COVID-19 risk factors and scheme trends

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Foresight 2020

31.08.20

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Unpacking the Impact of COVID-19

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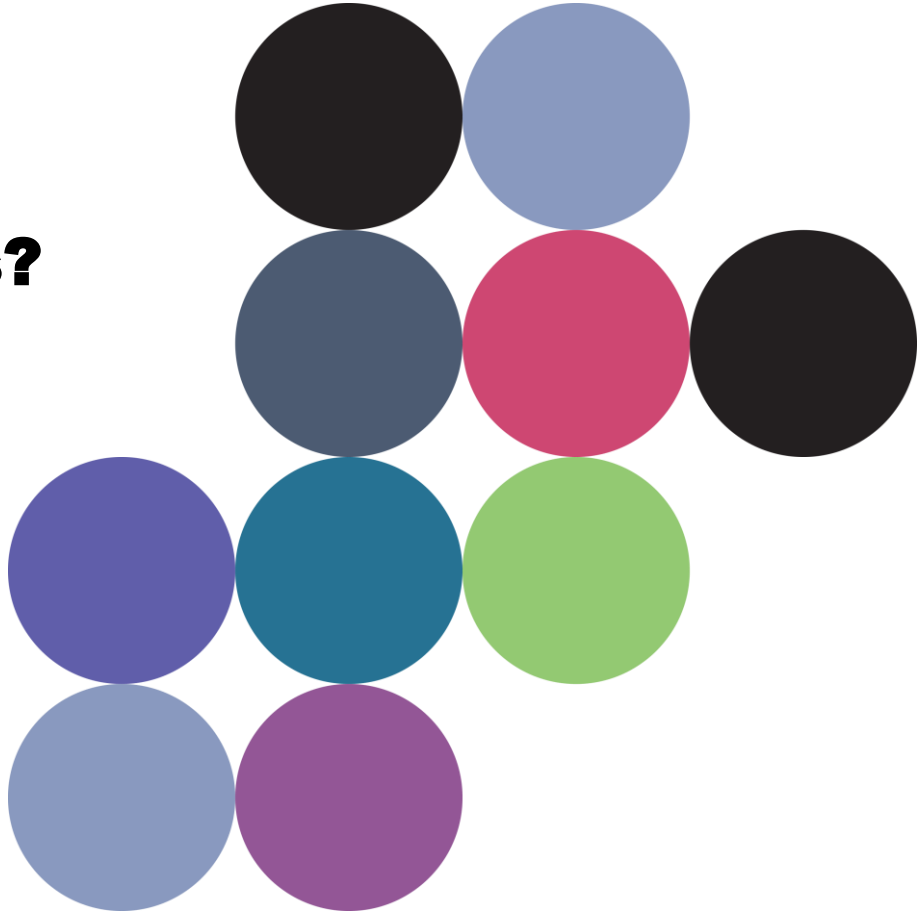
Can We Connect the Dots?



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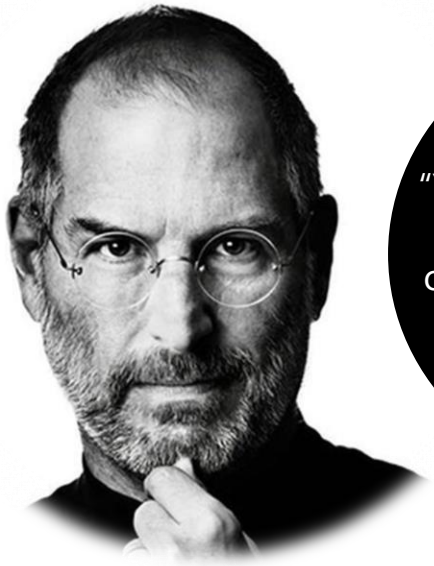
Can We Connect the Dots?



"You can't connect the dots looking forward, you can only connect them looking backwards."

Nowhere is this saying truer than in the context of COVID-19

Even connecting the dots looking backwards is a complex task

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Can We Connect the Dots?

14 Jan 2020

1 Mar 2020

The virus has been repeatedly misunderstood

Hardly a day goes by without *reputable* conflicting studies

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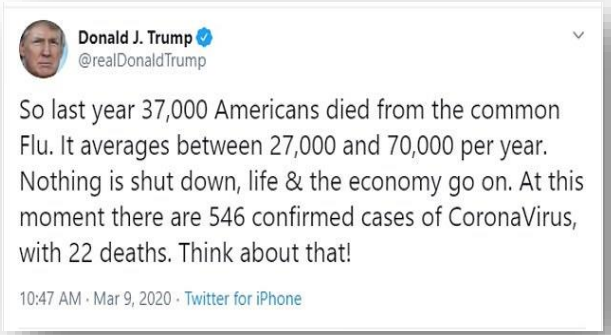
Can We Connect the Dots?

9 Mar 2020



16 Mar 2020

Projections as to the impact of the virus have been flawed

Hardly a day goes by without *reputable* conflicting projections

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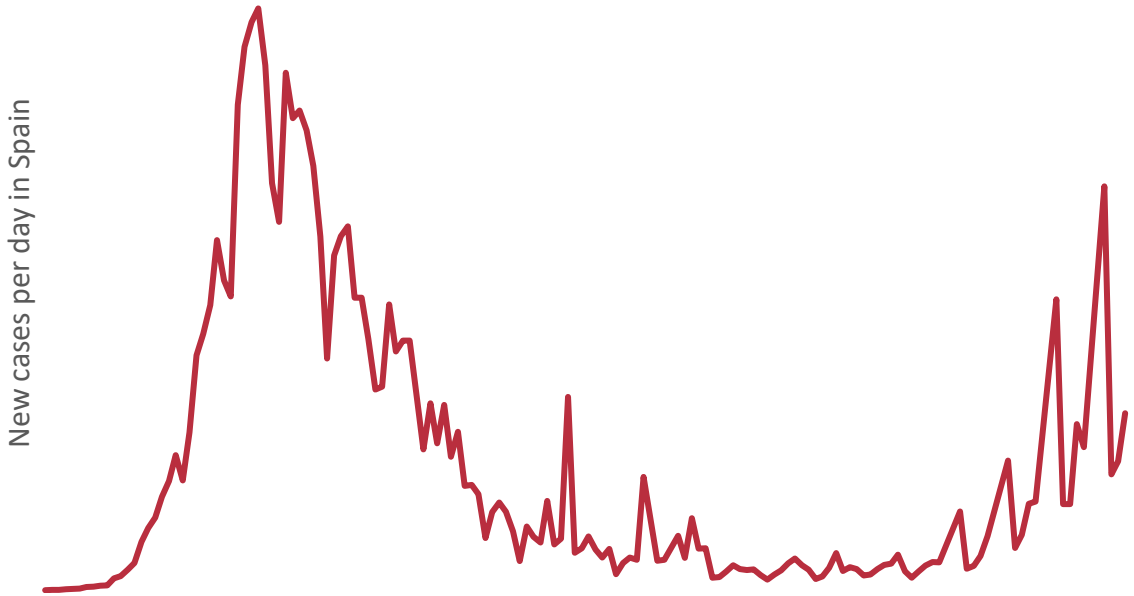
Can We Connect the Dots?

Can these sort of *simple* trends be convincingly explained with a sufficient degree of certainty?

If the past cannot be explained, how well can the future be modelled?



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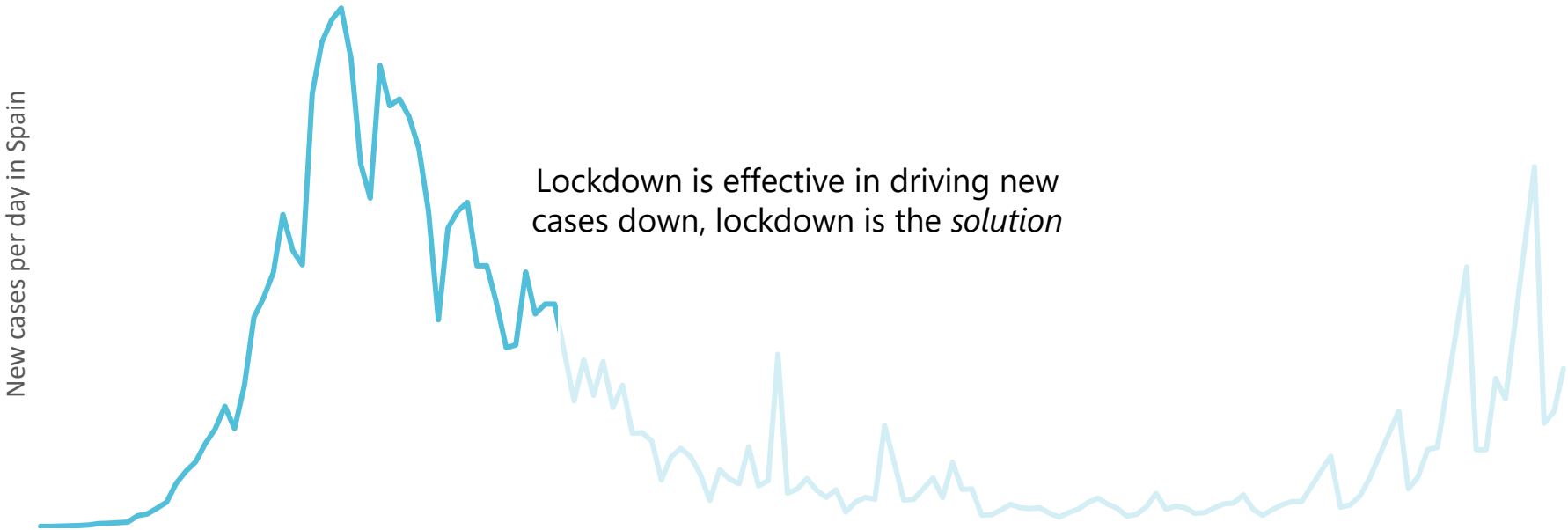

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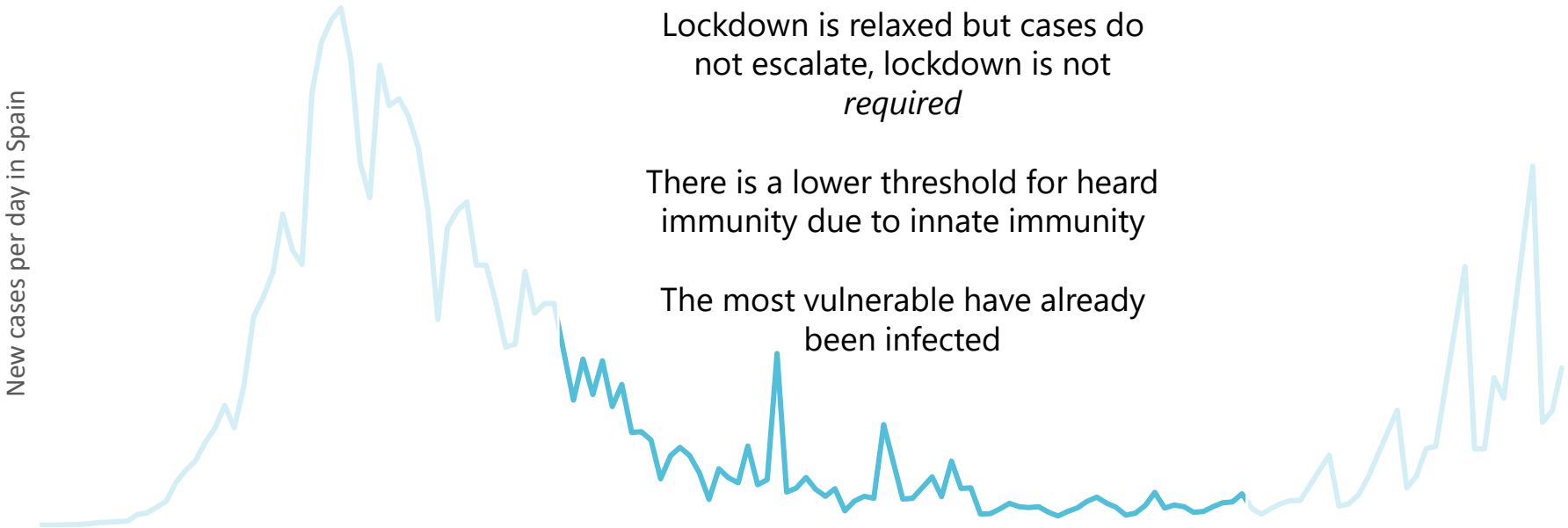

Lockdown is relaxed but cases do not escalate, lockdown is not *required*

There is a lower threshold for heard immunity due to innate immunity

The most vulnerable have already been infected

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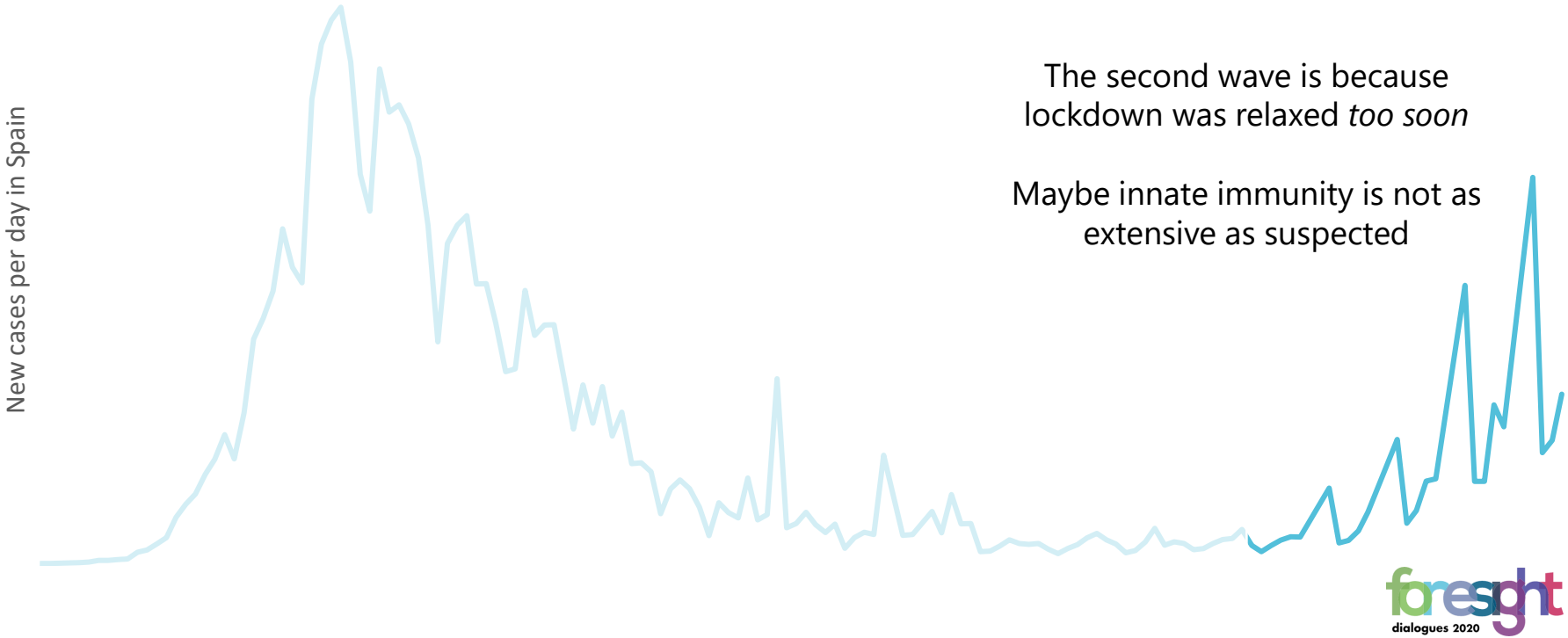
Can We Connect the Dots?



The second wave is because lockdown was relaxed *too soon*

Maybe innate immunity is not as extensive as suspected

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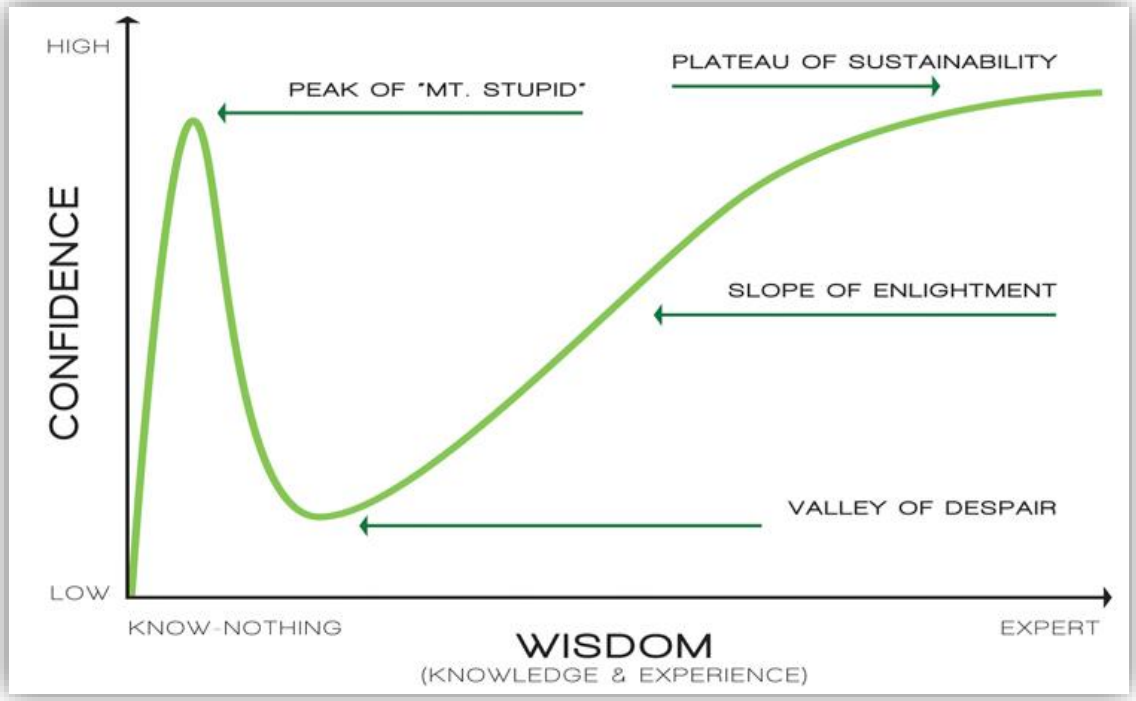
Can We Connect the Dots?



Dunning Kruger Effect

Where are we now?

Between Mount Stupid and the Plateau of Sustainability

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Looking Backwards

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Looking Backwards

Insight data universe

Several million medical scheme beneficiaries

Consider members with and without COVID-19

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Looking Backwards || Without COVID-19

Decreased utilisation

35% decrease in admission rate

Primary and preventative care

20% decrease in GP consultation rate

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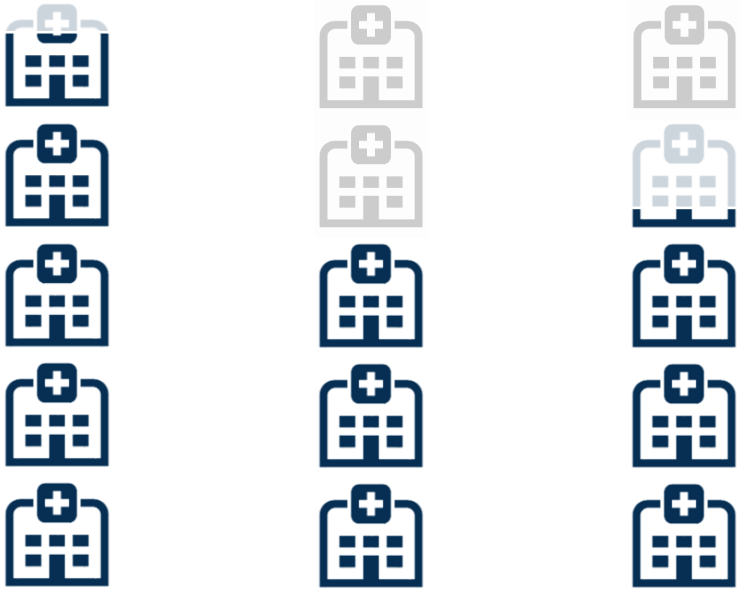
Looking Backwards || Without COVID-19

Obstetric	Surgical	Medical
-5%	-40%	-35%



The decline in surgical admissions was to be anticipated but the almost equally as sharp decline in medical admissions was relatively unanticipated.

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Looking Backwards || Without COVID-19

Depression	Pneumonia	Gastroenteritis	Asthma	AMI
-45%	-55%	-60%	-70%	-25%

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Looking Backwards || Without COVID-19

Social distancing reduced the general spread of viral infections

Some patients who would ordinarily be admitted can be effectively managed at home

Restrictions on access

Disruption in healthcare trends due to some combination of these factors

Long term impact on outcomes?

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Looking Backwards || Without COVID-19

Opportunity to create a more efficient healthcare system

Increased focus on coordinated team-based primary care

Never waste a crisis

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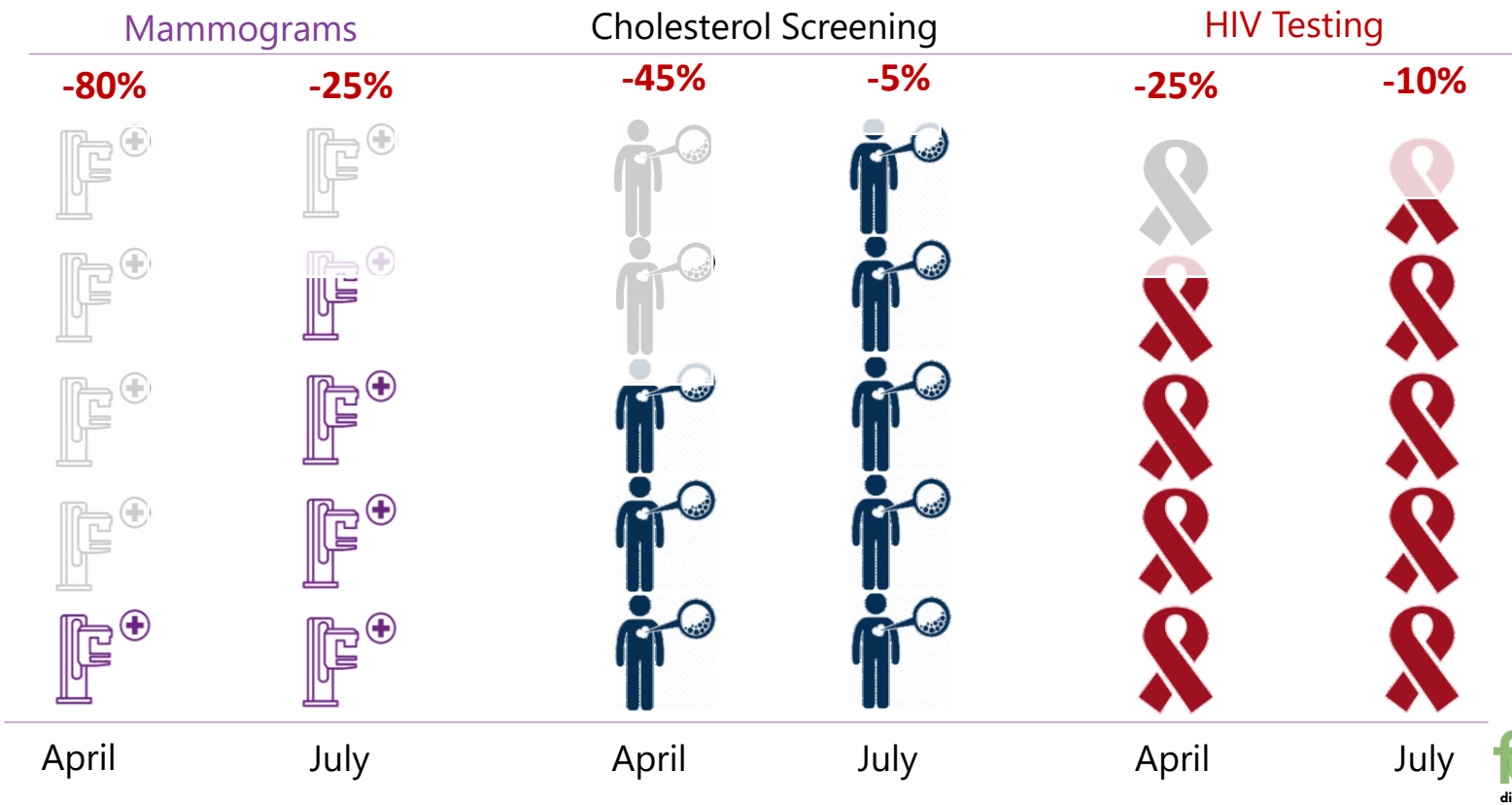
Looking Backwards || Without COVID-19



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Looking Backwards || Without COVID-19

Preventative and primary care has historically been lacking and is now going backwards (albeit understandably so)

A sustained downturn will cause a second pandemic.

A pandemic of neglect.

There needs to be a balance between managing COVID-19 and managing other healthcare risks.

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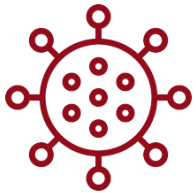
Looking Backwards || COVID-19

Infection rates	Admission rates	Case fatality rates
2% to 4% (diagnosed)	18% to 24% (lagged)	2% to 4% (lagged)



True for most (but not all) major schemes

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Looking Backwards || COVID-19

Identifying risk factors

Statistical model (GLM) considers chronic and acute conditions which have a significant impact on the likelihood of **being admitted to hospital** once diagnosed with COVID-19

Impact measured is over and above age and gender

Asthma
+ 60%

Diabetes 2
+ 105%

RA
+ 30%

COPD
+ 60%

Heart failure
+ 50%

Cancer
+ 55%

CRF
+ 355%

HIV
+ 55%

Pneumonia
+ 15%

Diabetes 1
+ 75%

Hypertension
+ 20%

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Looking Backwards || COVID-19

Statistical model (GLM) considers chronic and acute conditions which have a significant impact on the likelihood of **passing away** once diagnosed with COVID-19

Impact measured is over and above age and gender

CRF
+ 85%

Diabetes 2
+ 80%

Heart failure
+ 70%

Hypertension
+ 40%

Pneumonia
+ 40%

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Looking Backwards || COVID-19

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Looking Forwards

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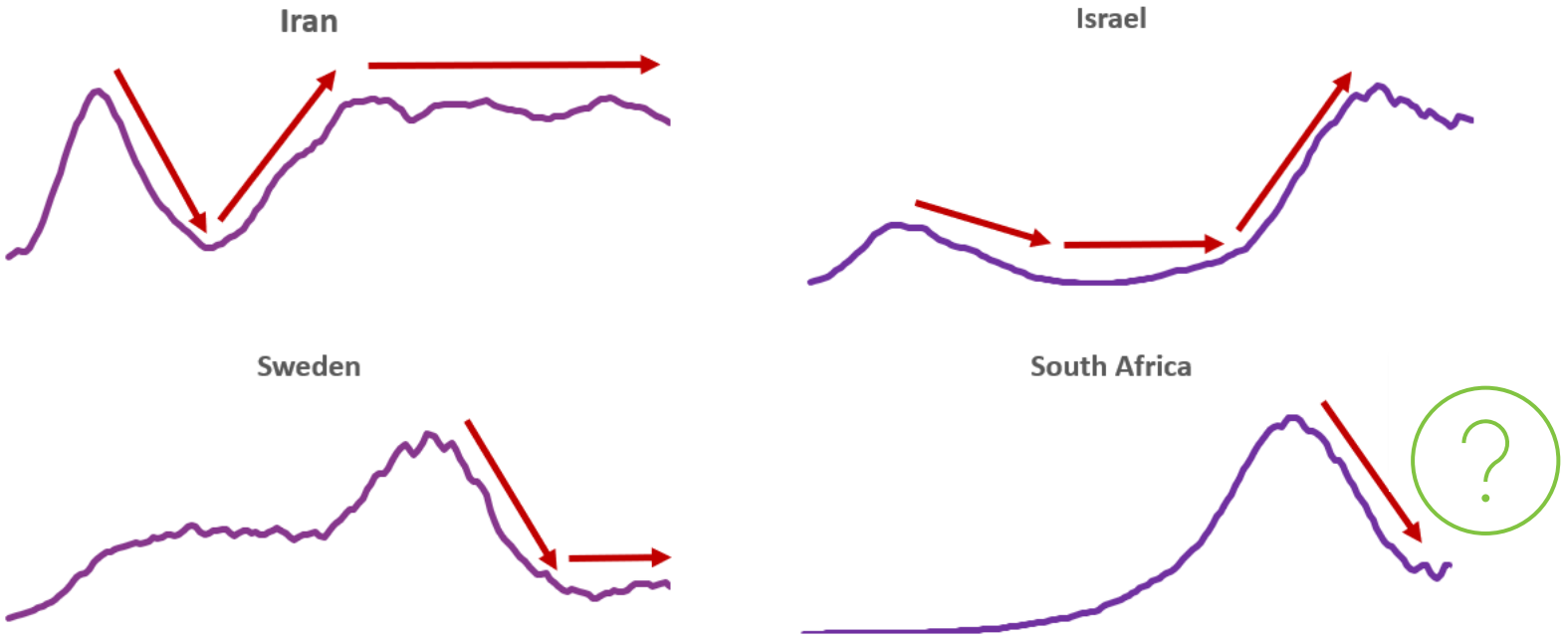
Looking Forwards



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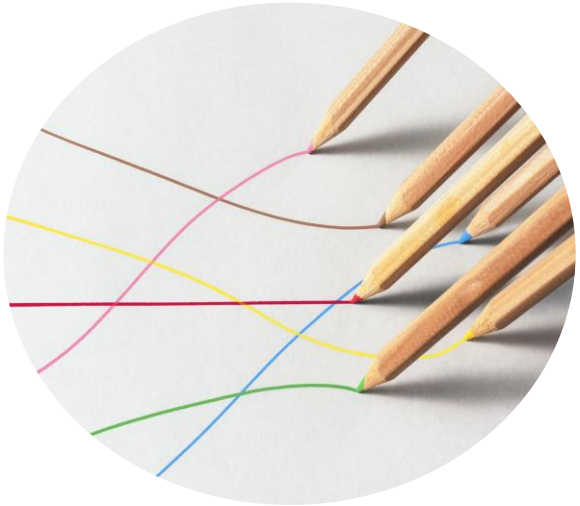
Looking Forwards



We can intelligently postulate what will happen next, but no one can be certain.
Every model should carry this caveat.

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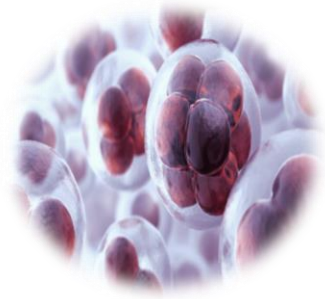
Looking Forwards

Can we expect any innovations or improvements?

Testing

Respiratory devices to assist breathing and devices to measure breathing

Vaccines



Medications and treatments for respiratory infections

General infection control

Virtual health becoming more mainstream

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Looking Forwards

Unaffordable medical aid contributions

Reduction in income across the lower and middle class

Medical Aid contributions are less affordable and ever increasing

Need for universal healthcare

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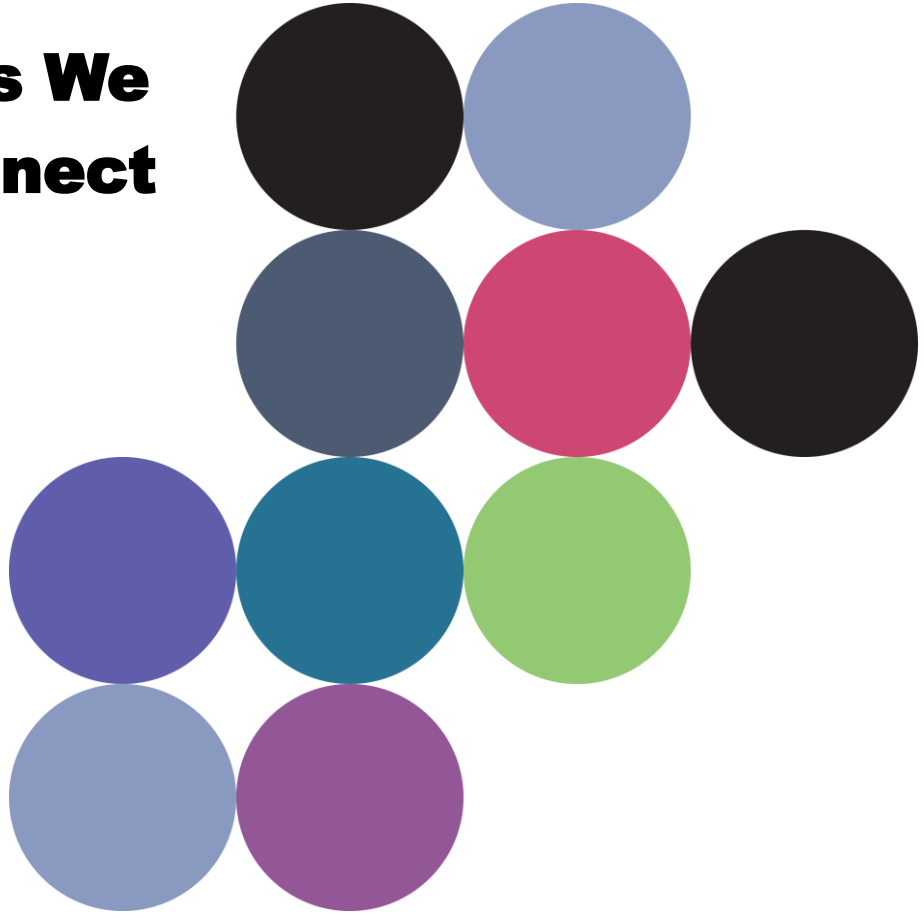
The Dots We Can Connect



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The Dots We Can Connect

Be careful of the overconfidence when making sense of the past and when preparing for the future, **consider a range of varied possibilities**

The overconfidence effect is a well-established bias in which a person's subjective confidence in his or her judgements is reliably greater than the objective accuracy of those judgements, especially when confidence is relatively high.

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The Dots We Can Connect

Not everyone should be treated the same, interventions should be tailored

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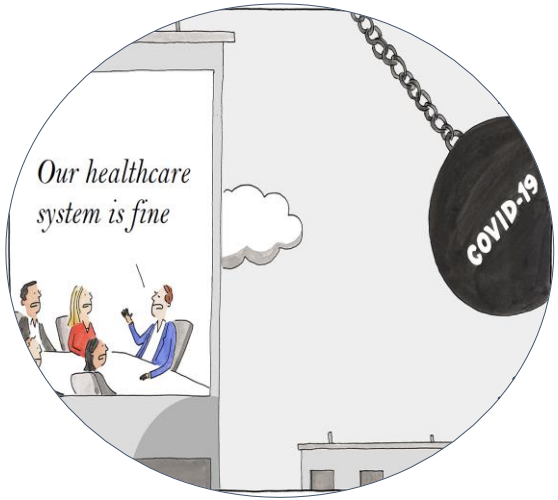
The Dots We Can Connect



COVID-19 has disrupted the healthcare system.

Primary and preventative must be reprioritised.

COVID-19 has shown that there is potential to create a more efficient healthcare system.

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Q&A