



COVID 19 Current realities and prospects  
**Wondimu Ayele (Ass. Prof, SPH, AAU)**  
**Ethiopia Team**

**August 18, 2020,**

# Outline

- Background
- **Component of HIS and Information use process**
- Laboratory capacity and Specimen collection
- Epidemiology of COVID 19 in Ethiopia
- Research output
- Challenges
- Coordination and Leadership
- COVID 19 information system



# Addis Ababa University

## አዲስ አበባ ዩኒቨርሲቲ



SEEK WISDOM, ELEVATE YOUR INTELLECT AND SERVE HUMANITY !

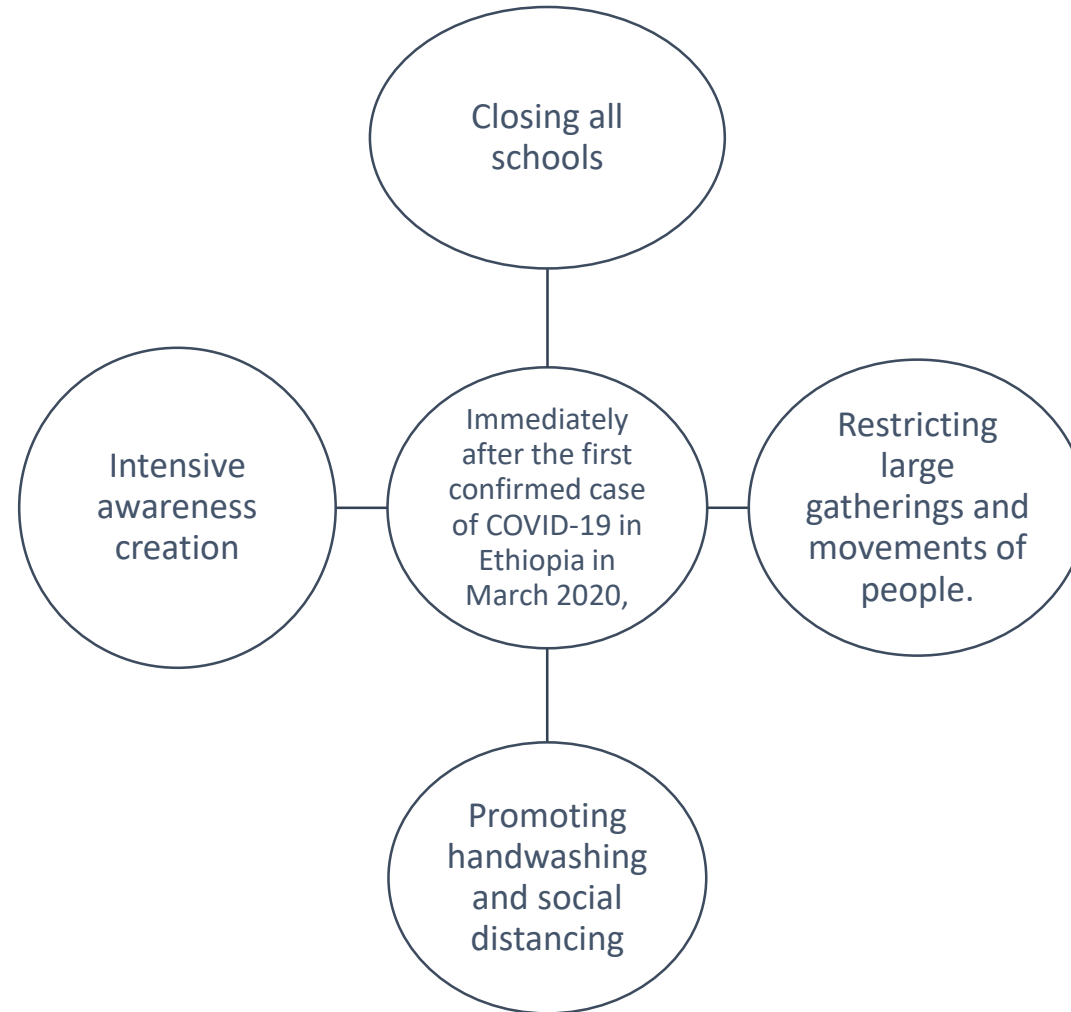


# Background

- MOH and EPHI in collaboration with partners have intensified response efforts to prevent the spread and severity of COVID 19
- The central and the regional Public Health Emergency Operation Centers (PHEOC) have been activated
- laboratory diagnosis capacity has been expanded to national institutions, subnational and private laboratories.
- The MOH and EPHI are providing information to the general public and stakeholders on a regular
- COVID19 task force established at all level(case management, IPC, Surveillance, scientific, logistics and other several)

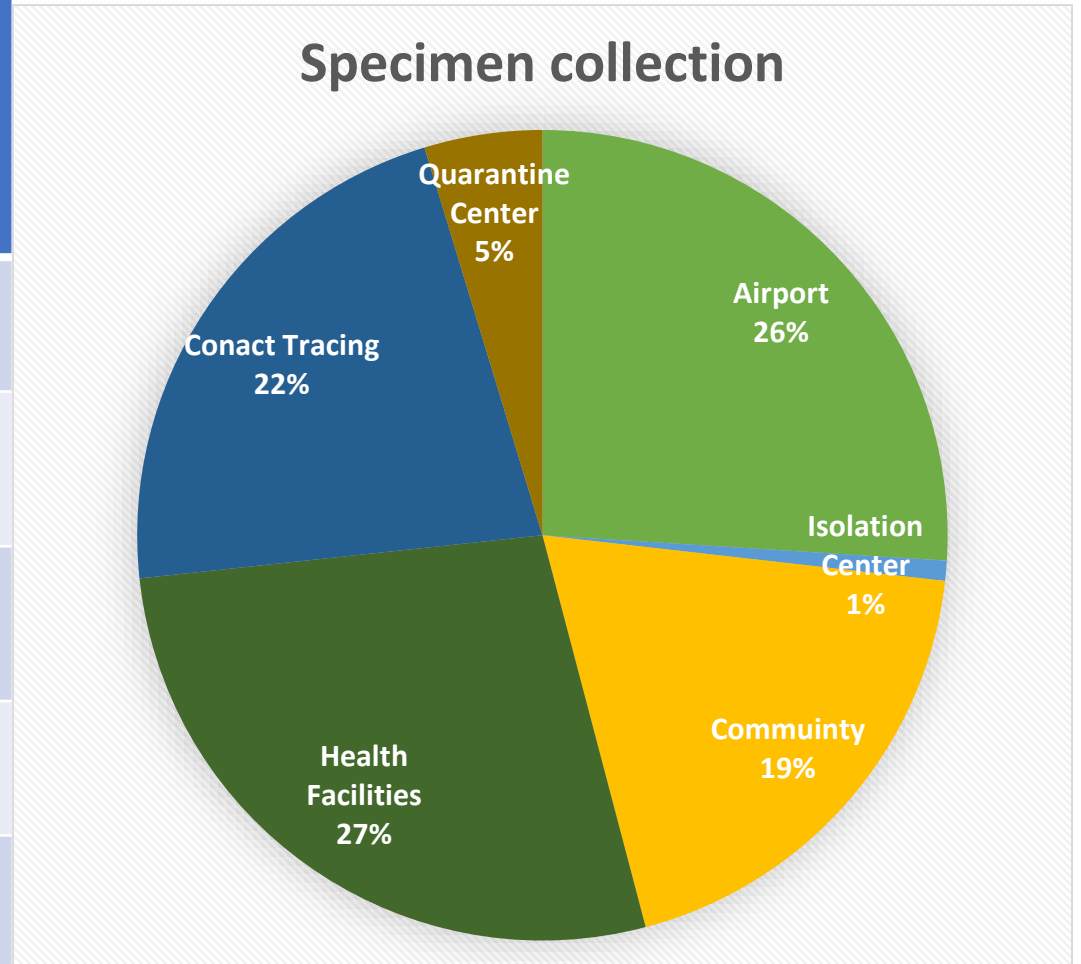
# Public health measure towards COVID 19 response

Community Based activities and Testing campaign is ongoing to enhance COVID-19 response efforts.

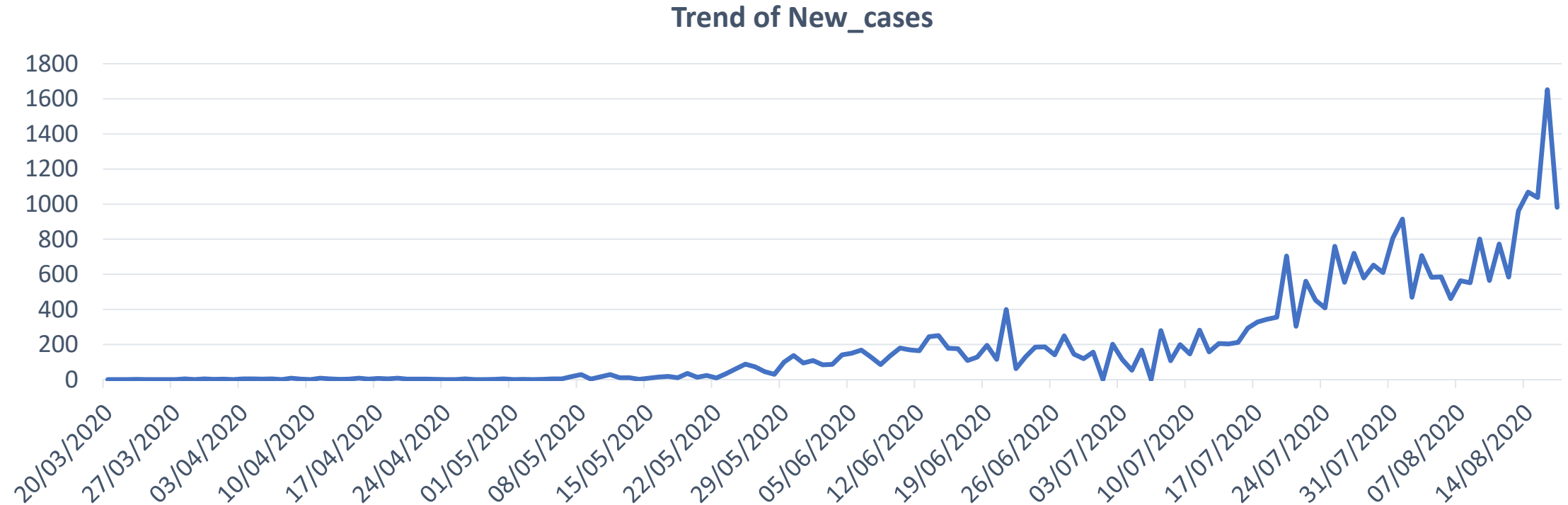


# Laboratory capacity and Specimen collection

	Number of Laboratories	Number of machine	Daily Testing capacity
Functional	50	61	11864
Under Verification	1	1	100
Waiting Verification	1	3	300
candidate	12	13	5032
<b>Total</b>	<b>64</b>	<b>78</b>	<b>16800</b>

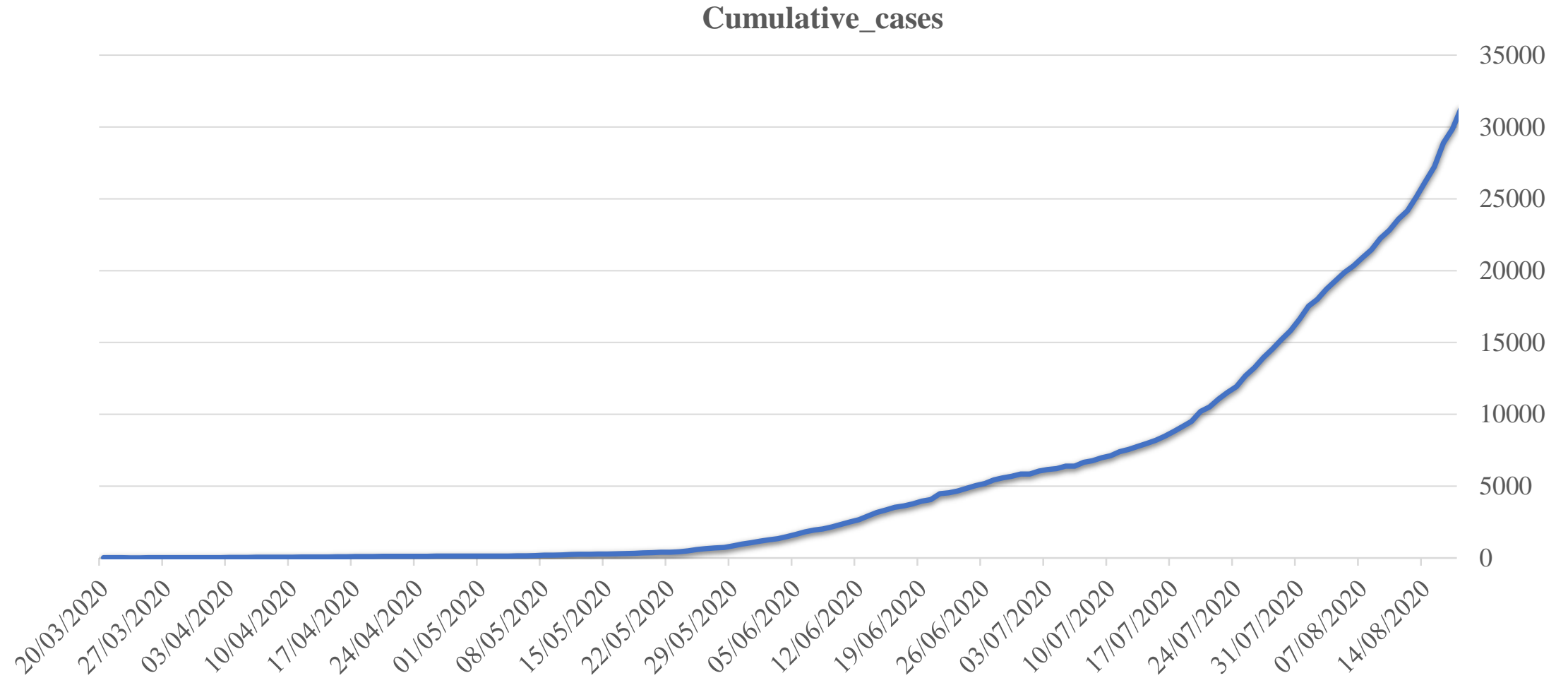


# Epidemiology(new cases )



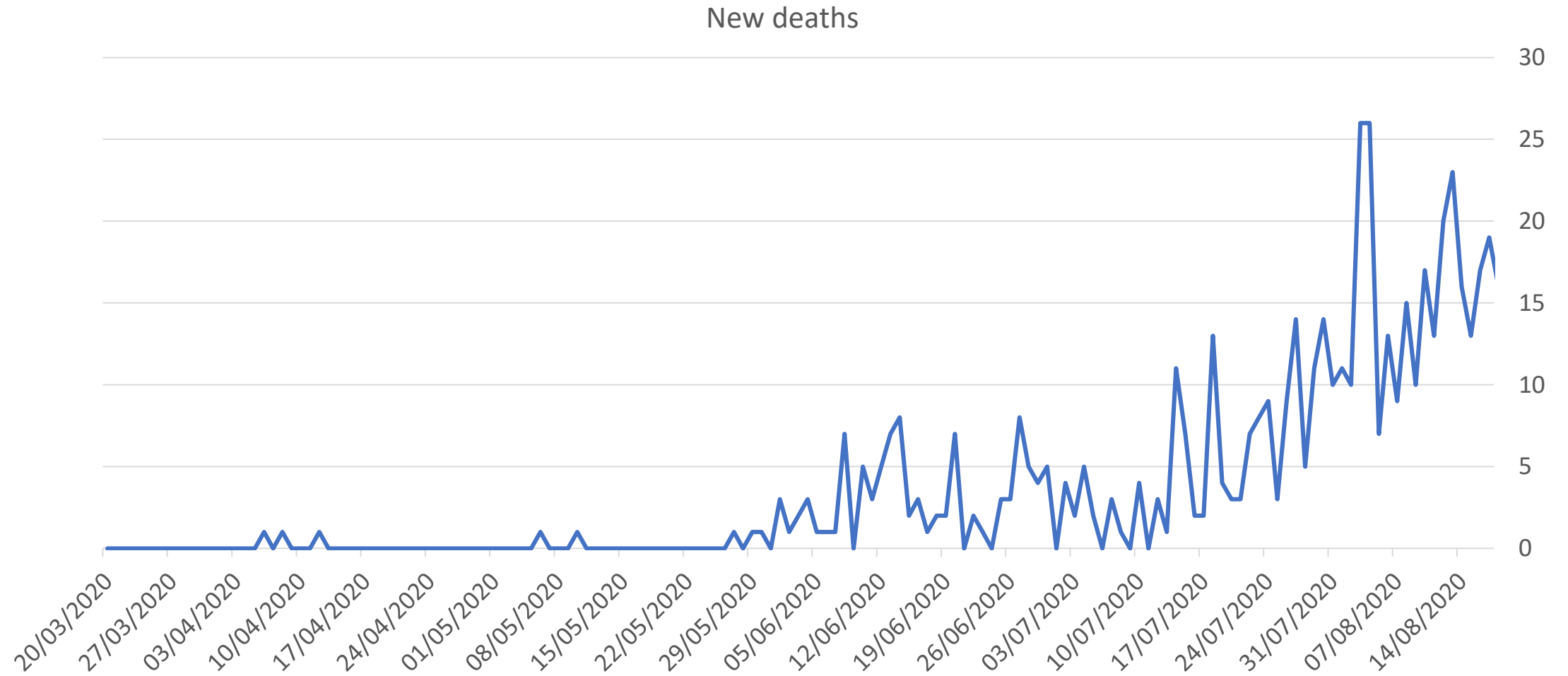
- The number positive cases are increasing in line with the number of tests performed.
- As the number of test and target groups (such as contacts) testing increases the number of positive cases increase.
- Thus increasing the number of testing capacity and high risk group testing is highly recommended to identify infected individuals.

# Epidemiology(cumulative\_cases )



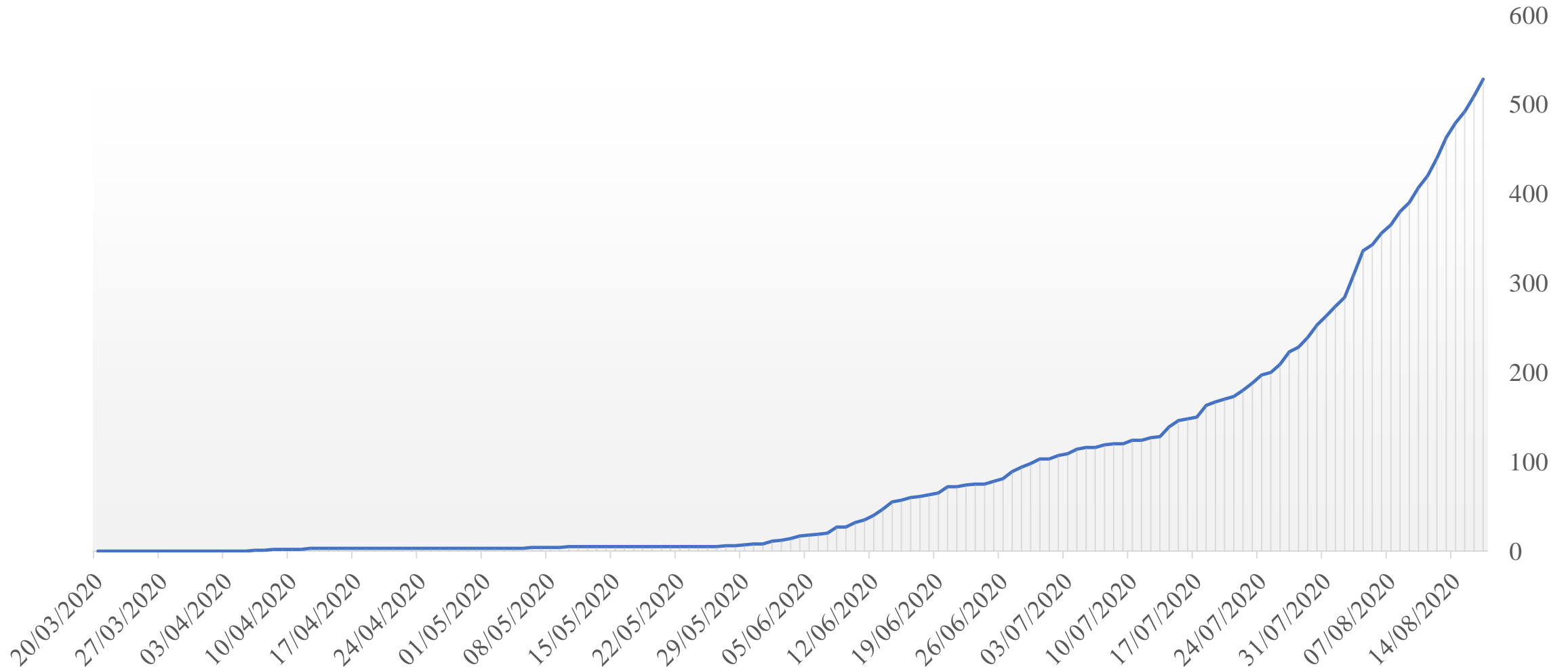


# Epidemiology(New\_ death )



# Epidemiology(cumulative\_ death )

Cumulative\_deaths



# Research output (Anti-body testing)

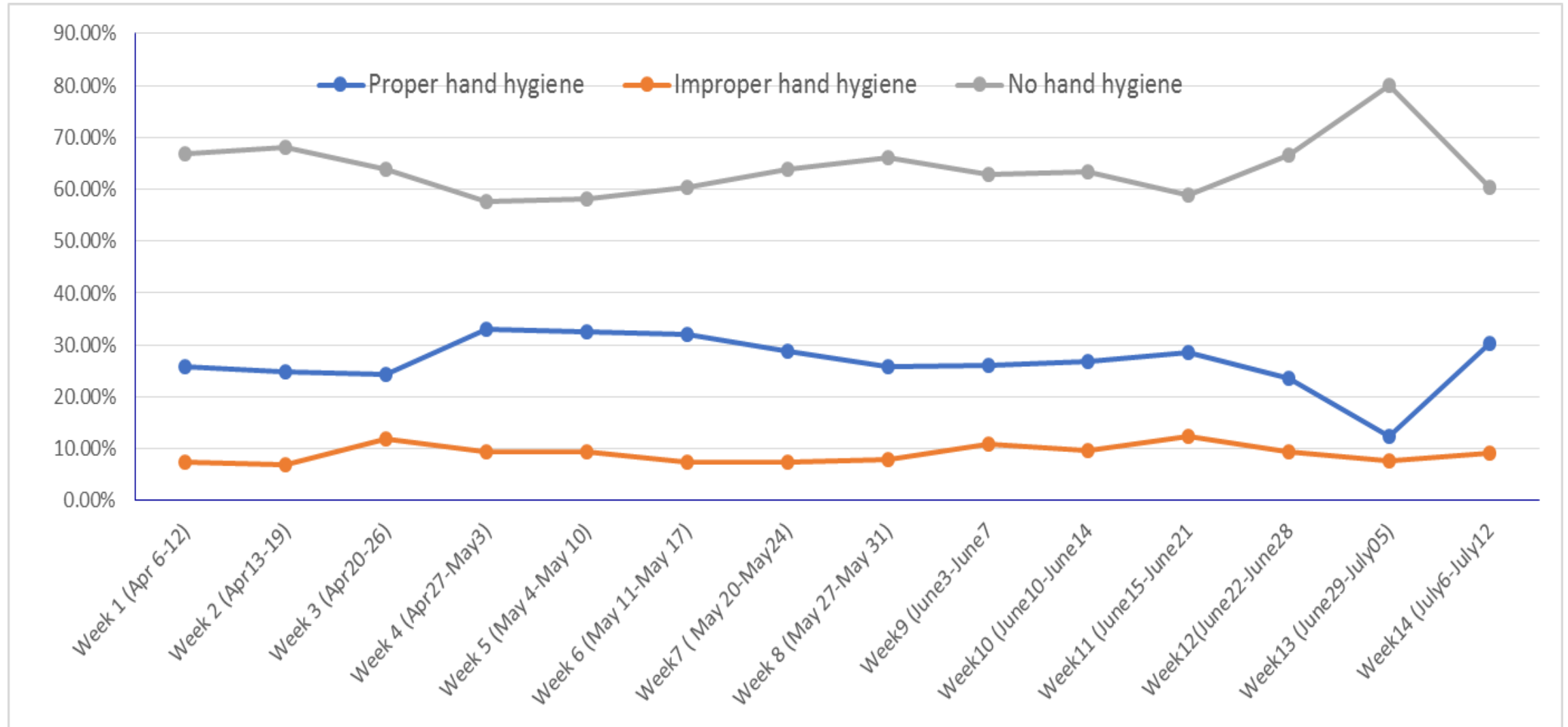
- **Methods:**

- A comparative cross-sectional study was conducted, April 23-28 2020, among 301 (no history of contact with confirmed COVID-19 person) and 84 (history of contact with confirmed COVID-19 person)
- Serological tests were performed for SARS-CoV-2 IgM, and IgG antibodies, using COVID-19 IgG/IgM Rapid Test Cassette.

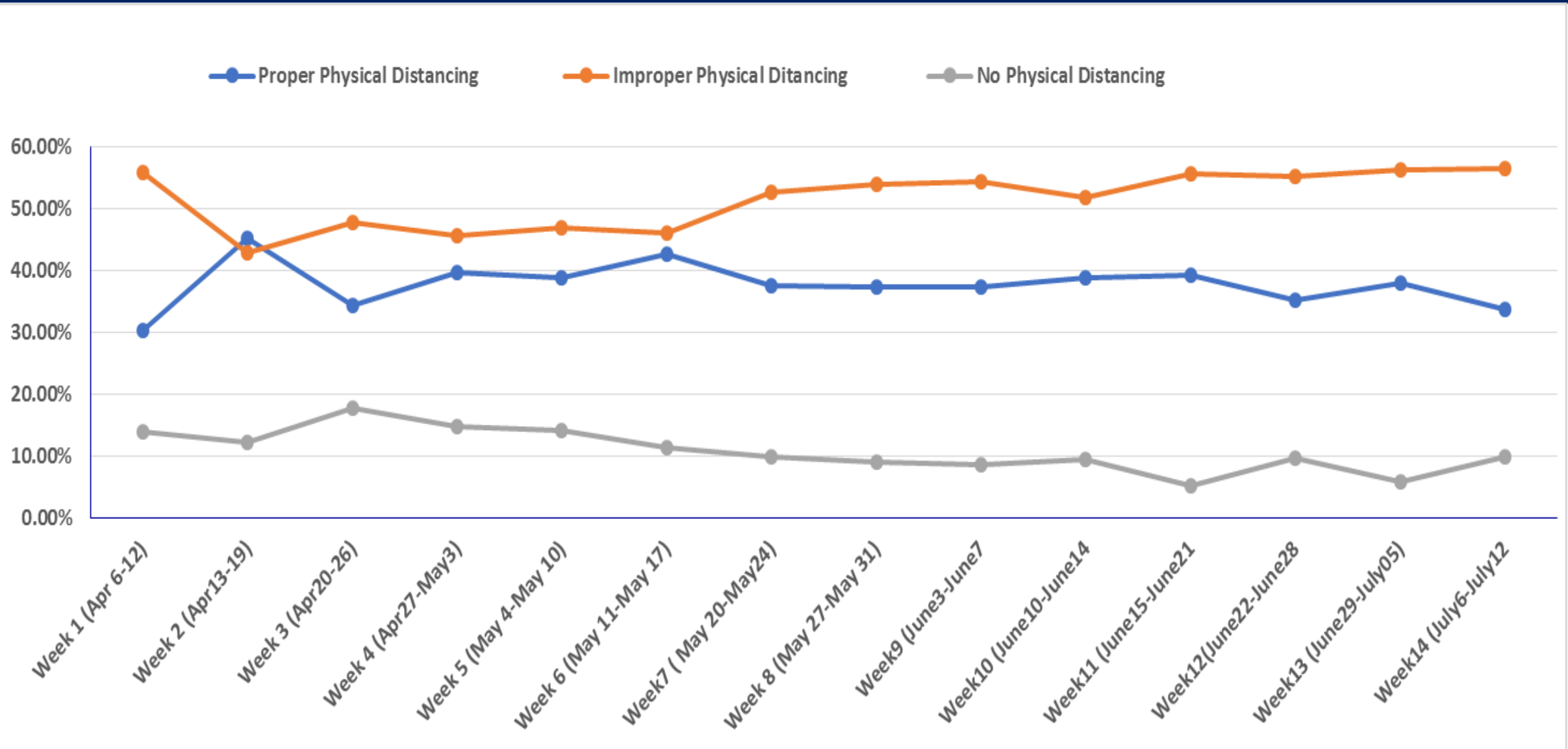
- **Findings:**

- The unadjusted antibody-based crude SARS-CoV-2 prevalence was 7.5%, IgM (4.6%), IgG (2.1%), both IgM and IgG (0.8%)
- Adjusted true SARS-CoV-2 prevalence was estimated at 8.5% (95% CI 5.5%-11.6%) in the general group.

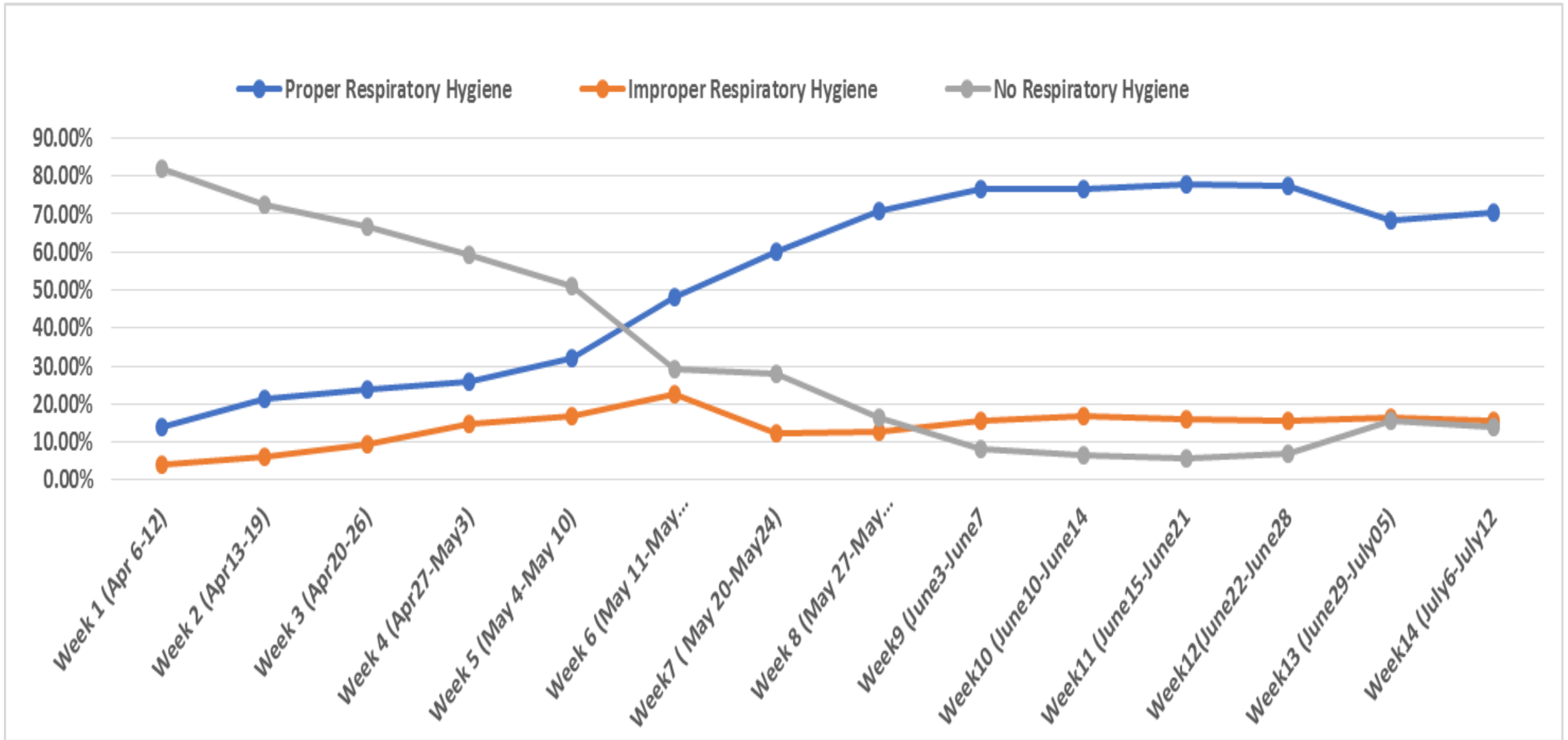
# Non-pharmaceutical/ community preventive practice (Hand Hygiene )



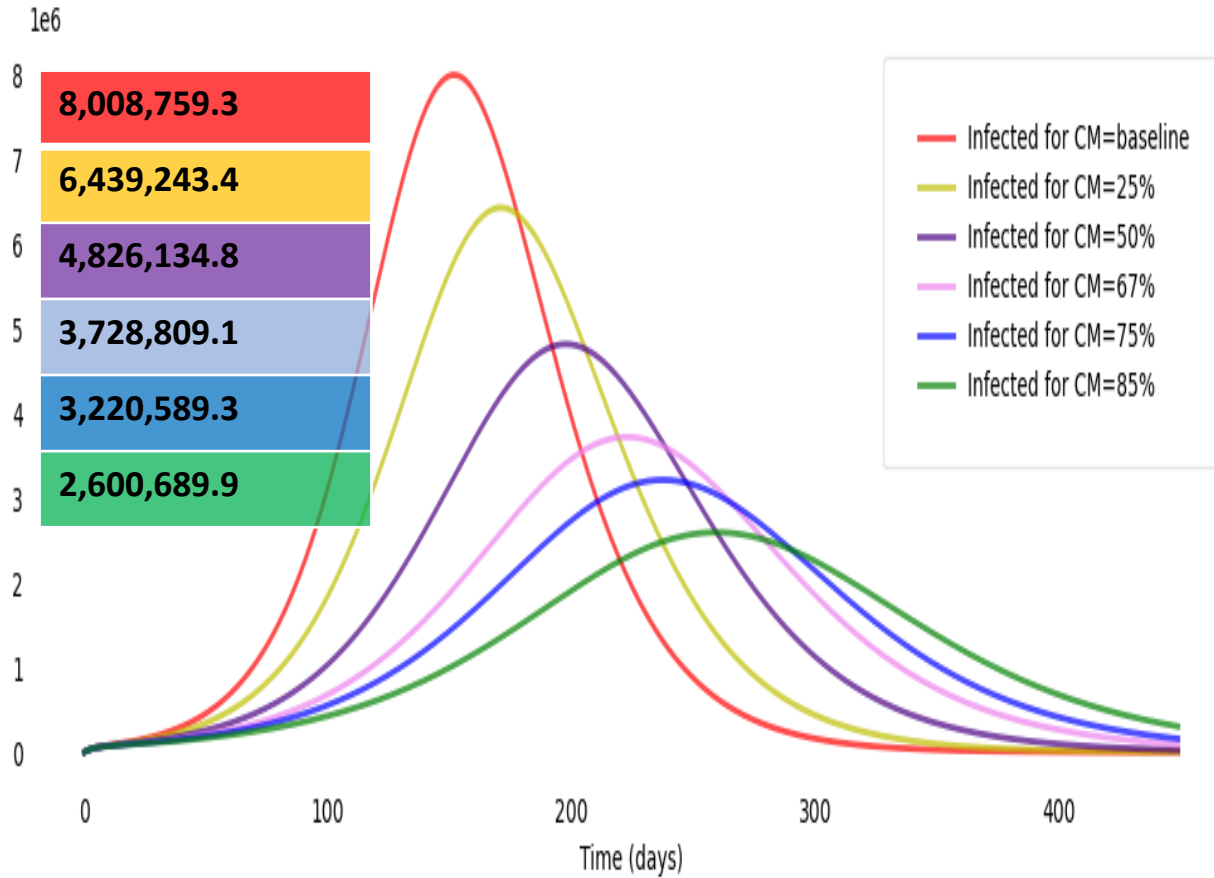
# Non-pharmaceutical/ community preventive practice (Physical distancing)



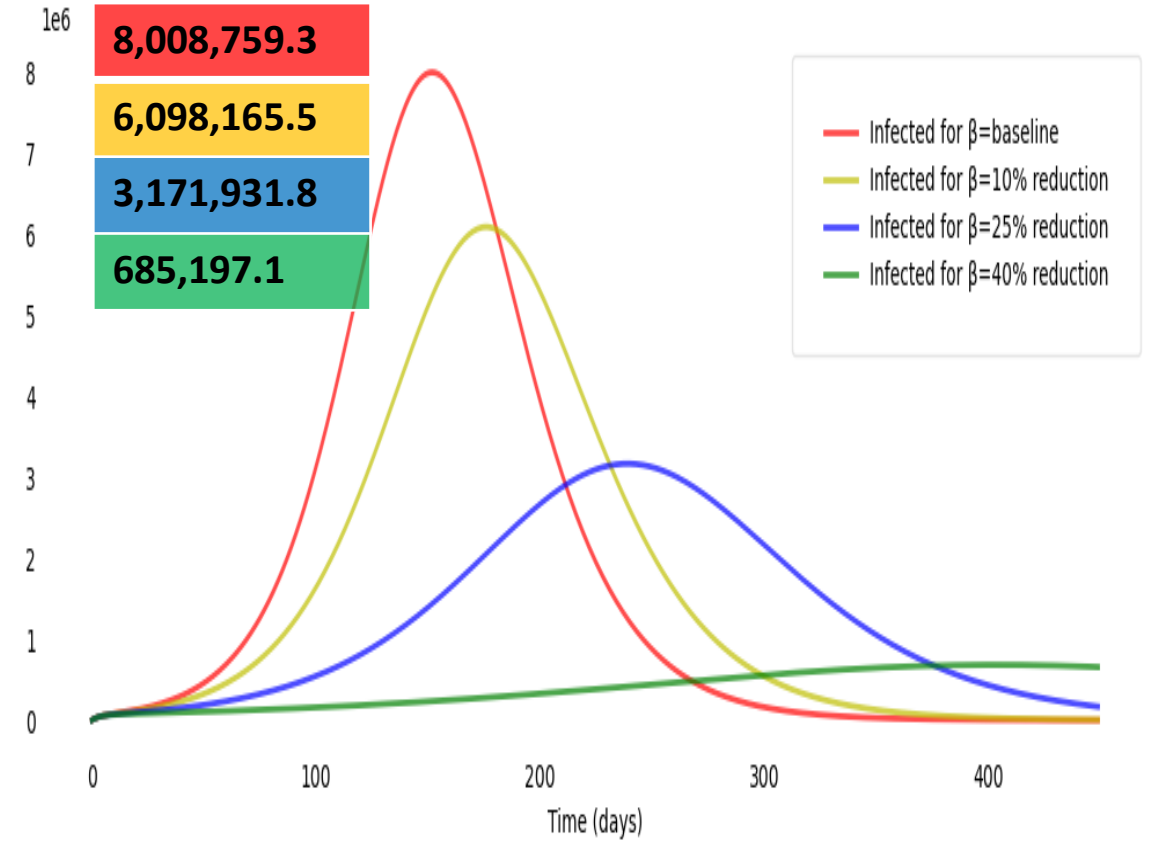
# Non-pharmaceutical/ community preventive practice (Respiratory Hygiene )



# Modelling



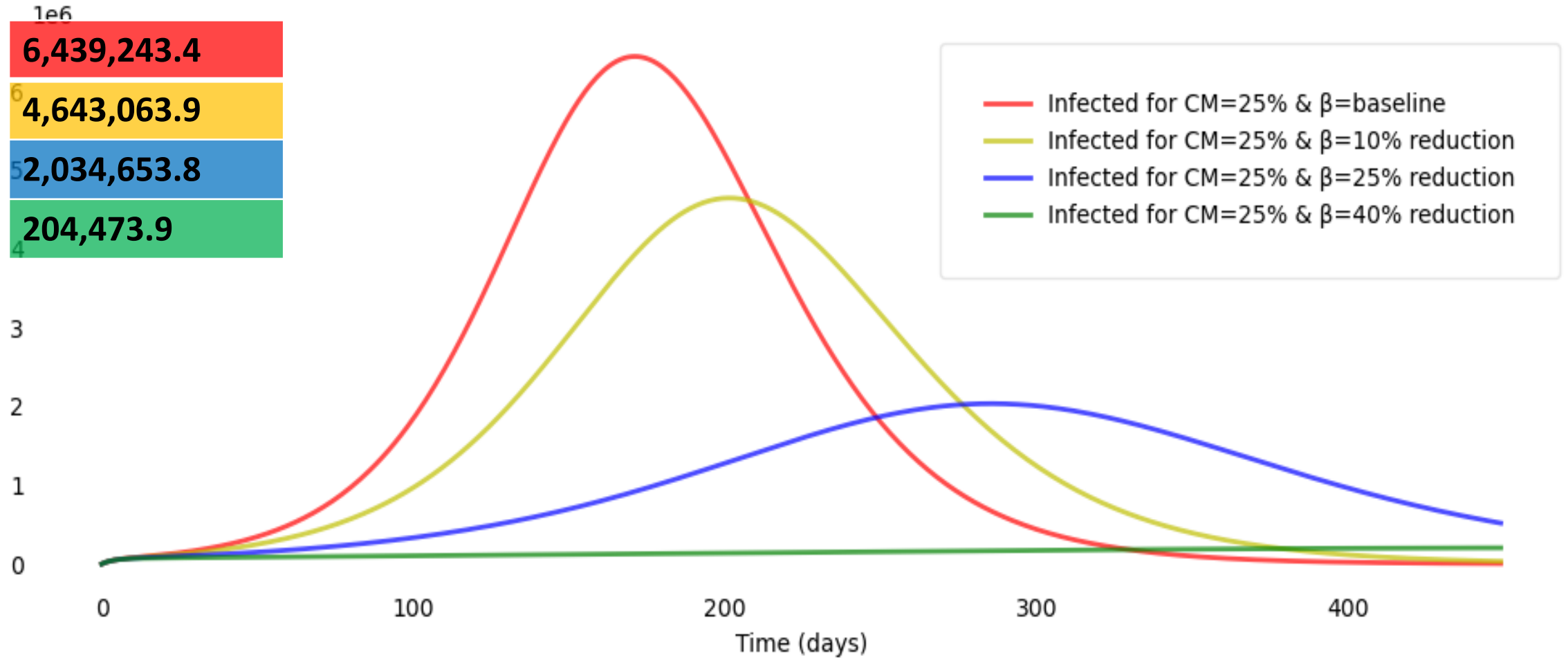
Face Mask Compliance



Social Distancing

# Modelling

- Combined Effect of Social Distancing and Face Mask Compliance





# COVID 19 information system

## Ongoing data COVID 19 information system

- Monitoring COVID-19 Impact on Firms and Households in Ethiopia
- Household COVID-19 monitoring survey
- Hand sanitizer quality control (eRIS)
- Port-of-entry health declaration
- DHIS2, Case surveillance and tracking
- Surveillance follow-up app
- Health facilities reporting app
- Toll-free recording app
- Community house-to-house screening app
- Electric medical Record(EMR)
- Data analytics and visualization

# Coordination and Leadership

- Government agencies, partner organizations, UN agencies, embassies, hospitals, Industrial parks and others.
- Morning briefing of IMS is being conducted daily by core IMS staffs and key partners' representatives
- Weekly virtual (zoom) meeting is being conducted with technical working group members, which comprises members from subnational level focal, key partners and stakeholders.
- Weekly leadership and strategic virtual (zoom) meeting, chaired by the H.E MOH Minister, is being conducted.
- Supports (financial, logistic and technical) are being received from partners, private institutions, individuals and donors

# Risk Communication and Community Engagement



- Daily press statement is being provided on COVID-19 situation on daily basis.
- Seven SMS, video. messages and song focusing on the current situation

# Challenges

## Challenges

- Poor adherence to Non pharmaceutical intervention .
- Lack consistence data collection techniques
- Low use of standardized recording and reporting forms
- Poor data quality and information use practice
- Increasing number of community deaths and late confirmation of COVID-19 by dead body surveillance and testing.
- Low stock status of personal protective equipment
- There is critical shortage of beds for COVID-19 patients
- Lack of intensive testing of high-risk areas for COVID-19.

**I should not be Cause!!!**

**Thanks**

# VODAN IN A BOX INSTALLATION - ETHIOPIA

PRESENTED BY: GETU TADELE

Tue 18<sup>th</sup> August 2020

# Pre-Installation



# Installation

## Local Deployment

### ■ Requirements

- [Docker Engine](#) version 19.03 (or higher)
- [Docker Compose](#) version 1.25 (or higher)

### ■ Setup

1. Download or `git clone` repository <https://github.com/VODAN-Tech/vodan-deployment-basic> locally
2. Change working directory to the root folder `vodan-deployment-basic`
3. Use `docker-compose` to start *VODAN in a Box*

```
git clone https://github.com/VODAN-Tech/vodan-deployment-basic.git
cd vodan-deployment-basic
docker-compose up -d
```

- <http://localhost:8080> - CRF Wizard (DSW)
- <http://localhost:8081> - FAIR Data Point (FDP)
- <http://localhost:8085/blazegraph> - BlazeGraph
- <http://localhost:27017> - MongoDB (for MongoDB clients)
- <http://localhost:3000> - CRF Wizard API

## Production Deployment

### ■ Configure domains and secrets

There are several things that you need to configure before running *VODAN in a Box* for production deployment. In files, look for comments marked with `(!)`:

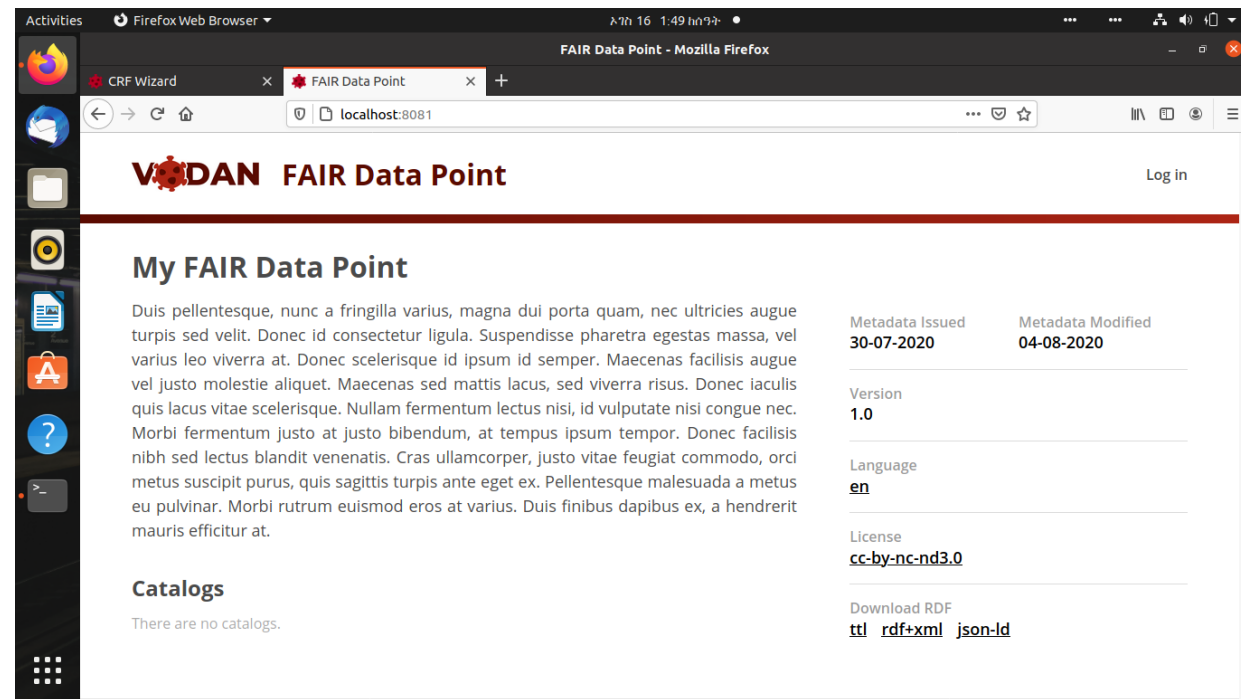
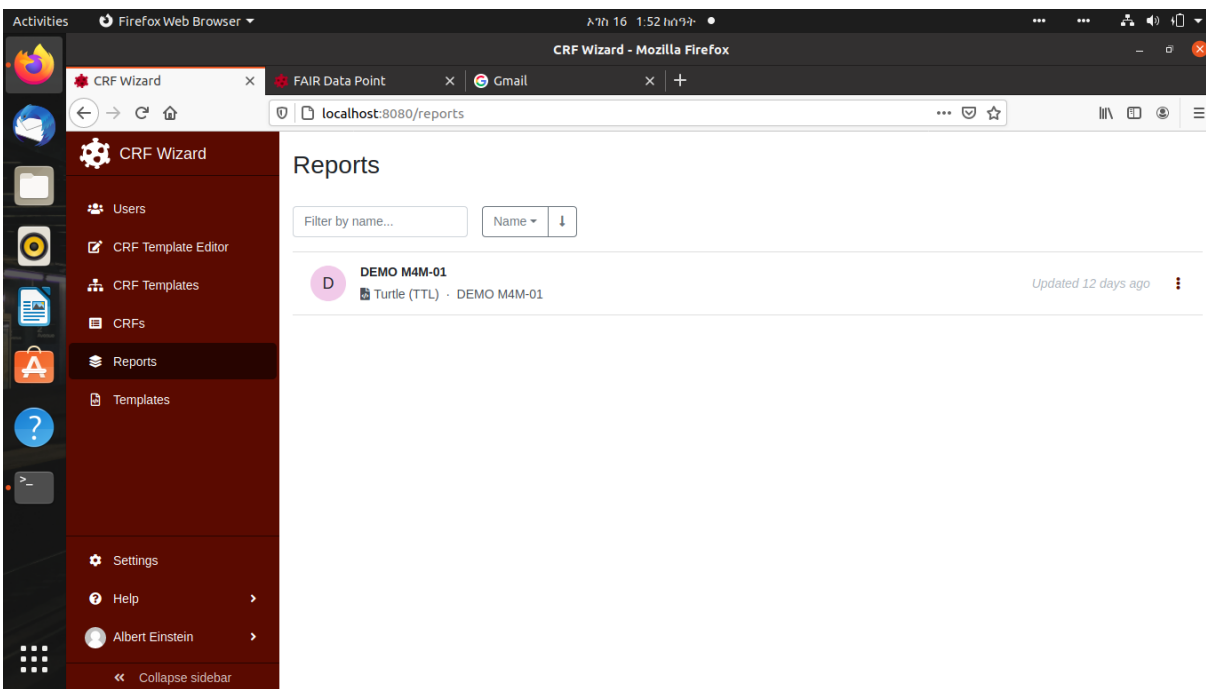
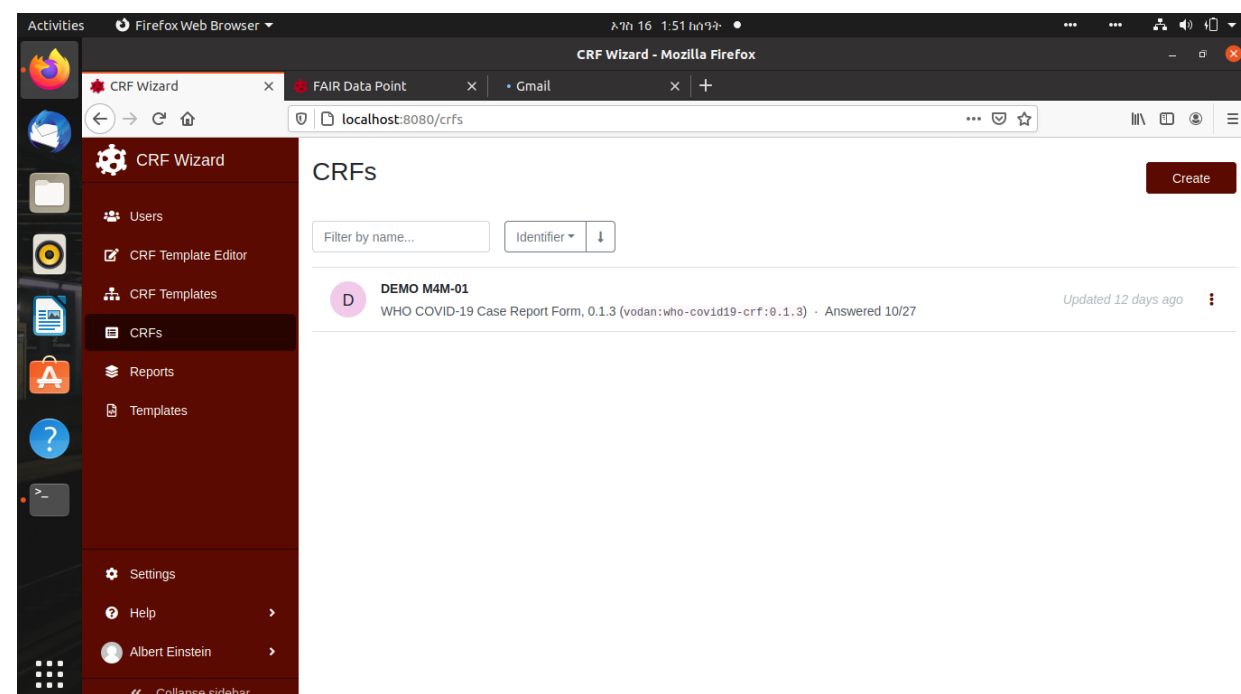
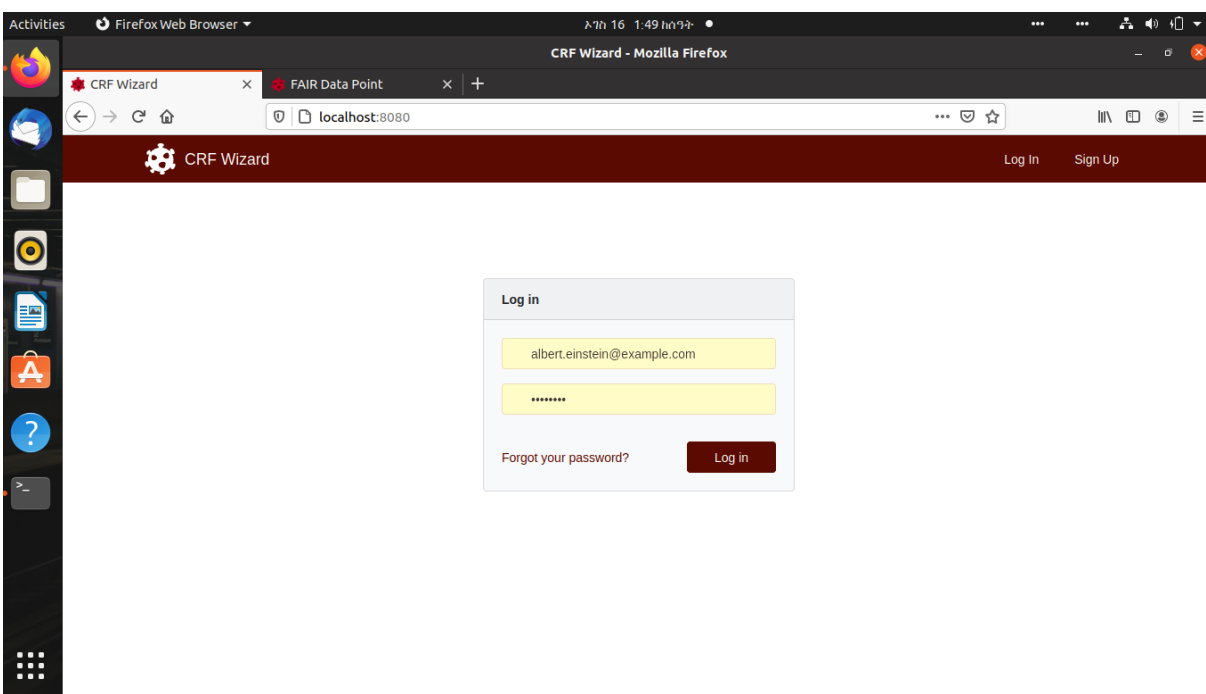
1. `server_name` and `ssl_certificate` values in `proxy/nginx/agraph.conf`, `proxy/nginx/dsw.conf`, and `proxy/nginx/fdp.conf` with your domain names. Those need to have valid DNS records pointing to that server.
2. `docker-compose.yml` - `API_URL` (`dsw_client` service) to your value for `api.dsw.your-domain.tld`
3. `dsw-server/application.yml` - `clientUrl` to your value for `dsw.your-domain.tld`, then `secret`, `serviceToken`, and `email` section according to the comments there
4. `fdp/application.yml` - `clientUrl` to your value for `fdp.your-domain.tld` and then, `persistentUrl`, `secret`, `serviceToken`, and `secret-key` (JWT)
5. `allegrograph/agraph.cfg` - set **strong password** and optionally change username using `SuperUser` directive, the same credentials must be configured in `submission-service/config.yml`

### ■ Obtain SSL certificates

### ■ First start

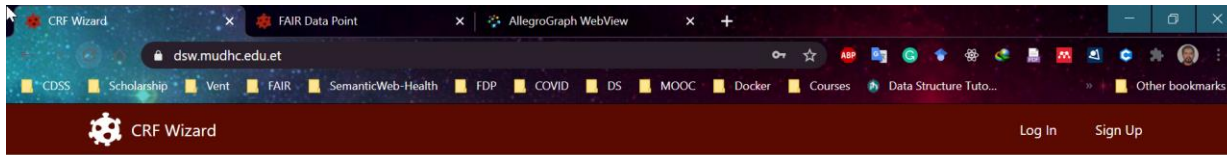


# Local Deployment



# **Production Deployment**

# Mekelle University



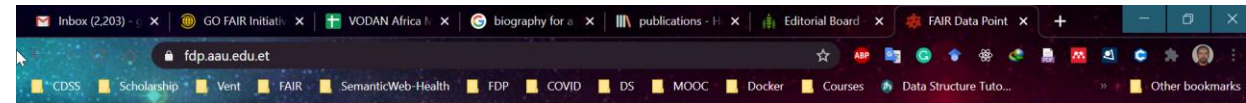
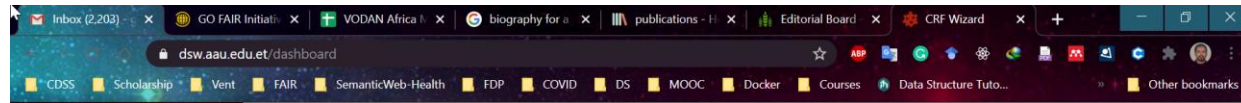
A screenshot of the AllegroGraph WebView 7.0.1 interface. The browser address bar shows 'sparql.mudhc.edu.et:8443/#'. The page title is 'AllegroGraph WebView 7.0.1'. Below the title, there is a navigation bar with 'User anonymous' and 'Documentation'. The main content area is titled 'Catalogs and Repositories' and is divided into two sections: 'Catalogs' (with a slash) and 'Repositories' (with 'crf'). Below this, there is a 'Visualization' section with a 'Start Gruff' button and a list of features: 'Visualization, Exploration' and 'Query Builder, and more...'. The Windows taskbar is visible at the bottom of the browser window.

A screenshot of a metadata page. It displays the following information:

Metadata Issued	12-08-2020	Metadata Modified	13-08-2020
Version	1.0		
Language	<a href="#">en</a>		
License	<a href="#">cc-by-nc-nd3.0</a>		
Institution	<a href="#">www.mu.edu.et</a>		



## Addis Ababa University



### • ~~Change Passwords~~

- **Create Repository (crf)**
- **Create and publish Catalog, dataset, and distribution**
- **Update submission service**
- **Restart**

- Visualization, Exploration
- Query Builder, and more...

# Lesson Learned

- FAIR Data Point (FDP)
- CRF Wizard (DSW)
- Visiting Repositories - SPARQL

# Challenge

## s

**“Building the Plane as we FLY”**





**THANK YOU ALL**