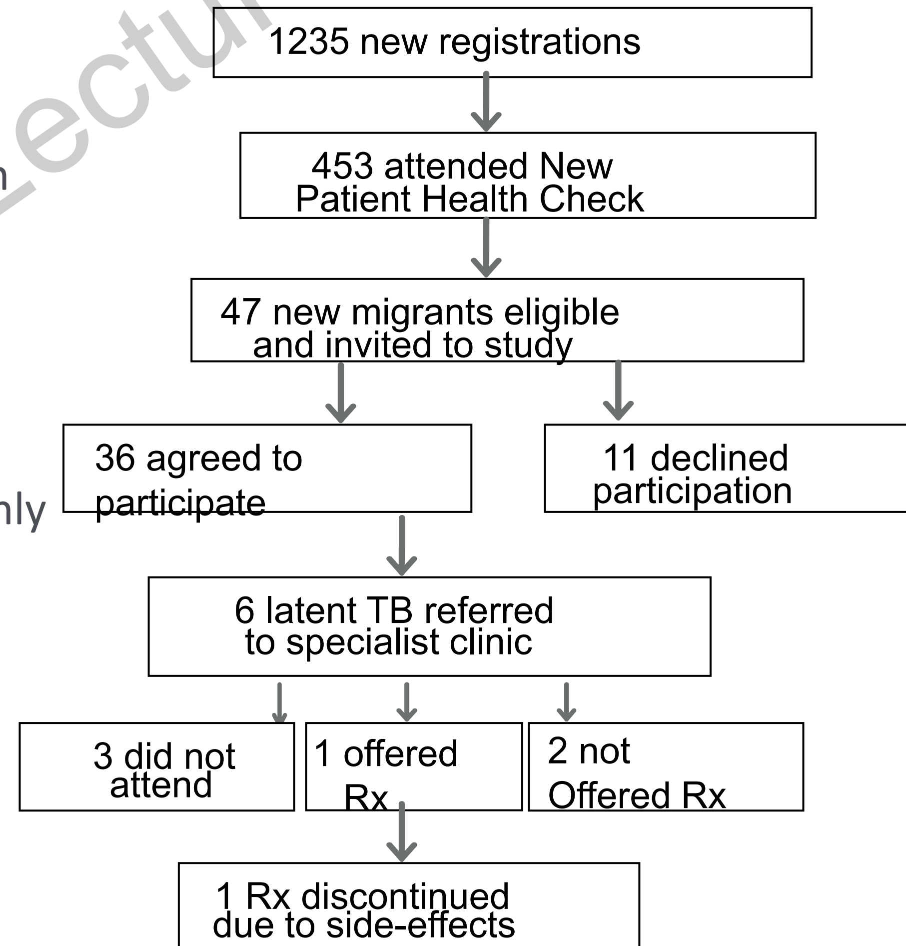
"Enhanced" screening through mainstream services

- One-stop testing latent TB, hep B and C, and HIV to new migrants when they register
- 2 GP practices in high-migrant area of London
- Altered IT systems to record migrant status
- Numbers low in UK primary care (47 of 1235 new registrations/6months)
- Major barriers to registration with a GP
- High uptake (80%); ⇧detection of latent TB only
- Ultimately no-one was treated, 3 DNAs
- New study: A&E department + facilitate GP registration



Hargreaves S et al, BMC Infect Dis 2014

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Barriers to screening services (Seedat F, et al PloS One 2015)

Patient level barriers
Lack of knowledge of the host health system and accessing screening services; language and cultural barriers
Low perception of risk for infectious diseases
Screening considered a low priority
High levels of social stigma in their own communities around infectious diseases and attending screening

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System and provider level barriers to screening services
Lack of information on where and when to seek screening – is it free and is it confidential?
Discriminatory practices and negative attitudes of frontline staff
Lack of knowledge among health-care professionals
Legal entitlement to publicly funded healthcare

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EU entitlement overview

Access to health services for undocumented immigrants in the EU

(April 2012, adapted from El País)

	ACCESS TO HEALTH SERVICES					ACCESS TO TREATMENT	
	Primary care	Specialist care	Hospitali-zation	Emergen-cies	Child delivery	Medicine with prescriptions	Other illnesses
Germany							
Belgium							
Spain before Sept 2012							
Spain after Sept 2012							
France							
Greece							
Italy							
Netherlands							
Poland							
Portugal							
UK							
Rumania							

No access | Free access | Access based on full payment | Access based on co-payment | No legislation

- All offer emergency care via A&E
- Germany and Greece: no access
- UK, Spain (since 2012), Poland, Romania access based on full payment
- UK exploring expanding identification and charging into both primary care and A&E departments (TB free of charge)
- Where rights to health care exist (Belgium, France), many migrants are unable to realise them: increasing reliance on NGOs
- Impact on screening programmes?

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Some questions to consider ......

- Who should we screen (all migrants, asylum seekers/refugees, certain regions)
- Why would we screen (public health planning, to restrict migrants from entering the EU, for ensuring right to health?)
- When do we screen (pre-migration, on arrival, after entry, and how often?)
- Where do we screen (specialist centres, mainstream, NGOs? community?)
- What do we screen for (Active/latent TB, Hepatitis B/C, HIV?)
- Who will pay for screening (migrants themselves, host states, employers)
- How to screen (voluntary or compulsory? ensuring confidentiality, ensuring Rx completion?)

Adapted from: ECDC Meeting report: Public health benefits of screening for infectious diseases among newly arrived migrants to the EU/EEA (Manuel Carballo ICMHD); 19-20th March 2014

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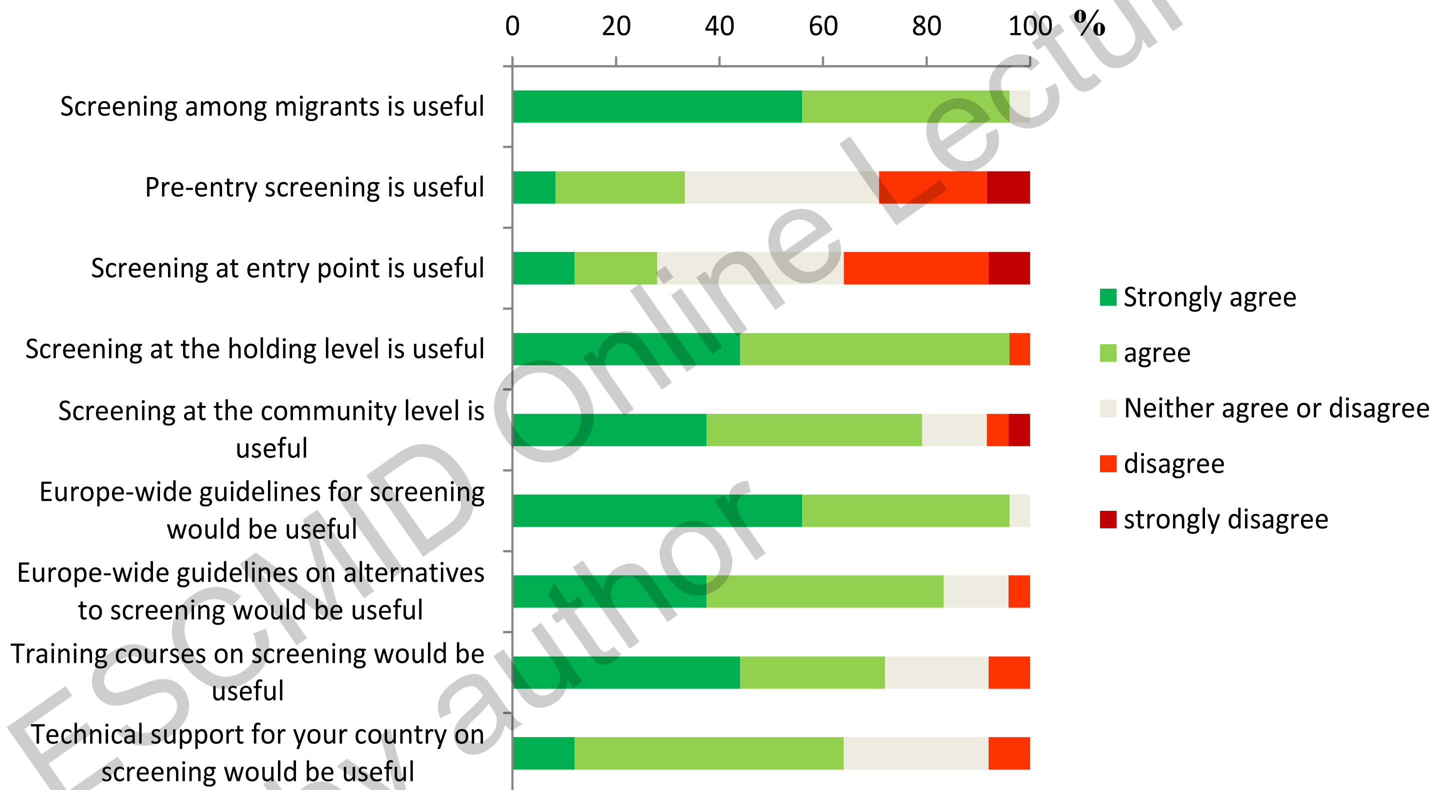
Int. J. Environ. Res. Public Health **2014**, *11* **11010**

Do we need EU guidelines?

Figure 6. Expert opinions on the usefulness of screening and of potential actions taken on international level (n = 26).



Questionnaire survey of experts across 28 EU countries

[T Karki et al, *Environ Res Pub Hlth* 2014]

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4. Discussion and Conclusions

At the time of the survey, just over half of the EU/EEA countries had implemented national or

Further conclusions

"If I cannot access services, then there is no reason for me to test"

Aggleton et al, *AIDS Care* 2010

- Improve access to health care post-migration
- Promotion of migrant-sensitive health-care systems: sustainable long-term approaches to improving migrant health status
- Improved training and vigilance among health-care professionals
- Develop standardised and reproducible data categories and definitions to describe migrants
- We need new and innovative approaches to migrant screening and a better understanding of what works best in Europe in order to improve service delivery

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Acknowledgments

Prof Jon S Friedland and Farah Seedat, Imperial College London

The BME Health Forum, Dalgarno Trust, Hodan Somali Community, Opportunity for All, Rain Trust, The Iranian Association, The Forum, TB Alert, and the Ukrainian Migrants Network.

This work was funded by the Imperial College Healthcare Charity and the Imperial Biomedical Research Centre, London, UK.

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