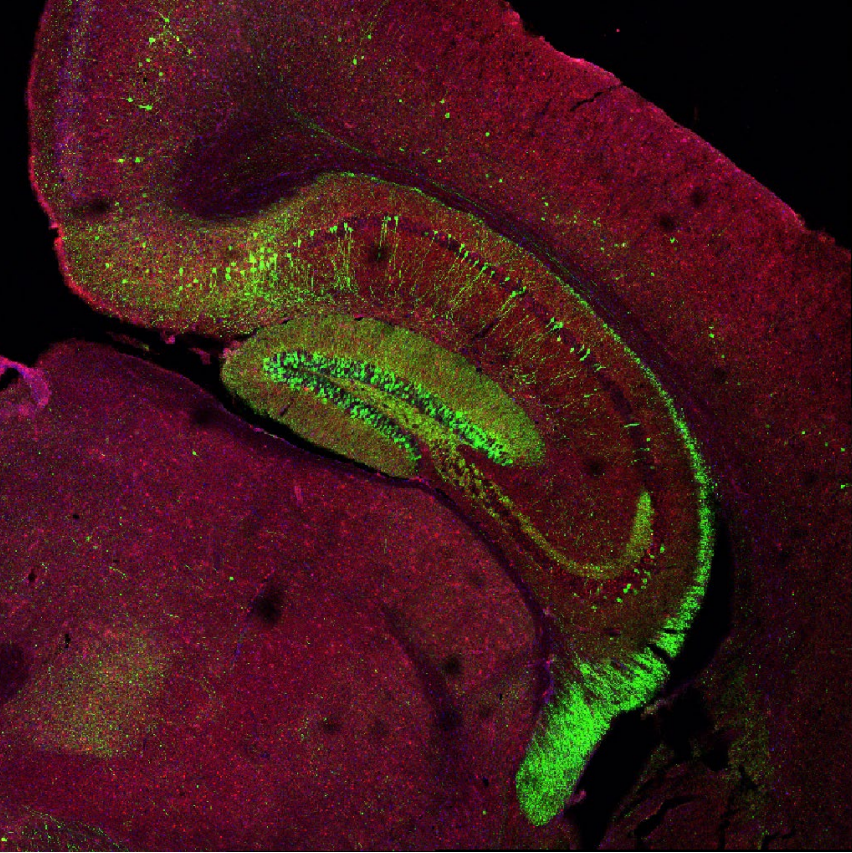




CARIBBEAN ISLANDS
CURACAO



From Cells to Systems

A JOURNEY OF EVOLVING
QUESTIONS IN CARIBBEAN HEALTH
RESEARCH

Soraya Verstraeten, PhD.





Questions

- 1. *Why do individuals get sick?***
- 2. *What is happening at the population level?***
- 3. *Why do some populations achieve better health outcomes than others?***
- 4. *How can we build health systems that can keep learning and improving?***

Question

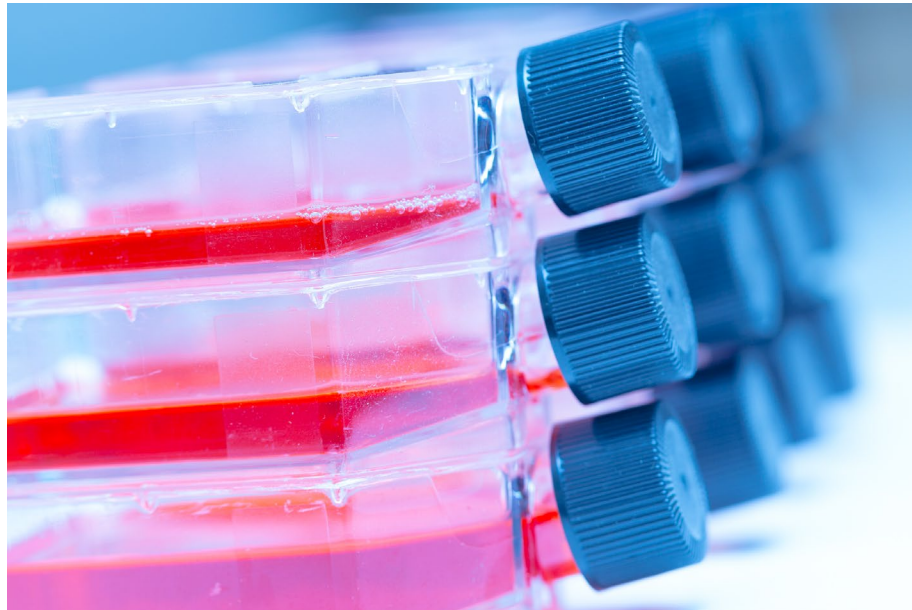
- 1.** *Why do individuals get sick?*

The human genome project

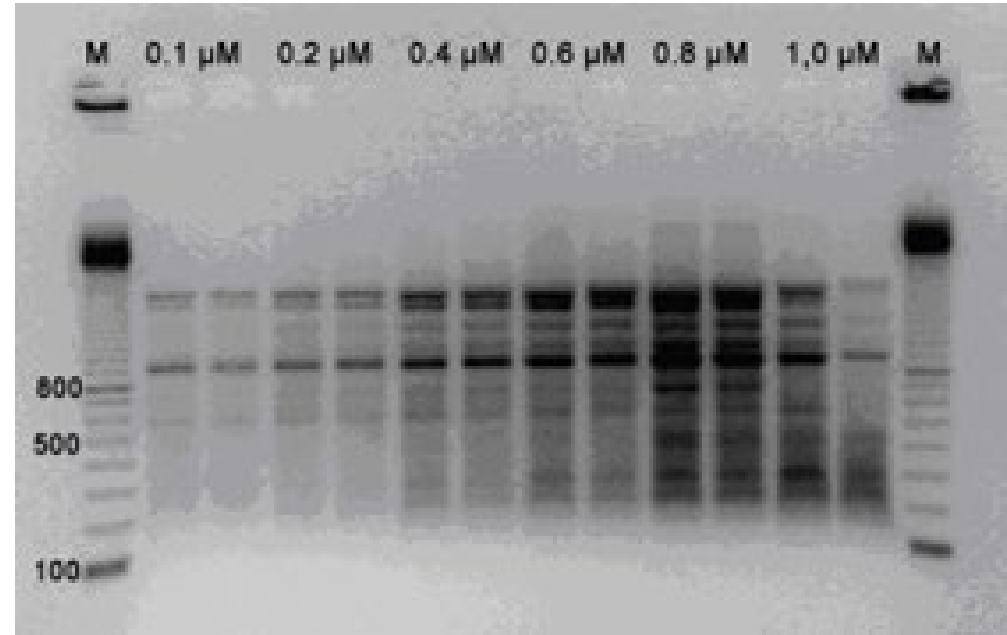


Ca. 2000

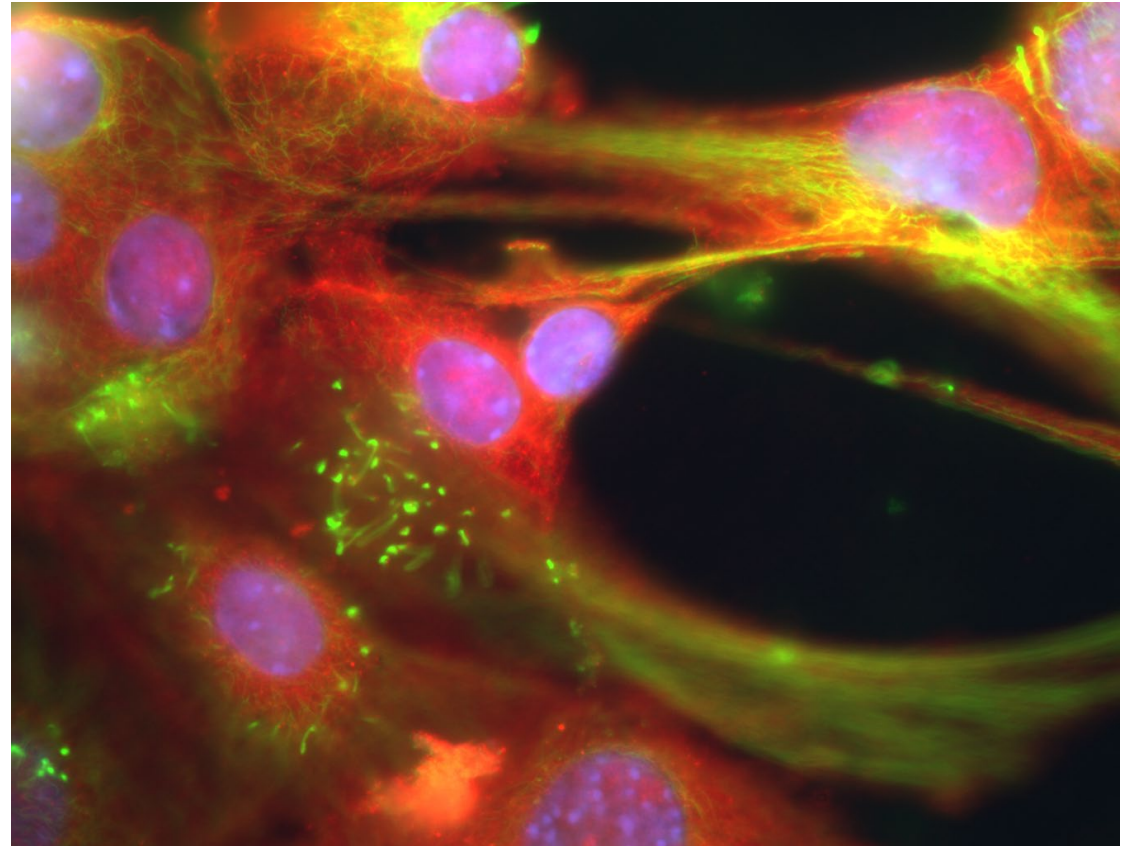
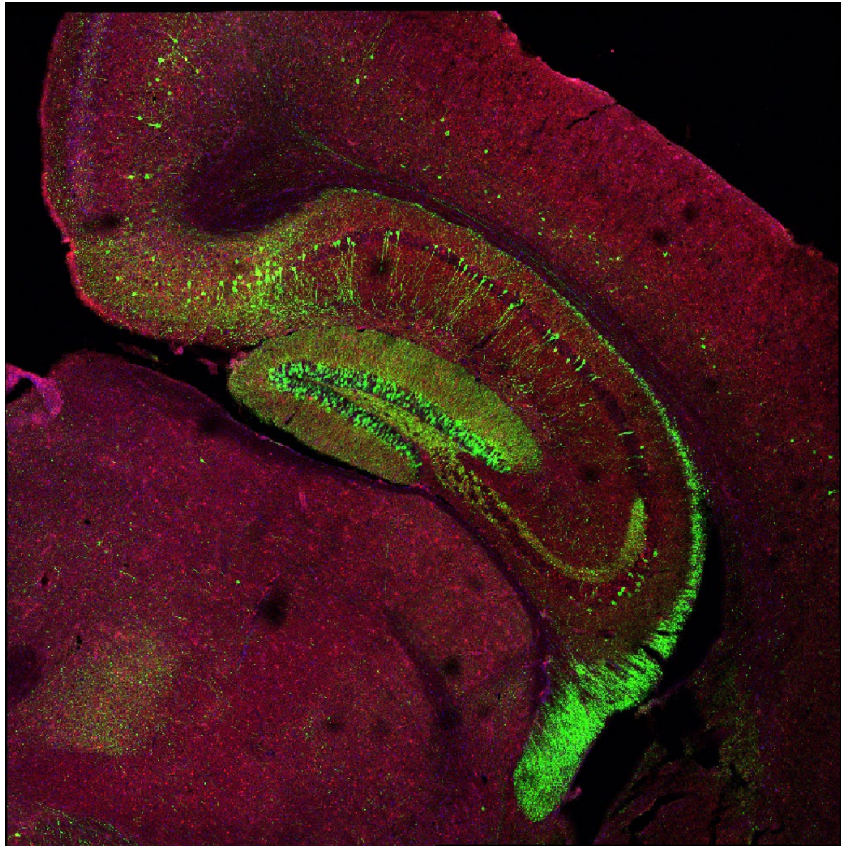
Viral and bacterial culture



Molecular Microbiology



Cell Biology



Young Professionals Gobièrnu di Kòrsou



Question

2. *What is happening at the population level?*

Volksgezondheid Instituut Curaçao

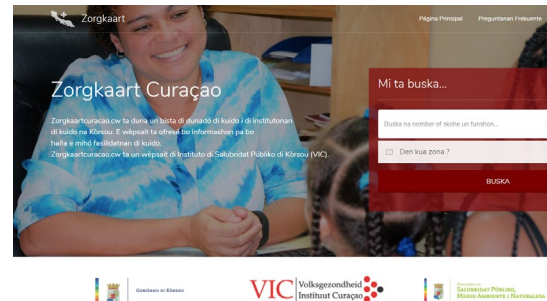
- Collect and analyze data on health and healthcare based on international methods
- National Health Surveys
- Data registration systems
- National health accounts
- SVB, laboratories, Central Bureau of Statistics, RIVM, CDC.



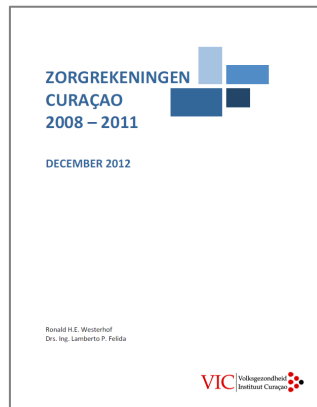
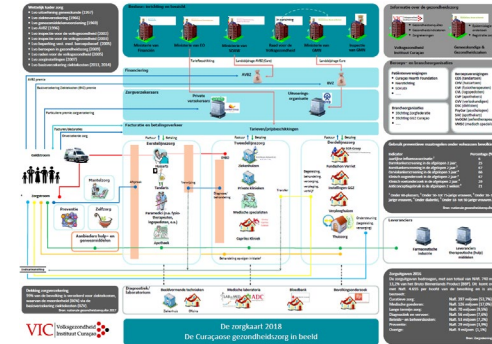
Our publications (selection)



www.vic.cw



www.zorgkaartcuracao.cw



2012



2013



2015



2017

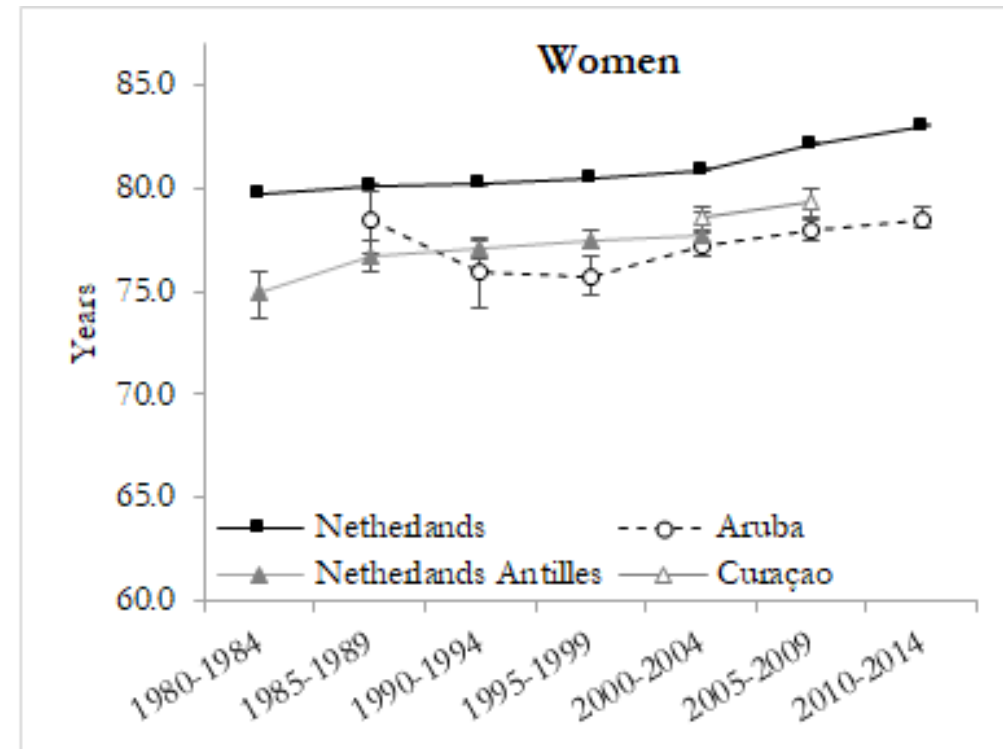
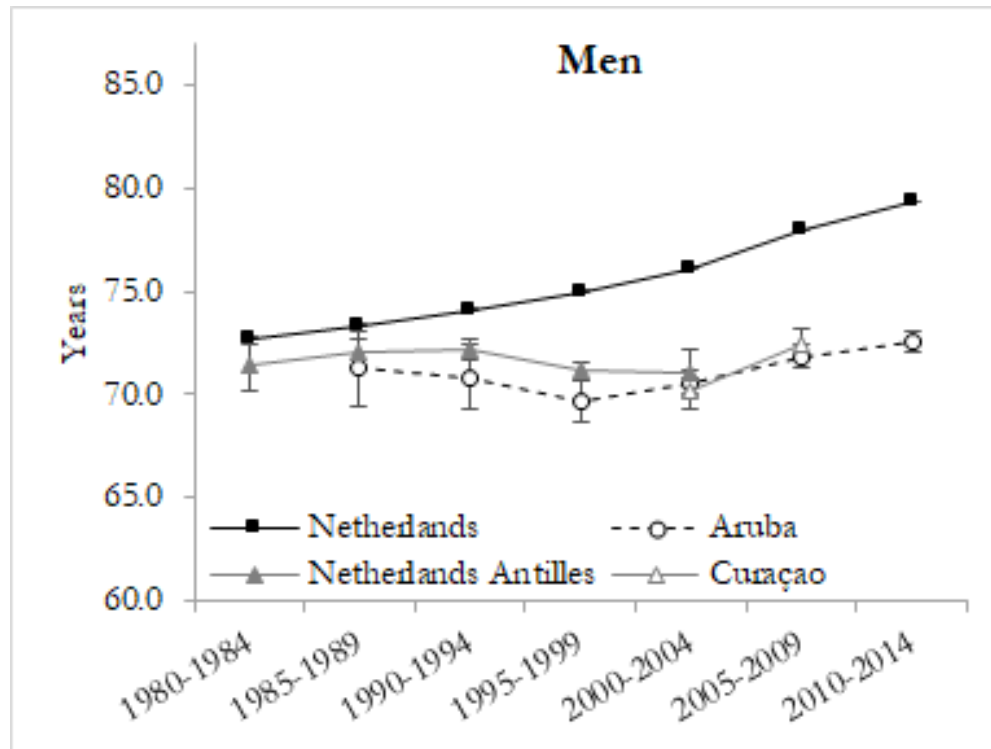


2017



2018

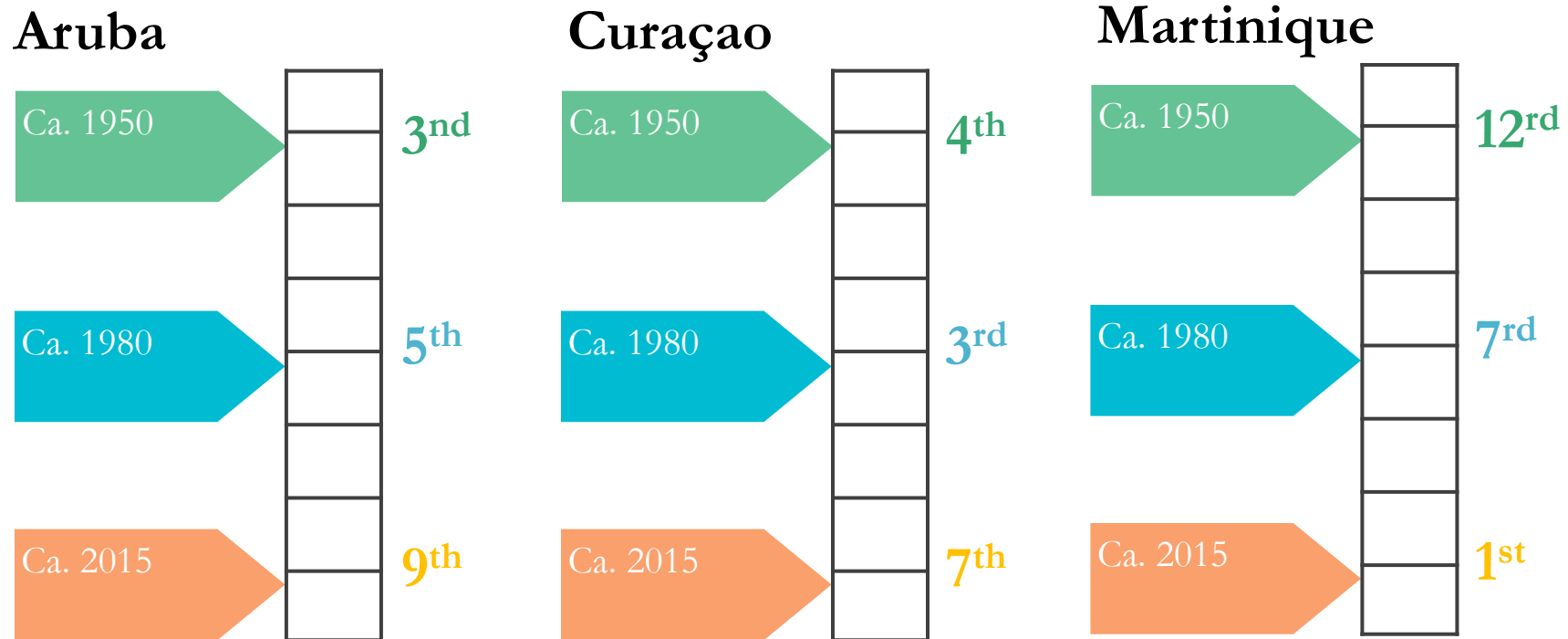
Comparison with the Netherlands



Source: S. Verstraeten, H. van Oers & J. Mackenbach. European Journal of Public Health. 2020.

Comparison Caribbean Region

Ranking life expectancy **21** Caribbean territories



Source: United Nations, World Population Prospects 2019

Question

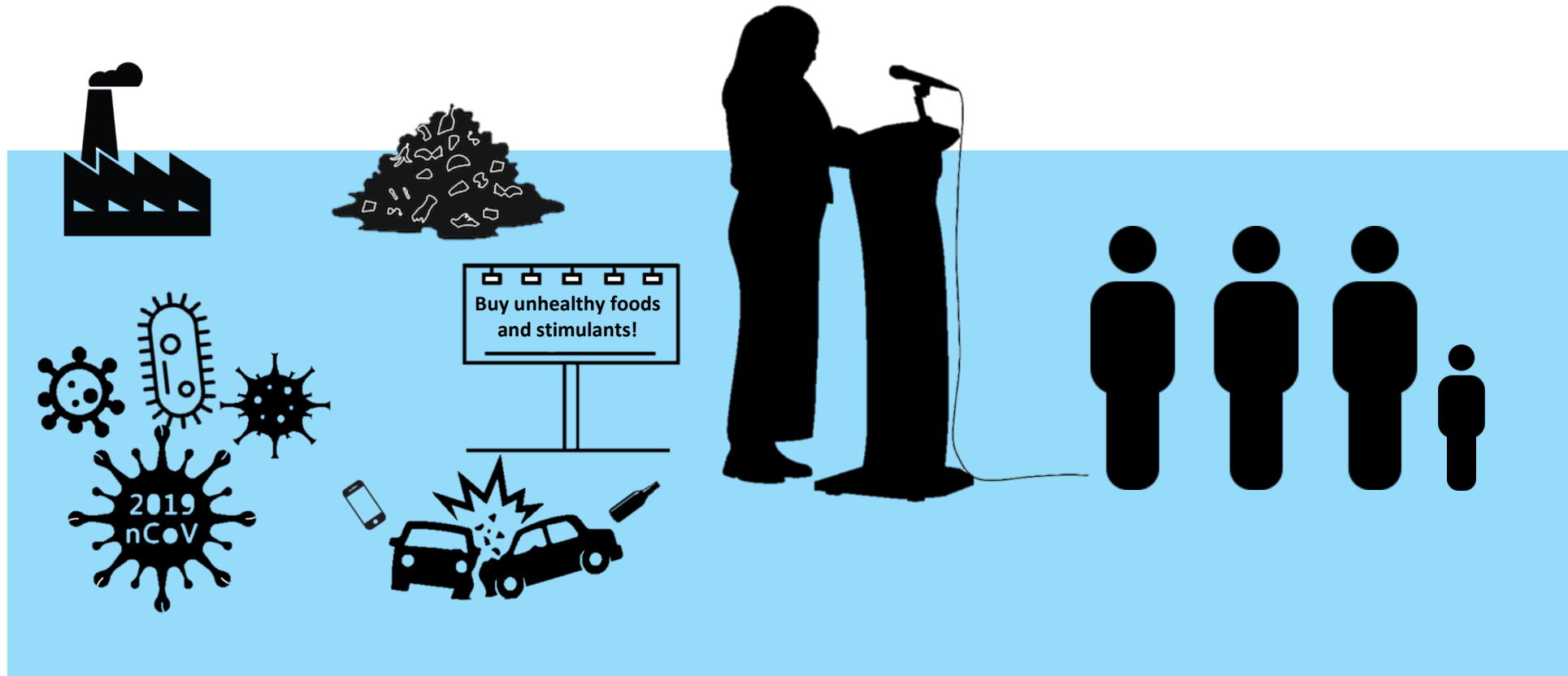
3. *Why do some populations achieve better health outcomes than others?*

The public health lens I



From J. Mackenbach. What is public health? Three revolutionary ideas that have changed the world.

The public health lens II



From J. Mackenbach. What is public health? Three revolutionary ideas that have changed the world.

Health policy “best practices”

General health and wellbeing

HIV/AIDS

Infectious diseases

Cancer screening

Tobacco

Reproductive care

Maternal and infant

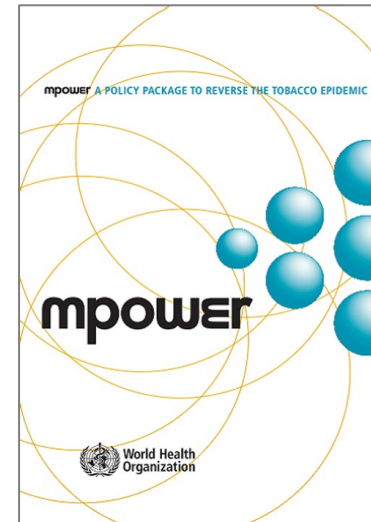
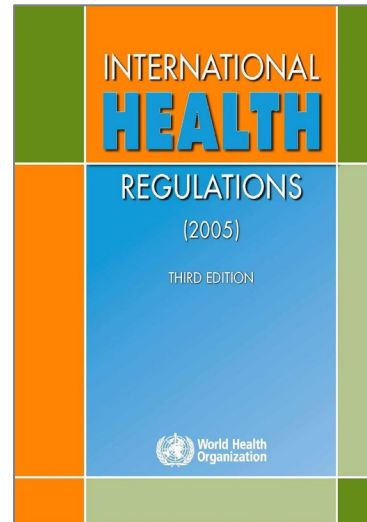
Diabetes mellitus

Hypertension

Alcohol

Traffic Safety

Violence



Health policy performance

General health and wellbeing

HIV/AIDS

Infectious diseases

Cancer screening

Tobacco

Reproductive care

Maternal and infant

Diabetes mellitus

Hypertension

Alcohol

Traffic Safety

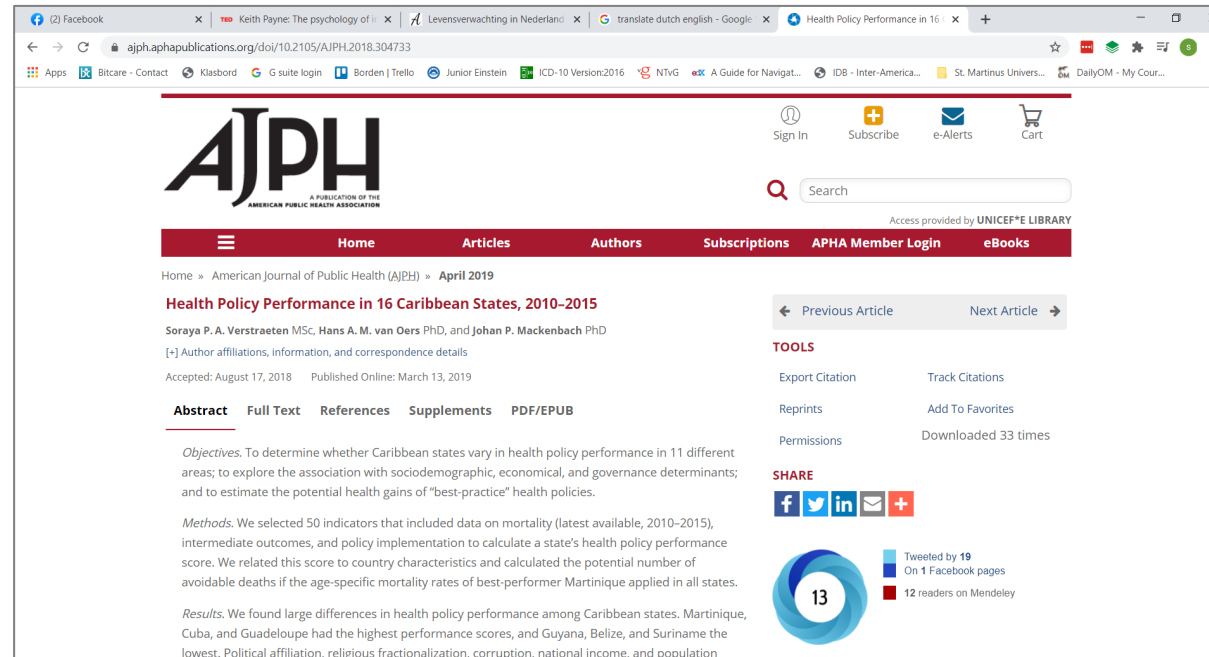
Violence

16 Caribbean states - health indicators of:

- Policy implementation (best-practices)
- Intermediate health outcomes (disease)
- Final health outcomes (mortality)



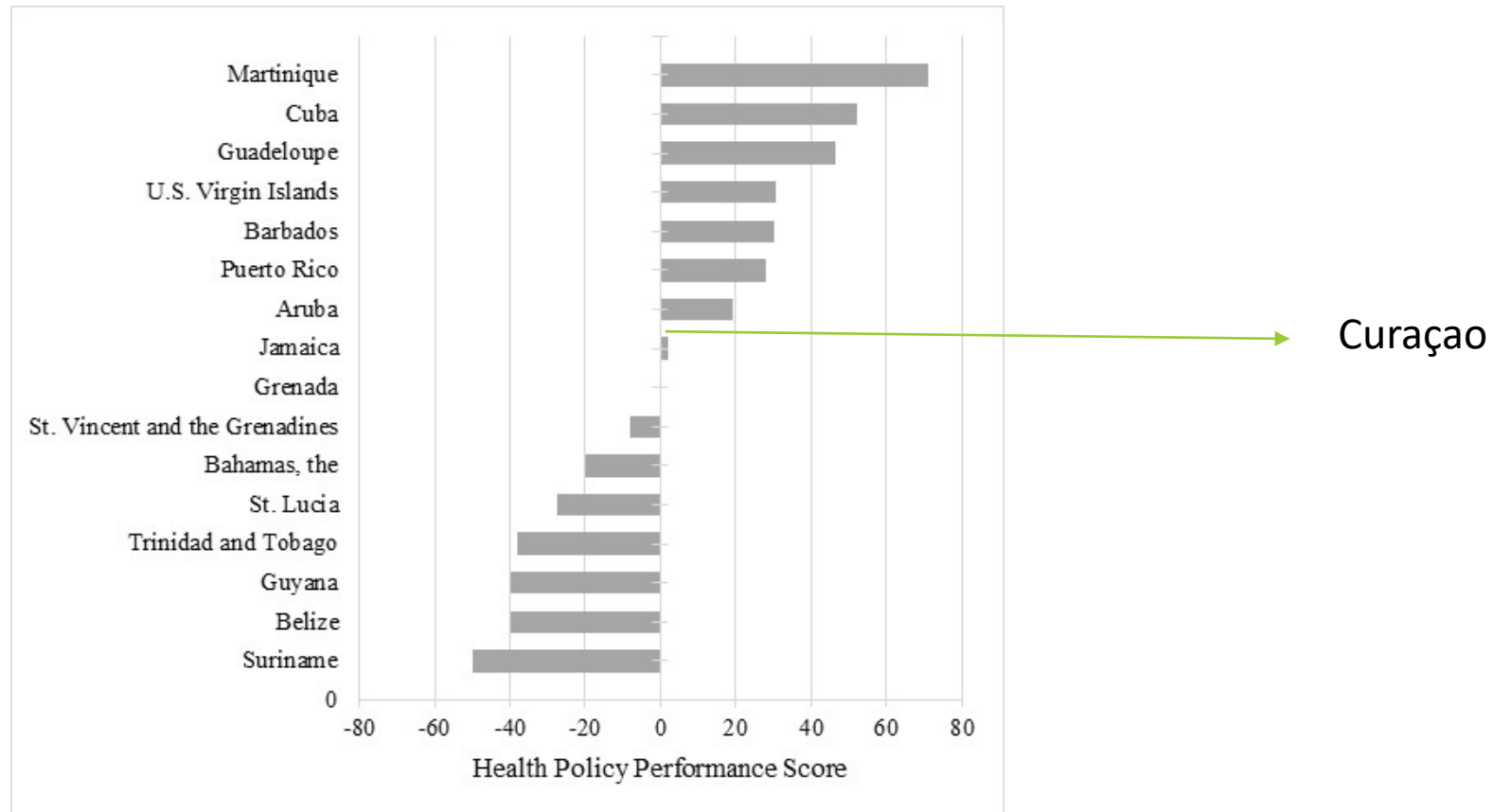
Health policy performance in the Caribbean



“Variations in health outcomes between Caribbean states reflect differences in the implementation of “best-practise” health policies”

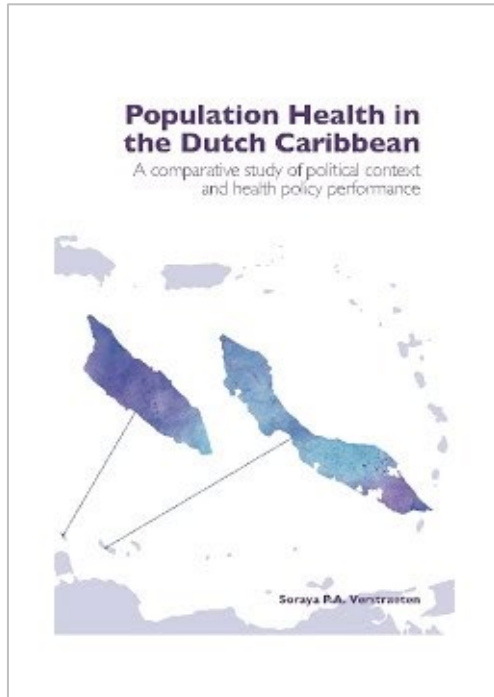
Source: S Verstraeten, H van Oers and J Mackenbach. American Journal of Public Health, 2019

Health policy performance score

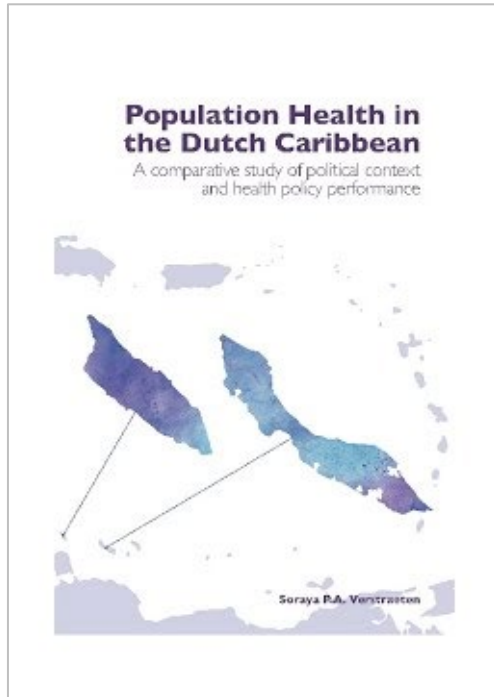


Source: S Verstraeten, H van Oers and J Mackenbach. American Journal of Public Health, 2019

Population health in the Dutch Caribbean



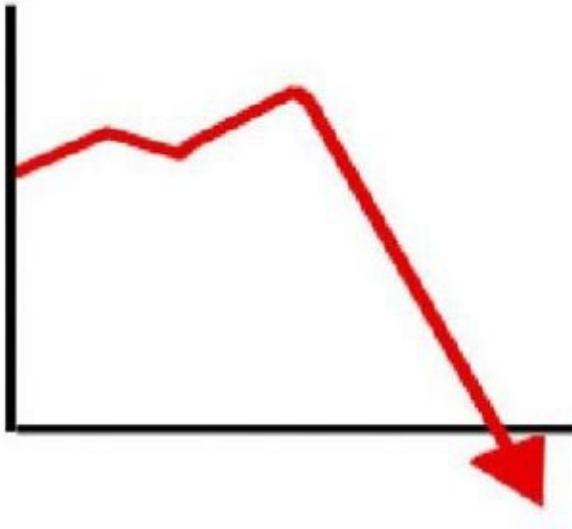
PhD defense April 2020



Erasmus
University
Rotterdam



COVID Pandemic



Question

4. *How can we build health systems that can keep learning and improving?*

Fundashon Prevenshon

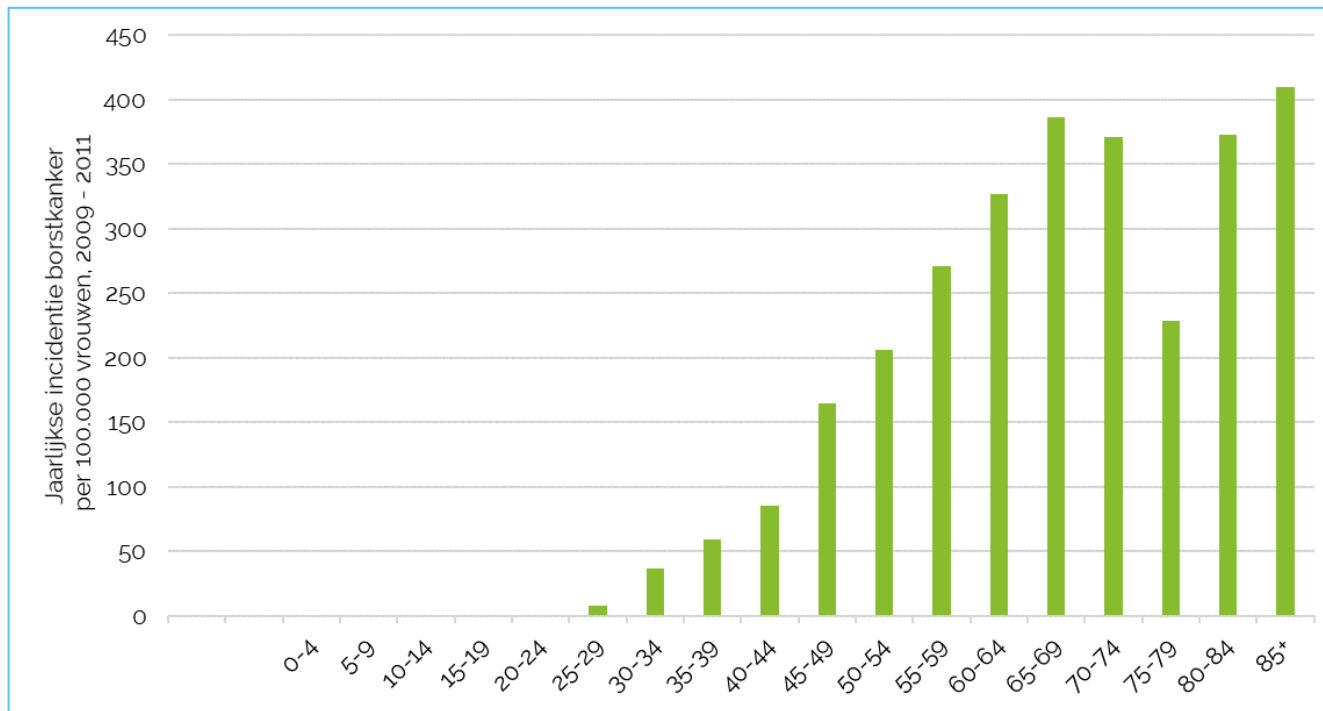
Prevention center in Curaçao
with currently four programs:

- Breast Cancer (2010)
- Cervix Cancer (2016)
- Colon Cancer (2020)
- Vita (2026)



Breast cancer in Curaçao

Figure: Breast cancer incidence per 100,000 women by age, 2009-2011



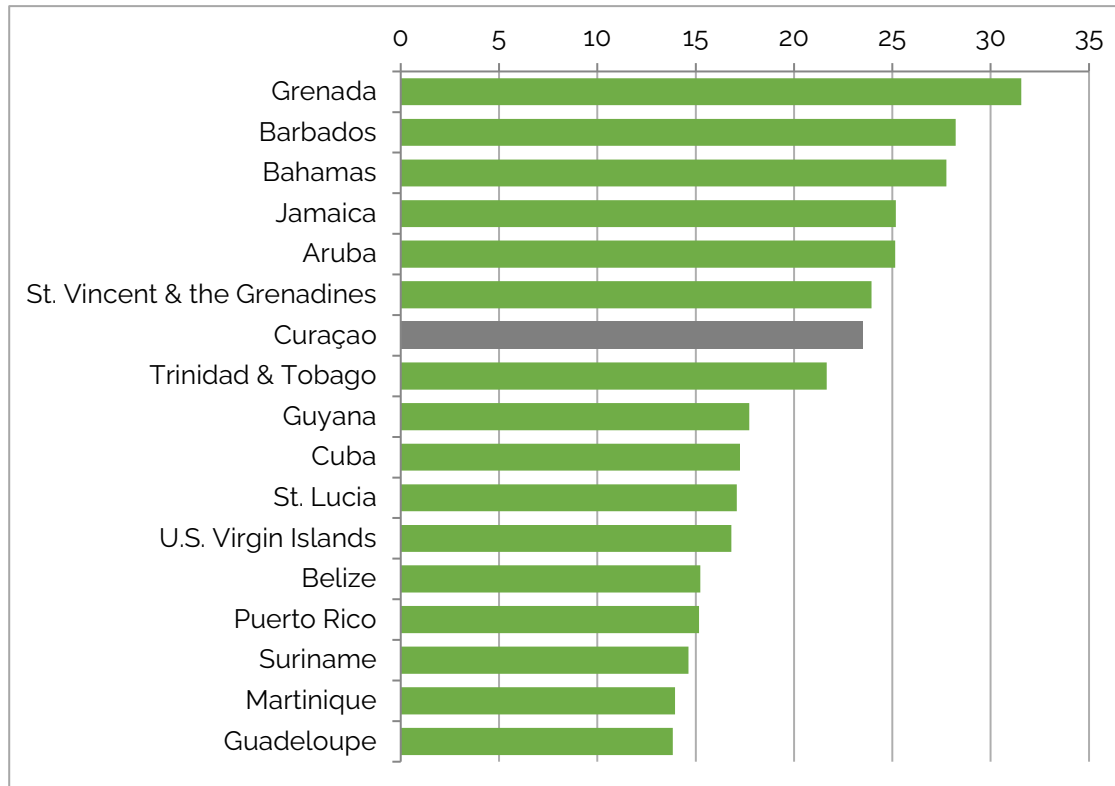
- Breast cancer is the most common form of cancer among women
- Incidence is about 100 cases per year
- On average, mortality is 28 women per year

Source: health database Curaçao, www.vic.cw

Source: registration Dr. Carmen Coronel, ICD10-code C50

A Caribbean comparison

Figure: Breast cancer mortality per 100,000 women (age-standardized)

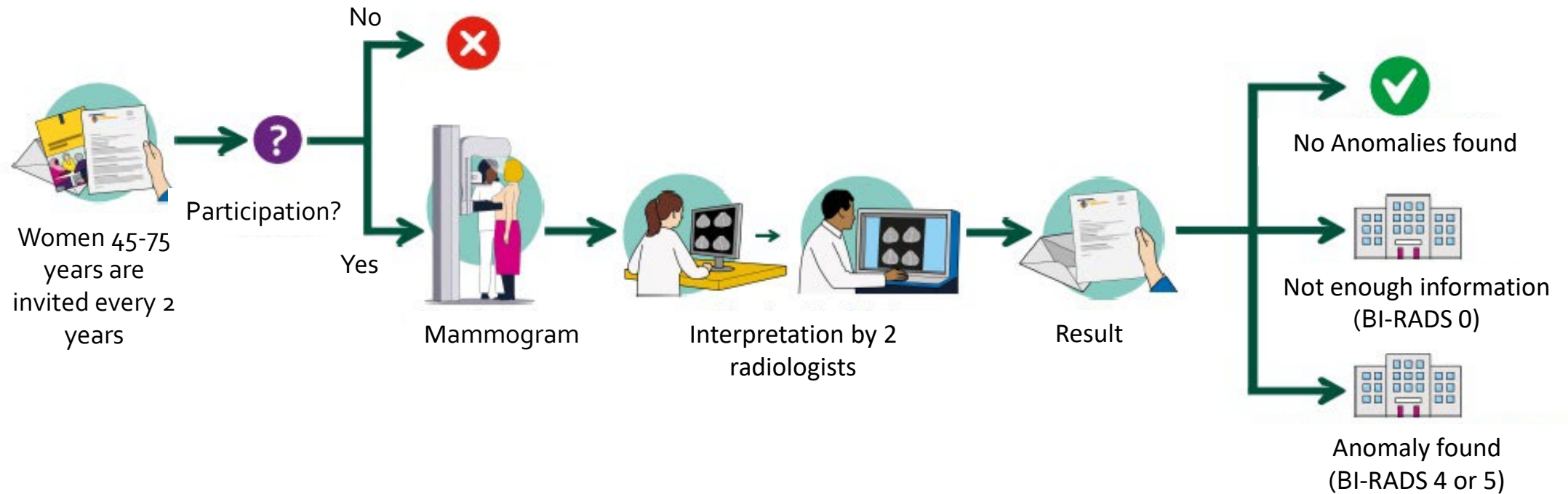


- The proportion of women who die of breast cancer in Curaçao is above average.

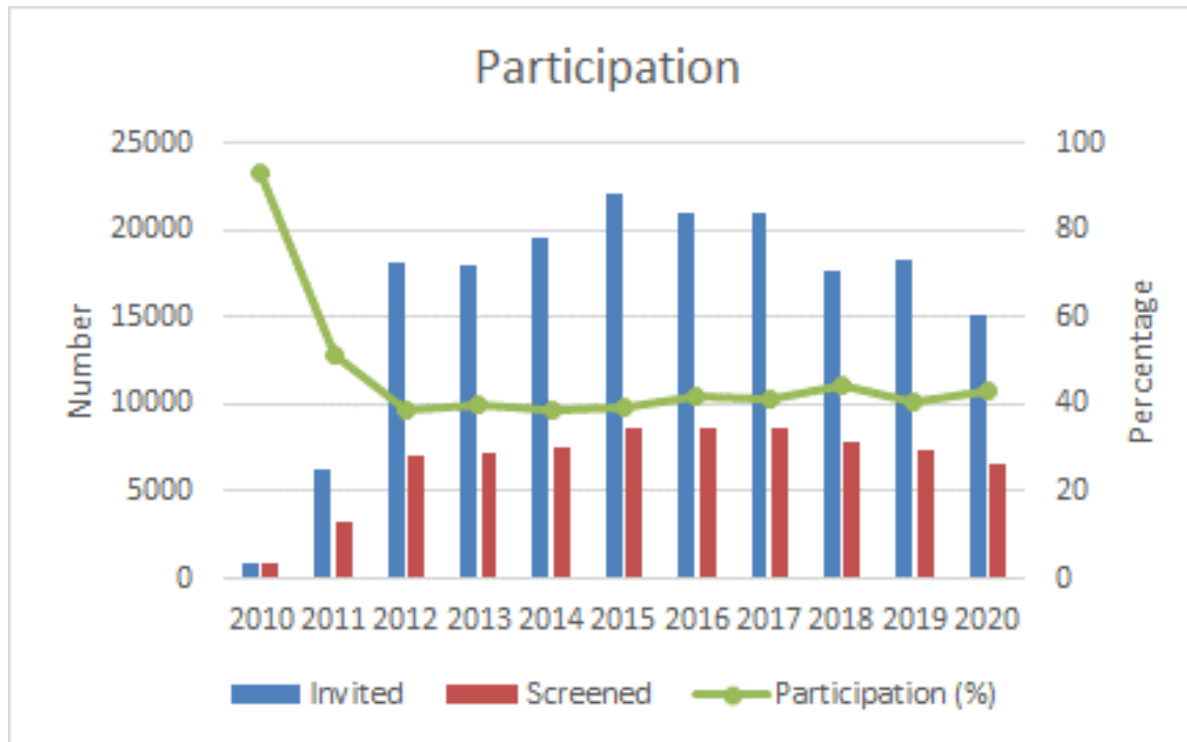
Source: health database Curaçao,
www.vic.cw

Source: mortality registration PAHO/WHO, ICD10-code C50

Breast cancer screening program

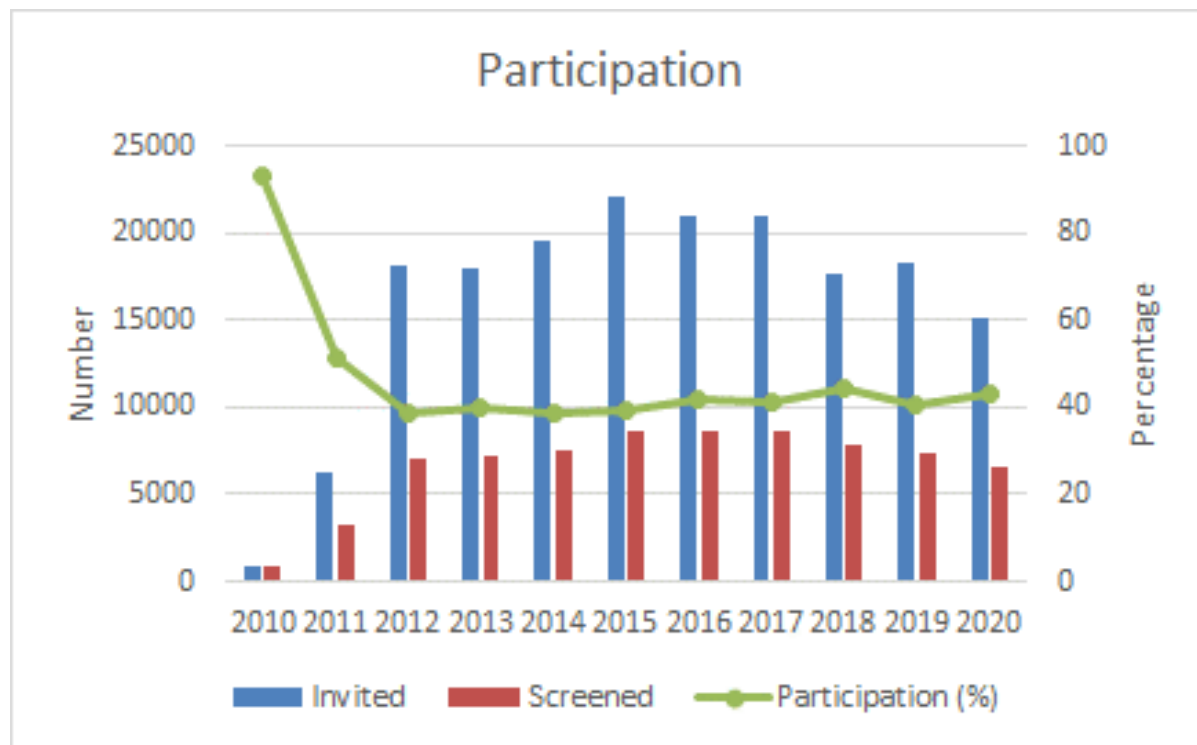


Participation, 2010-2020



Number of invitations	134.524
Number of participating women	55.302
Participation rate	41%

Participation, 2010-2020



Number of invitations	134.524
Number of participating women	55.302
Participation rate	41%
Correction	60%
Recalculated participation rate	64 to 74%

The next generation of questions...

mHealth for decision-making support in
cancer screening in the Dutch Caribbean
islands



Pheadra Regales

↓
Implementation
Sciences



Lequisha Suisse

↓
Informed
Decision Making

Entertainment Education strategies to
better reach and involve men in
colorectal cancer screening



Bryn Hummel

Supervisors: Prof. dr. Evelien Dekker en Dr. Mirjam Fransen

From cells to systems

- 1. *Why do individuals get sick?***
- 2. *What is happening at the population level?***
- 3. *Why do some populations achieve better health outcomes than others?***
- 4. *How can we build health systems that can keep learning and improving?***



The next question...



Sverstraeten@fundashonprevenshon.com