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6th Nurse- Midwife Lead Webinar

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Contact Tracing and Community Care of Client with or Suspected of COVID 19

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BACKGROUND

- In June 2020, MOH realised guidelines for **Home based Isolation and Care Guidelines for patients with COVID-19**

- Guidelines are comprehensive and cover the following;

1. Eligibility for home-based care and isolation
2. Assessing feasibility of home based care isolation and care spaces
3. Procedures for home-based care
4. Referral systems for patients with noted symptoms
5. When to end home-based care
6. Monitoring of jitenge –system

What is happening elsewhere

- African Region

- Uganda- MOH National Guidelines for Quarantine in the context of COVID-19 has section 7- home quarantine and covers;
  - ✓ Requirements for home quarantine,
  - ✓Obligations of governments and
  - ✓ Communities to persons on home quarantine and unexposed persons

- Ghana – de-isolation

What do we know?

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- The guidelines will keep changing as we get more data and evidence

- Therefore we must continue learning and adopting

What have learned

Germany

- Throughout the COVID-19 pandemic, Germany has shown several elements of success across the four phases in their preparedness and response framework: **prevent, detect, contain, and treat.**
- The country's incredibly strong enabling environment, including a good local public and health care system and expert scientific institutions, has largely contributed to this broad-based progress.

Germany …

- It also ranks among the top five countries in the European Union for the number of nurses (13.2) and physicians (4.2) per 1,000 people

- The contact ban was not **a lockdown**: The population remained free to leave the house, such as for walks.
- On April 10, all travelers arriving in Germany, regardless of their origin, were required to quarantine for 14 days.
- Self isolation use in most European countries

Germany Curve

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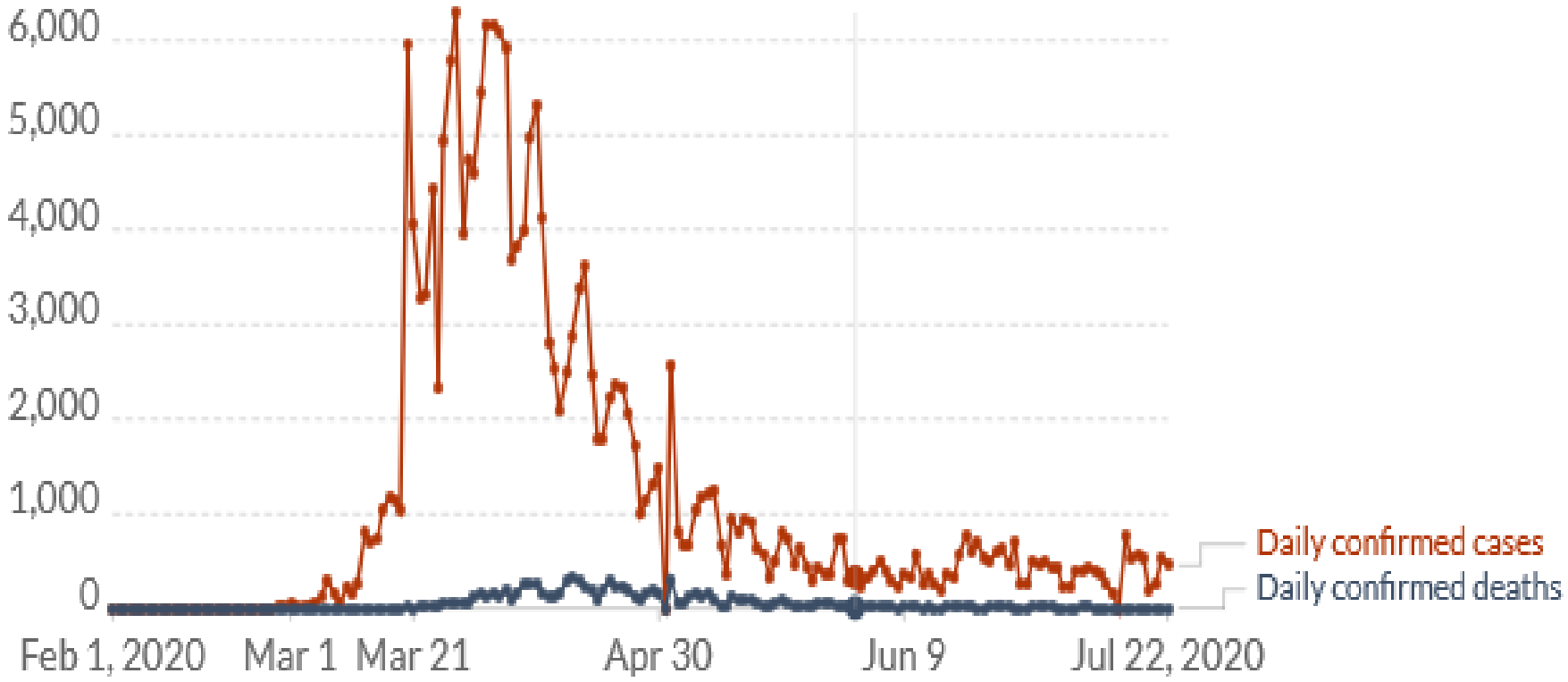
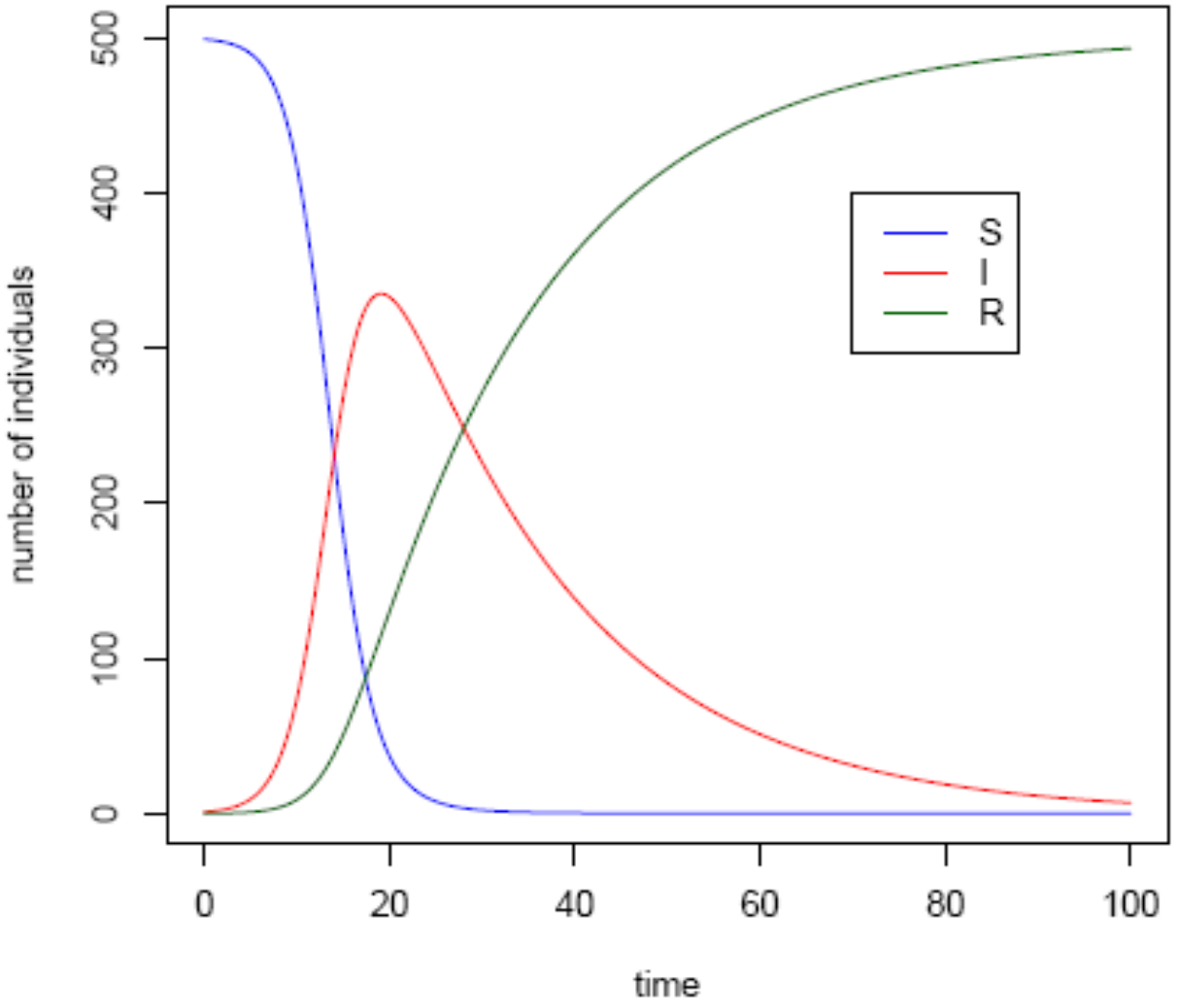


Epidemiological modelling; SIR



Epidemiological modelling

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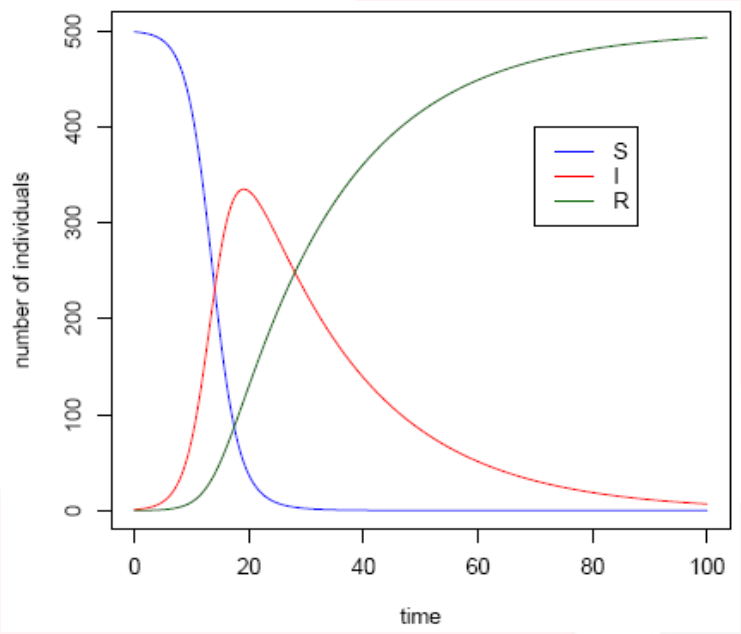
- Most epidemic models are based on dividing the host population (humans in the case of this article) into a small number of compartments, each containing individuals that are identical in terms of their status with respect to the disease in question.

The SIR model: In the SIR model, there are three compartments:

- ✓**Susceptible:** individuals who have no immunity to the infectious agent, so might become infected if exposed.
- ✓**Infectious**: individuals who are currently infected and can transmit the infection to susceptible individuals who they contact. Modelling recurrent epidemics 7
- ✓**Removed**: individuals who are immune to the infection, and consequently do not affect the transmission dynamics in any way when they contact other individuals.

Modelling..

- For COVID-19
- Most studies have focused on modeling the epidemic in terms of when we expect the peak and flatten the curve



Epidemiological modeling of COVID 19

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- Research available is mainly from china and Europe

- Article by Dickens et al, 2020 published in May 2020 compared institutional, not home-based, isolation of COVID-19

Dickens et al, 2020

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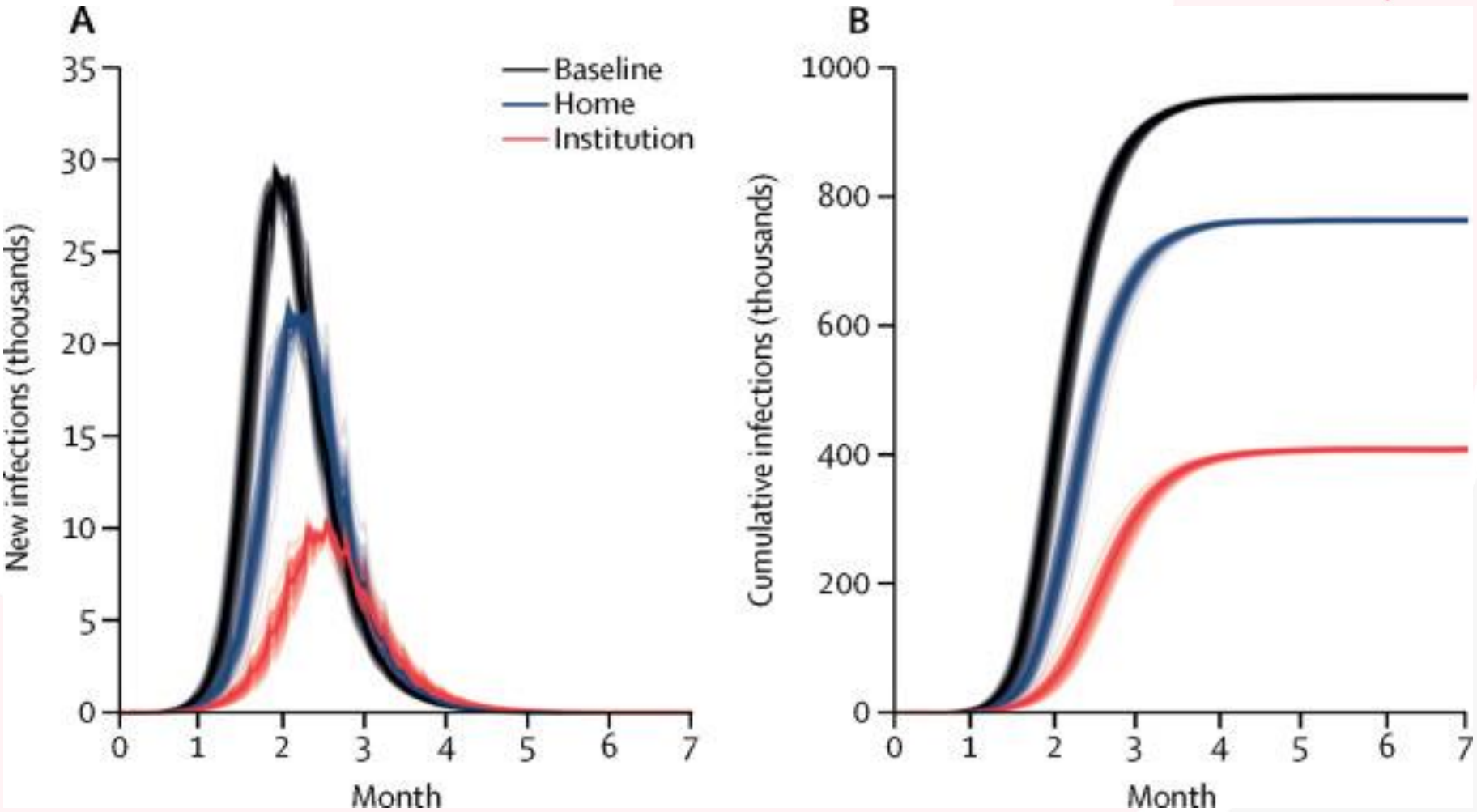
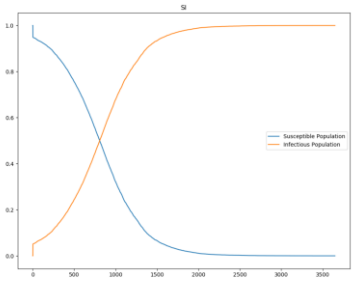


Modelling ..



- GeoDEMOS-R, an agent-based respiratory illness simulation model that estimates the total number of infections through time and measures the effects of quarantining, physical distancing, and school closure on a city population.
- A different calibration procedure, however, was used to estimate the number of infections over time.

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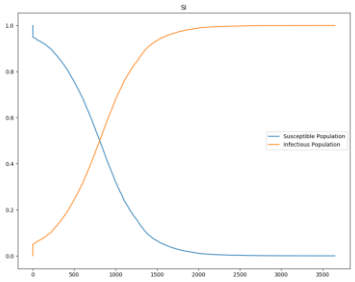
Dickens et al 2020



- It assumed a basic reproduction number of 2 for the initial 4-week phase of the COVID-19 epidemic, with a subsequent decrease in the effective reproduction number due to the implementation of physical distancing control measures.
- The model represents a large city of 4 million residents, modelled upon the city-state of Singapore

Outcome

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- *These results show the need for institution-based isolation to reduce household and community transmission.*
- They also provide theoretical support for the approach successfully implemented in Wuhan, where fangcang isolation shelters were established for all infected and potentially exposed individuals.

Modelling.. Dickens et al, 2020

- *Home-based isolation, which is reliant on personal compliance, will therefore inevitably lead to increased transmission.*
- Although cities within Europe and the USA might not be able to create make-shift isolation centres similar to those in Wuhan,
- due to a lack of social acceptability or negative public perceptions,
- other strategies should be considered to reduce transmission, such as repurposing hotels or dormitories

Additional evidence

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- **The effect of control strategies to reduce social mixing on outcomes of the COVID-19 epidemic in Wuhan, China: a modelling study**
- Prem et al Published in Lancet May 2020

- Social distancing reduced the the median number of infections by more than 92% (IQR 66–97) and 24% (13–90) in mid-2020 and end-2020, respectively.

What options for Kenya

What options for Kenya

- Home –based self isolation

- Household responsibility
- Individual responsibility
- Monitor the interventions

- Home-based care showed success in HIV/AIDS and NCD

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Thank you