GAPMINDER

Go to
menti.com

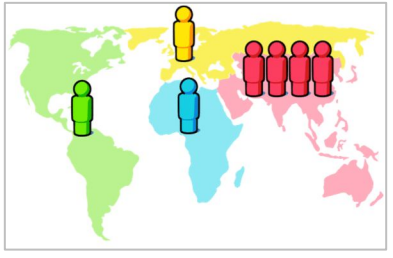
Use code
93 49 05

If you're being asked for name,
just type random stuff

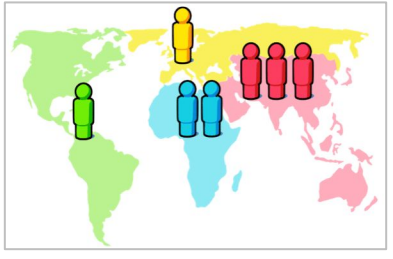
Where do people live?

There are 7 billion people in the world today.
Of the maps below, which one do you think shows best where they live in the Americas, Europe, Africa and Asia?

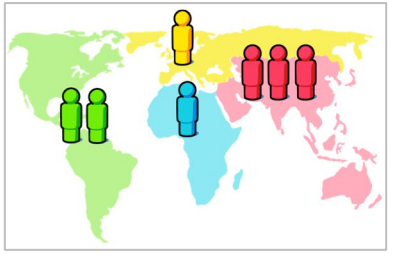
A ☐



B ☐



C ☐



What is the average life expectancy at birth in the world today?

A ☐ 50 years

B ☐ 60 years

C ☐ 70 years

Extreme Poverty

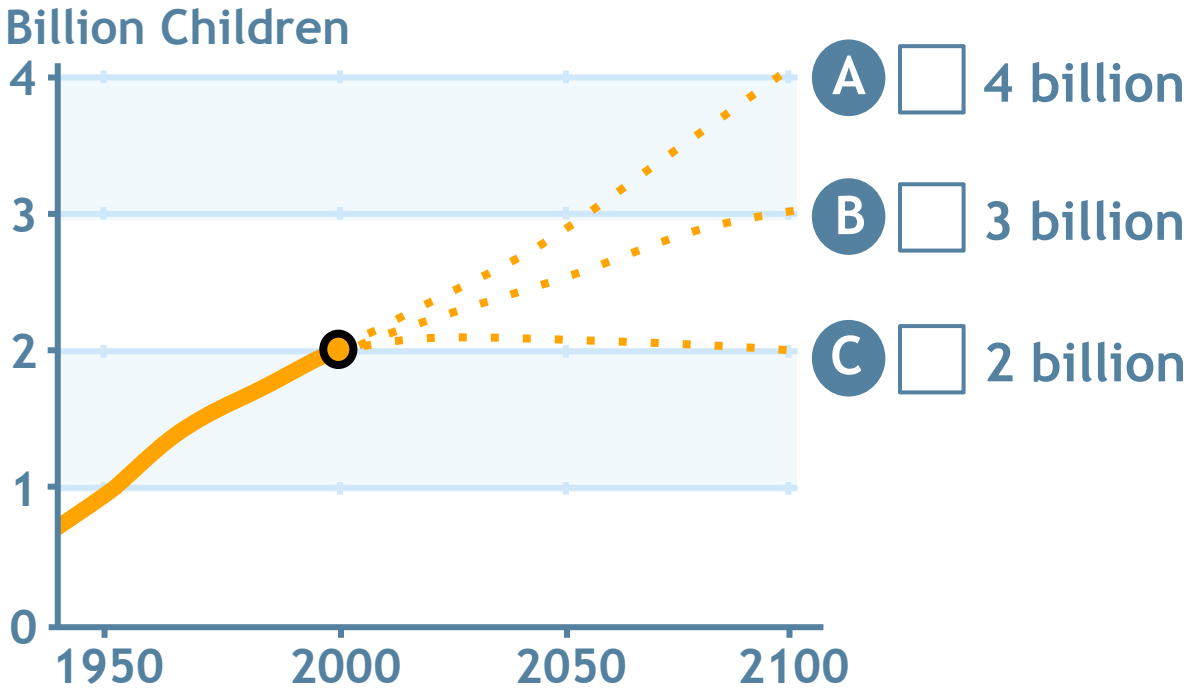
"The number of people in extreme poverty has never been larger than it is now."
True or false?

A ☐ True

B ☐ False

How many children will there be in 2100?

In 1950 there were fewer than one billion children (aged 0-14) in the world.
By 2000 there were almost two billion.
How many do UN experts think there will be in 2100?



Source: http://esa.un.org/unpd/wpp/unpp/panel_indicators.htm

What are the correct answers?

How well did we do?

Where do people live?

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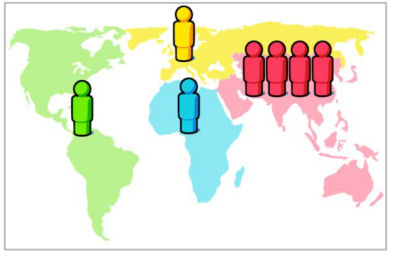
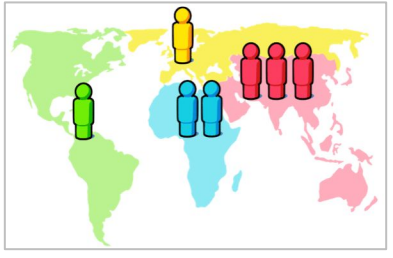
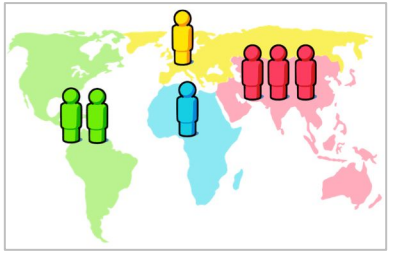


B ☐



C ☐



CORRECT ANSWER

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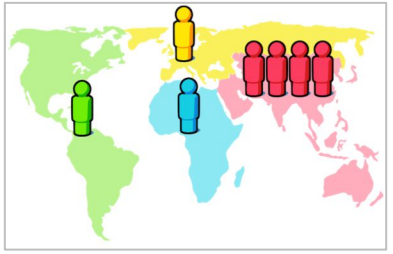
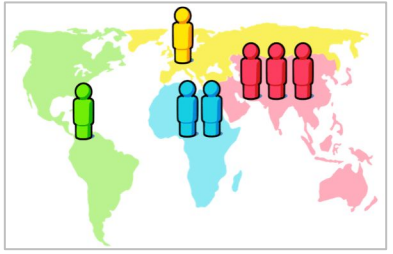
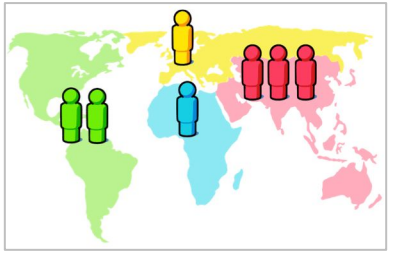


B ☐



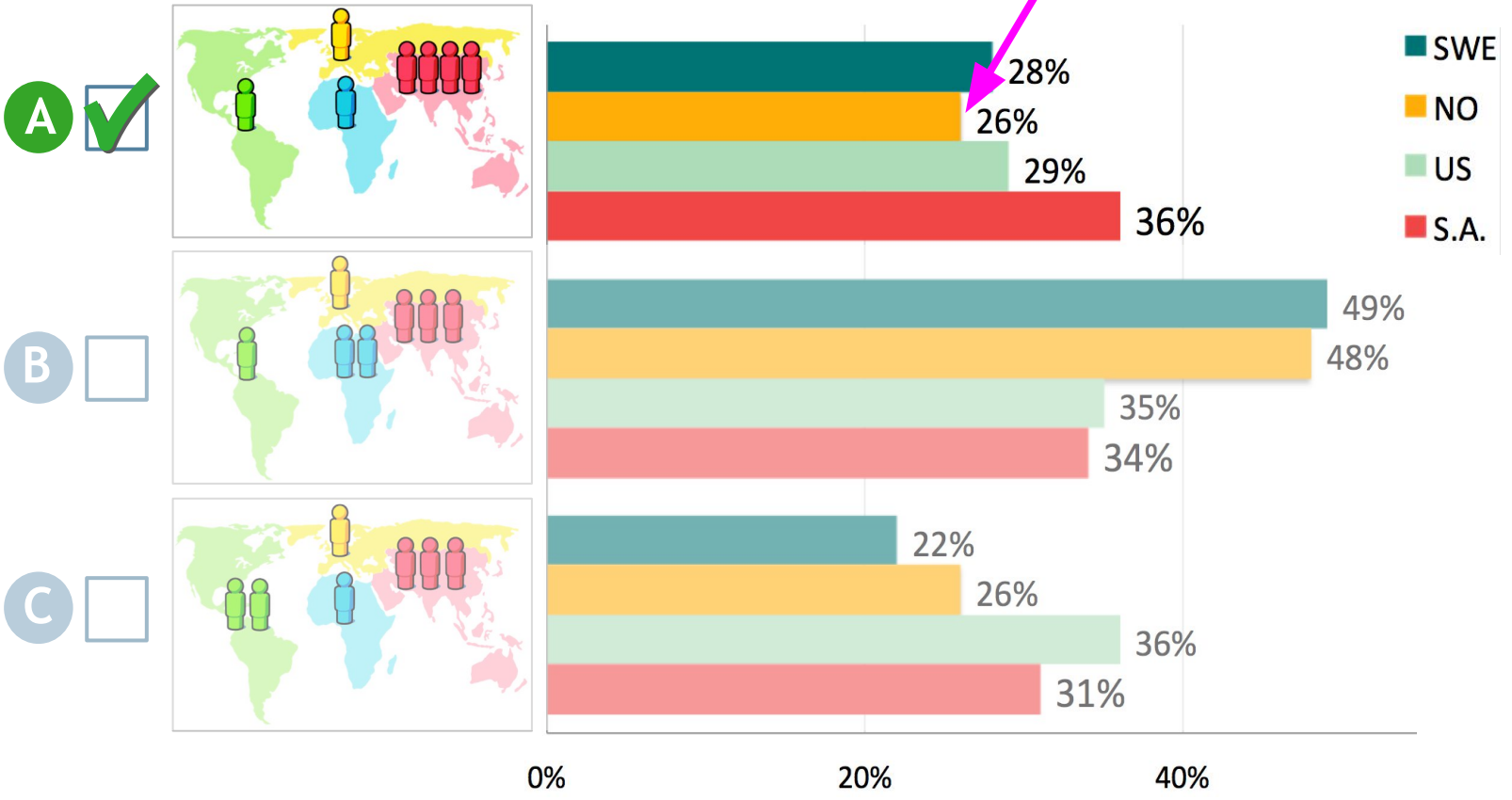
C ☐



Where do people live?
— *RESULTS*

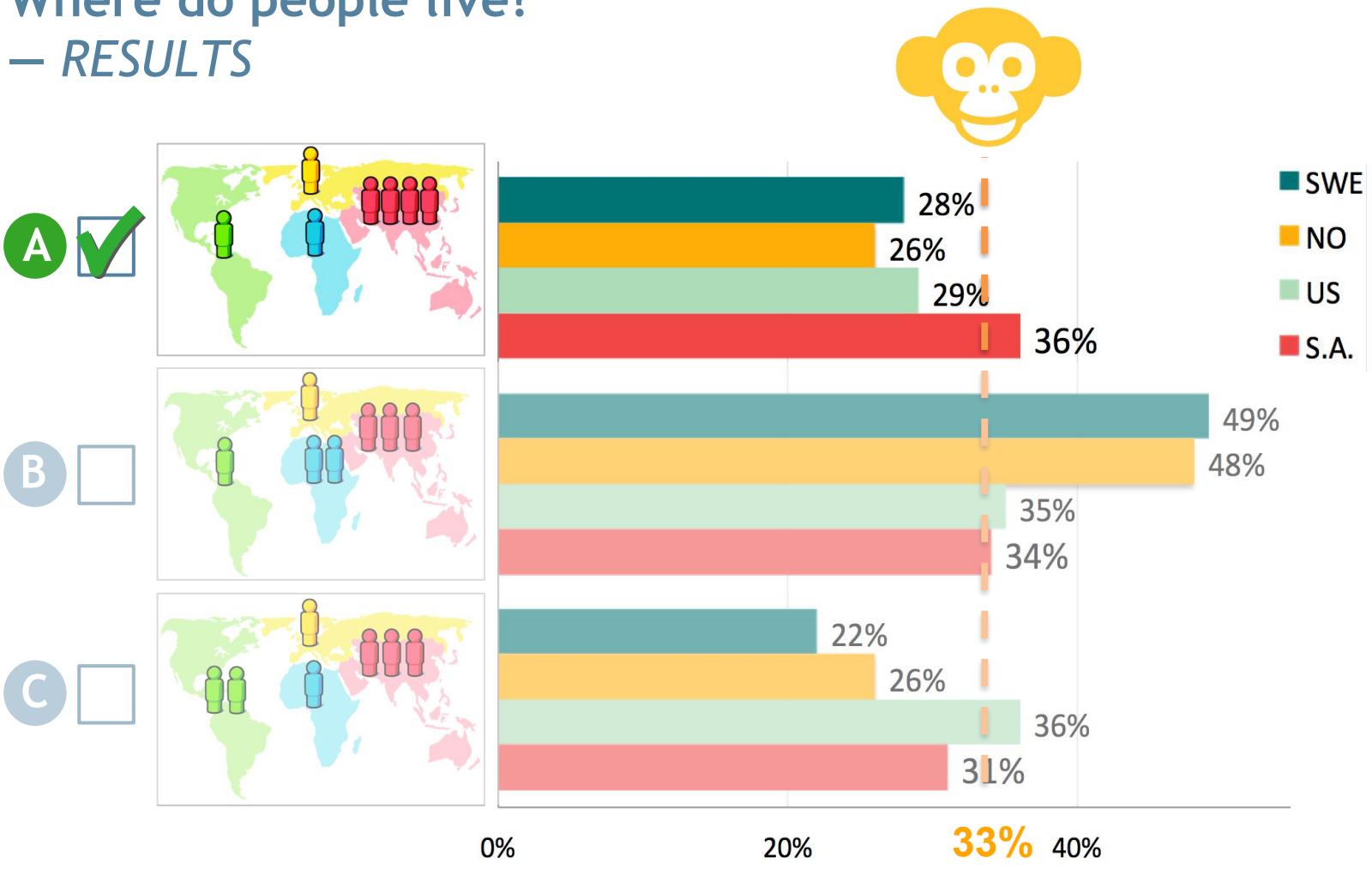
How good is 26%?

We need a benchmark



nrk
A
B
C
nrk
Nyheter
#nrkurix

Where do people live?
— *RESULTS*



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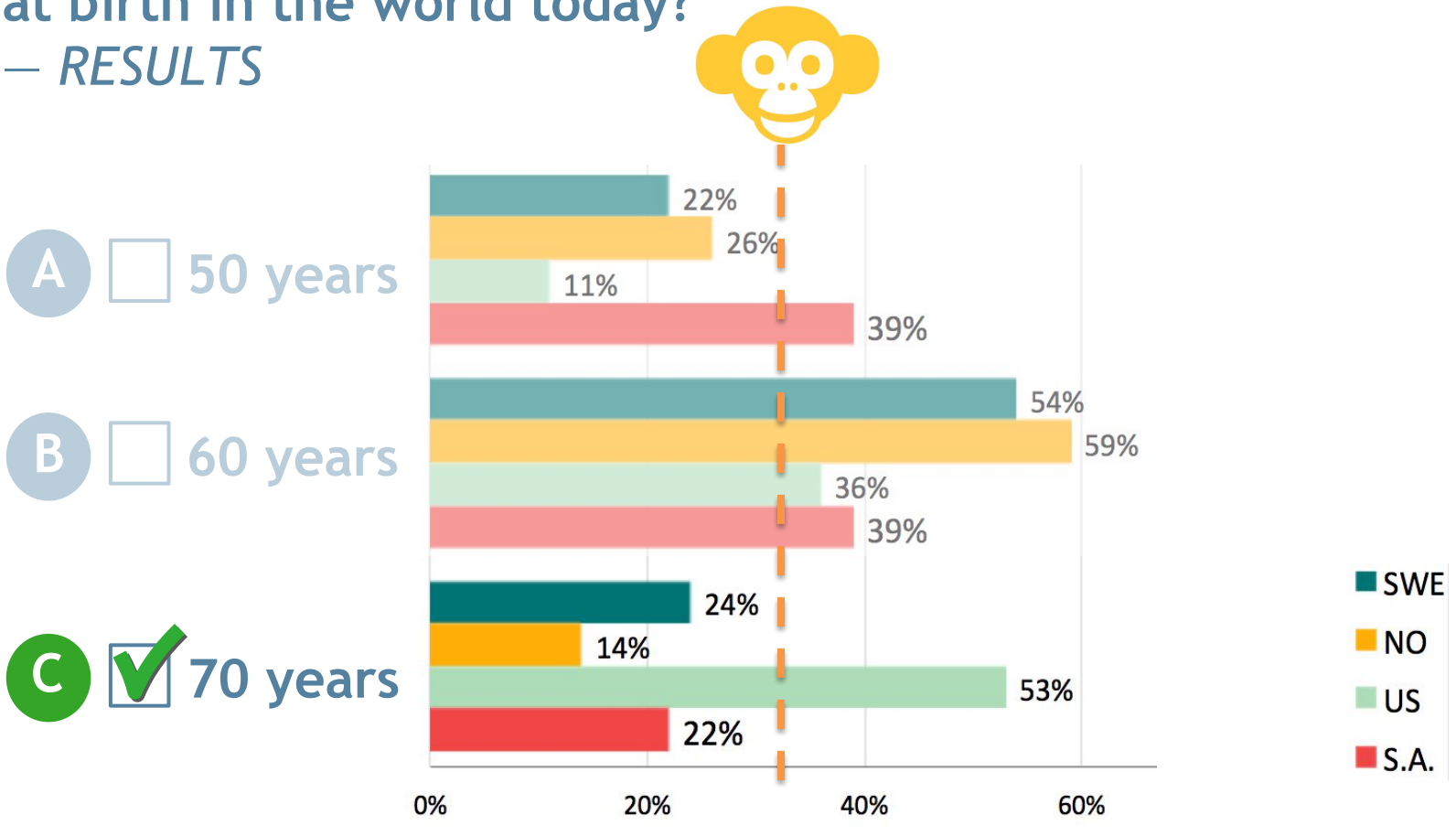
What is the average life expectancy at birth in the world today?
— *RESULTS*



Extreme Poverty

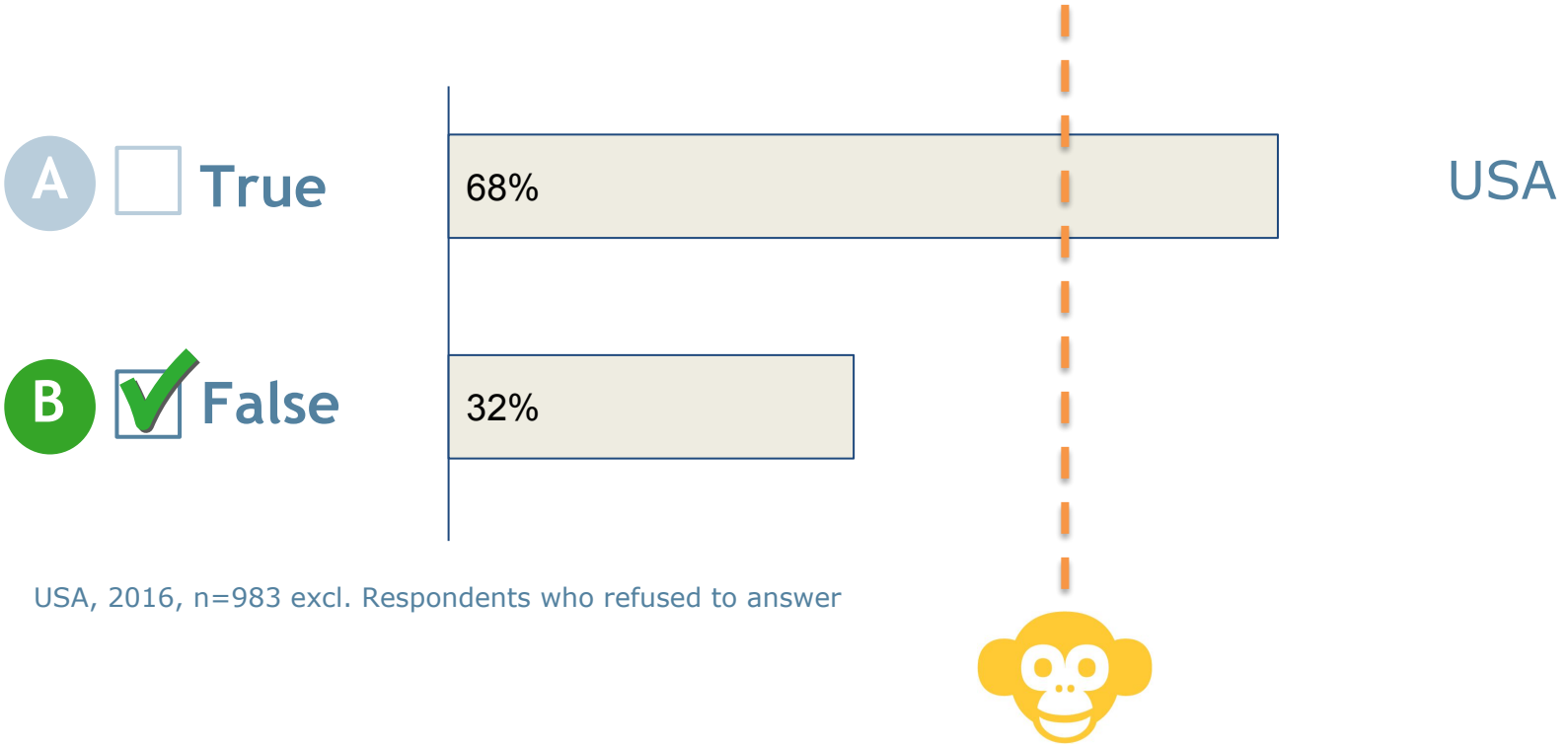
"The number of people in extreme poverty has never been larger than it is now."
True or false?

A ☐ True

B ☐ False

Extreme Poverty – *RESULTS*

"The number of people in extreme poverty has never been larger than it is now."
True or false?



USA, 2016, n=983 excl. Respondents who refused to answer

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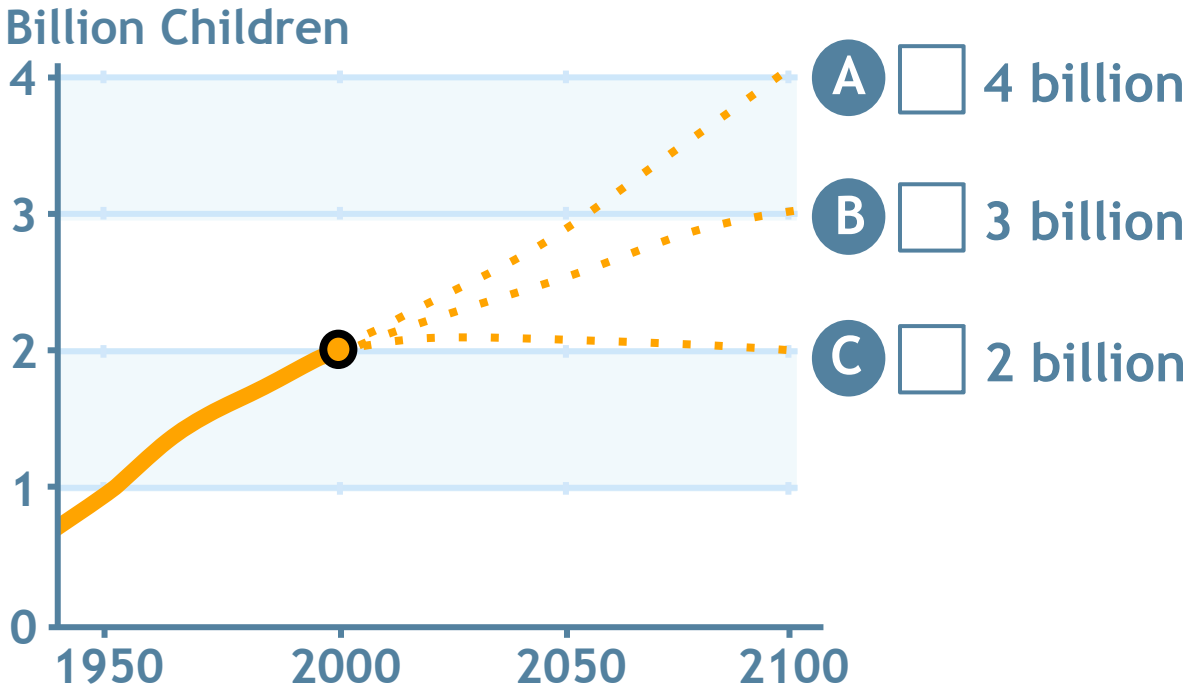
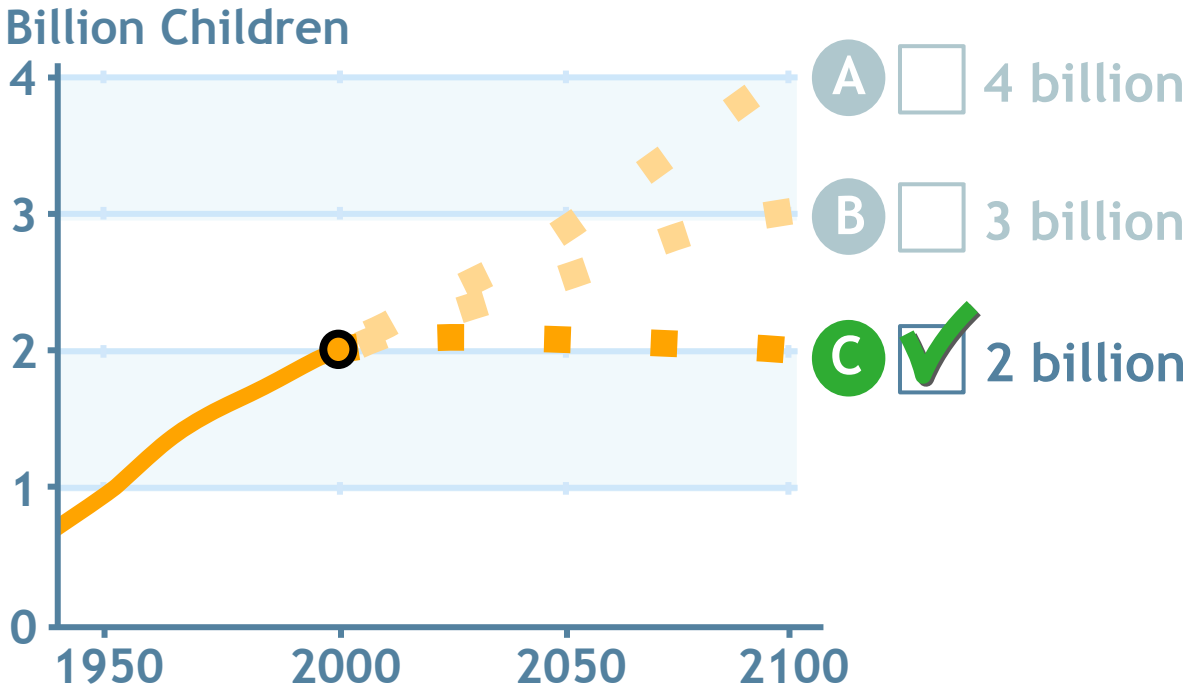


CORRECT ANSWER

How many children will there be in 2100?

The UN experts expect two billion children in year 2100, much the same as in 2000. The total number of children in the world is no longer increasing. We have reached ”Peak Child”. Gapminder’s public knowledge surveys show that very few people are aware of this. It is extremely important to know this in order to understand why the world population is expected to stop growing.



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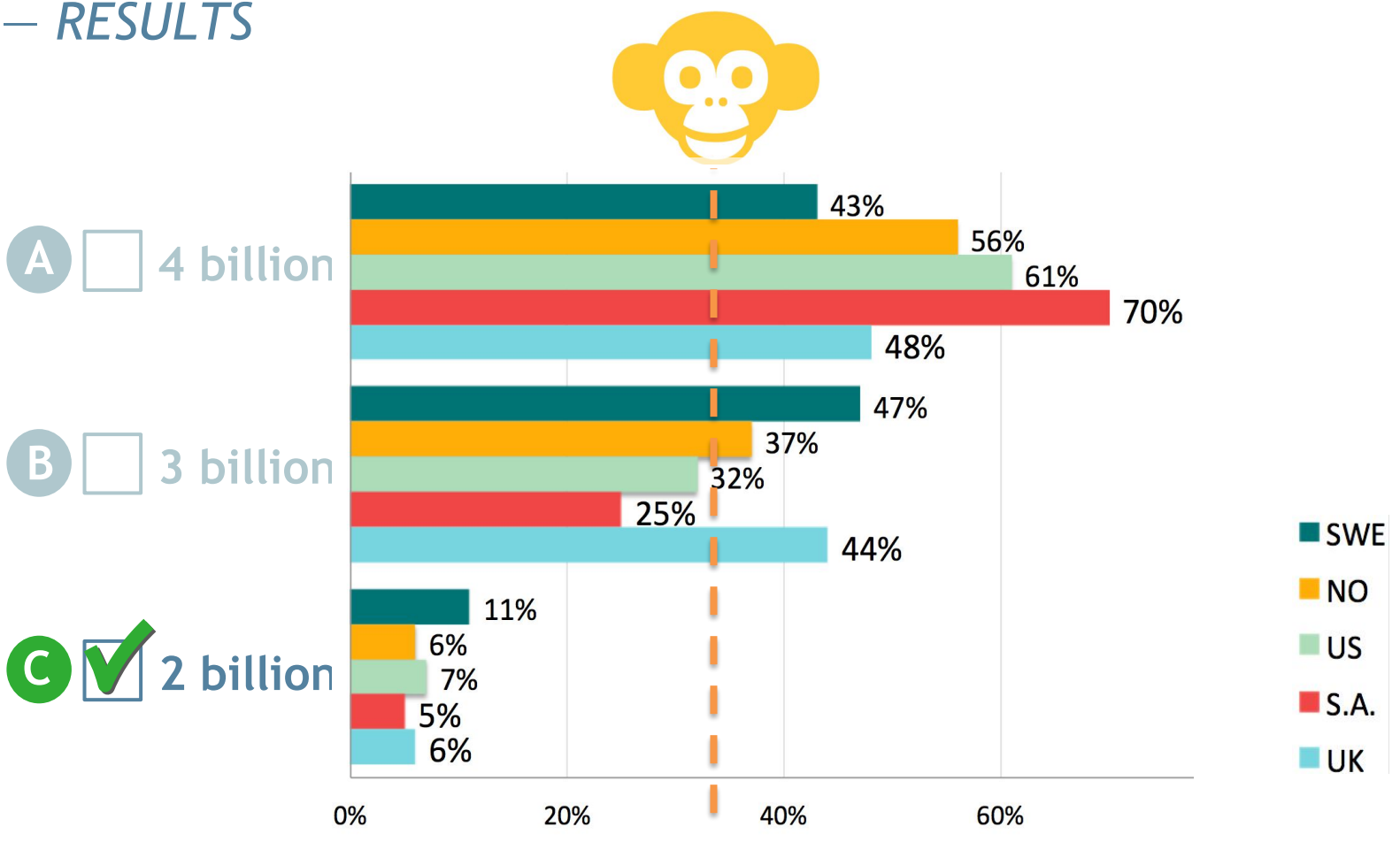
— *RESULTS*



Preconceived ideas

People score worse than random because of preconceived ideas
How do pre-conceived ideas come into existence?

Preconceived ideas

Outdated worldviews from primary education

Our world views maybe be based on facts we learned
in primary school but the world is changing!
We were taught a world view that was before, not how to build one.

Preconceived ideas

Brains are biased towards survival, not fact based world views

Human nature → cognitive biases/human instincts.
We look for potential danger, we want to know the extraordinary and jump to conclusions.
Through evolution our brain is optimised towards survival, not towards fact based world views.

Preconceived ideas

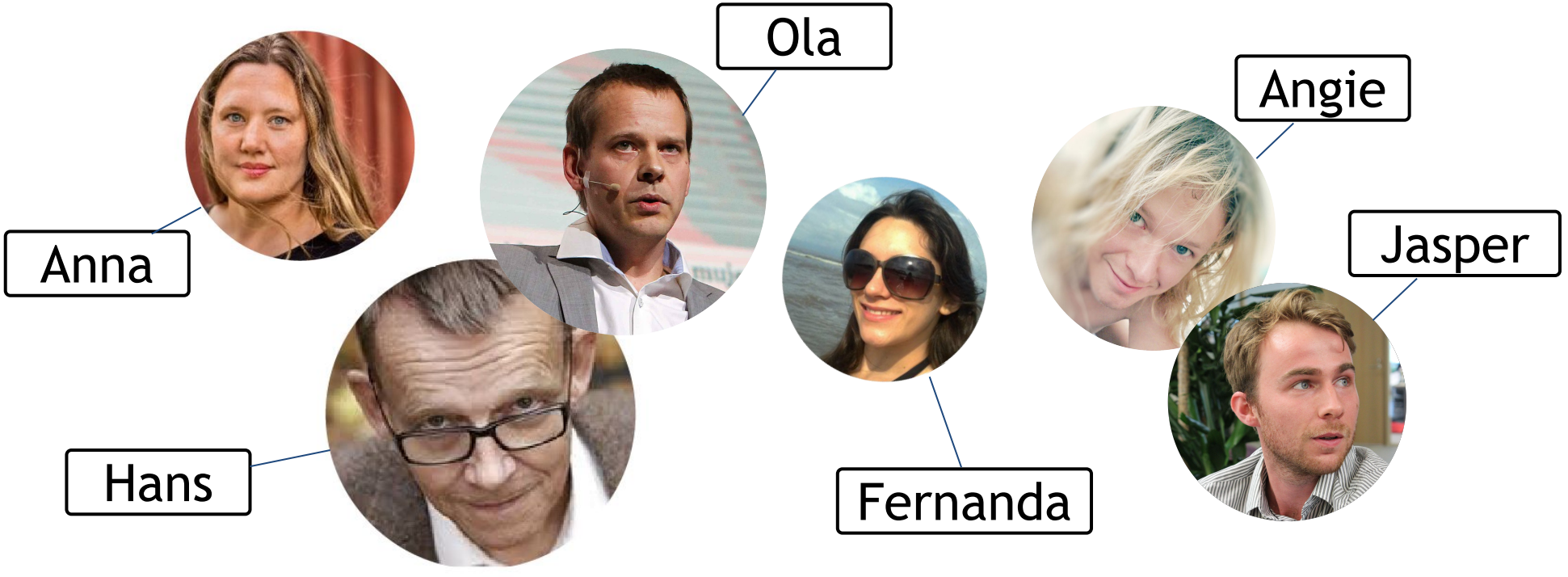
Media amplifies our biases

Instincts are amplified by media. But is not their fault!
We crave for fat, sugar and drama
and the media thus serves us the dangers and extraordinary events.

How to solve this?

nrk
A
B
C
Sjimpansene ser jo ikke på nyhetene
og har mye bedre sjanse til å svare riktig.
nrk Nyheter
#nrkurix

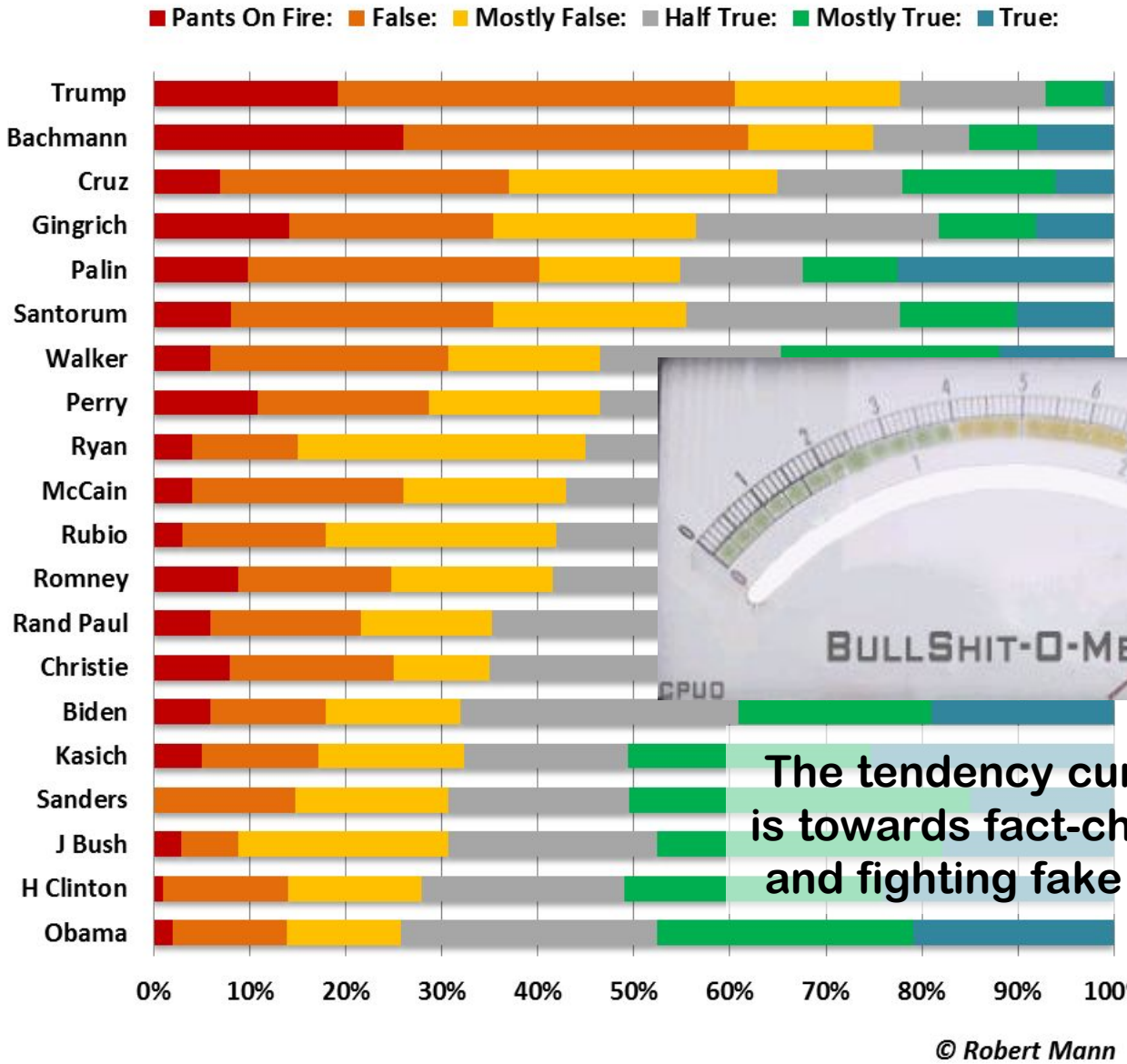
GAPMINDER



fighting the devastating ignorance
with a fact-based world view
that everyone can understand

Factfulness

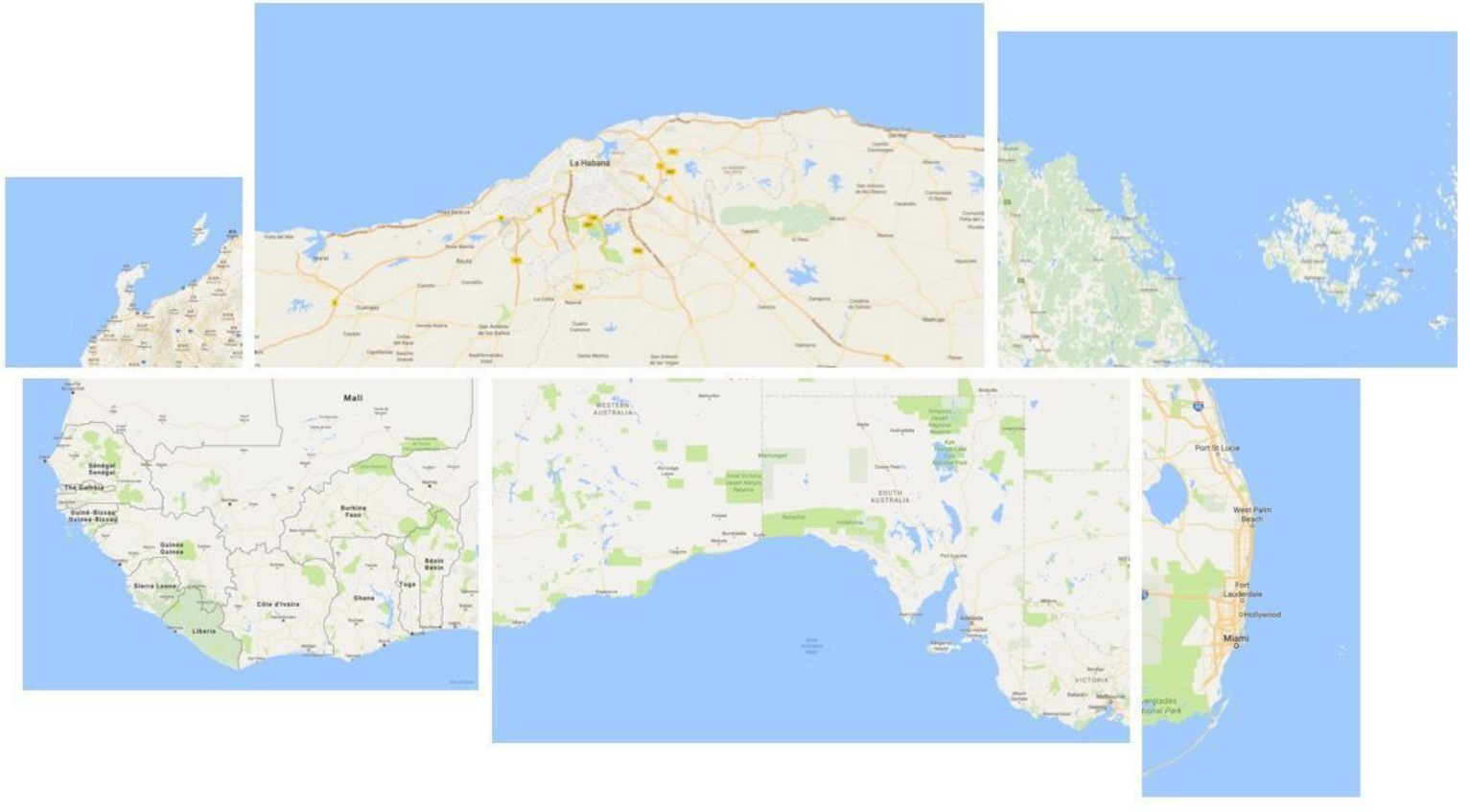
the lovely calm and relaxed feeling you get when you know your worldview is based on facts



The tendency currently is towards fact-checking and fighting fake news.

http://www.informationisbeautiful.net/visualizations/based-on-a-true-true-story/

MISLEADING worldviews can be constructed from CORRECT facts.



Checking the facts and sources doesn't give sufficient protection against misleading worldviews.

Free to use under Creative Common License CC BY 4.0

Factfulness

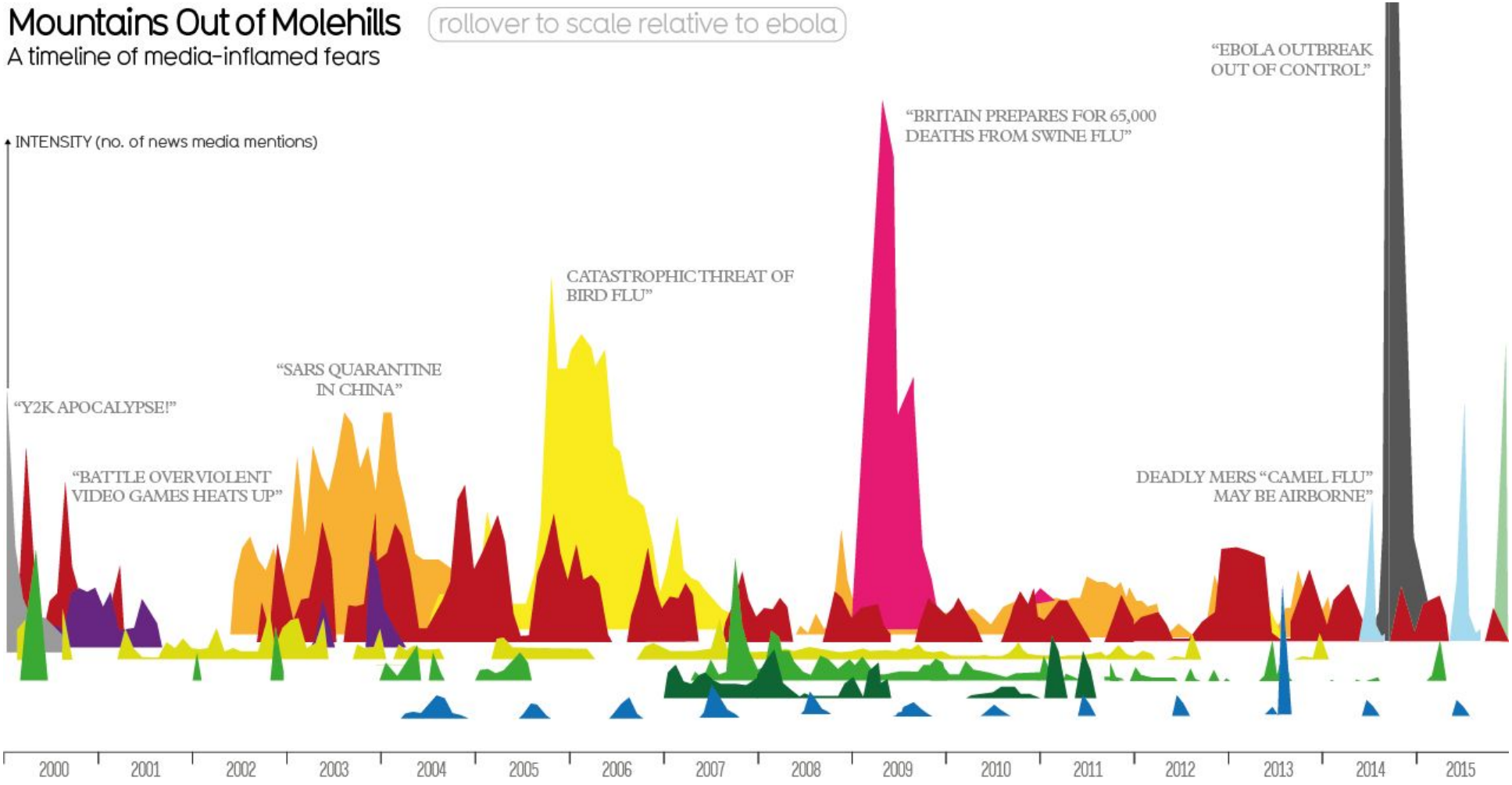
Fighting our instincts

As opposed to facts from the news,
facts from statistics are selected to be representative for the total population.
So they also include things that are not exceptions or bad.
Therefore they will almost always be better than the image in the media.

Mountains Out of Molehills

rollover to scale relative to ebola

A timeline of media-inflamed fears



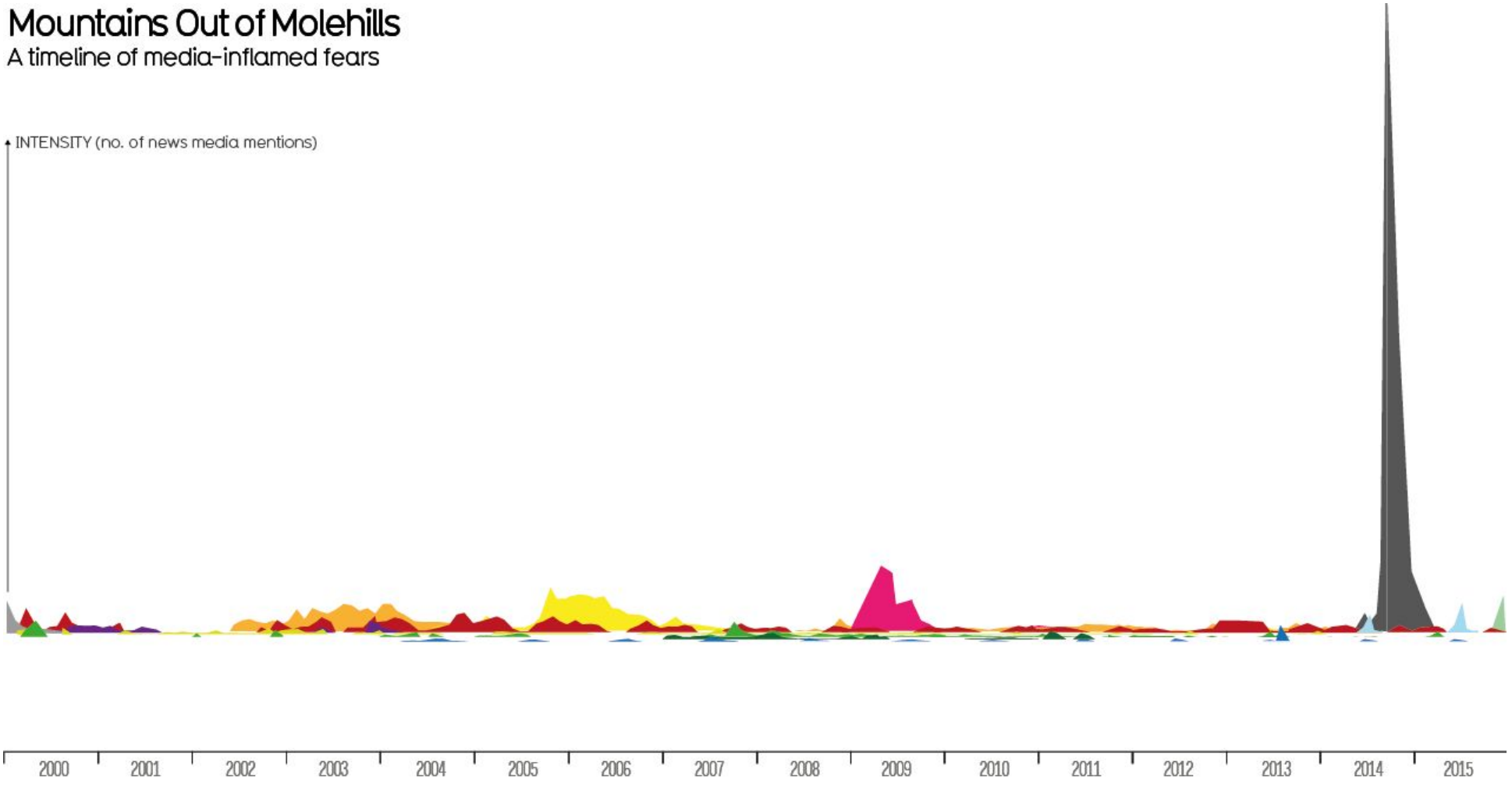
design & concept: David McCandless informationisbeautiful.net

[online version here]

source: Googe Trends, Googe News Timeline // data retrieved 31st Dec 2015

Mountains Out of Molehills

A timeline of media-inflamed fears



design & concept: David McCandless informationisbeautiful.net

online version here

source: Googe Trends, Googe News Timeline // data retrieved 31st Dec 2015

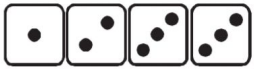
24 April - 06 May 2009

13 days	Swine Flu	Tuberculosis
Death *(www.who.int)*	31	63 066
News *(news.google.com)*	253 442	6 501
News/Death ratio	8 176	0.1

Watch the video: [Swine flu alert! News/Death ratio: 8176]

Factfulness rules of thumb

DRAMATIC INSTINCTS	RULES OF THUMB
FEAR	CONTROL YOUR FEARS
NEGATIVITY	EXPECT NEGATIVE NEWS
EXAGGERATIONS	CHECK PROPORTIONS
GAPS	REMEMBER THE MAJORITY
STEREOTYPES	SEE THROUGH STEREOTYPES

DRAMATIC INSTINCTS	RULES OF THUMB
DESTINY	NOTICE SLOW CHANGES
GENERALIZATIONS	AVOID SWEEPING GENERALIZATIONS 
SINGULARITY	USE MULTIPLE TOOLS
BLAME	RESIST BLAMING
URGENCY	TAKE SMALL STEPS

Education is key

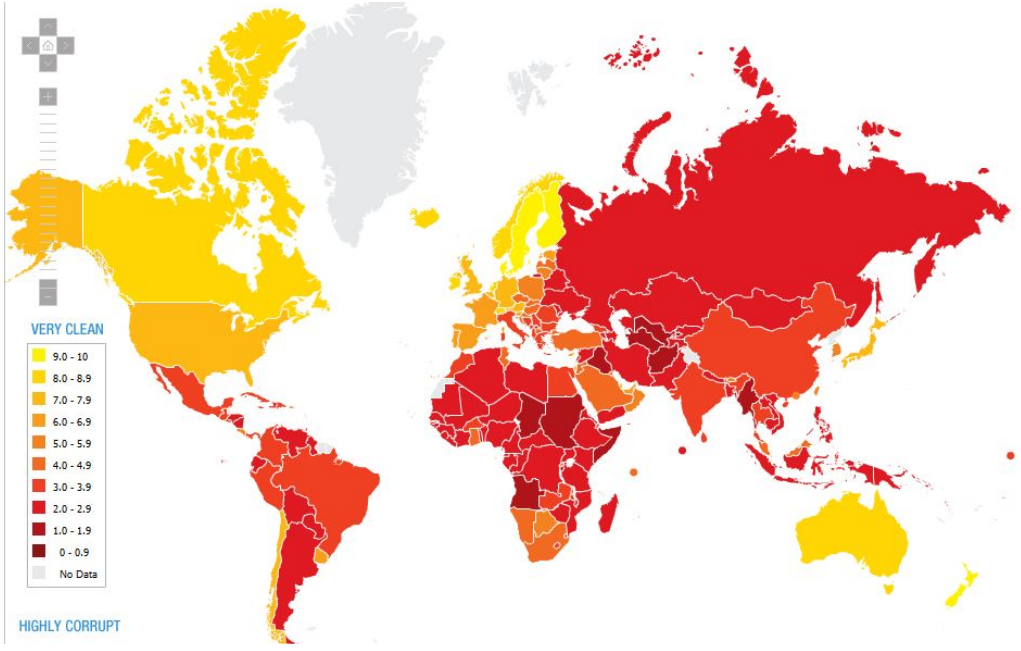
We should not rely on media to spread this, instead we focus on education.
We should educate media-logic starting in primary schools, to prevent drama-obesity.
We should teach how to be aware of our biases.
That way we can equip ourselves to build our own fact-based world view.

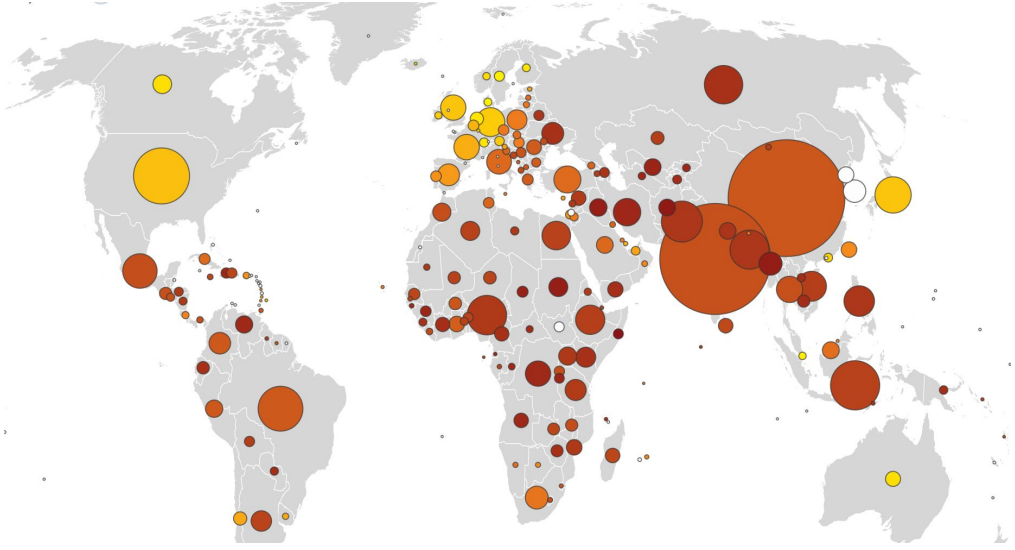
Factfulness

Communicate correctly

Do not simplify your story too much.
Instead challenge people to understand the complexity of your field. They'll love it!

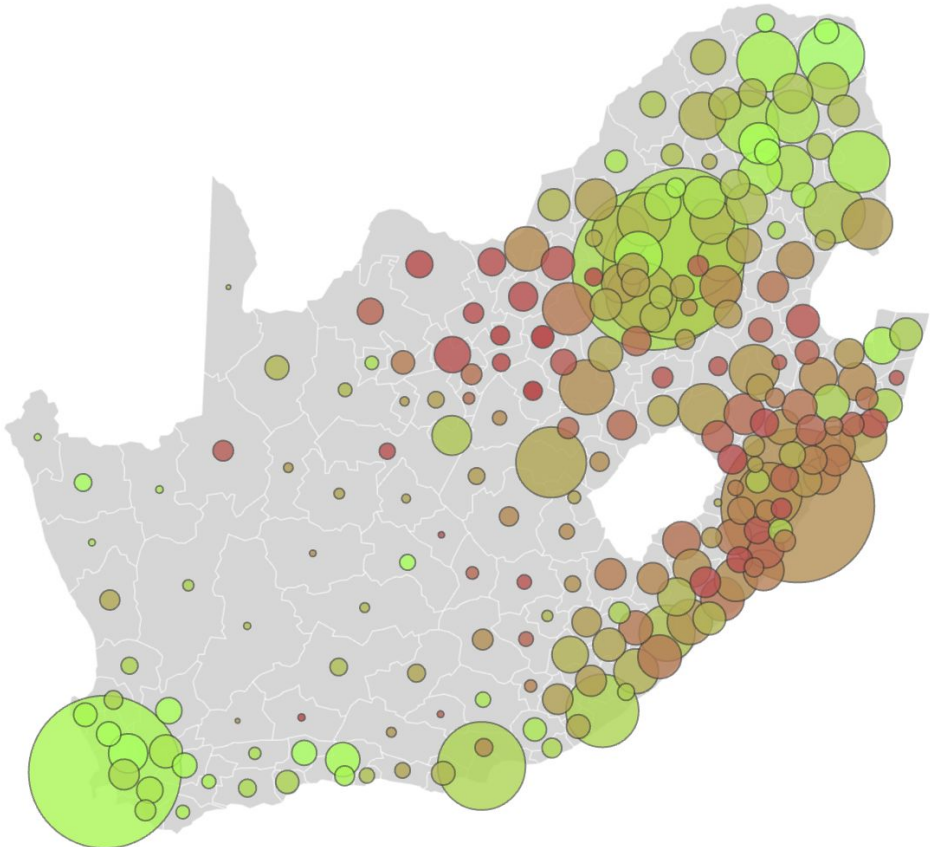
Corruption perception index

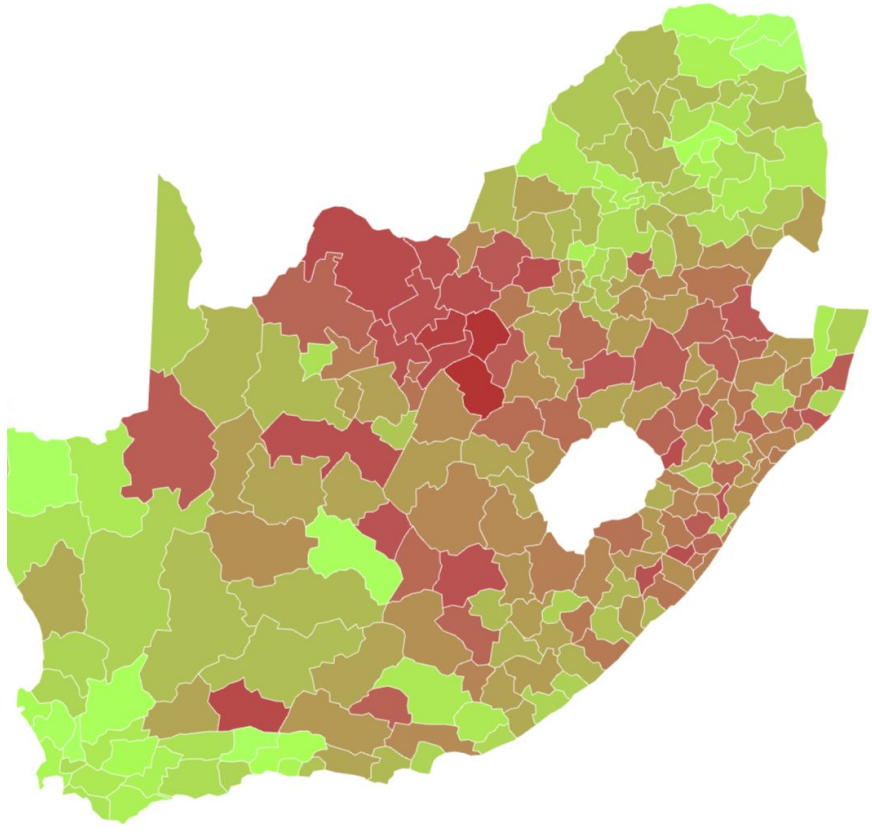




Choropleth shows areas. Bubble map shows people. Also, Mercator projection =/

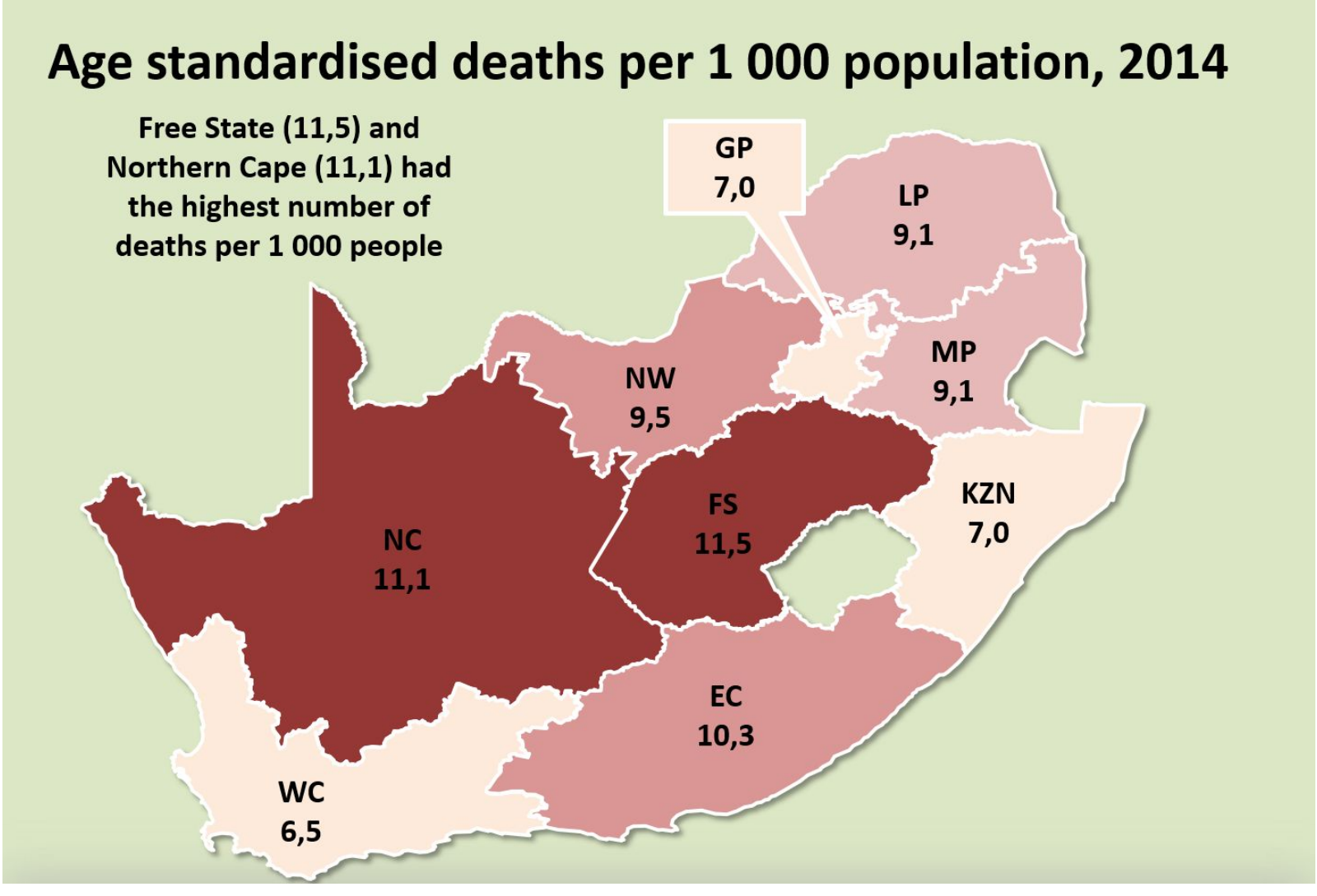
Size: Population
Color: Child Mortality





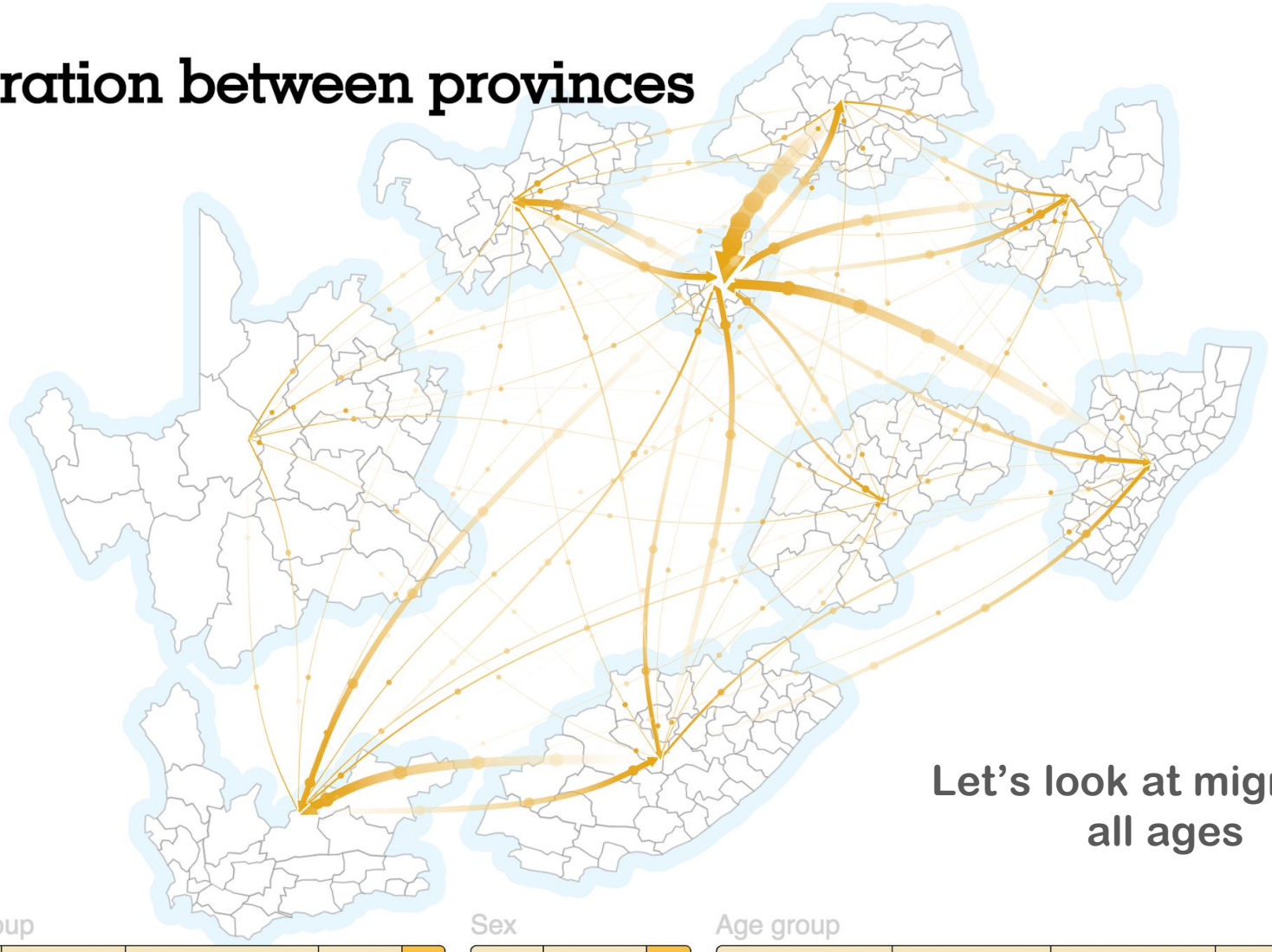
2004

But sometimes bubble map also has problems (3 largest cities very close)



Higher death rate in LP than GP. LP to blame?

Migration between provinces



Let's look at migration: all ages

Population group

Black African	Coloured	Indian or Asian	White	All

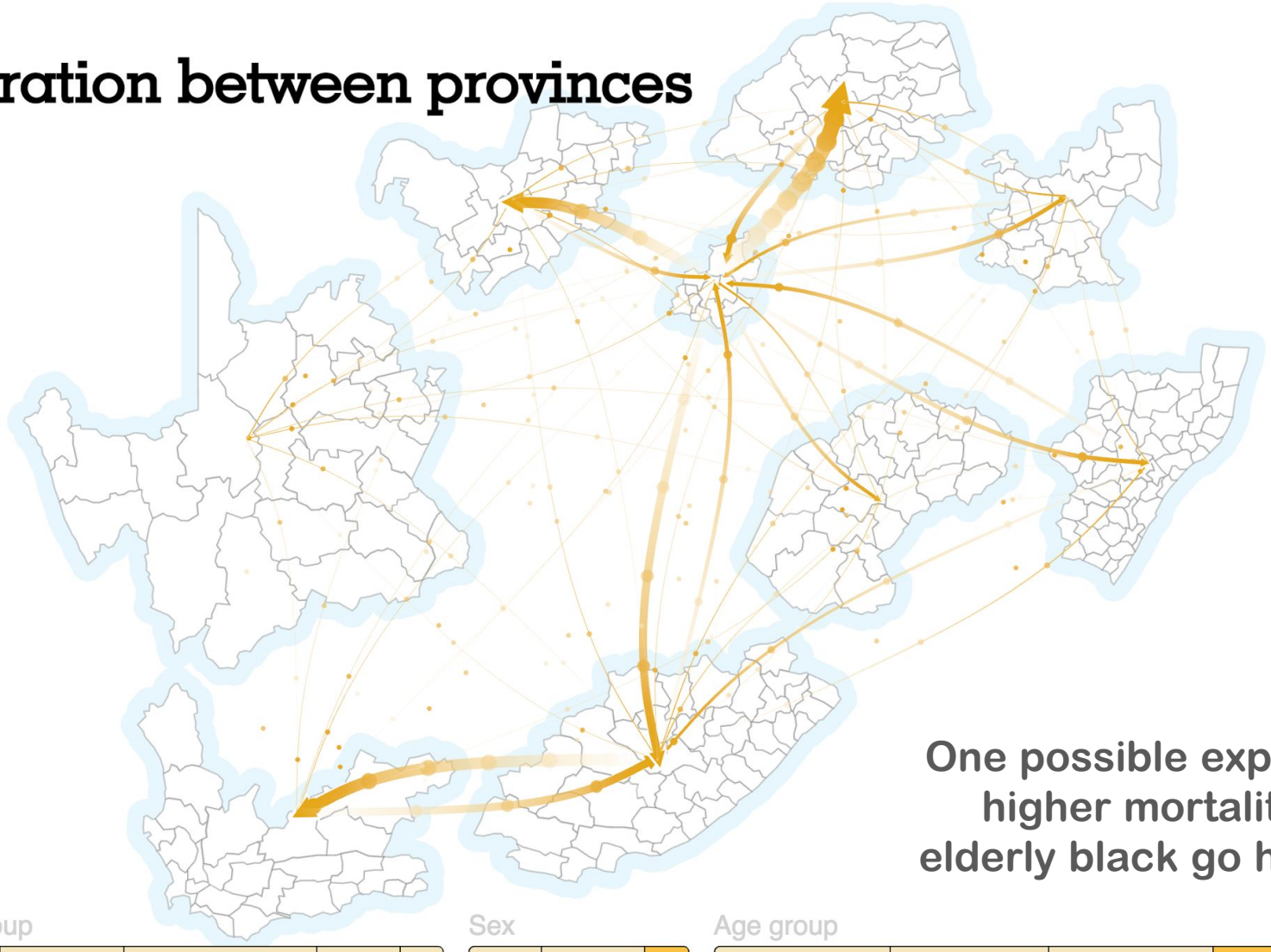
Sex

Male	Female	All

Age group

Children 0-14	Youth 15-34	Adults 35-64	Elderly 65+	All

Migration between provinces



One possible explanation of higher mortality in LP: elderly black go home to die

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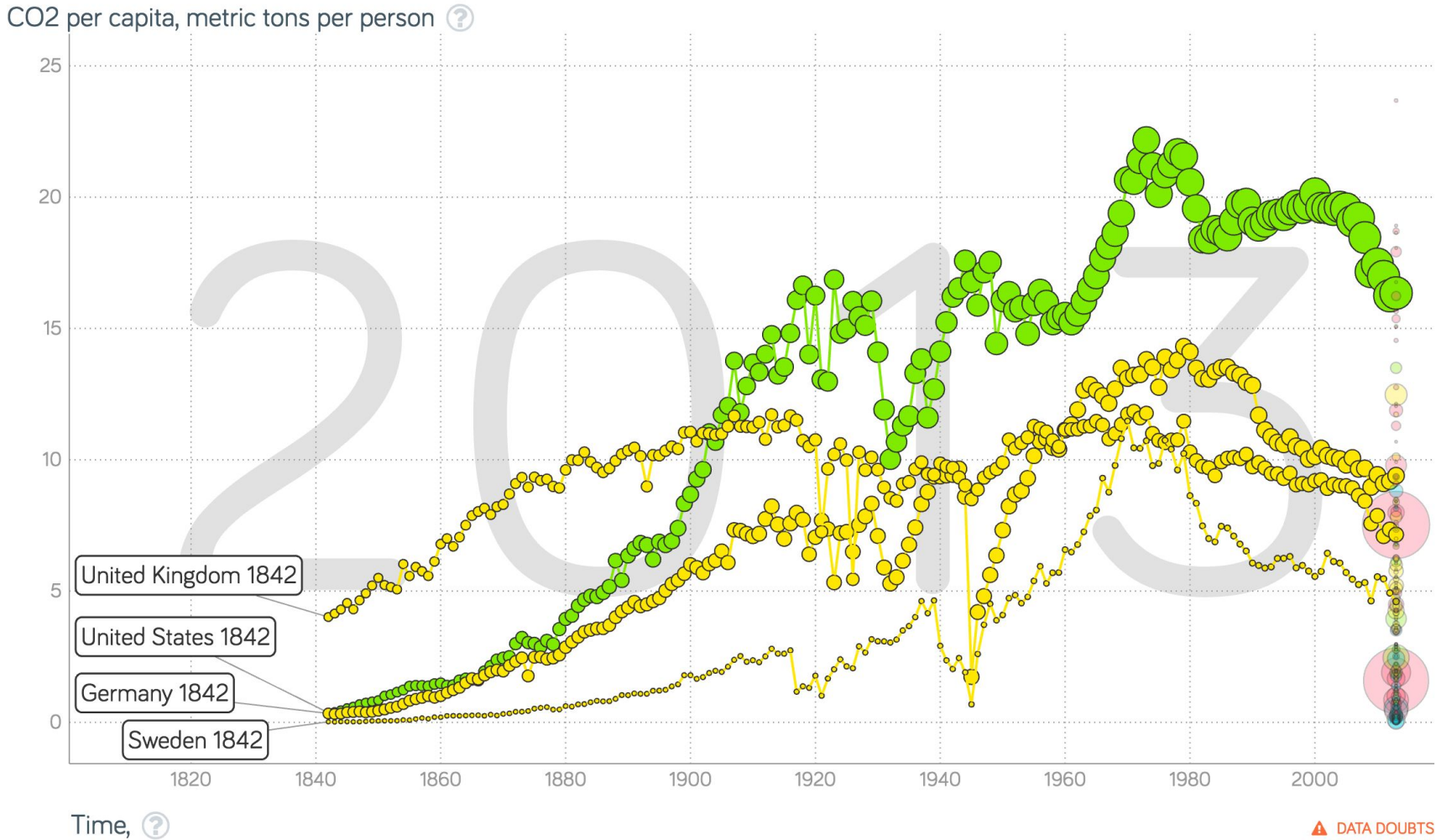
Sex

Male	Female	All

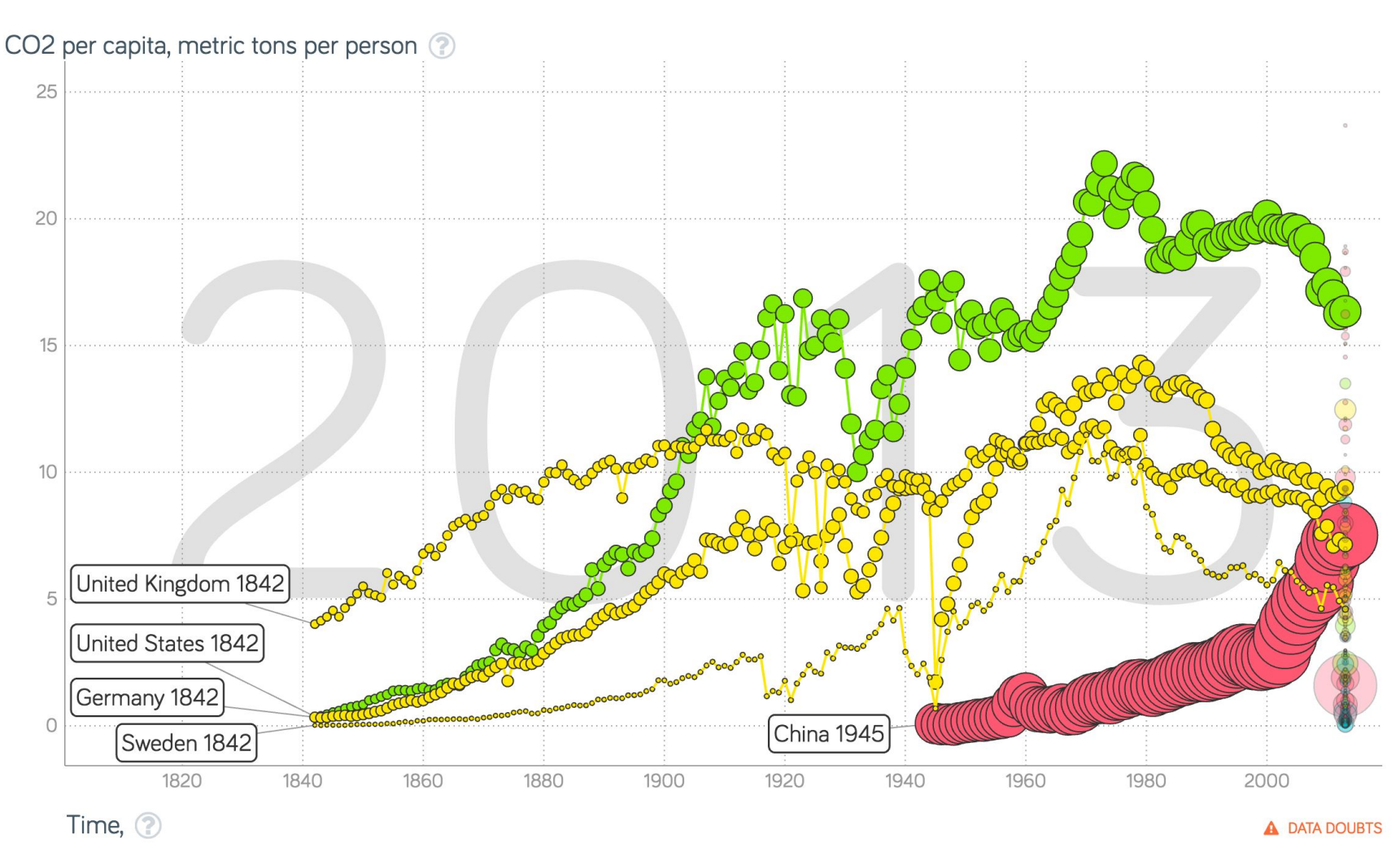
Age group

Children 0-14	Youth 15-34	Adults 35-64	Elderly 65+	All



CO2 decreased in west. Are we good?

[Link to this state](#) (press play)

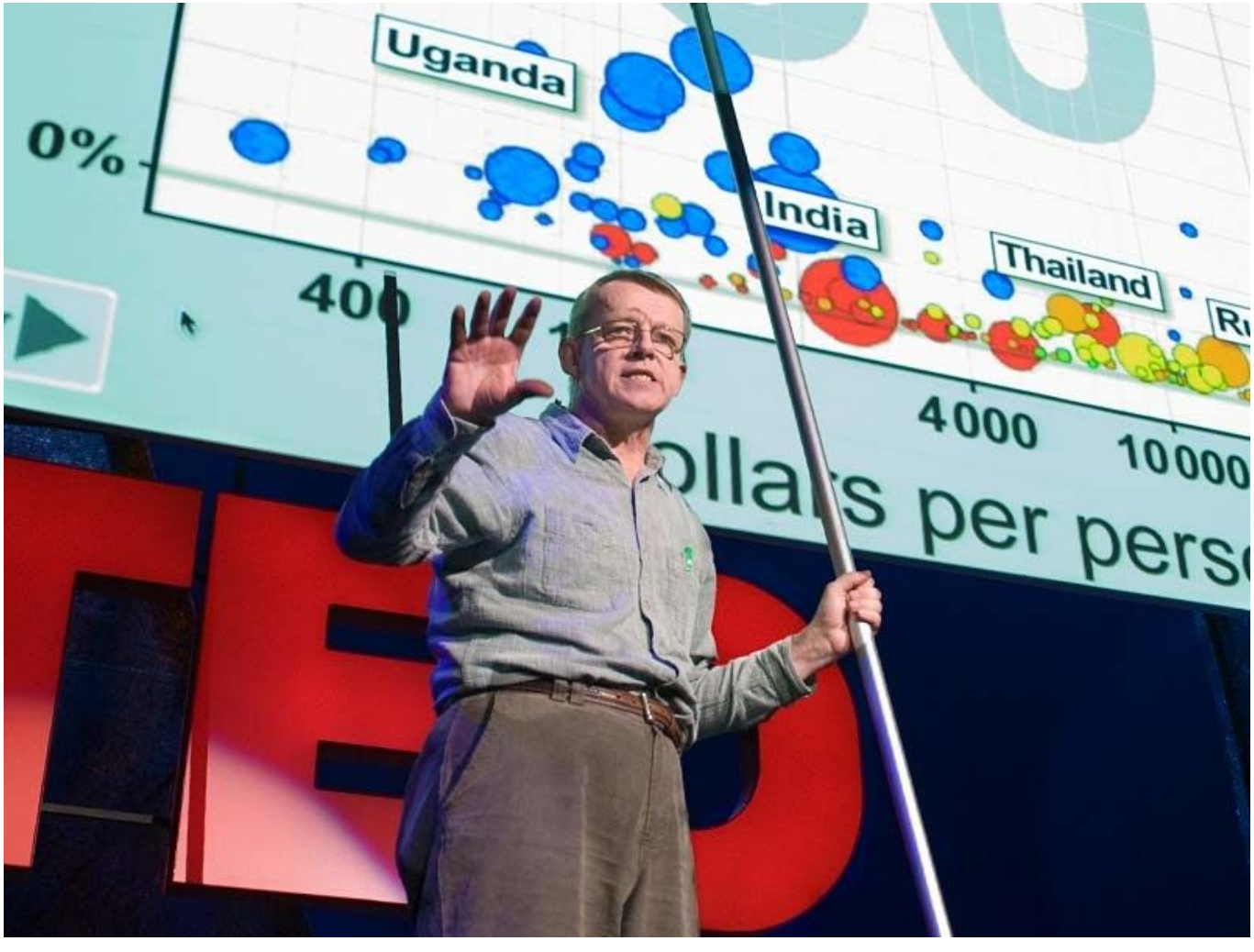


CO2 decreased in west. Are we good? Maybe... Or maybe not. Look we export our CO2!

Storytelling

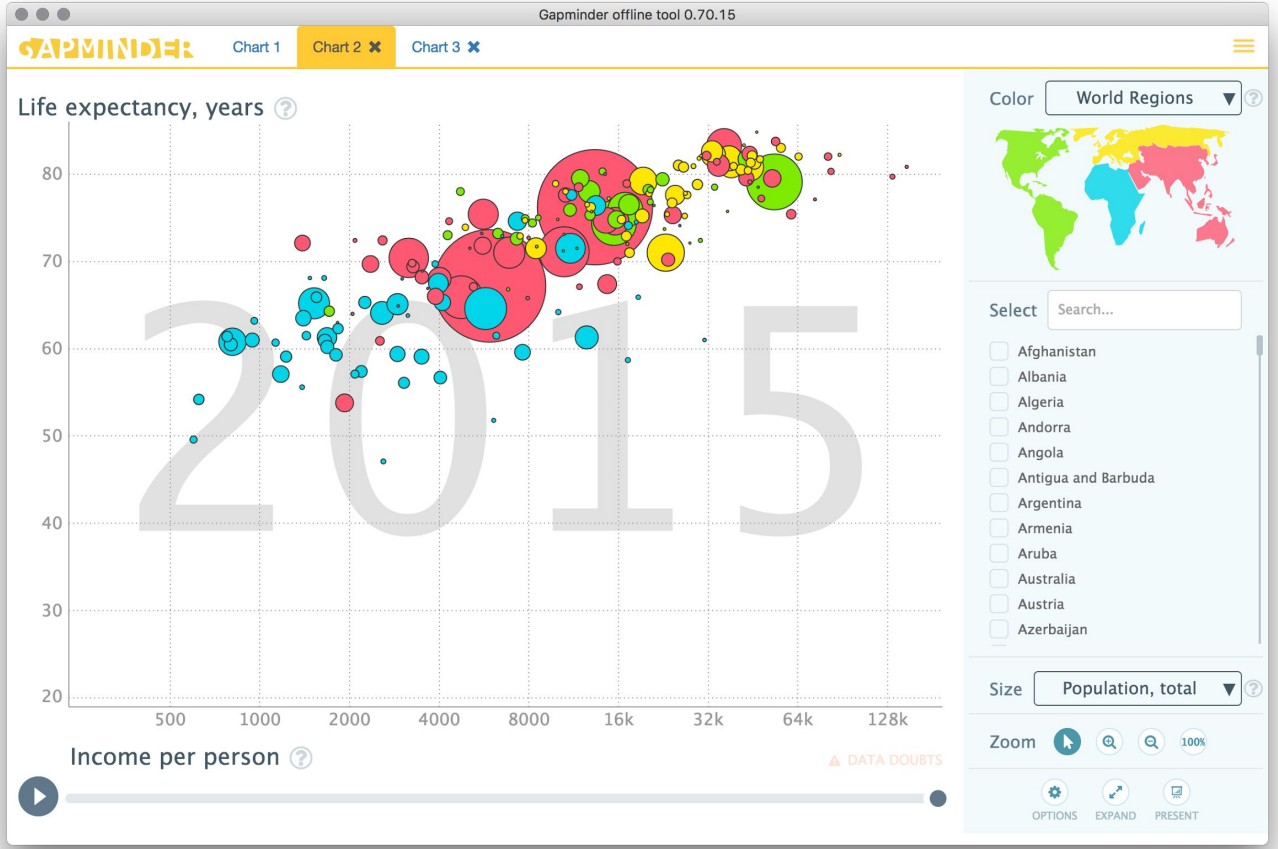
Share the worldview of experts

Stories need to be told by experts in their field.
They know the facts but more importantly, can put them into context,
can interpret them correctly and are thus the right people to lead our world views.

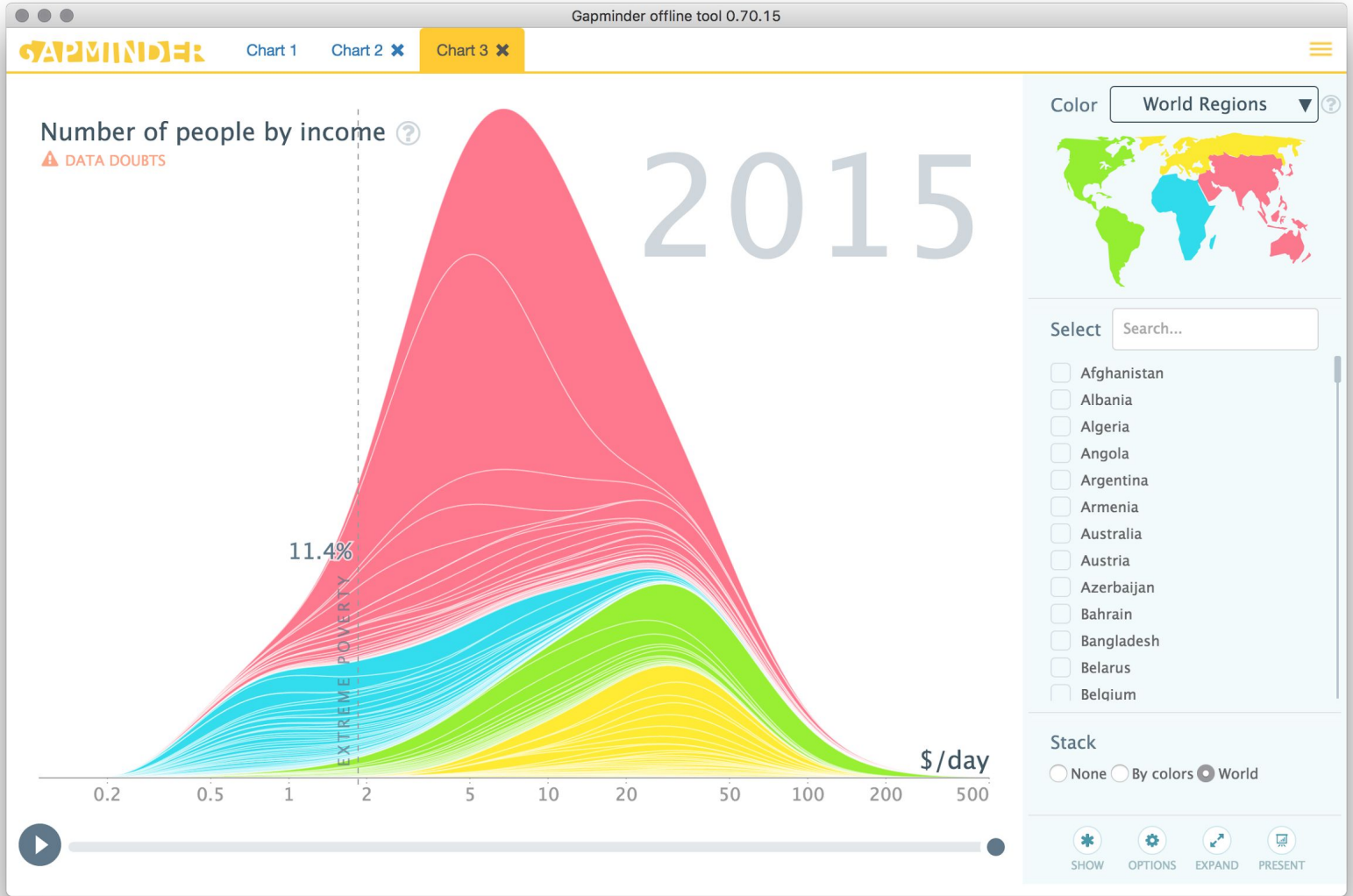


We started with Hans, our founder. He is an expert in global health.

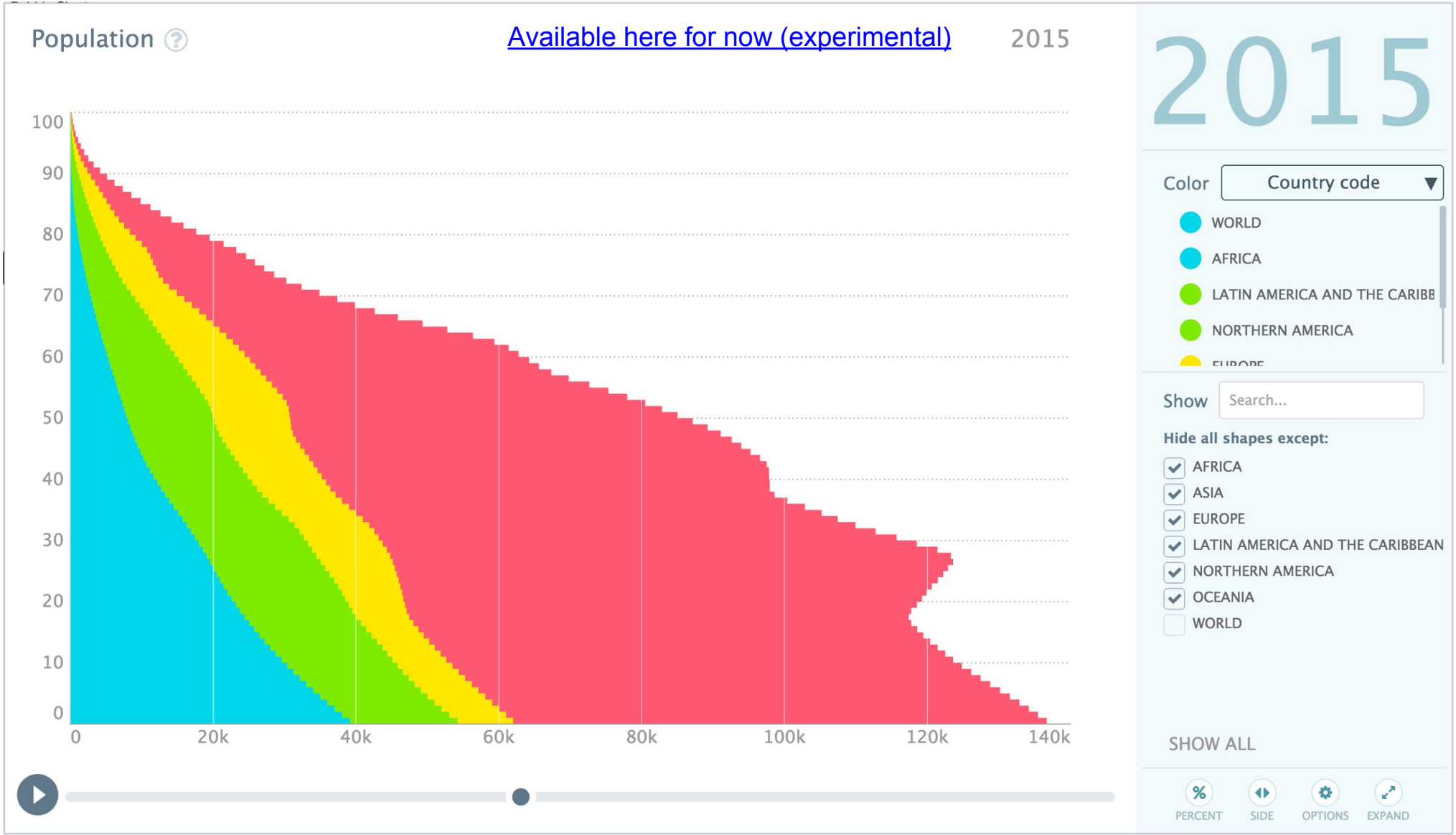
We do tools for fact based storytelling



http://www.gapminder.org/tools



[Mountain chart is available online]


Population
Available here for now (experimental)
2015
100
90
80
70
60
50
40
30
20
10
0
0
20k
40k
60k
80k
100k
120k
140k
2015
Color
Country code
WORLD
AFRICA
LATIN AMERICA AND THE CARIBB
NORTHERN AMERICA
Show
Search...
Hide all shapes except:
AFRICA
ASIA
EUROPE
LATIN AMERICA AND THE CARIBBEAN
NORTHERN AMERICA
OCEANIA
WORLD
SHOW ALL
PERCENT
SIDE
OPTIONS
EXPAND

Show trends through animation

When not to use maps

When geography is not the center of your story

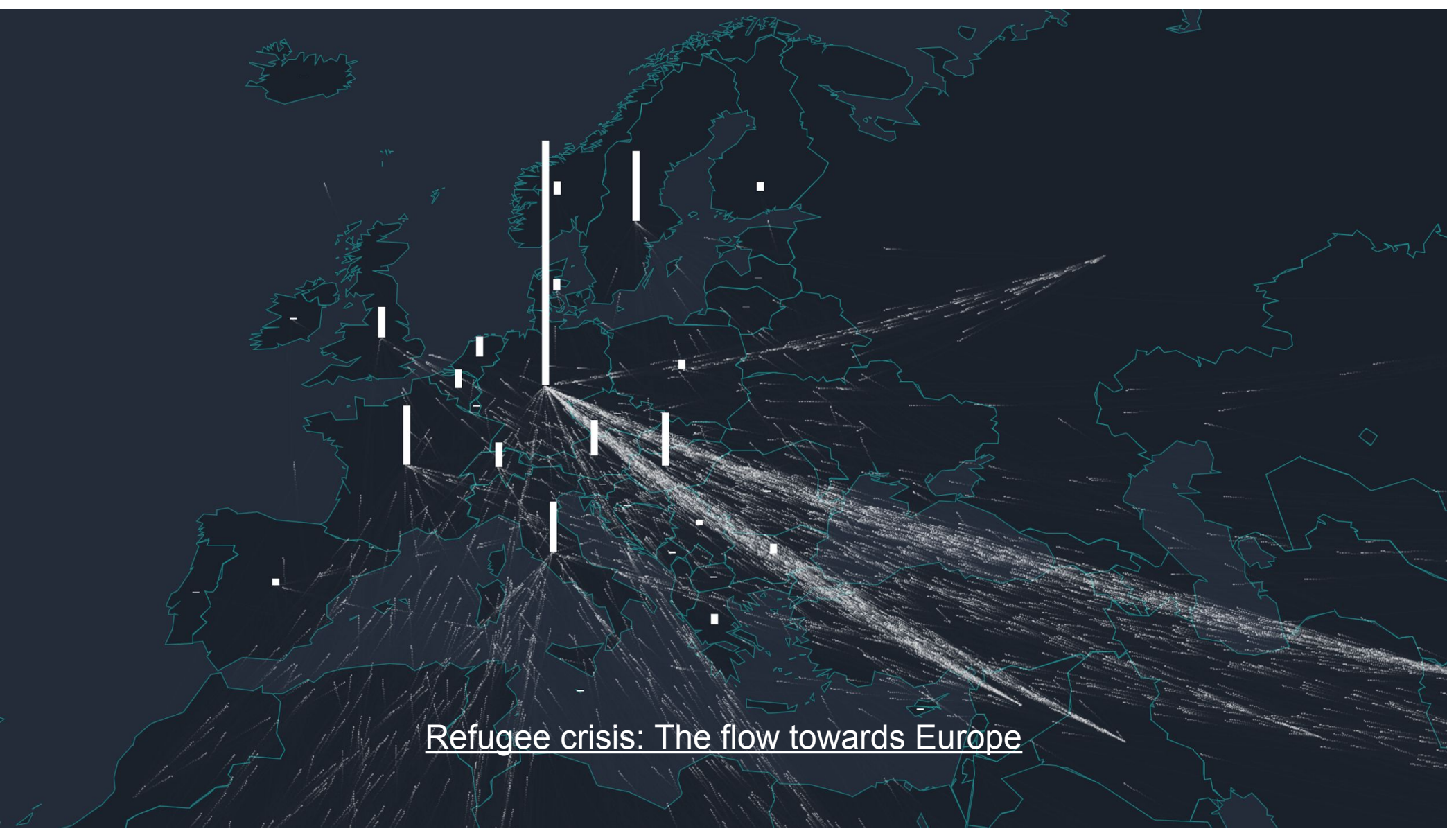
When we want to show trends over time, we link animation to time.
Changes in location, size and colour show the trends.

People are good at perceiving movement: using location to show change is powerful.
And there aren't many things in nature that change size or color,
so people are not so good at capturing those changes.

But on maps locations are locked!

Storytelling

Stories told in the wild

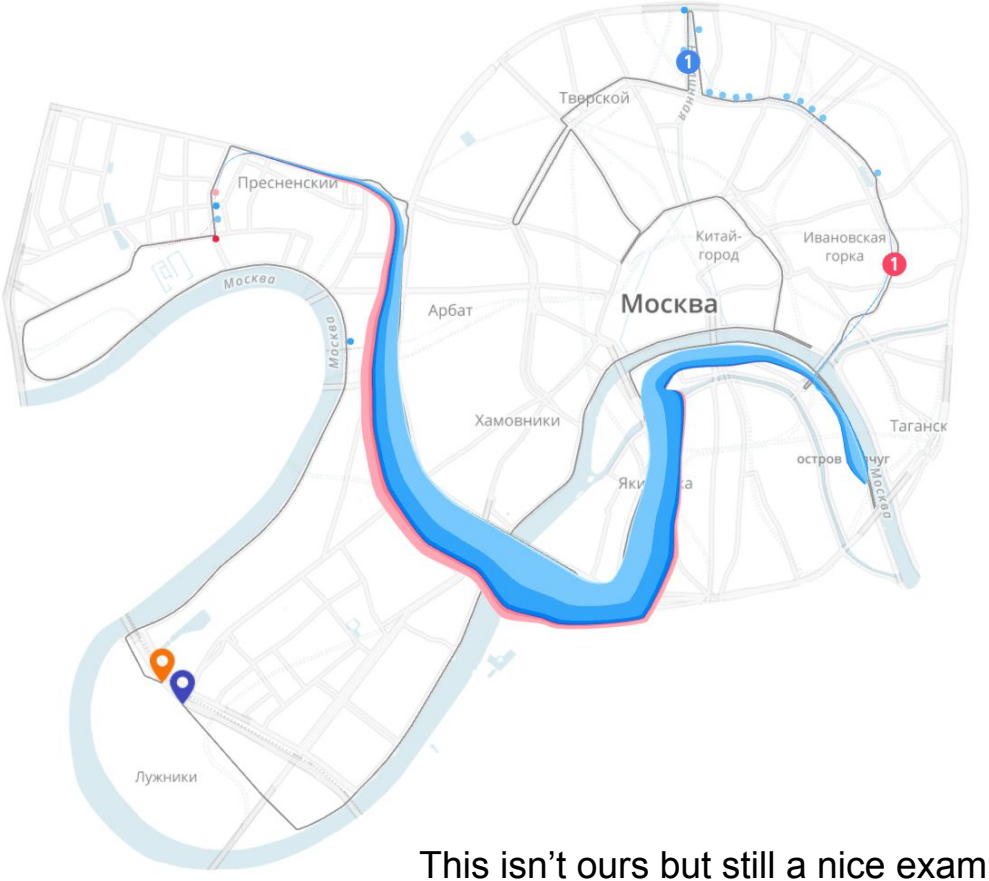

Refugee crisis: The flow towards Europe

But the previous map is missing an important fact! Most refugees are not in Europe!
Watch: [Hans Rosling i Globen om flyktingkrisen - Hela Sverige Skramlar]

svt

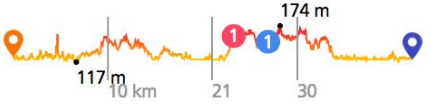
PROMSVYAZBANK MOSCOW MARATHON

42,2 | 42,2 | 10 KM



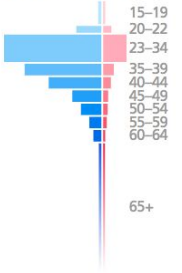
+9° ↗ 1 m/s

Altitude

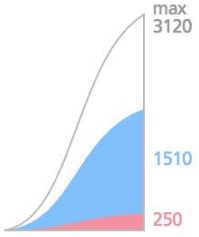


Total climb: 230 m

Age and sex



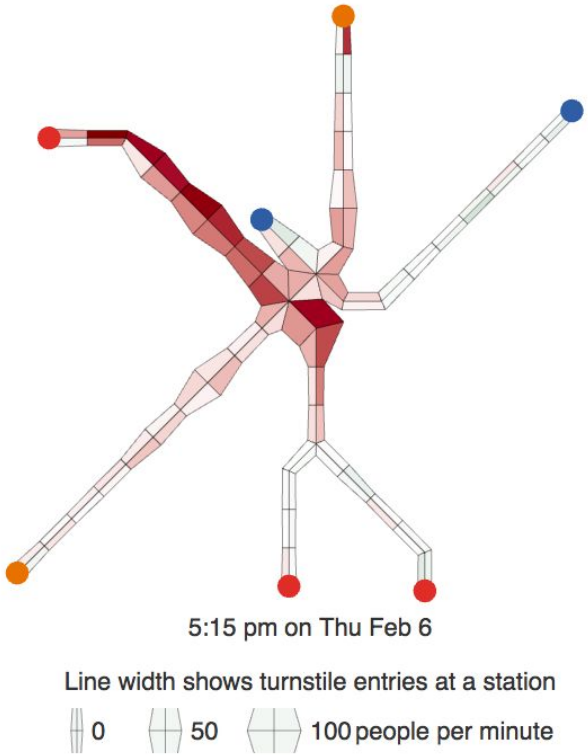
Snake width

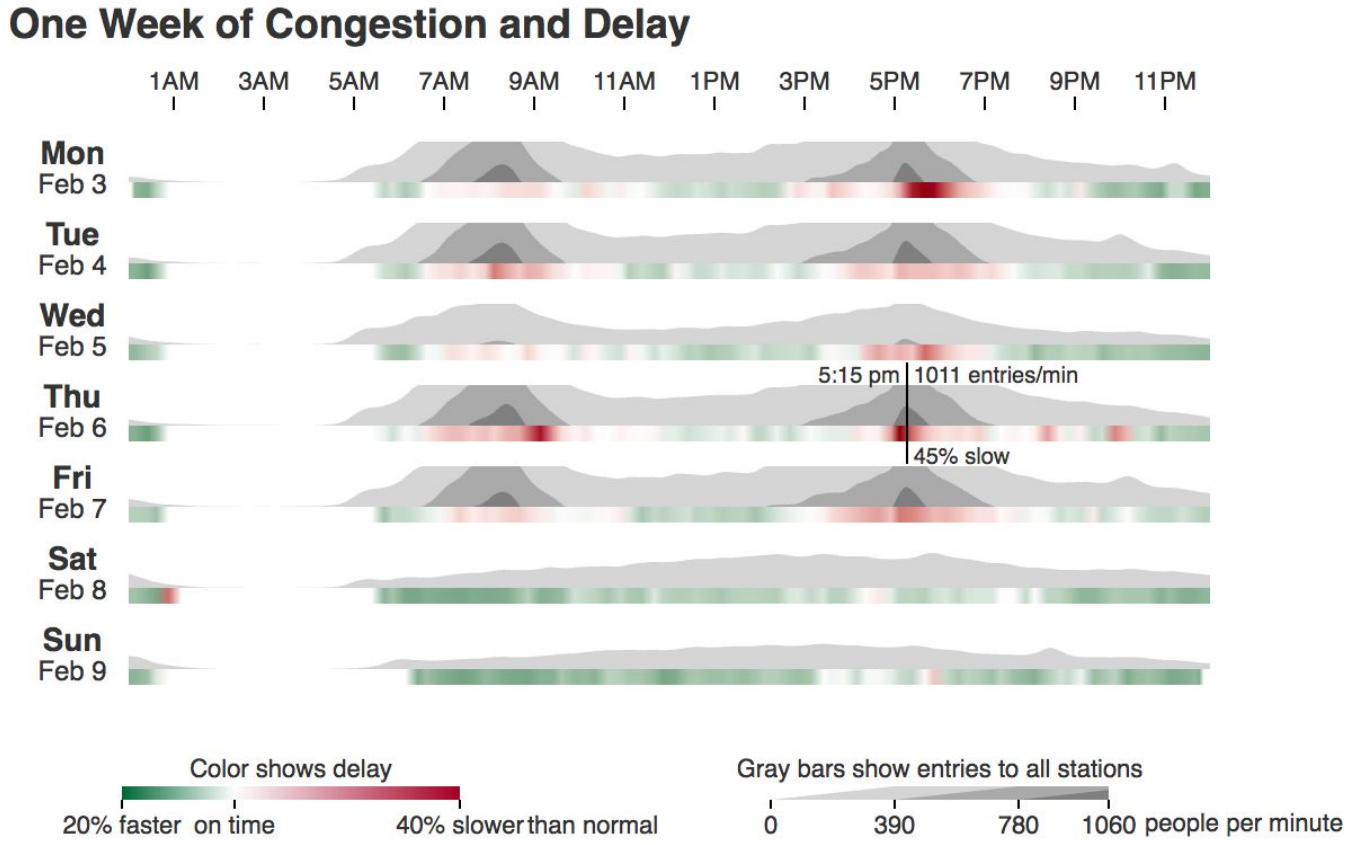


1760 runners per km

Δλ Visualization by Data laboratory

This isn't ours but still a nice example
[Moscow marathon snake]





This isn't ours but still a nice example
http://mbtaviz.github.io/

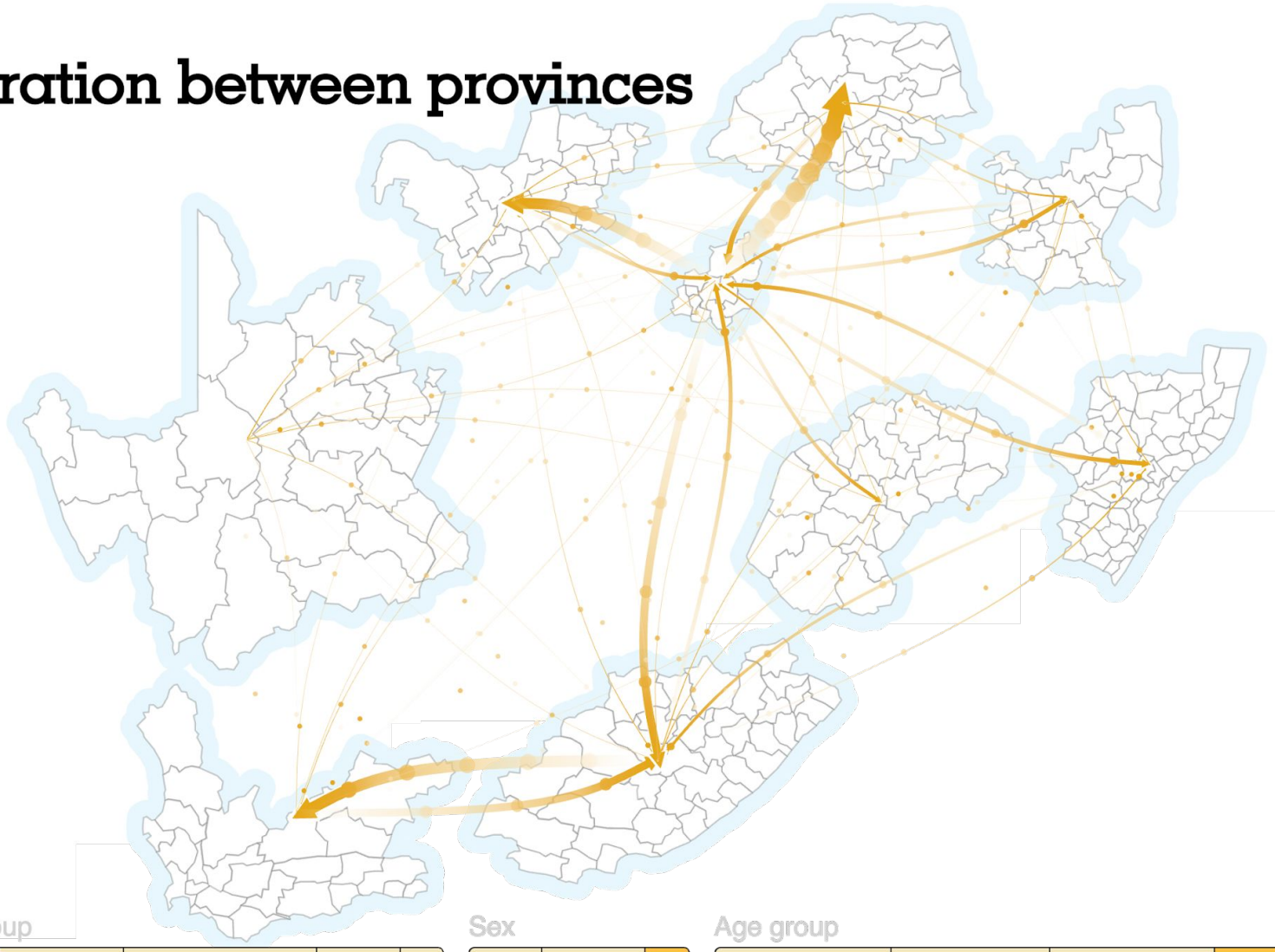
Storytelling

Gapminder helps others tell their story

Stories need to be told by experts in their field.
They know the facts but more importantly, can put them into context,
can interpret them correctly and are thus the right people to lead our world views.

Pali Lehohla, statistician general of South Africa
A local expert who knows the stories

Migration between provinces



Population group

Black African	Coloured	Indian or Asian	White	All

Sex

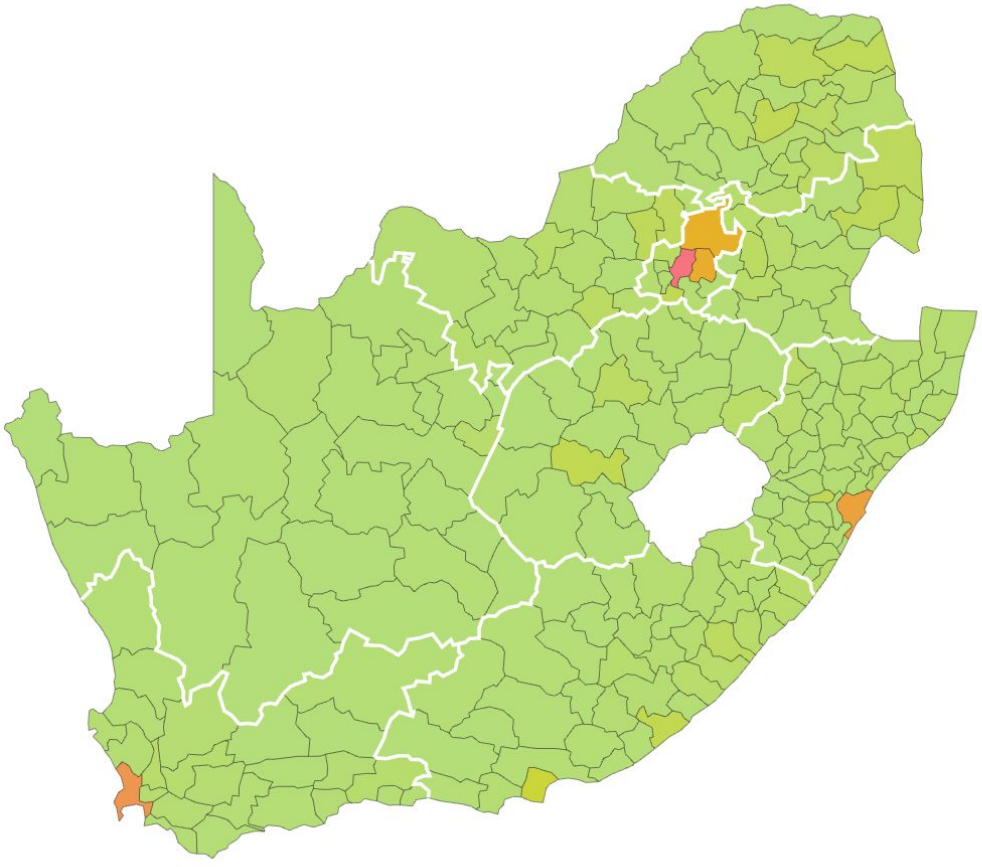
Male	Female	All

Age group

Children 0-14	Youth 15-34	Adults 35-64	Elderly 65+	All

Municipal growth

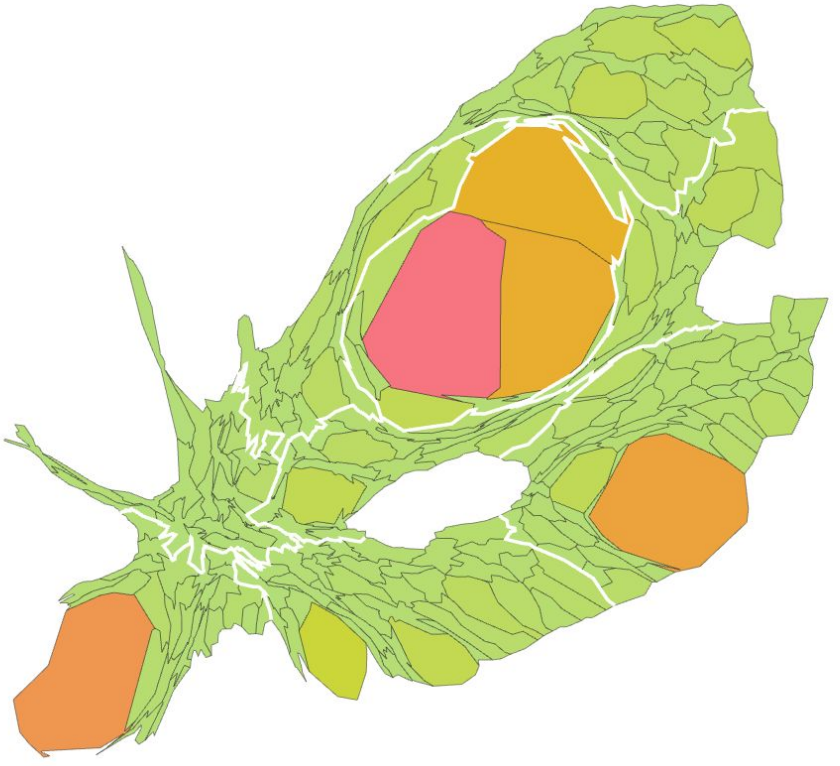
Color: Population
Size: Population



2016

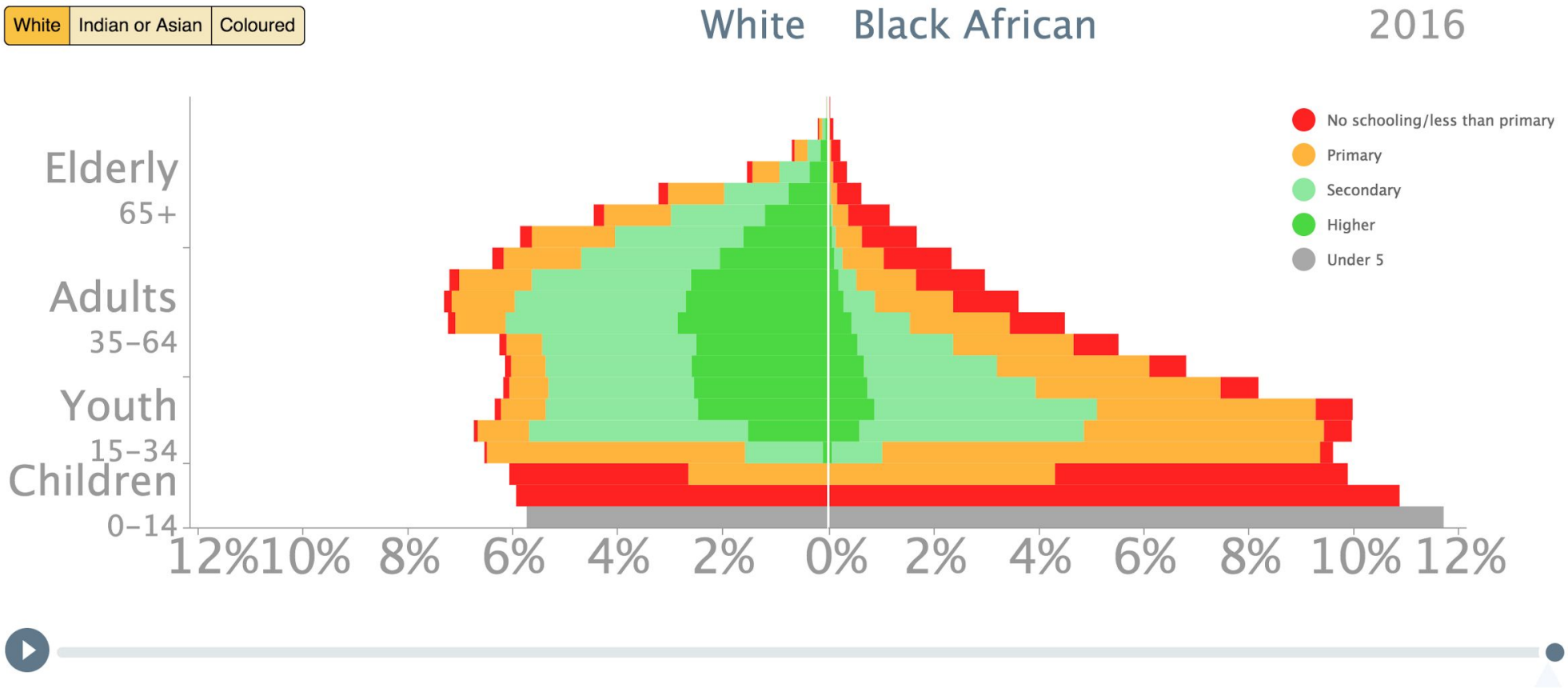
Municipal growth

Color: Population
Size: Population



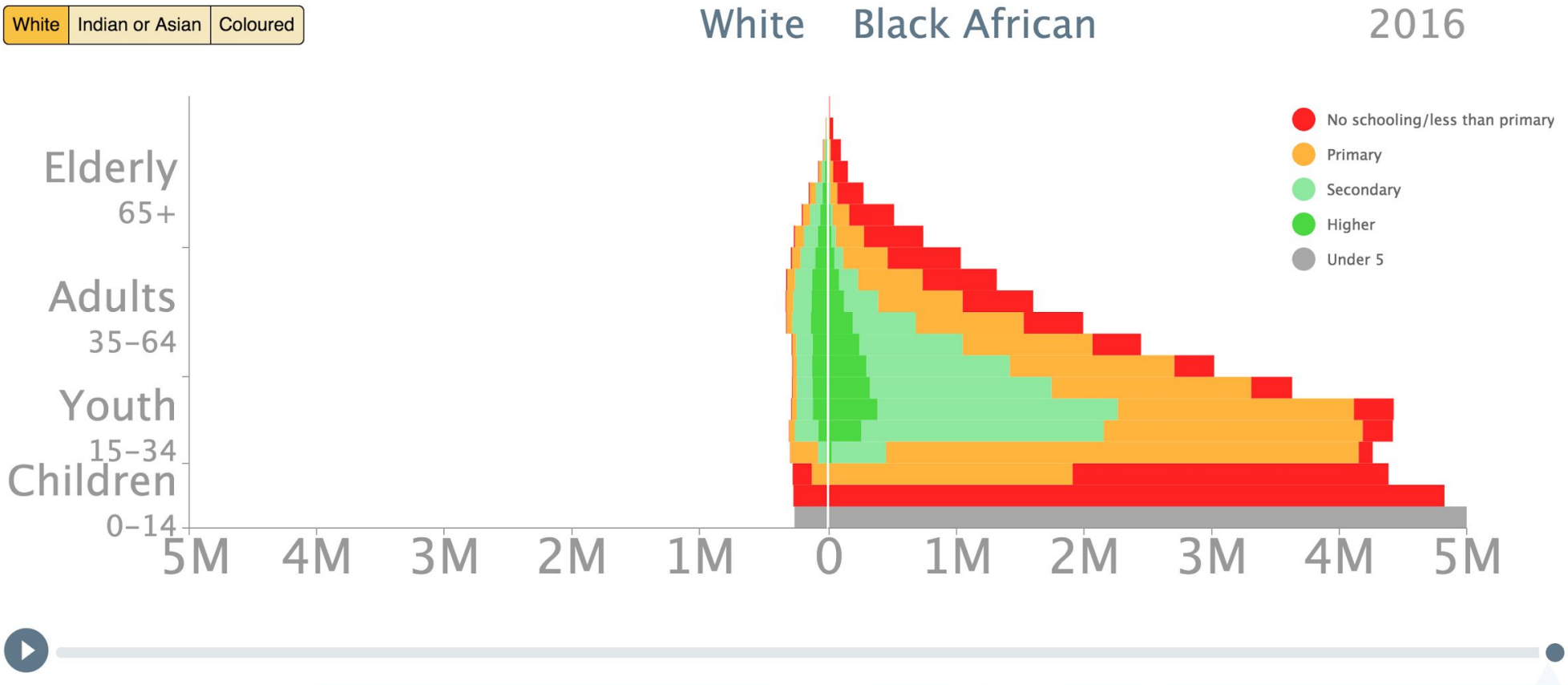
2016

Educational attainment: by Population group



The story of education in South Africa: how significant is that blacks have less higher education? These are percentages.

Absolute numbers of educational attainment



Very significant!
These are the absolute numbers.

Verktyg för kunskapsbaserat beslutsfattande - Södertörnsanalysen

Huddinge kommun

Prenumerera 83

1 671 visningar

Marcel Moritz, ledare för hållbarhetsteamet i Huddinge kommun berättar om Södertörnsanalysen, ett verktyg som gör det enklare att belysa skillnader, likheter och trender på kommunal och regional nivå.

https://youtu.be/WXVev6kdrQk?t=27s

Tell your story with Gapminder

What is your expert world view?

To influence decision makers you need the right tools to communicate your worldview to them effectively. Use our tools and rules of thumb to convince them with your story.

Gapminder Tools Offline

With Gapminder Tools Offline you can show animated statistics from your own laptop!

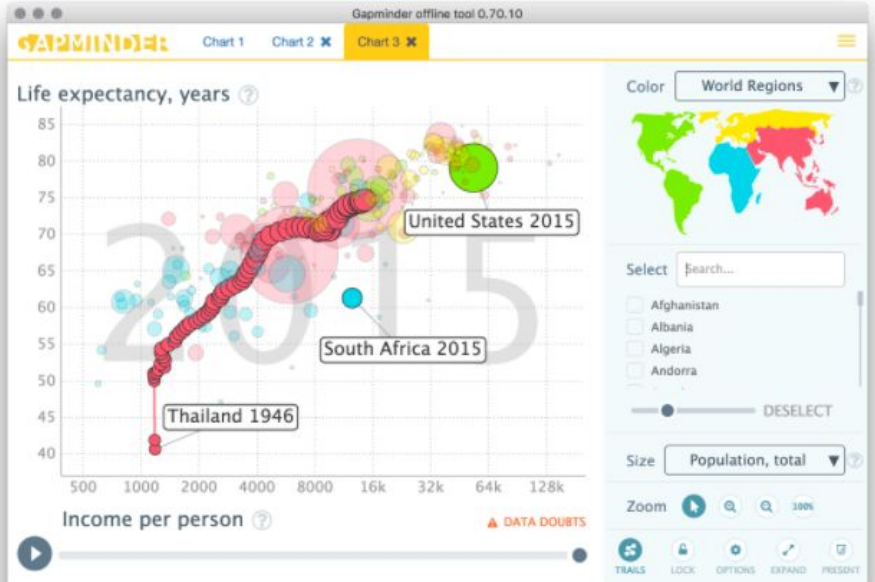
- You can use it without internet access
- You can visualise your own data with it or even combine it with the datasets provided (examples & instructions)
- The software and the datasets will update automatically when connection is available

Download (scroll down for install instructions)

for Windows (72 MB) | for Mac (140 MB) | for Linux (63 MB)

...for the old Windows (32-bit)

This is an early release of the software, which may have issues on some computers. Report a problem here.



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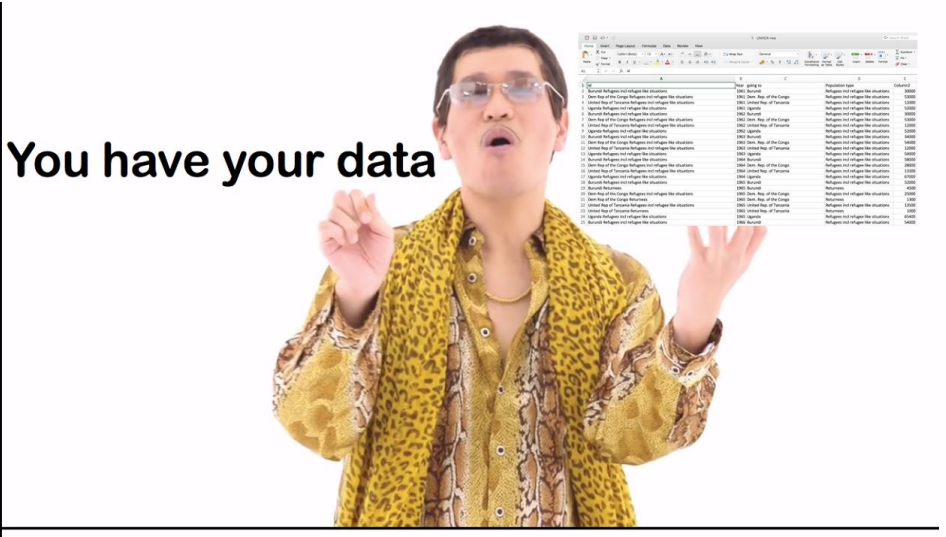

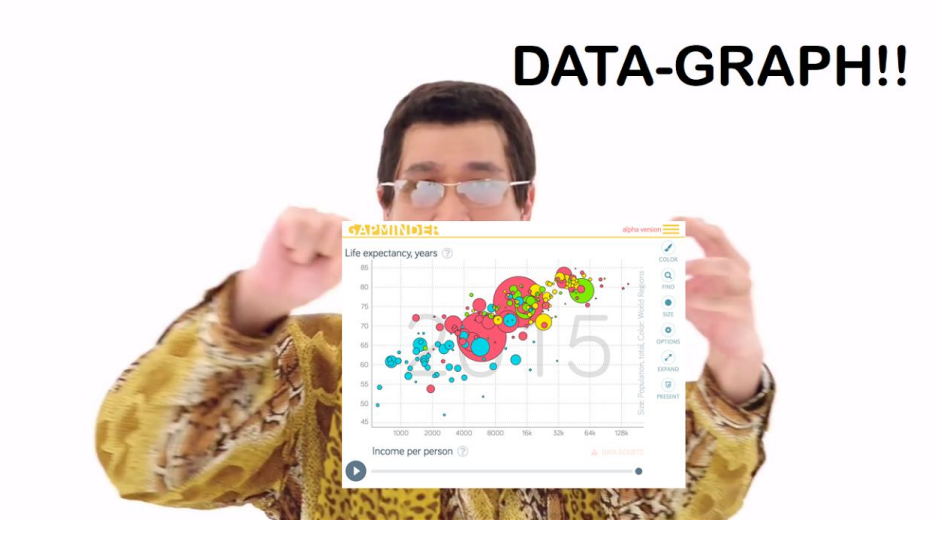

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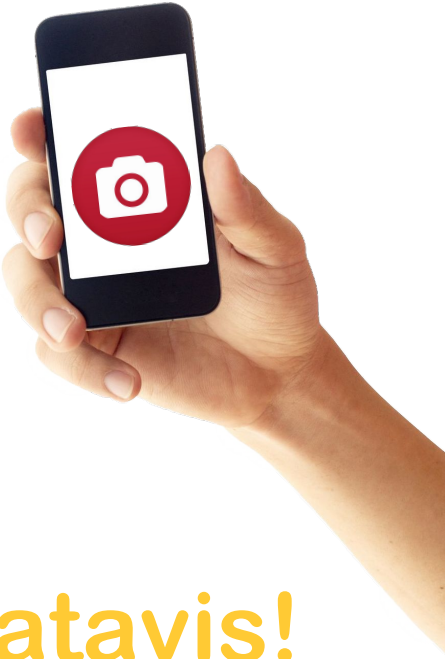

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