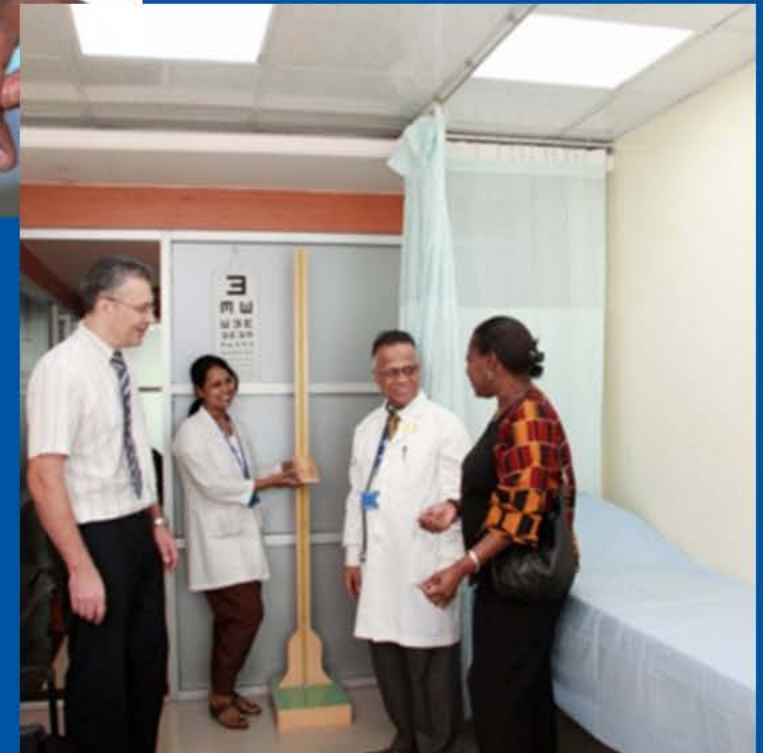


Tuberculosis and Migration

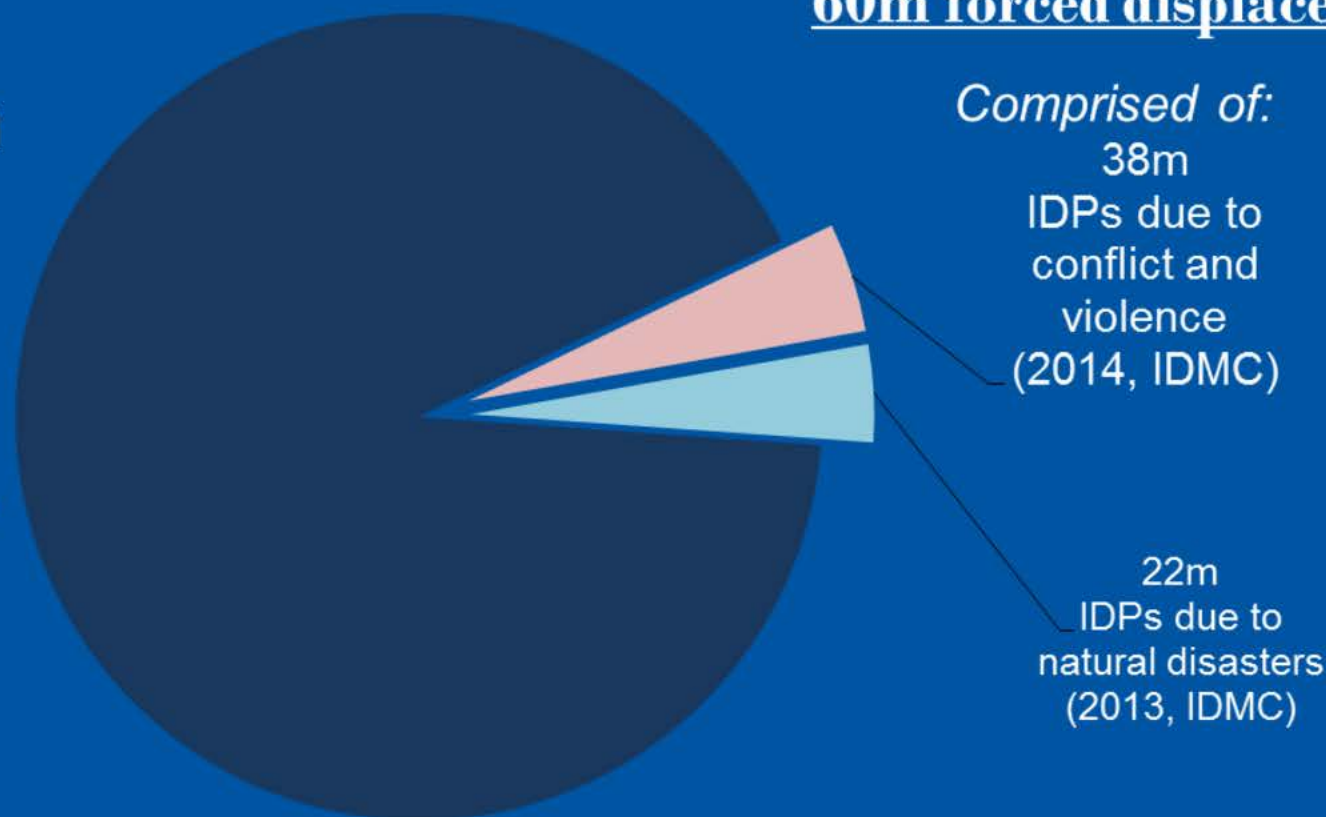




The Context

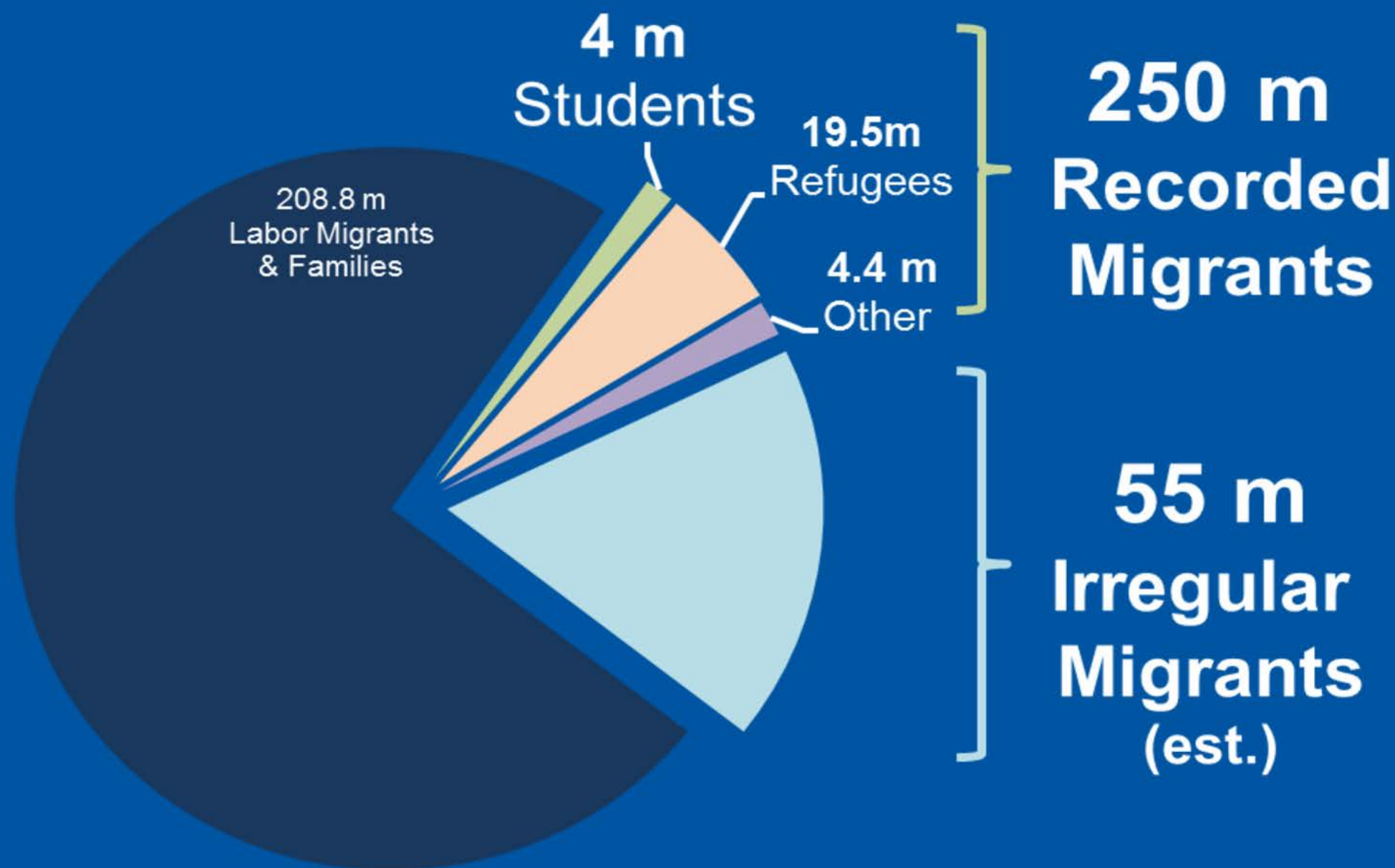


7.4 billion population
>1 billion migrants
250 million international
760 million internal
Urbanization: >50%
Feminization: 50%
Under 20 years of age: 33M



“International migration is set to grow even faster than in the past quarter-century” (Intelligence Council on Global Trends 2030, December 2012 issue)

250 Million International Migrants...



Sources: UNDESA, 2013; UNHCR, 2014; ILO, 2014; UNESCO, 2013; UNDP, 2009. Figures are latest available stock estimates for either 2013, 2012 or 2010 – totals for each group at the end of the most recent year for which figures have been produced

Tuberculosis: a global issue



The 2015 WHO TB report shows that the Millennium Development Goals (MDGs) have been achieved globally:

- Decrease in new TB and relapse TB cases by an average of 1.5% since 2000
- Decrease in number of TB cases (42% since 1990)
- Decrease in TB mortality rate (47% since 1990)
- Between 2000 and 2014, TB treatment alone saved 35 million lives among HIV-negative people; TB treatment and antiretroviral therapy saved an additional 8 million lives among HIV-positive people.

Note: The MDG targets were to decrease incidence of TB cases by 2015 (MDG target 6c) and that prevalence and mortality rates should be halved compared with their levels in 1990.

Tuberculosis: a global issue



But globally, TB remains a global threat

- Approximately 6 million new cases of TB were reported in 2014
- About 1.5 million deaths due to TB (including 390,000 deaths among HIV-positive people and 190,000 from MDR-TB) in 2014
- TB ranks alongside HIV as a leading cause of death worldwide
- Of the 480,000 cases of multidrug-resistant TB (MDR-TB) estimated to have occurred in 2014, only about a quarter of these – 123,000 – were detected and reported

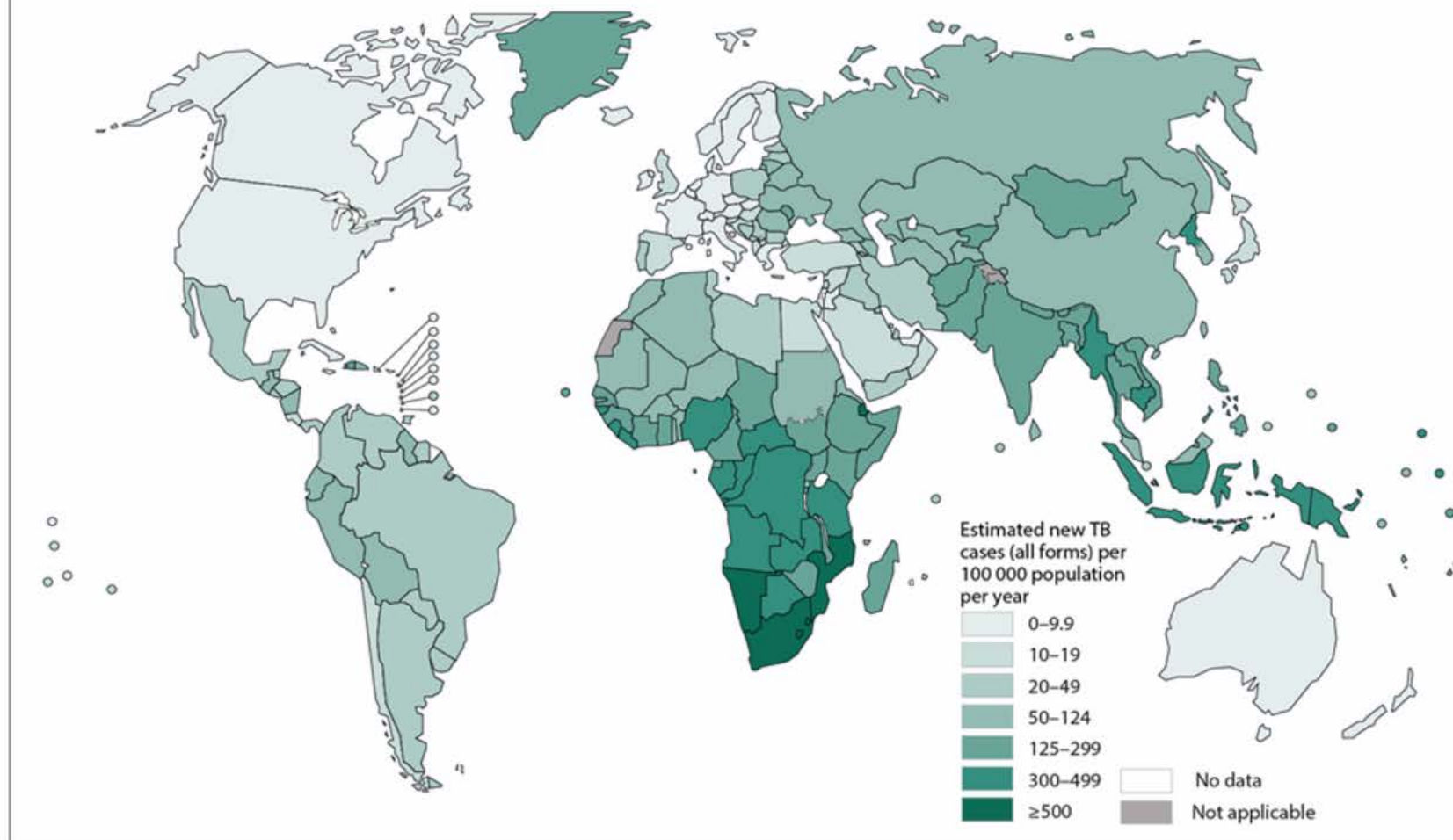
TB burden is concentrated in developing and low income countries / regions

- Around 58% of cases occur in the South-East Asia and Western Pacific regions
- The African Region has 28% of the world's TB cases, but the most severe burden relative to population (281 incident cases per 100,000 population on average, more than double the global average of 133)
- Majority (74%) of TB/HIV cases were in the African Region
- India, Indonesia and China had the largest numbers of cases (23%, 10% and 10% of the global total, respectively)

Tuberculosis: a global issue



Estimated TB incidence rates, 2014



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

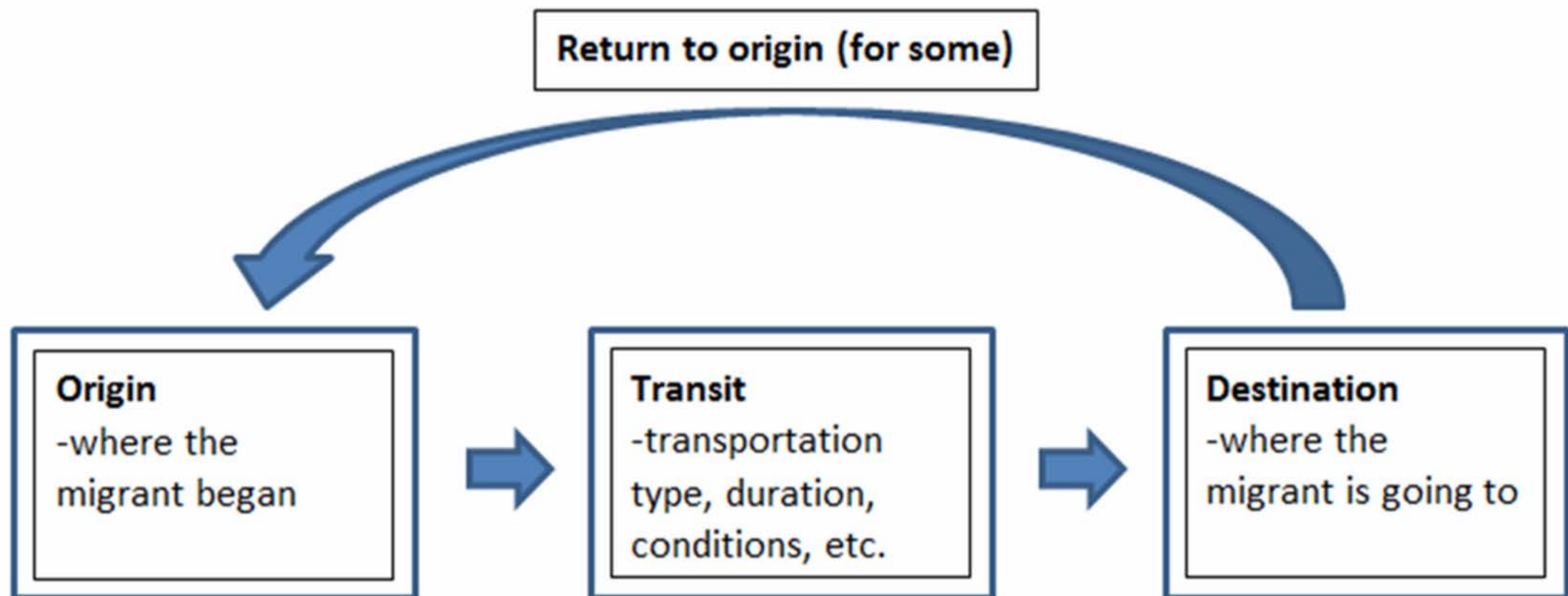
Data Source: *Global Tuberculosis Report 2015*. WHO, 2015.

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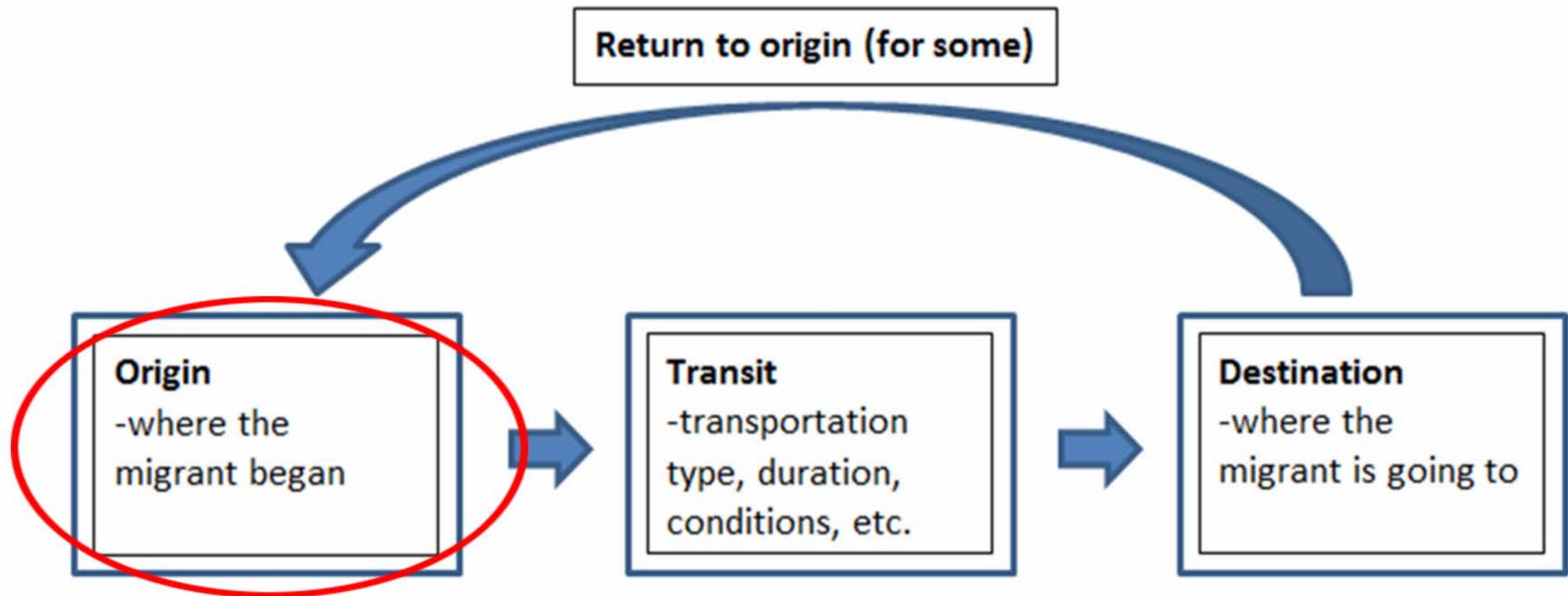
The largest migrant source countries overlap with the highest TB-burden countries; India, Russian Federation, Bangladesh, China, Pakistan, Philippines, Afghanistan, Indonesia. In low-burden and immigration countries, TB is often observed in foreign-born groups of population for both existing infection, or reactivation of latent TB.

The migration process and TB in individuals



There are risks involved with TB infection at ALL POINTS of the migration process.

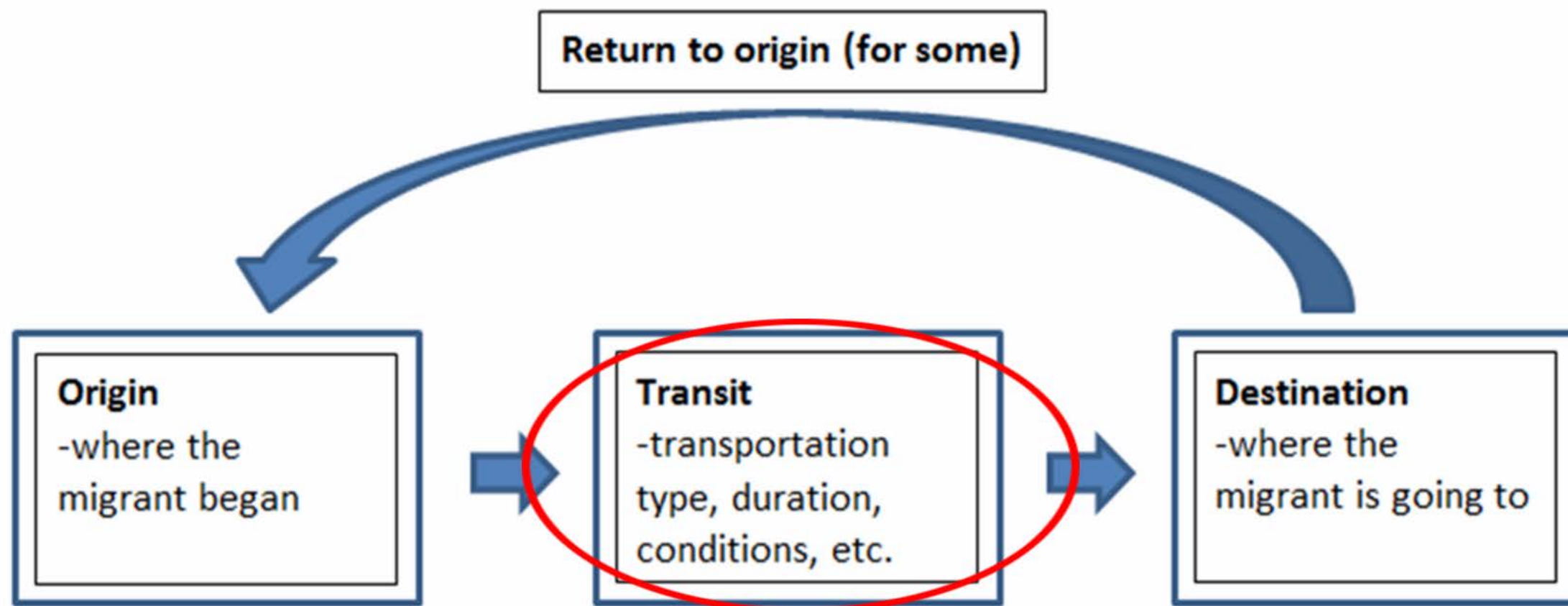
The migration process and TB in individuals



Risk factors for TB at origin:

1. Burden of TB in the community of origin
2. Health care system available to the community of origin
3. Access to care
4. Initial SES
5. Education/ knowledge/ beliefs
6. Political (in)stability
7. Conflict

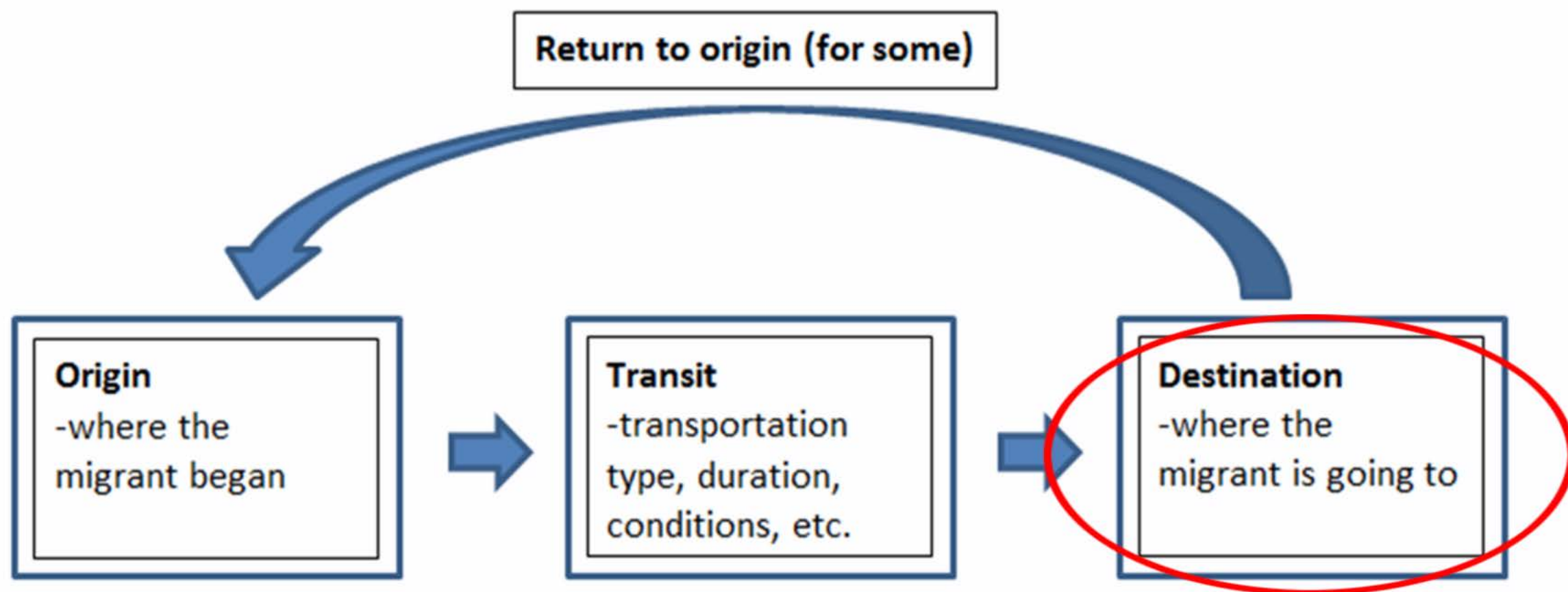
The migration process and TB in individuals



Risk factors for TB during transit:

1. Physical travel conditions:
 - overcrowding
 - food shortages
 - violence
 - poor ventilation
2. Interrupted treatments/ no continuity of care
3. Potential distrust for public personnel; fear of getting caught, deportation, etc.
4. Women are particularly vulnerable - reproductive health, sexual health (ex. rape)

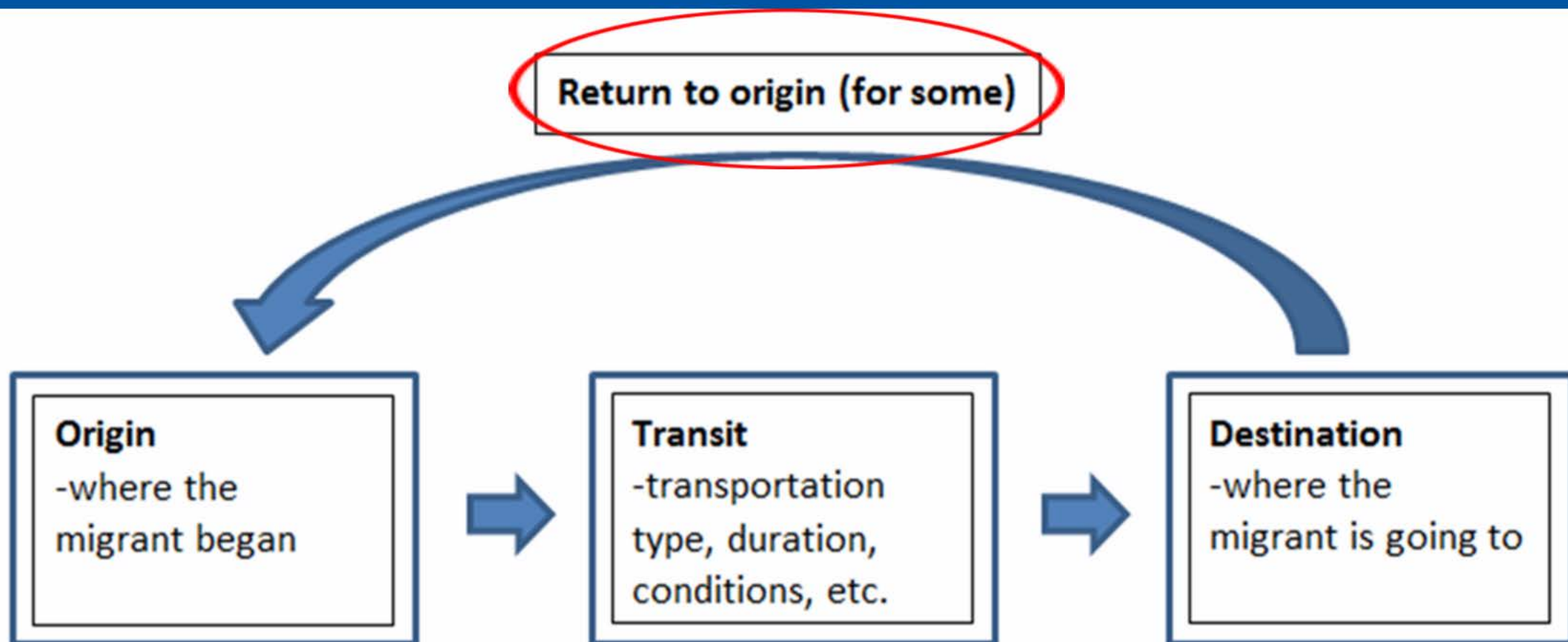
The migration process and TB in individuals



Risk factors for TB at destination:

1. Integration into social systems:
 - access to adequate housing, jobs, health care
2. Poor working conditions (overcrowding, poor ventilation, overexposure to small particles)
3. Low wages
4. No benefits- no insurance/ sick leave
5. Delayed presentation for treatment
6. Poor nutrition
7. Language and cultural barriers
8. Stigma-related fears

The migration process and TB in individuals



Risk factors for TB during return:

1. Availability and accessibility of health care services
2. Stigma and family pressure
3. Distress/ psychological issues

Migration and health in receiving countries

1. There is an increased incidence of TB in foreign-born populations of low burden countries

- a decrease in TB in the native born
- an increase in the immigration of people from countries where TB is endemic

Countries of Origin of Foreign-Born Cases of Tuberculosis(TB) Diagnosed in the United States

Over 70% of the 6,854 foreign-born TB cases in 2009 were reported from these 12 countries of origin:

Country of Origin	Number of cases
MEXICO	1598
PHILIPPINES	806
VIETNAM	526
INDIA	533
CHINA	340
HAITI	195
KOREA, REPUBLIC OF	158
GUATEMALA	212
PERU	94
EL SALVADOR	118
ETHIOPIA	167
HONDURAS	146

Table 1 Number of cases of tuberculosis notified to the World Health Organization and estimated percentage of total cases in the population of foreign birth in different countries

Country	No. of cases reported in 2003	% cases in foreign-born population
Australia	1 013	80
Canada	1 451	66
France	5 740	41
Germany	6 526	38
Israel	505	85
Netherlands	1 282	61
Norway	320	76
Switzerland	554	51
United Kingdom	6 400	64
United States of America	14 861	51

Number of TB Cases in U.S.-born vs. Foreign-born Persons United States, 1993–2011*

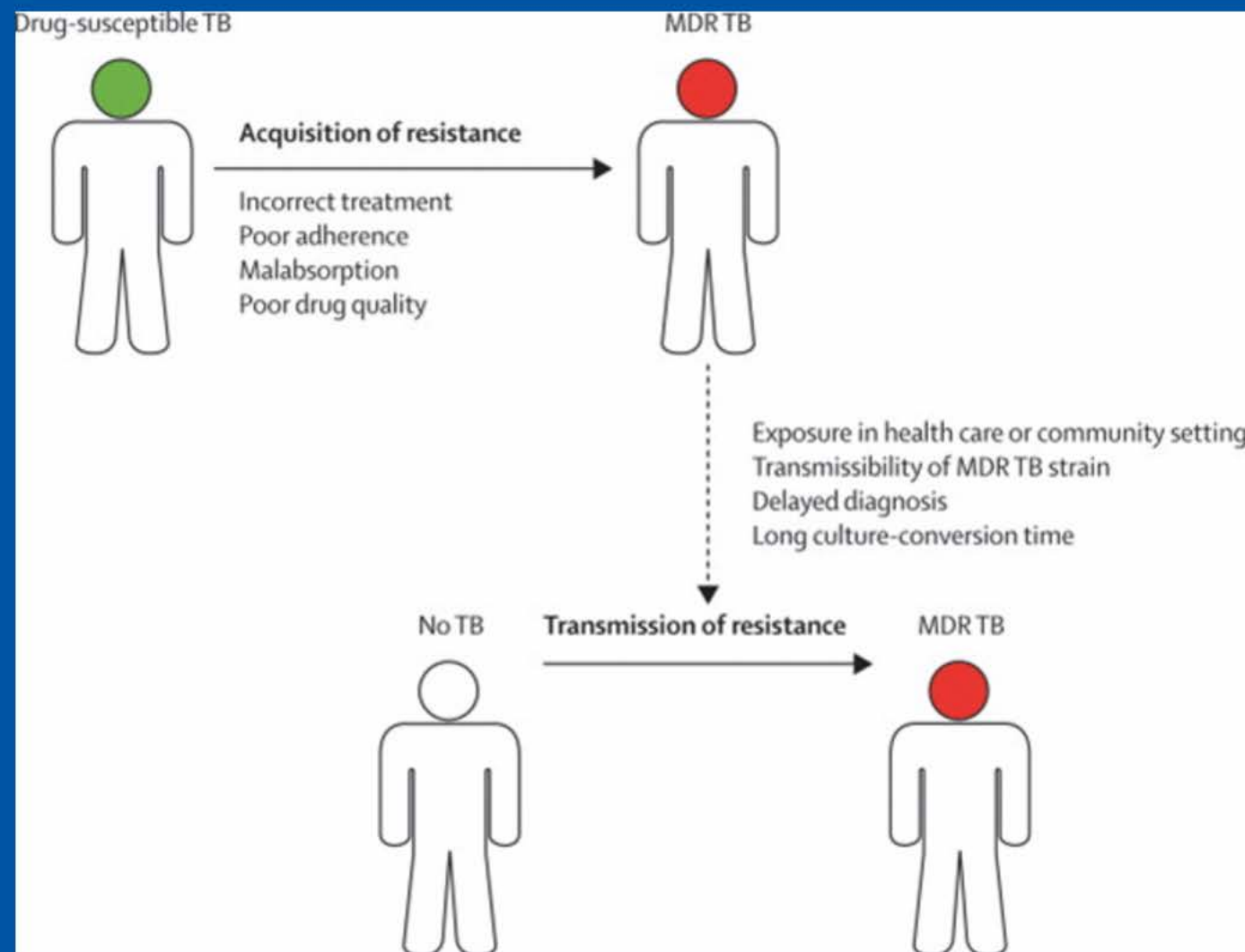


*Updated as of June 25, 2012.

Migration and health in receiving countries

2. An increase in the cost of medical care for foreign-born TB cases

- lack of insurance?
- TB resistance?
- no continuity of care? - increased chance of TB resistance?



A clarification: migrant myths vs. reality

Table 1. Migrant health: Myths versus realities

Common myths:

- Migrants are carriers of diseases.
- Migrants are a burden on the health system.

Reality:

- Most migrants are young, of the working-age group and travel when they feel healthy.
- Conditions surrounding the migration process make migrants more vulnerable: i.e., the health profile of a migrant depends on the characteristics of the migration process.
- Migrants often underutilize services and if they do, they often pay out of pocket.

South Africa's temporary mining community: occupational conditions and TB



Context:

- many miners are migrant laborers from neighboring countries, especially from Lesotho, Mozambique, and Swaziland
- high HIV prevalence and subsequently, high TB prevalence
- high exposure to silica from the mines- occupational hazard
- high risk of drug resistance
- high rates of TB transmission

South Africa

| High TB burden | High HIV burden | High MDR-TB burden |

Population 2011

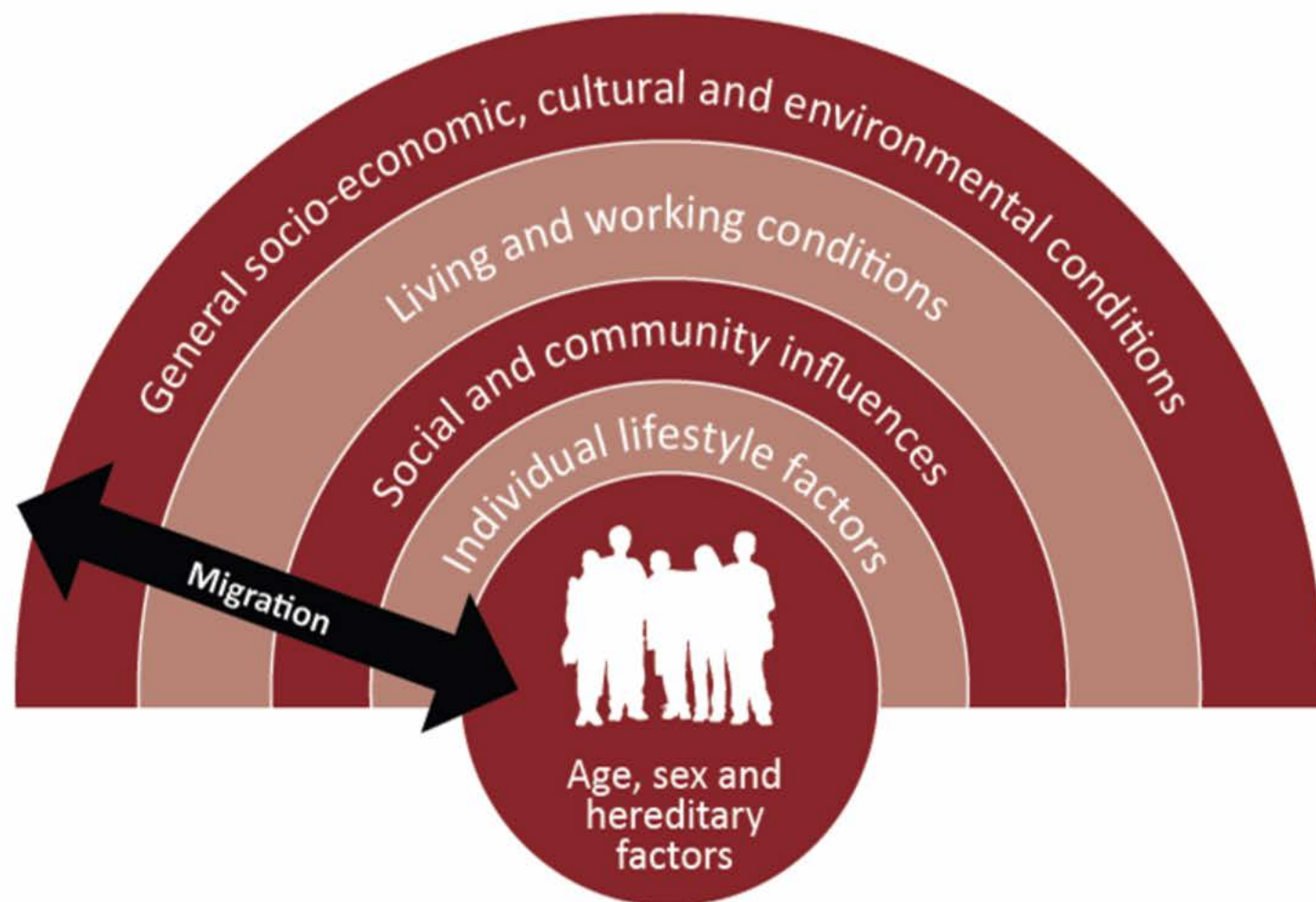
50 million

Estimates of TB burden * 2011	Number (thousands)	Rate (per 100 000 population)
Mortality (excludes HIV+TB)	25 (11–44)	49 (21–87)
Prevalence (includes HIV+TB)	390 (200–630)	768 (399–1 254)
Incidence (includes HIV+TB)	500 (410–600)	993 (819–1 182)
Incidence (HIV+TB only)	330 (270–390)	650 (536–774)
Case detection, all forms (%)	69 (58–83)	



Addressing ALL underlying determinants

The legal, social, cultural, economic, behavioral, and communication barriers involved with the entire migration process put migrants at a greater risk of disease. In addition to strategies and programs in place to decrease global TB transmission, we also need to address other migration-influenced factors that affect health.



TB Risk Factors:

malnutrition

overcrowding

poor ventilation; higher
disease susceptibility

lack of knowledge= less
health-seeking
behaviors

THE RIGHT TO HEALTH

Underlying determinants of health

Access to minimum essential food, which is nutritionally adequate and safe.

Access to basic shelter or housing, safe and potable drinking water and adequate sanitation.

Access to healthy occupational and environmental conditions.

Education and access to information concerning the main health problems in the community, including methods of preventing and controlling them.

Health care

Right of access to health facilities, goods and services on a non-discriminatory basis, with attention to vulnerable and marginalized groups.

Equitable distribution of all health facilities, goods and services.

Provision of essential drugs, as defined under the WHO Action Programme on Essential Drugs.

Participation of affected populations in health-related decisions at the national and community levels.

Availability, Accessibility, Acceptability and Quality

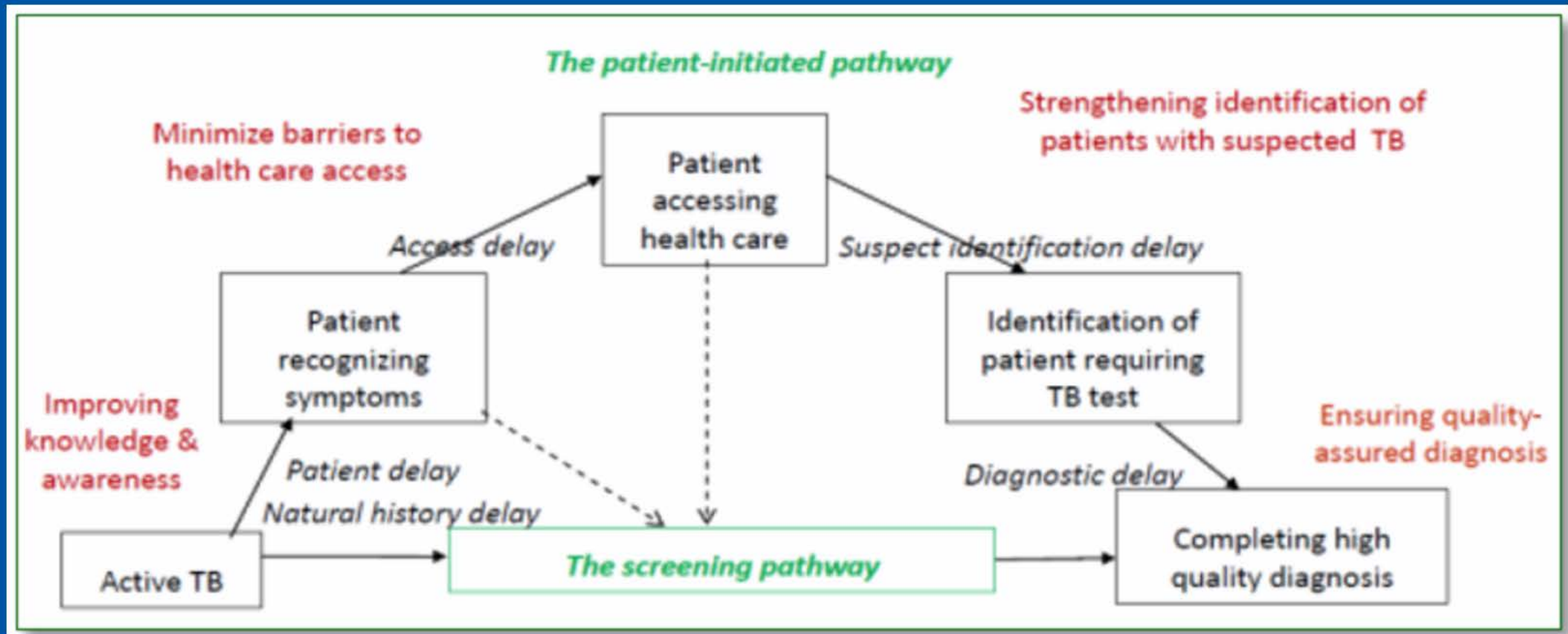
Availability: functioning public health and health facilities, goods, services and programmes in sufficient quantity.

Accessibility: non-discrimination, physical accessibility, economic accessibility (affordability), information accessibility.

Acceptability: respectful of medical ethics and culturally appropriate, sensitive to age and gender.

Quality: scientifically and medically appropriate.

Screening pathway to increase detection



Overseas screening programmes



Screening migrants can:

- ensure early case detection and access to treatment in vulnerable populations
- includes referral to relevant health systems as necessary

Components of the Stop TB strategy

1. Pursue high-quality DOTS expansion and enhancement
 - a. Secure political commitment, with adequate and sustained financing
 - b. Ensure early case detection, and diagnosis through quality-assured bacteriology
 - c. Provide standardized treatment with supervision, and patient support
 - d. Ensure effective drug supply and management
 - e. Monitor and evaluate performance and impact
2. Address TB-HIV, MDR-TB, and the needs of poor and vulnerable populations
 - Scale-up collaborative TB/HIV activities
 - Scale-up prevention and management of multidrug-resistant TB (MDR-TB)
 - Address the needs of TB contacts, and of poor and vulnerable populations
3. Contribute to health system strengthening based on primary health care
 - Help improve health policies, human resource development, financing, supplies, service delivery and information
 - Strengthen infection control in health services, other congregate settings and households
 - Upgrade laboratory networks, and implement the Practical Approach to Lung Health (PAL)
 - Adapt successful approaches from other fields and sectors, and foster action on the social determinants of health
4. Engage all care providers
 - Involve all public, voluntary, corporate and private providers through Public-Private Mix (PPM) approaches
 - Promote use of the International Standards for Tuberculosis Care (ISTC)
5. Empower people with TB, and communities through partnership
 - Pursue advocacy, communication and social mobilization
 - Foster community participation in TB care, prevention and health promotion
 - Promote use of the Patients' Charter for Tuberculosis Care
6. Enable and promote research
 - Conduct programme-based operational research
 - Advocate for and participate in research to develop new diagnostics, drugs and vaccines

IOM TB Services Migration Health Assessments



1. Screen migrants for active TB prior to resettlement and immigration.
2. Provide a comprehensive range of TB-related services, including physical examination, radiological investigation, the tuberculin skin test, sputum smear and culture, drug susceptibility testing (DST) and DOT, in line with partner government protocols.
3. Provide TB treatment either directly or through a referral system, in partnership with national tuberculosis programmes (NTPs).

Screening example: IOM's Migration Health Assessment Programmes



COMPONENTS OF THE MIGRATION HEALTH ASSESSMENTS

Depending on the situation, the type of migrant and country-specific guidelines, a migration health assessment may include some or all of the following components:

- Review of medical and immunization history
- Detailed physical examination and mental health evaluation
- Clinical or laboratory investigations
 - Serological tests
 - Radiological screening (chest x-ray for tuberculosis)
 - Chemical analysis (blood/urine)
- Referral or consultation with a specialist
- Anti-fraud and corruption measures, including for services such as DNA testing and bio-sampling
- HIV/AIDS education and counselling, health education and voluntary testing

- Arranging for the administration of vaccinations and provision of or referral for directly observed treatment for some conditions (intestinal and other parasitic infestations, tuberculosis, malaria, sexually transmitted infections, anti-retroviral administration and prevention of mother-to-child vertical transmission)
- Detailed documentation of findings, preparation of required immigration health forms and documents
- Confidential transfer of relevant information or documentation to appropriate immigration or public health authorities
- Ensuring fitness to travel
- Public health surveillance and outbreak management in camps, transit centres and other temporary settlements
- Provision of medical escorts/special services for travel and relocation
- Collection and analysis of data

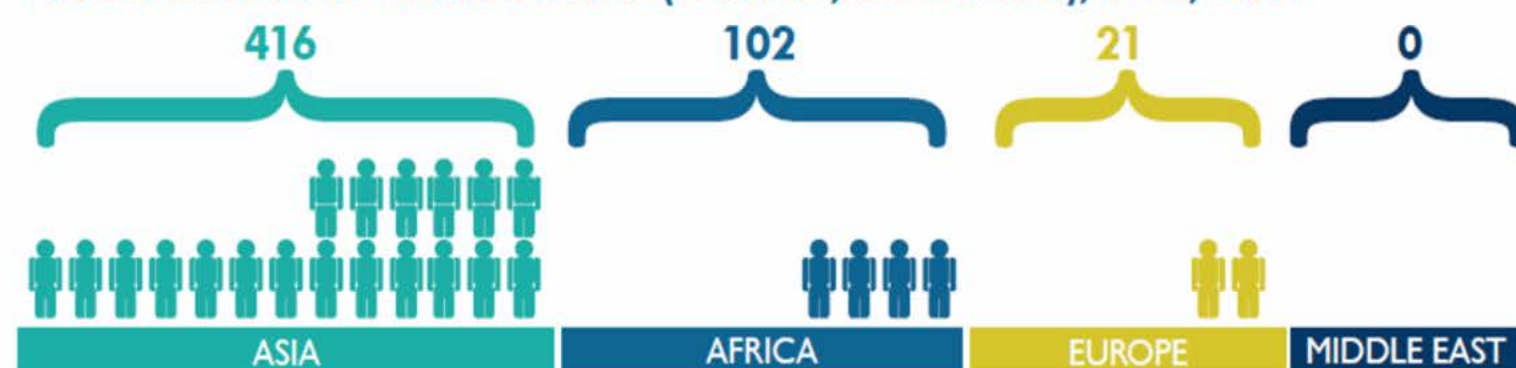
IOM Health Assessment Exams: How the data can be used to present TB detection



Country	Population	Detection	Citation
Vietnam	Migrants applying for a visa to Australia	489 total cases/ 100,000 people	Plant et. al. (2005)
Cambodia	Migrants applying for a visa to Australia	1,209 total cases/ 100,000 people	Plant et. al. (2005)
Thailand	US bound Hmong refugees	1,760 total cases/ 100,000 people; 9% of cases with MDR-TB	Oeltmann et.al. (2005)

IOM Pre-Migration TB Screening – Selected Outcomes

TB DETECTION IN IMMIGRANTS (PER 100,000 EXAMS), IOM, 2014



TB DETECTION IN REFUGEES (PER 100,000 EXAMS), IOM, 2014

