

Disclosures

potential conflicts of interest none

relations industry potentially
relevant for this meeting none



The older traveller



≥ 65 years

28%

19%

9%

0%

2010

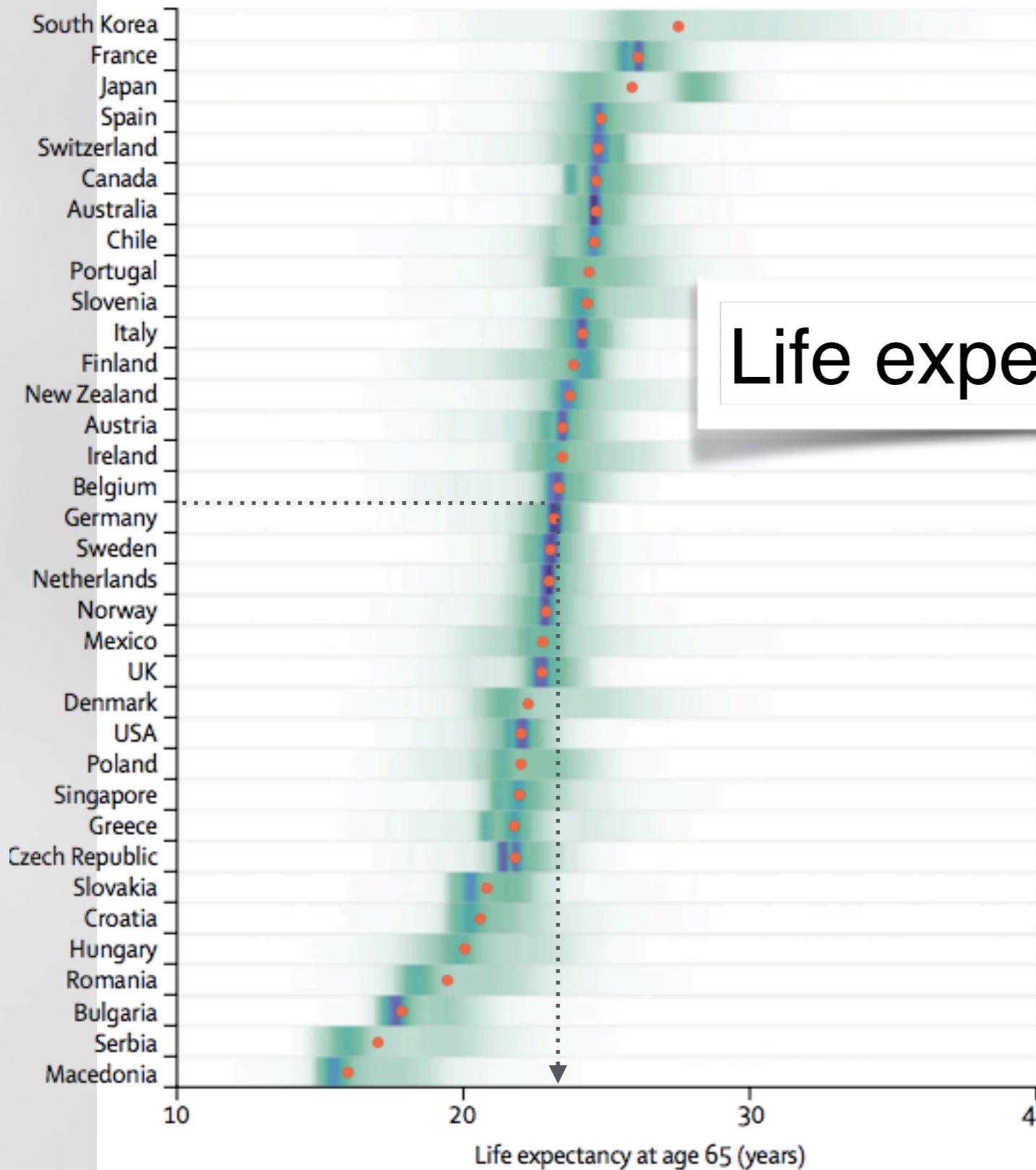
2020

2030

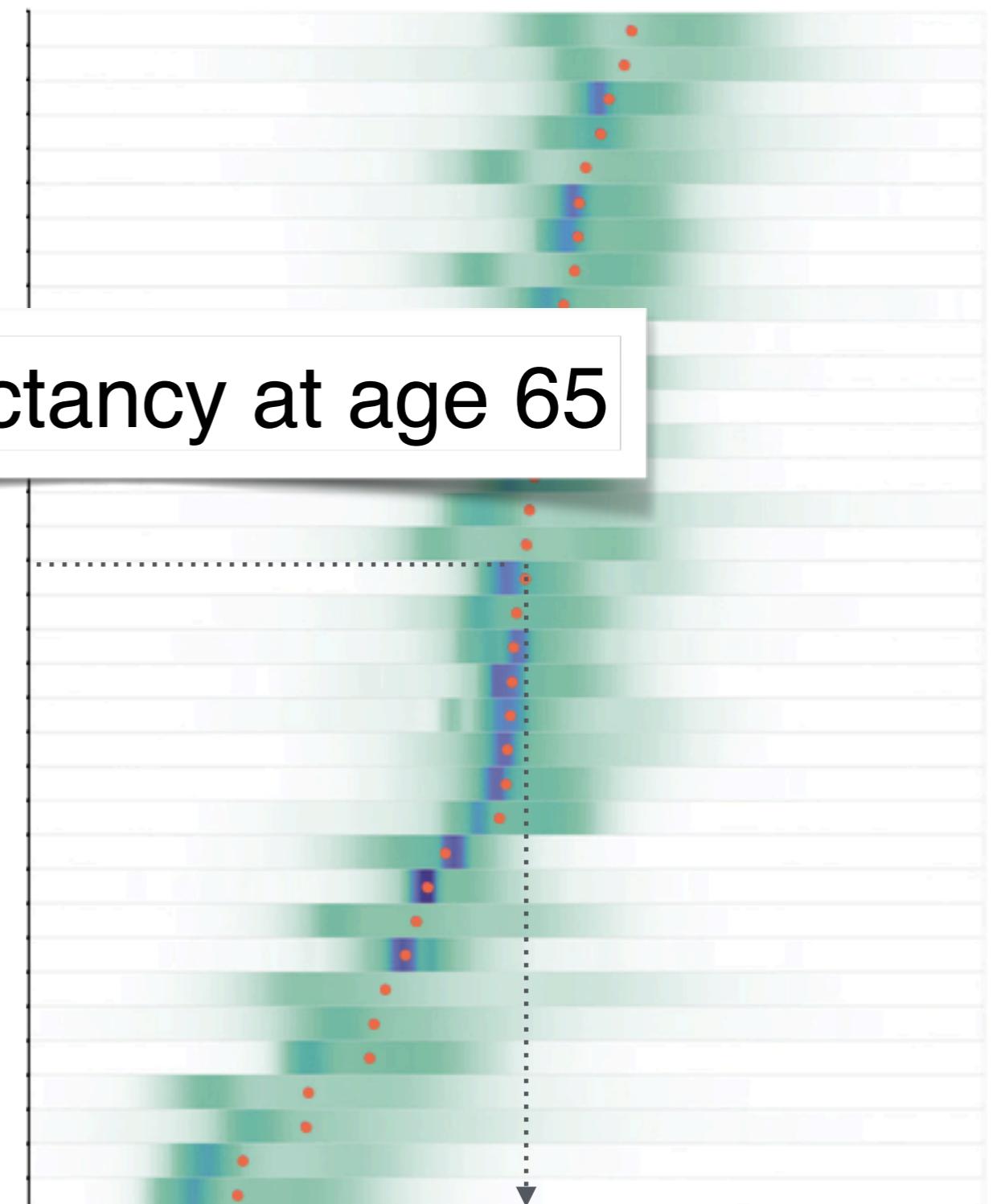
2040

2050

Women (2030)



Men (2030)



Life expectancy at age 65

Probability density







Gradual but irreversible functional



Immune system at old age make us vulnerable and
fragile

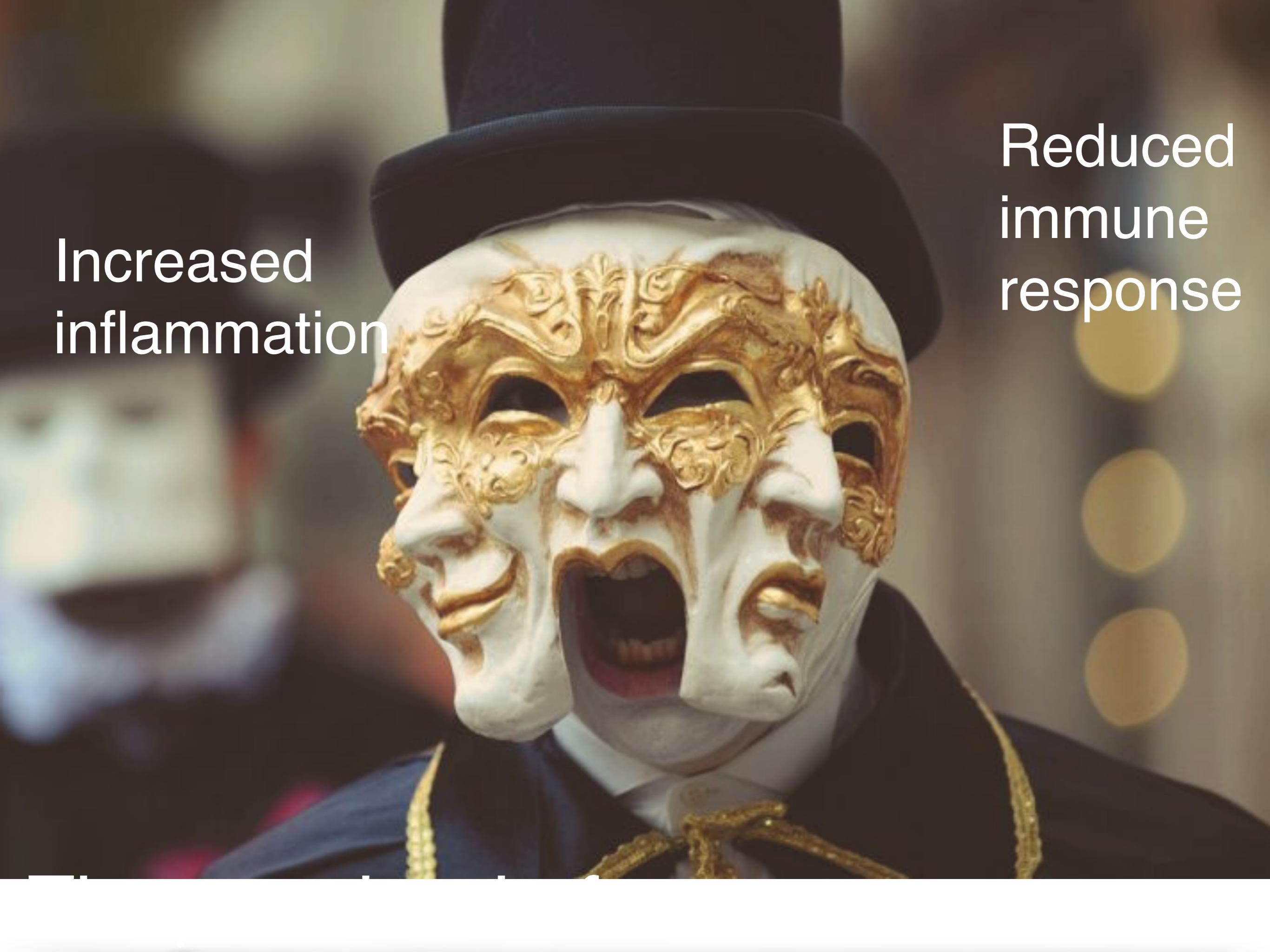
The problem of polypharmacy

High altitude and heat

Cardiovascular fitness



The janus head of immunosenescence

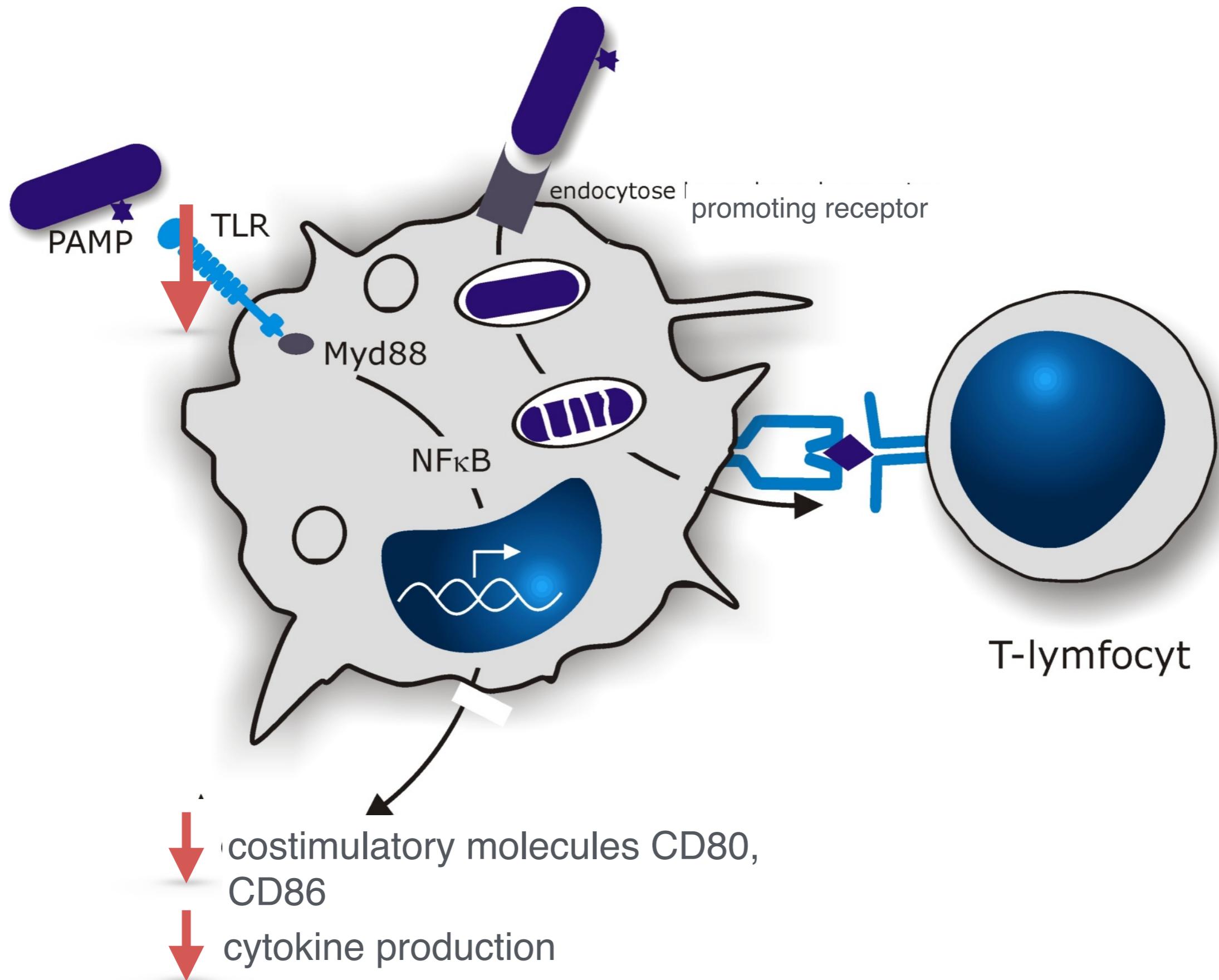


Increased
inflammation

Reduced
immune
response



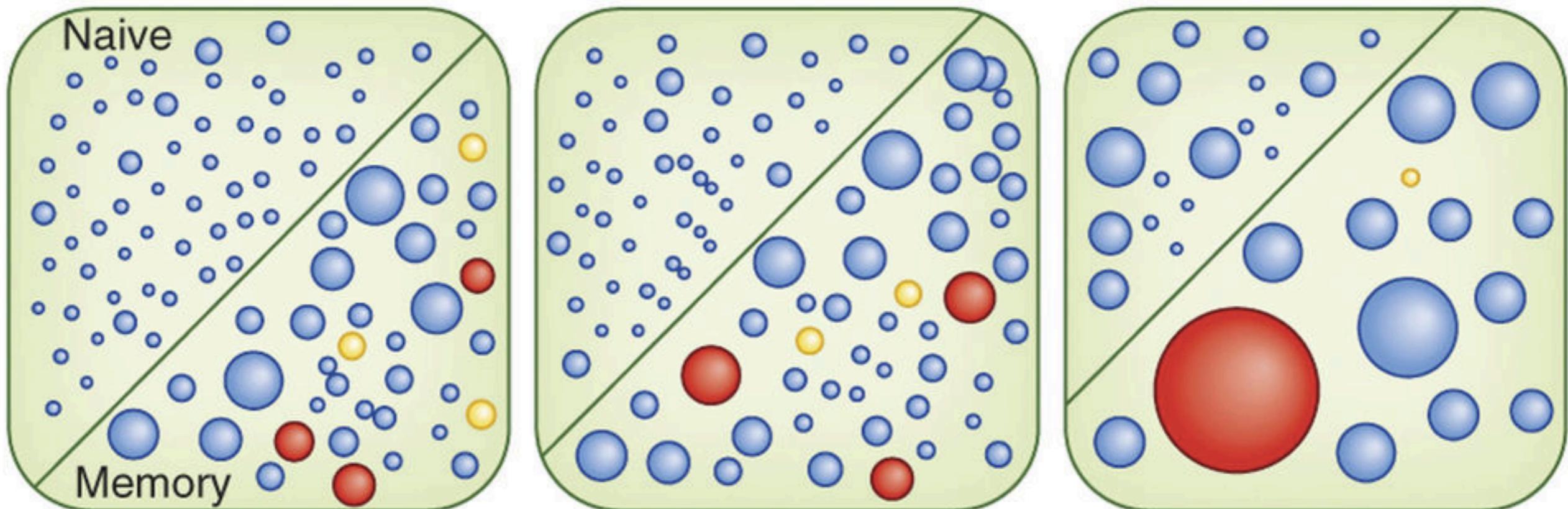
Phill Riit

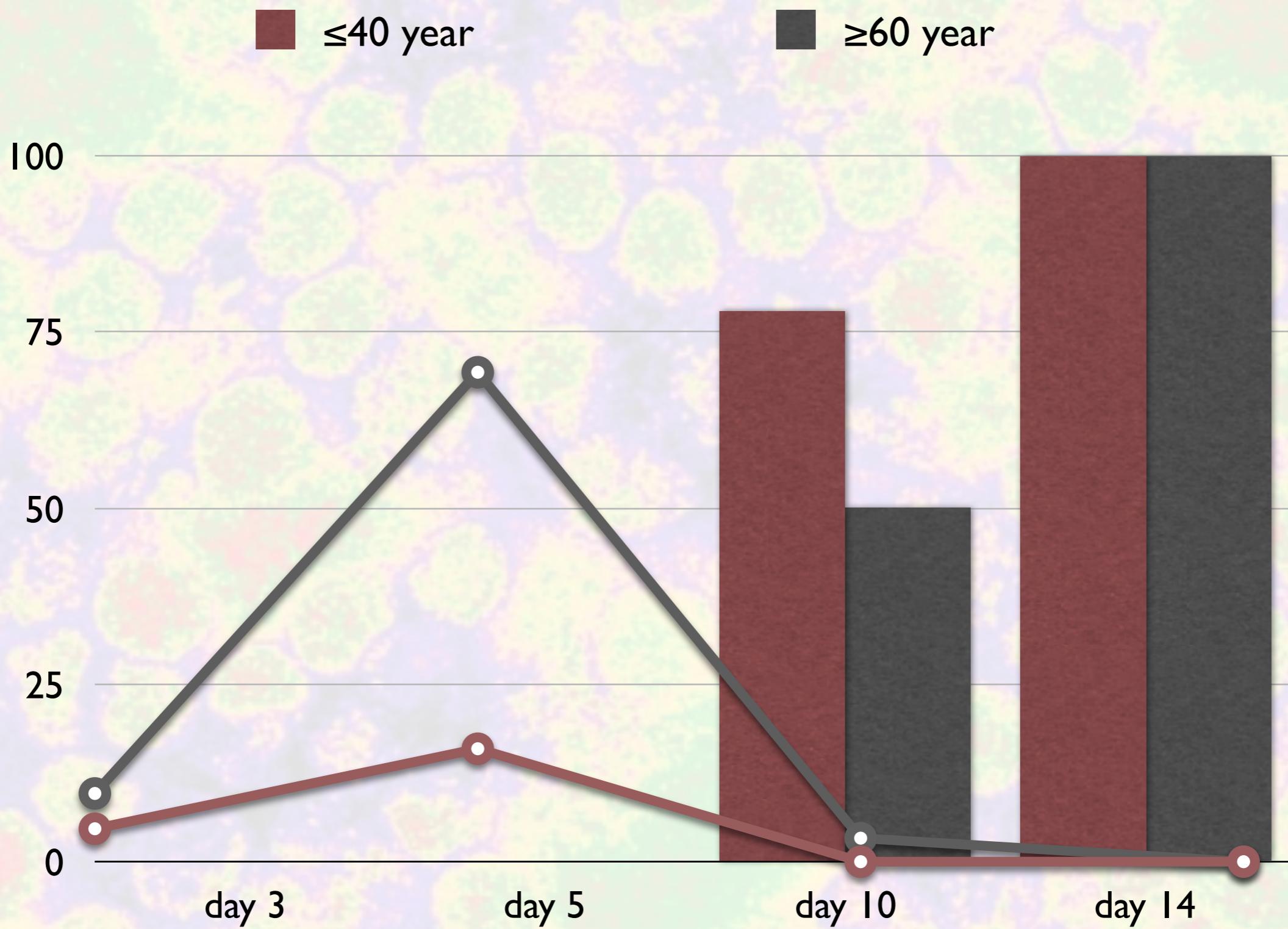


20–30 years

60–75 years

>75 years





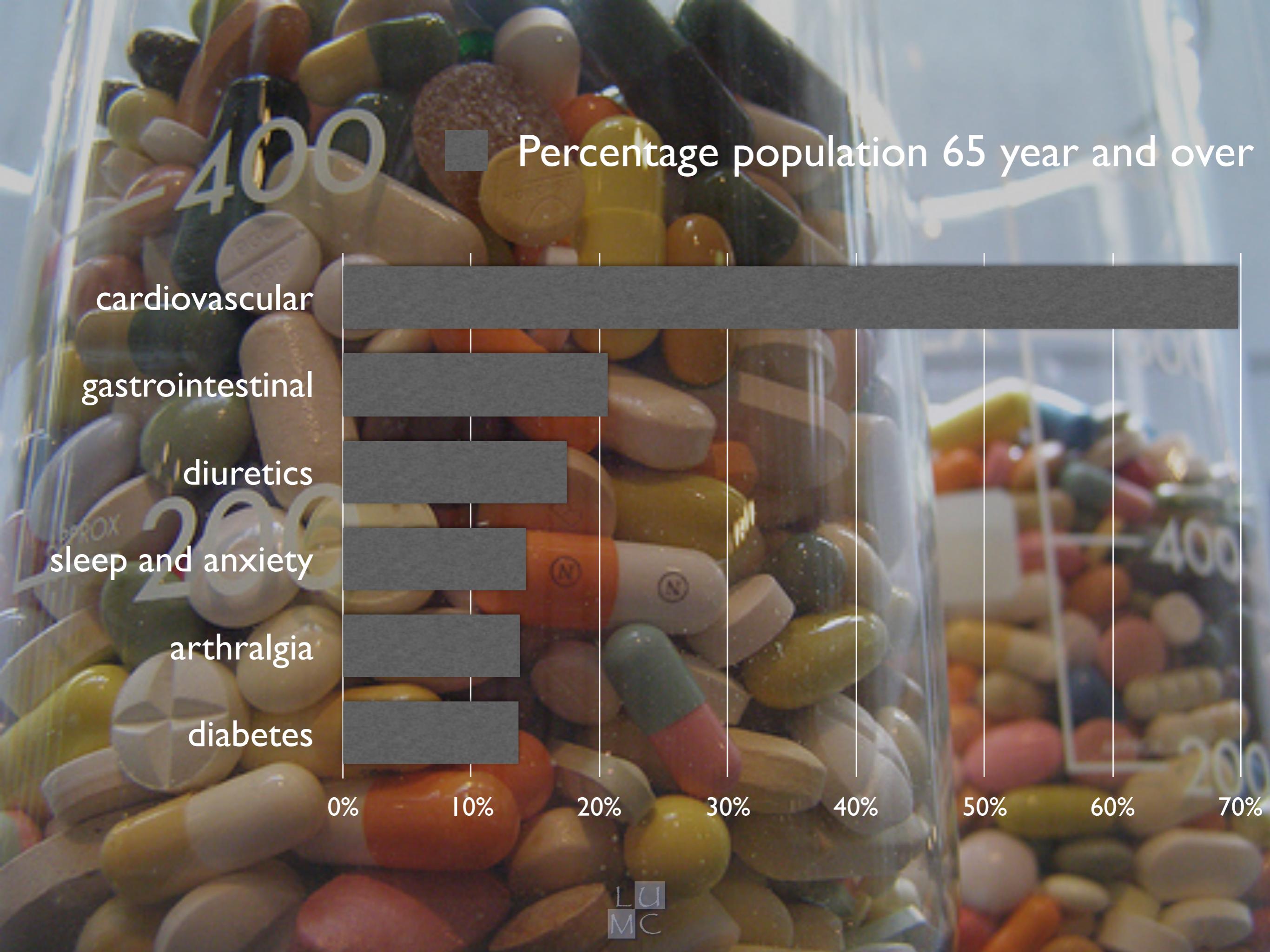
A photograph of several senior women in swimwear standing outdoors, smiling and holding bright orange cocktails with straws and umbrellas. They are positioned behind a table with a white tablecloth and a grey grid overlay.

1-2:100,000

	YF-AND	YF-AVD
1990-2002	4	5
2000-2006	5	4

GRADE tables for yellow fever vaccine booster doses.

CDC June 17, 2015



Percentage population 65 year and over

cardiovascular
gastrointestinal
diuretics
sleep and anxiety
arthralgia
diabetes



Anticholinergic effects

- Muscarine M₃ receptor
(brain, smooth muscle intestines and bladder, salivary- and sweat glands)
- Increased chance heat stroke
reduced sweating response
- Dry mouth strong predictor

Creatinine on admission (mmol/L)

'Triple whammy'

ACE-inhibitor, NSAID, diuretic

0.2

0.0

N =

66 69
None

35 52
One

31 29
Two

11 8
Three

Number of target drugs





Reduced partial O₂ pressure
Hypobaric hypoxia

Increased minute volume

Pulmonary vasoconstriction

Increase cardiac output
(tachycardia)

Reduced physical
performance (chronic heart
failure)

Earlier and more frequent
exercise induced angina
pectoris

- Stay low (<2.500 m) in case of cardiopulmonary disease
- Sleep low ($\Delta \leq 300$ m per night)
- Work slow (peak pulse rate)



- total body water ↓
- thirst sensation ↓
- concentrating capacity
kidney ↓
- sweating ↓

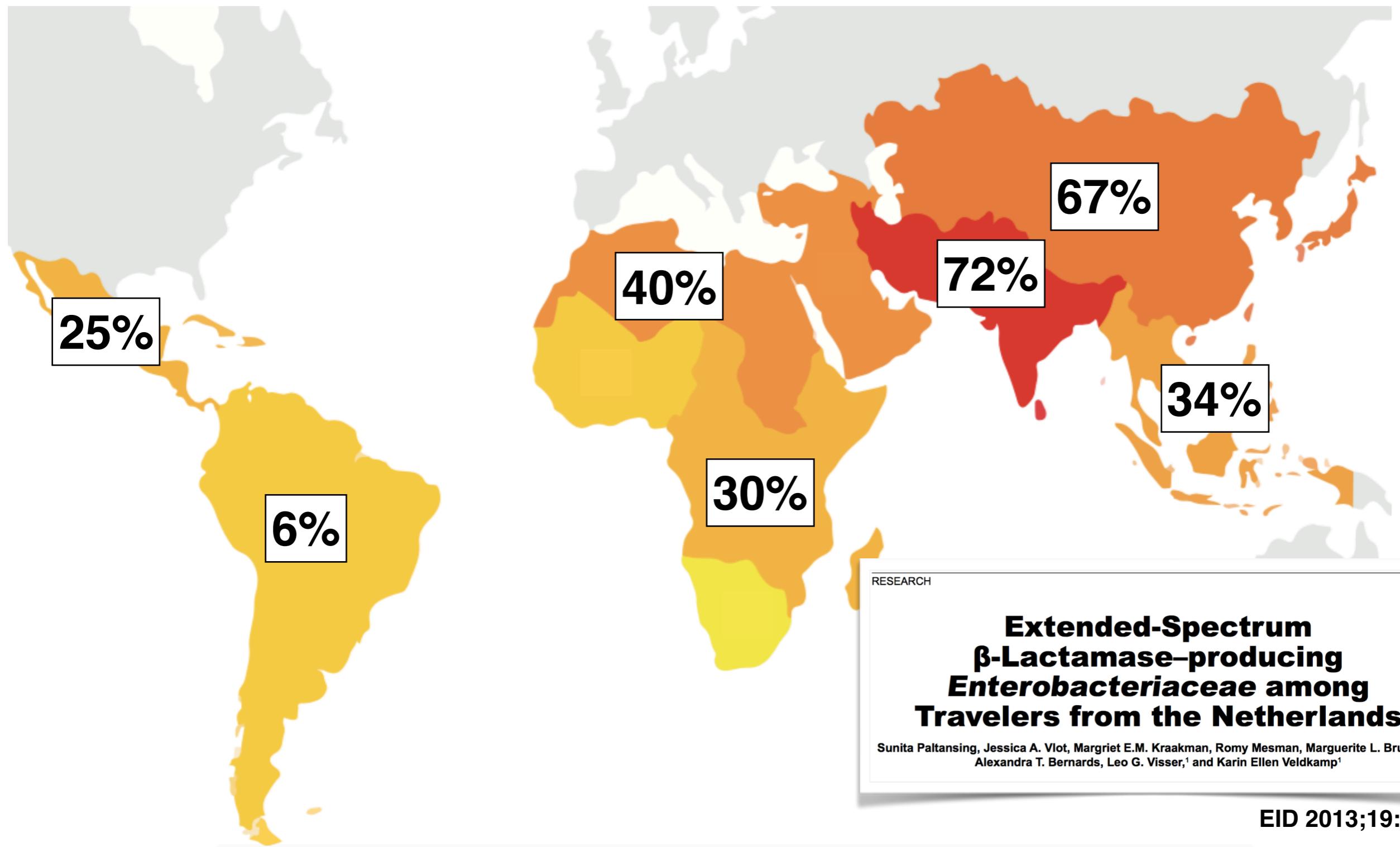
- 
- Copious fluids
(colourless urine)
Eat (salt to taste)
Avoid heavy exercise
 - Stop hydrochlorothiazide
 - Diarrhea (antacids!)
stop statins, NSAIDs,
diuretics,
ACE-inhibitors ($\frac{1}{2}$ of O)

Table 2 Diagnosis that enforced repatriation.
Representation of causes for enforced repatriation in both age categories

	18–49 y, n = 38 (%)	≥50 y, n = 77 (%)
Cardiopulmonary incident	5 (13)	40 (52)
Cerebrovascular accident/neurological incident	4 (10.5)	11 (14)
Traumatic fracture	12 (32)	10 (13)
Complicated labor	2 (5)	
Systemic infection	4 (10.5)	
Pulmonary infection	1 (3)	1 (1)
Oncological complication	5 (13)	10 (13)
Soft tissue complication	5 (13)	5 (7)
Total	38 (100.0)	77 (100.0)

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Immune system at old age make us vulnerable
fragile

The problem of polypharmacy

High altitude and heat

Cardiovascular fitness

- Plan destination wise
- Vaccinate early
- Cut down in polypharmacy
- Keep your heart healthy at high altitudes
- Avoid dehydration
- Colonisation multiresistant bacteria



Dietmar Temp