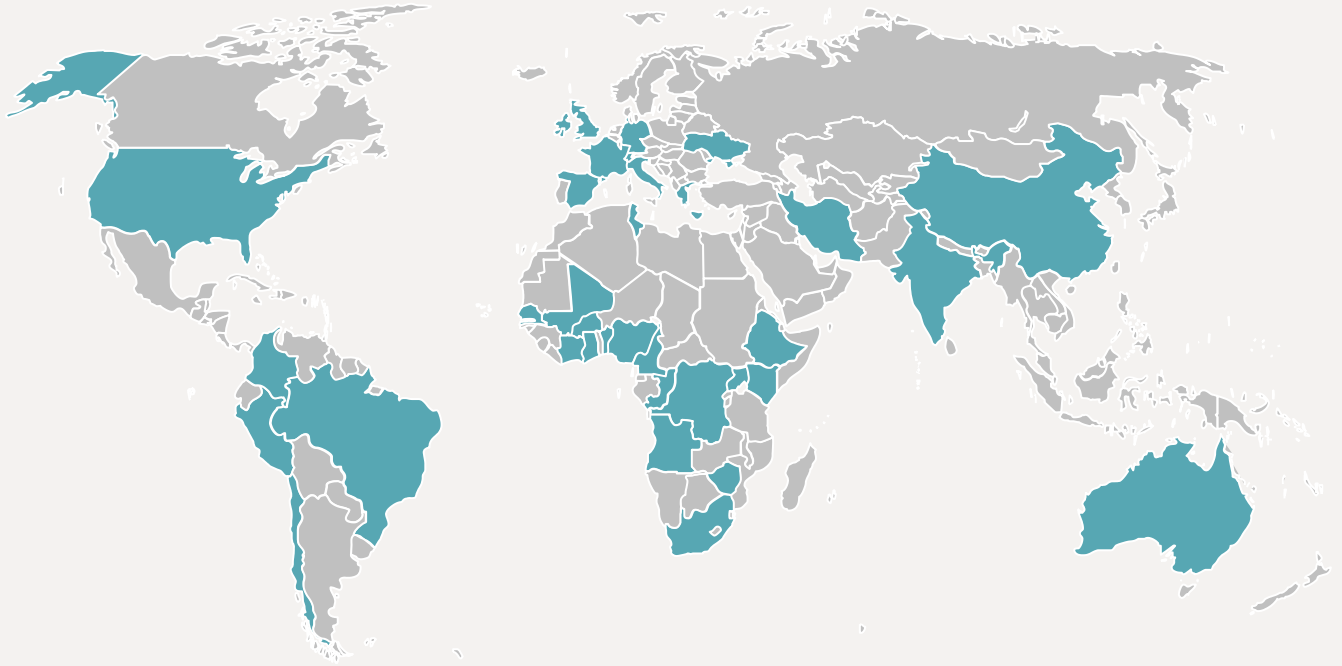
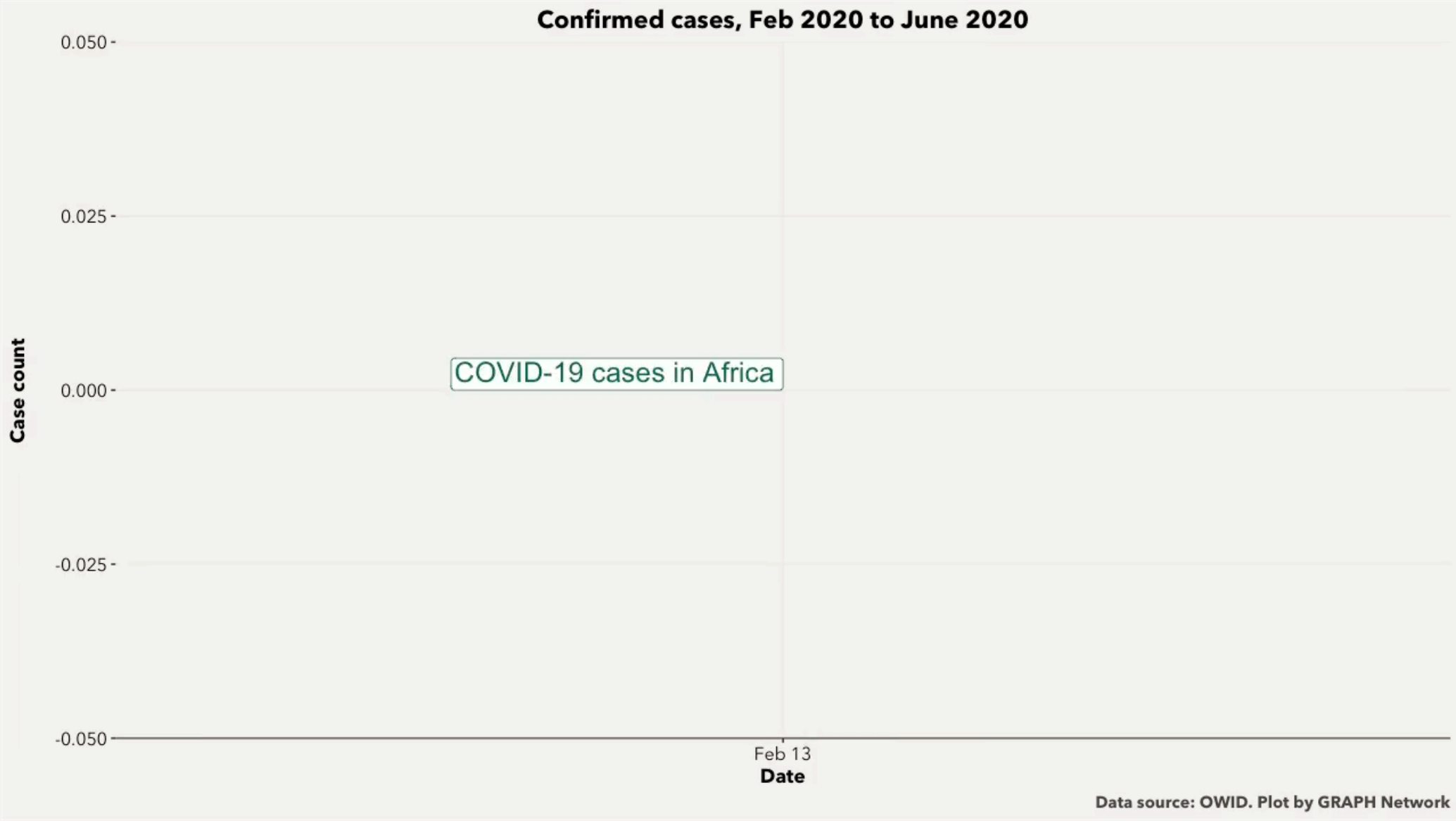


The Global Research and Analyses for Public Health **(GRAPH)** network

01

Responding to the COVID Crisis

In the height of crisis



In the height of crisis

UNIVERSITÉ DE GENÈVE

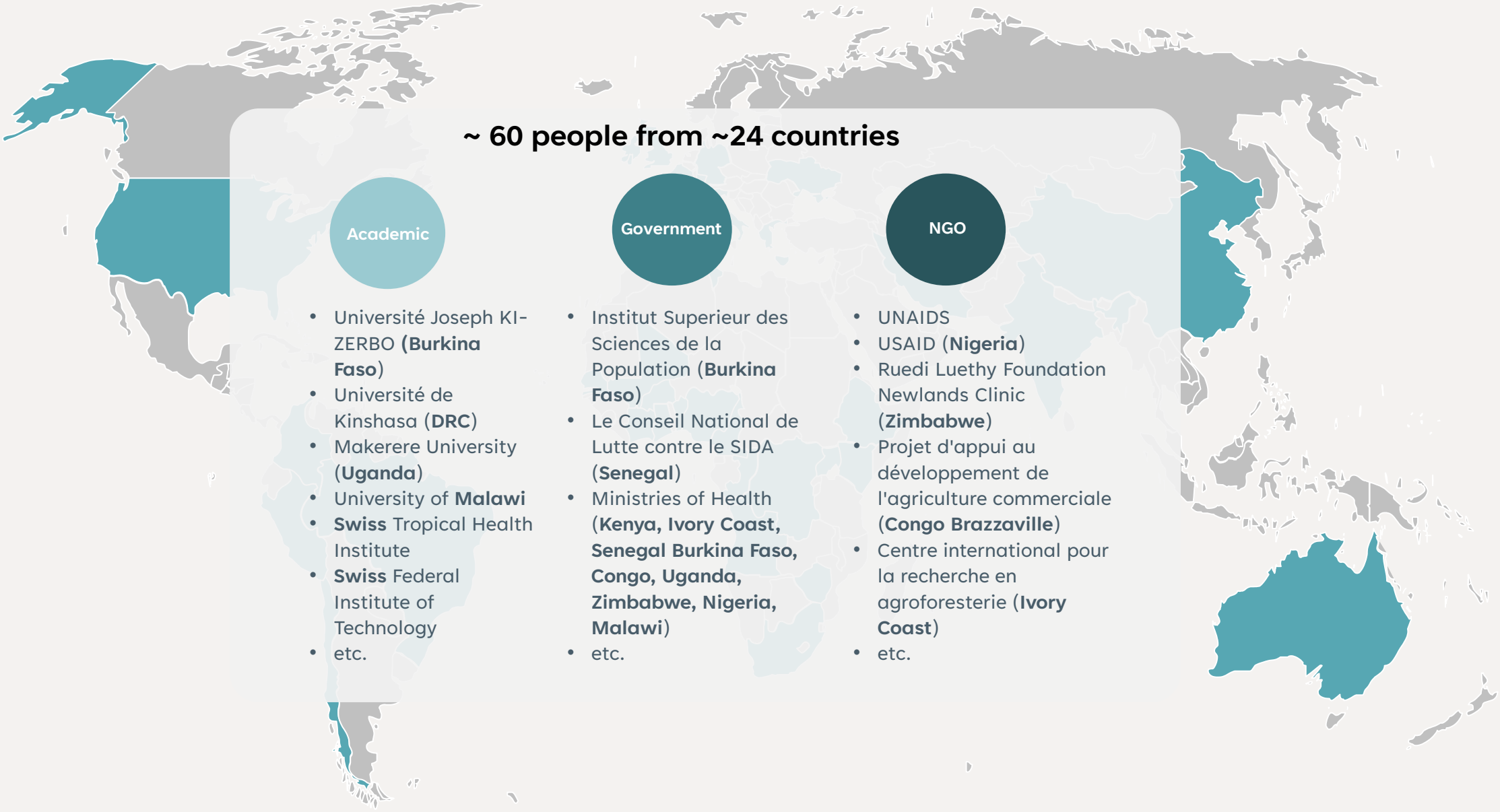
INSTITUTE OF GLOBAL HEALTH

Infectious Diseases group

The division consists of mathematicians, computer scientists, physicists, statisticians, biologists, physicians, and social scientists. They collaborate closely with experts from a variety of fields, such as Ministries of Health, and with international organisations like the WHO, UNITAID and the World Bank. The division takes an interdisciplinary approach and combines machine learning, mathematical modelling (including cost-effectiveness analyses), analyses of cohort data, systematic reviews, text mining, and qualitative research techniques. The division focuses on HIV, influenza and hepatitis, both in Switzerland and abroad. But it is also interested in expanding its work to other infectious diseases, and

A multi-disciplinary team, with in-country expertise

A multi-disciplinary team, with in-country expertise



~ 60 people from ~24 countries

Academic

- Université Joseph KI-ZERBO **(Burkina Faso**)
- Université de Kinshasa (**DRC**)
- Makerere University (**Uganda**)
- University of **Malawi**
- **Swiss** Tropical Health Institute
- **Swiss** Federal Institute of Technology
- etc.

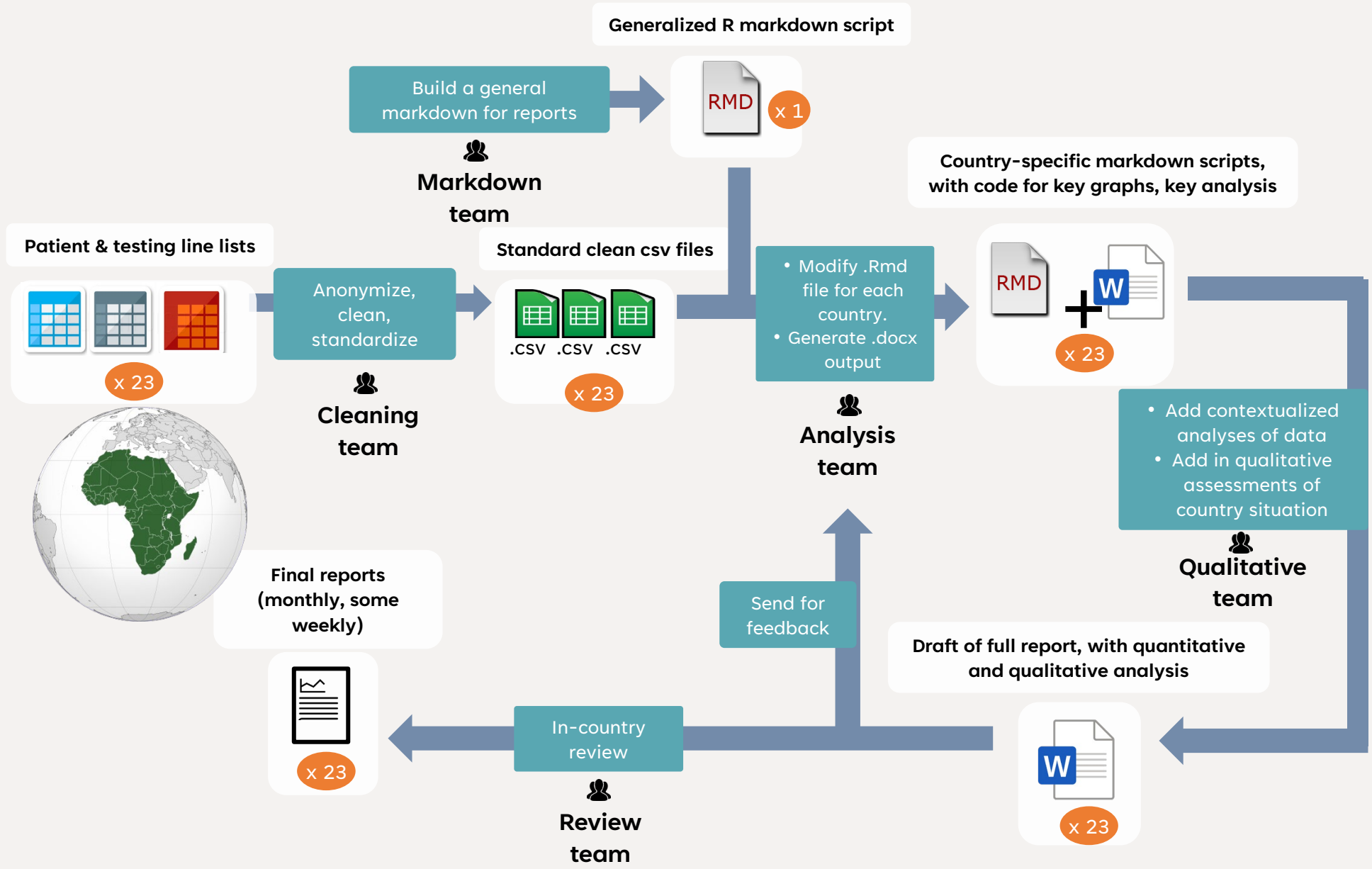
Government

- Institut Superieur des Sciences de la Population (**Burkina Faso**)
- Le Conseil National de Lutte contre le SIDA (**Senegal**)
- Ministries of Health (**Kenya, Ivory Coast, Senegal Burkina Faso, Congo, Uganda, Zimbabwe, Nigeria, Malawi**)
- etc.

NGO

- UNAIDS
- USAID (**Nigeria**)
- Ruedi Luethy Foundation Newlands Clinic (**Zimbabwe**)
- Projet d'appui au développement de l'agriculture commerciale (**Congo Brazzaville**)
- Centre international pour la recherche en agroforesterie (**Ivory Coast**)
- etc.

The work


Generalized R markdown script
Build a general markdown for reports
RMD
x 1
Markdown team
Country-specific markdown scripts, with code for key graphs, key analysis
Patient & testing line lists
Standard clean csv files
Anonymize, clean, standardize
.CSV .CSV .CSV
x 23
• Modify .Rmd file for each country.
• Generate .docx output
RMD
W
x 23
Cleaning team
Analysis team
• Add contextualized analyses of data
• Add in qualitative assessments of country situation
Qualitative team
Final reports (monthly, some weekly)
Send for feedback
Draft of full report, with quantitative and qualitative analysis
x 23
In-country review
W
x 23
Review team

Analyses performed

Patient & testing line lists

x 23

Additional data sources

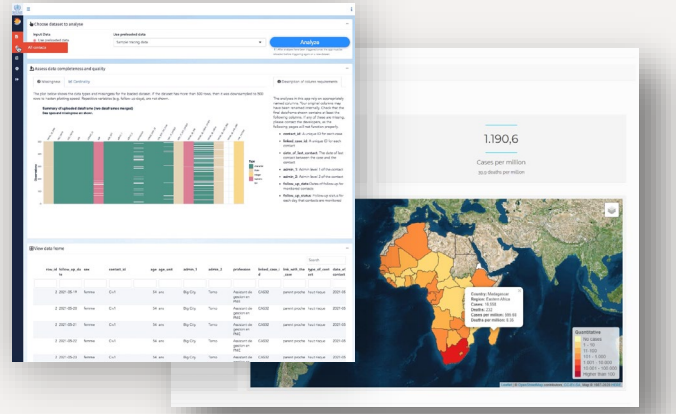
e.g. Google mobility data, DHS demographic data

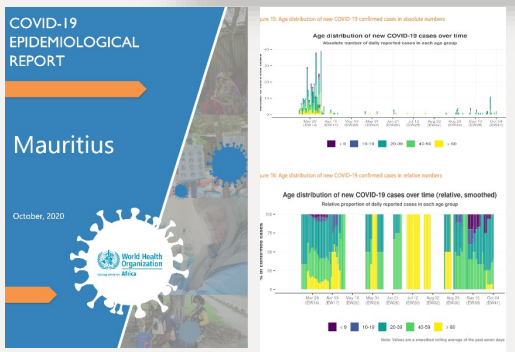
Simple epidemiological analyses

e.g. estimation of attack rates, case-fatality rates, epidemic growth rates

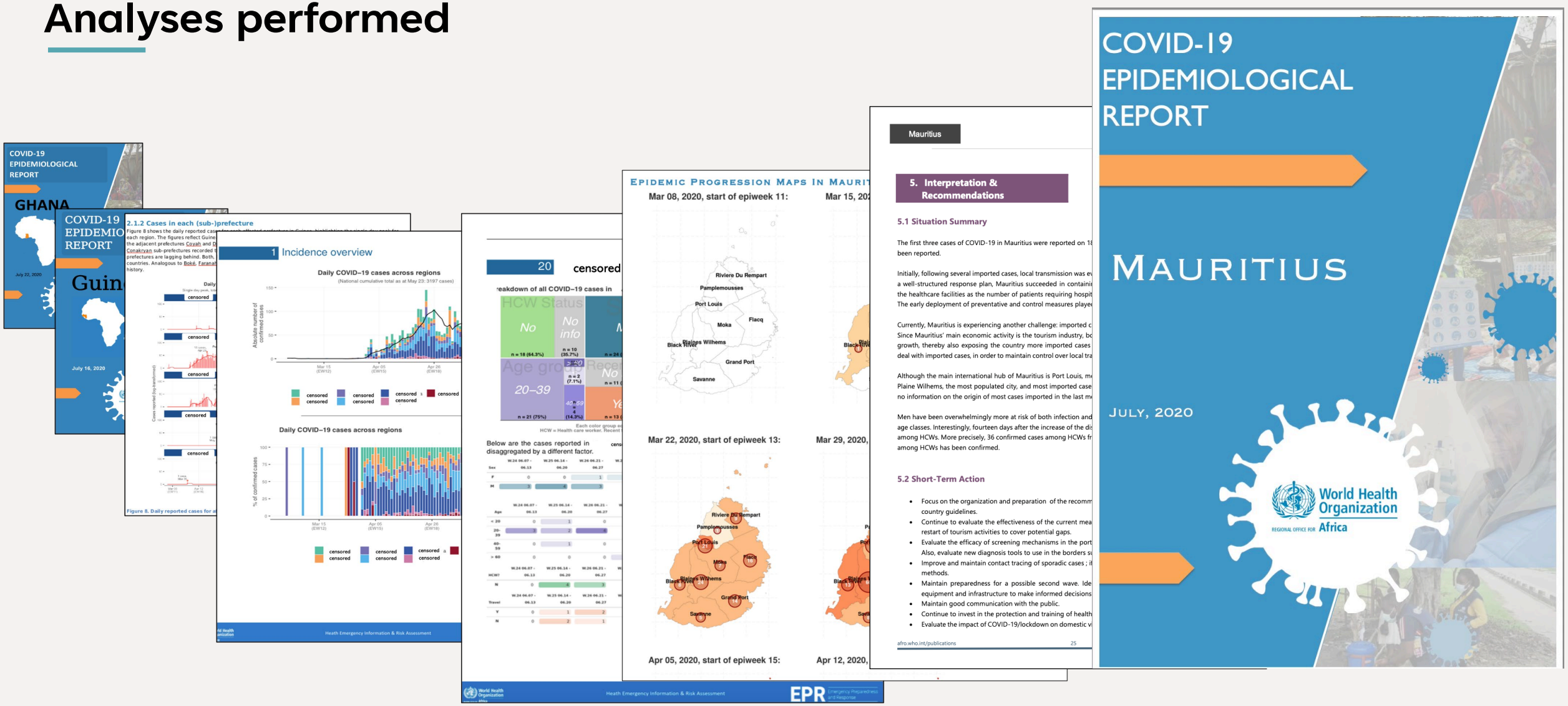
Compound indicators

e.g. region-specific mortality risk indices





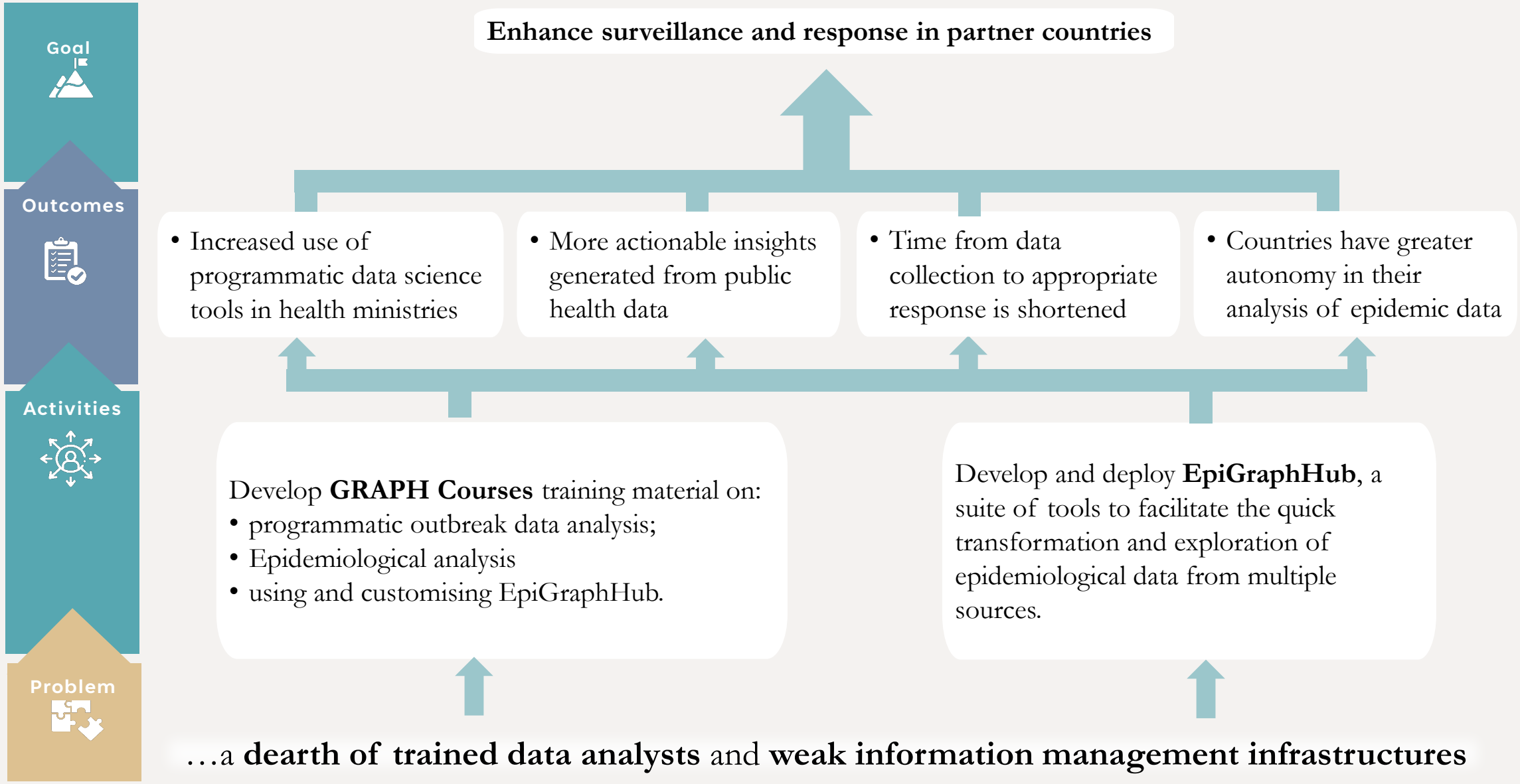
Analyses performed



Country reports (most not public): Niger, Zimbabwe, Sao Tome e Principe, Eswatini, Cabo Verde, Ivory coast, Seychelles, Uganda, Tanzania, Namibia, Burkina Faso, Rwanda, Mauritius, Guinea, Burundi, DRC, Ghana, Senegal.

Mauritius report: bit.ly/3MJ3ymO

02

From crisis response to resilience building

From crisis response to resilience building