

Migration Health and Medicine

**European Federation of the Academies of
Medecine, Académie Royale de Médecine de
Belgique, Académie Royale de Médecine de France**

**Migrant Health and Infectious Diseases: a
Cause for Concern?**

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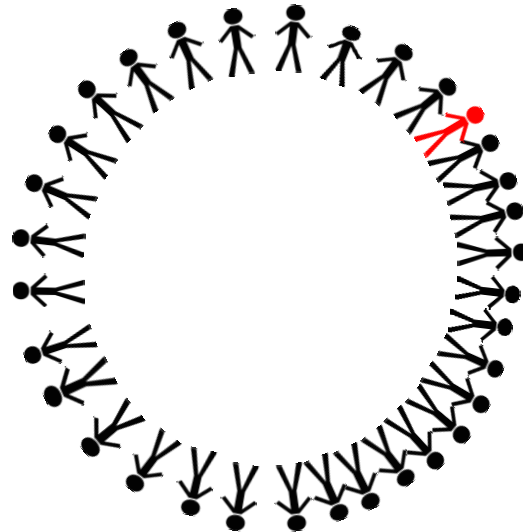
- ...facts are facts but perceptions can easily become the reality**
- ...2015 often referred to as the year of the great migration crisis**

Migrant Health and Infectious Diseases: a Cause for Concern?



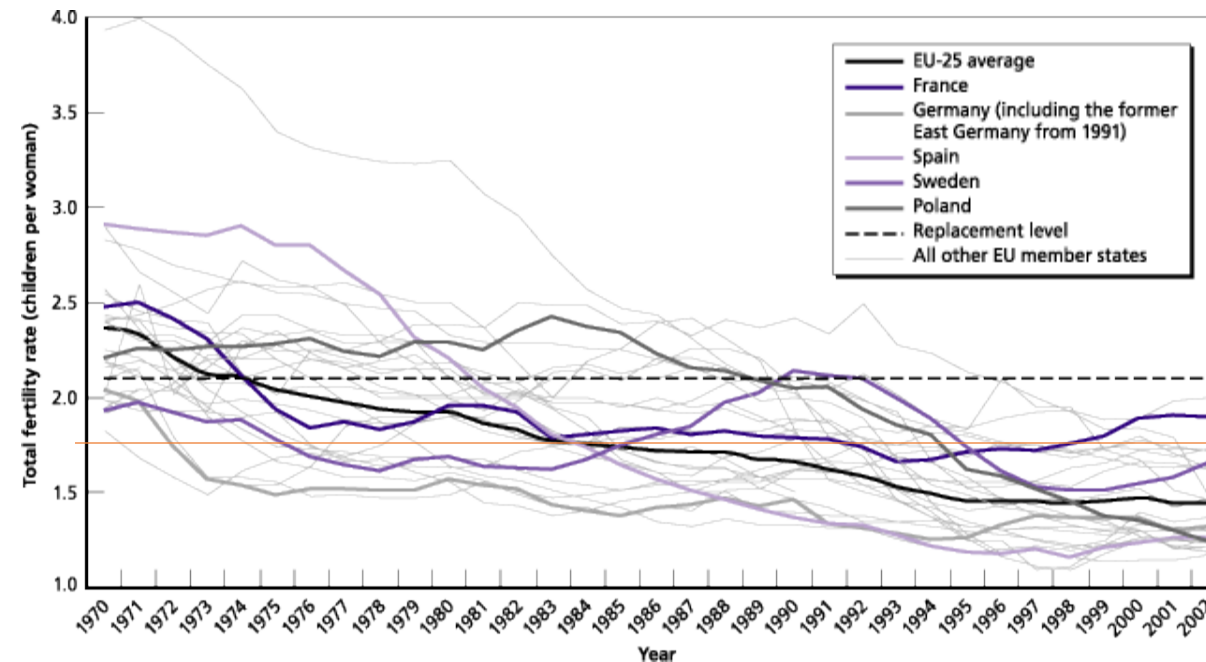
... in 2017 1 in 30 people in the world had "moved"

... in 2017 in EU of 512.46 million, slightly over 4% were newcomers



Migrant Health and Infectious Diseases: a Cause for Concern?

... they came to a demographically "emptying" continent that can only be replenished by the arrival of new people



... but many different people are on the move

- people moving from countryside to cities?? mill
- people moving across borders buying and selling....?? mill
- people moving with cattle across “borders”40 mill
- people moving because of conflict.....69 mill
- people moving because of nat. dis. in 10 years30 mill
- people moving across borders search of work280 mill
- people moving to make war or keep the peace.....26 mill
- **people moving in/across borders for recreation.....1,322mill**

Migrant Health and Infectious Diseases: a Cause for Concern?



... diseases have long been seen as moving with people

**...quarantine introduced at the end of 14th century in
Dubrovnik, Milan and Venice) to prevent spread of plague**

... population movement as a factor in the spread of bubonic plague?

- flea borne
- may have originated in China and moved by ship rats
- very early seen as potentially spread by trade ships
- gave rise to early quarantine
- port cities most at risk of outbreaks

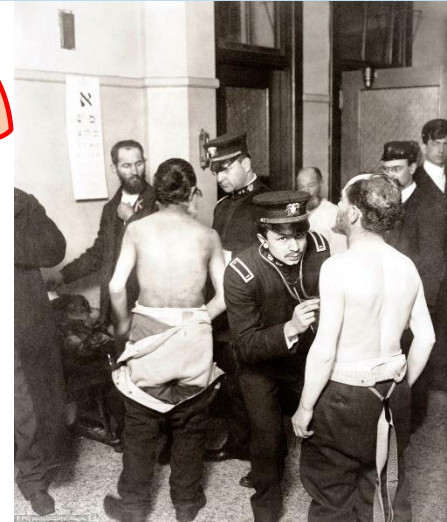
very rare (7 cases in USA 2017)

...population movement as a factor in the spread of smallpox?

- 6th century trade with China and Korea moved it to Japan
- 7th century Arab expansion took it to N.Africa, Spain, Portugal
- 11th century religious crusades moved it to, from Europe
- 15th century Portuguese colonization moved it to west Africa
- 16th century slave trade moved it to Caribbean, Americas
- 18th century British colonization moved it to Australia

... population movement as a factor in the spread of yellow fever?

- mosquito spread
- originated in Africa, possibly west Africa
- moved to Europe and the Americas with slave trade era
- throughout Caribbean and South America



**a problem in sub-Saharan Africa
... vaccine preventable
(2017 one case in Dutch tourist)**

... population movement a factor in the spread of tuberculosis?

- spread along trade routes and in urban settlements
- possibly moved zoonotically across Atlantic
- and contracted by hunters and fishermen
- then moved inland by traders and others including migrants
- classic disease of poverty and overcrowding



more common in migrants
than non-migrants but
little evidence of spread to hosts

... population movement as a factor in the spread of cholera?

- waterborne
- early epidemic outbreaks in India
- although very early mention in Europe by Hippocrates
- from India moved by British troop ships and troops
- moved to China, Japan, Malaysia, Baltic, Ireland, Americas
- and then to Middle East and Mecca



remains a problem where clean water and good sanitation is limited

... population movement as a factor in the spread of syphilis and gonorrhoea?

- taken by Columbus ...?
- brought back by Columbus ...?
- moved around by military personnel
- and today by tourists ...

significantly higher in non-migrants than migrants



... population movement as a factor in the spread of influenza?

- Spanish flu probably originated US Mid West zoonotically
- clustered in and around troop camps
- moved by troop movement to Europe in 1st WW
- rapidly assumed global proportion, killing 40 millions in a year
- H1N1 probably originated in New Mexico
- and spread globally quickly

...increasingly vaccine preventable
annual problem

... population movement as a factor in the spread of sudden acute respiratory syndrome?

- probably originated zoonotically in China
- moved by “a person on the move” to a hotel in Hong Kong
- and then an accelerated “geometric” centrifugal spread
- 8000 people in 25 countries across 5 continents in weeks

...rapidly moved
...difficult to manage

... population movement as a factor in the spread of infectious diseases?

... HIV/AIDS

- probably originated zoonotically in Central and West Africa
- moved with rural-urban migrants to cities and into poverty
- facilitated by rapid communication and transportation
- tourists, workers e.g. miners in Southern Africa

... population movement as a factor in the spread of infectious diseases?

... measles

- probably moved to the Americas and Pacific by explorers
- and then an accelerated “geometric” centrifugal spread
- killing (with other imported diseases) large numbers
- more common in “poor vaccine covered” populations

**low incidence in migrants
vaccine preventable**

... population movement a factor in the spread of infectious diseases?

... HBV

- origins difficult to characterise
- distribution global but prevalence variable
- population movement may have played a role
- current prevalence a function of vaccination coverage

migrants more at risk than non-migrants
vaccine preventable

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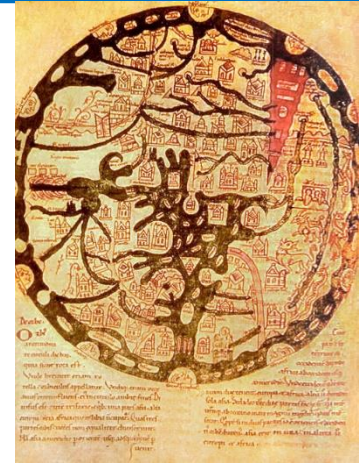
... speed of population movement as a factor in the spread of infectious diseases

infectious diseases could only spread:

- as fast as people could walk
- then as fast and far as horses could gallop
- then as fast as ships could sail
- then as fast as planes could fly
- 19 hours Australia-London
- vs 5 months in good weather in 19th century



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... distance of population movement as a factor in the spread of infectious diseases?

- until 19th century few people left their local environment
- for the most part in their ecological and disease environment
- end of 19th century mass movement across eco-settings common
- today the world has become the “global village”
- world view has grown and so have avenues of movement
- for all “movers” including tourists

as population movement increases in geographic scope new permutations could emerge

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... origin of people on the move as a factor in spread of infectious diseases?



- global epidemiology of infectious diseases highly variable
- infectious disease profile largely reflects devpl. & SES settings
- risk equates with origin of person on the move
- risk also equates where person on the move is going and how

medical histories reflect social and economic background

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... transit in population movement as a factor in spread of infectious diseases?



- global epidemiology of infectious diseases highly variable
- infectious disease profile largely reflects devt. & SES settings
- risk equates conditions of move and places gone through
- risk also equates how long and where in transit



medical histories reflect social and economic transit environments

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... end destinations as a factor in the spread of infectious diseases?

- global epidemiology of infectious diseases highly variable
- infectious disease profile largely reflects devt. & SES settings
- risk equates conditions into which people move
- risk also equates with how long they stay in these "conditions"



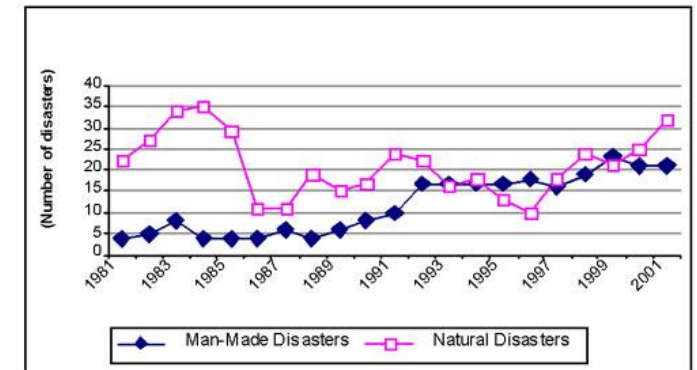
medical histories reflect end social and economic environment

Migrant Health and Infectious Diseases: a Cause for Concern?



... is there a cause for concern?

- number of natural disasters going up
- number of man-made disasters going up
- social, economic and health inequalities growing
- climate change likely to displace over 200 million people
- population movement will continue and possibly grow



... is there a cause for concern?

we are not paying enough attention to

- **the health conditions where people are moving from**
- **the health conditions where they transit**
- **the health conditions where they re-settle**
- **how to reach them early with CCT**

... Dr Zuzanna Jakab WHO

... “the diseases they **might have**, are all well-established diseases in Europe

... “we have very **good prevention and control** programs for these diseases”

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