

Dr Bronwyn King AO

INDOOR AIR QUALITY –

THE LOWEST HANGING FRUIT FOR PUBLIC HEALTH IMPACT

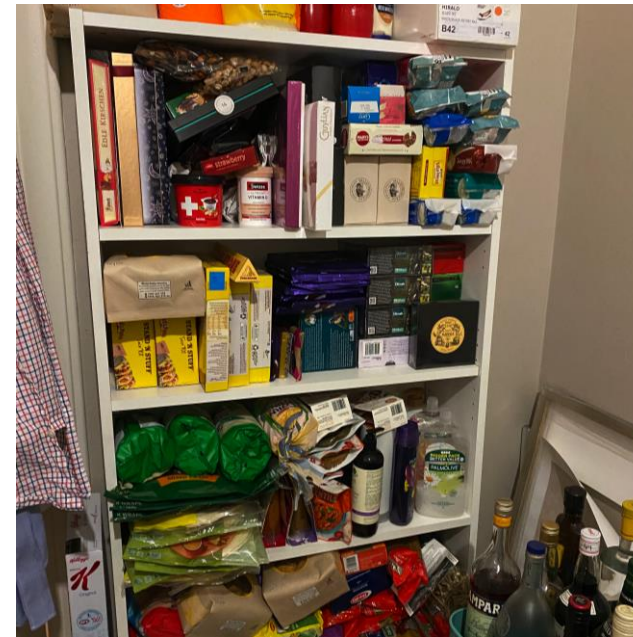
ACIPC CONFERENCE, NOVEMBER 2024



Burnet

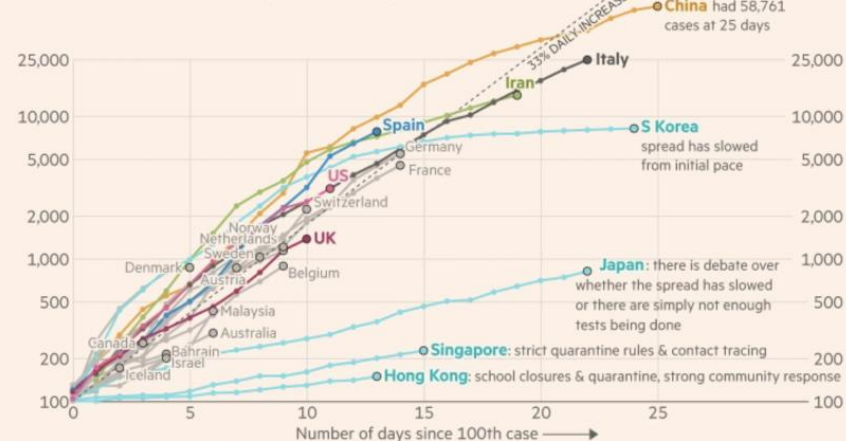
reach for the many



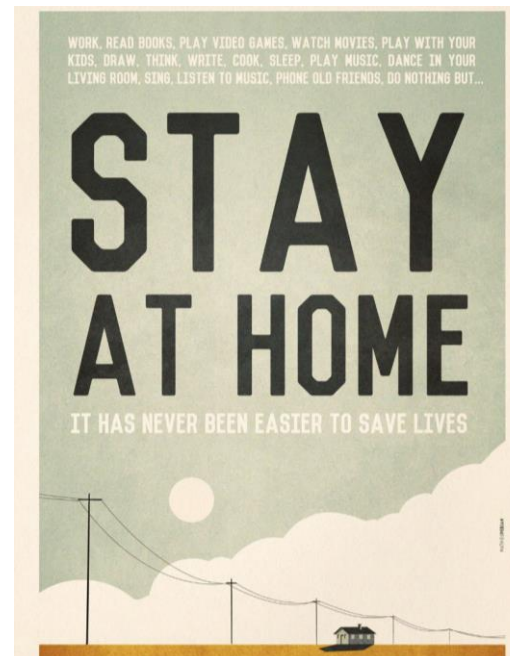


Most western countries are on the same coronavirus trajectory. Hong Kong and Singapore have so far limited the spread; S Korea is slowing its progress

Cumulative number of cases, by number of days since 100th case

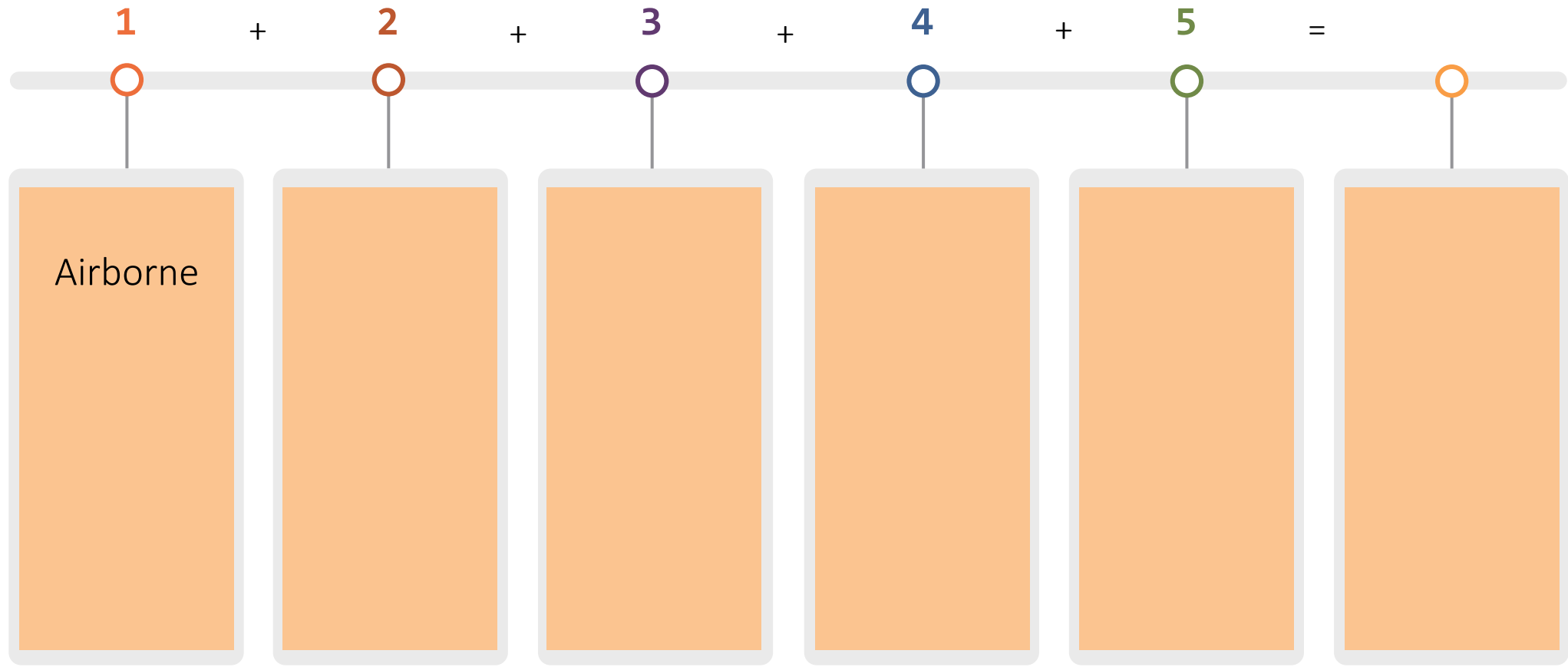


FT graphic: John Burn-Murdoch / @jburnmurdoch
Source: FT analysis of Johns Hopkins University, CSSE. Data updated March 15, 17:00 GMT
© FT



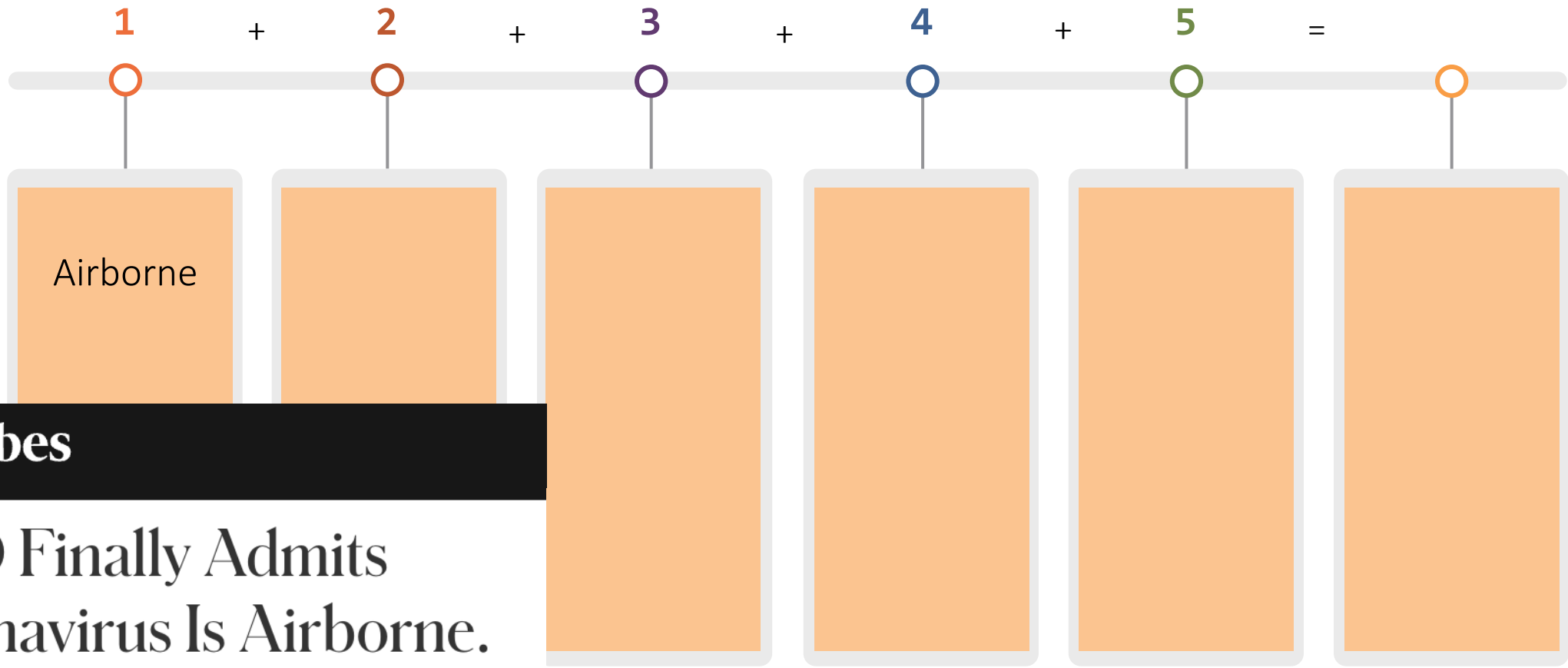


COVID-19





COVID-19

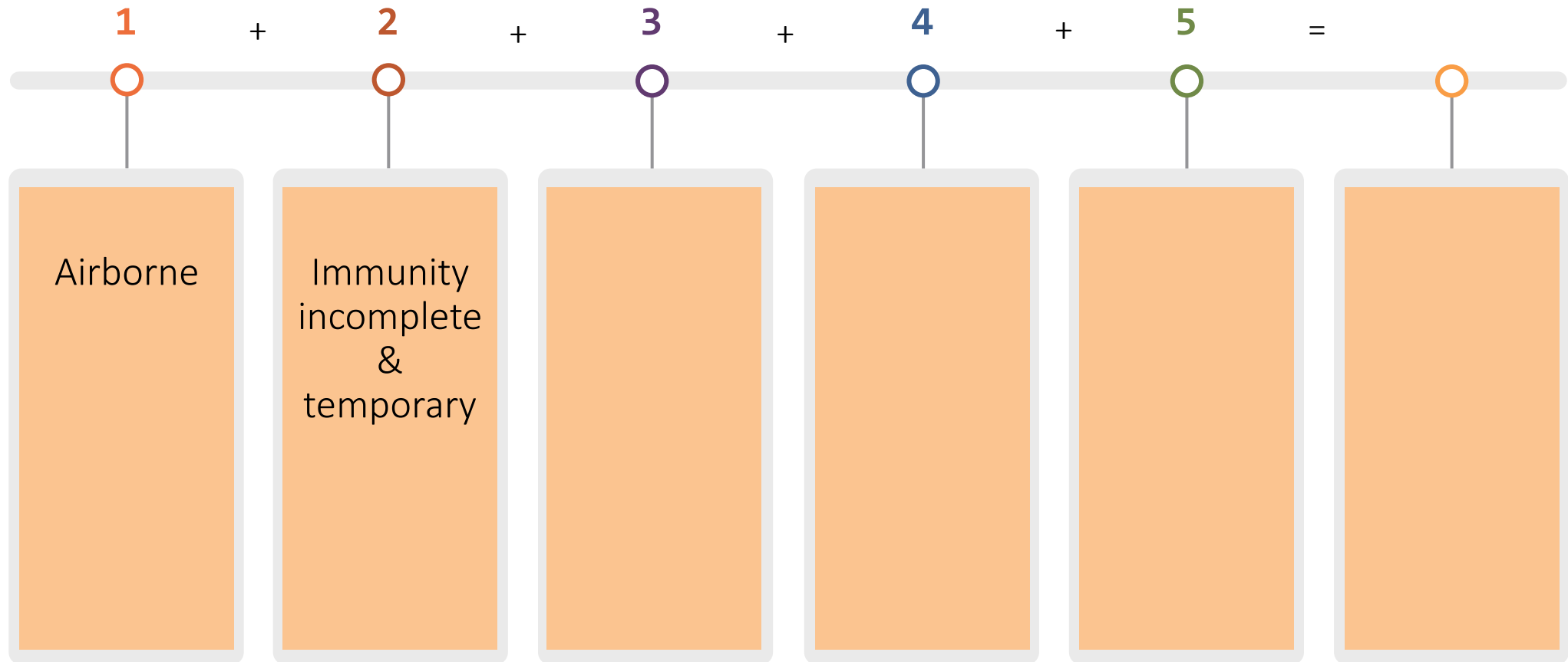


≡ Forbes

WHO Finally Admits
Coronavirus Is Airborne.

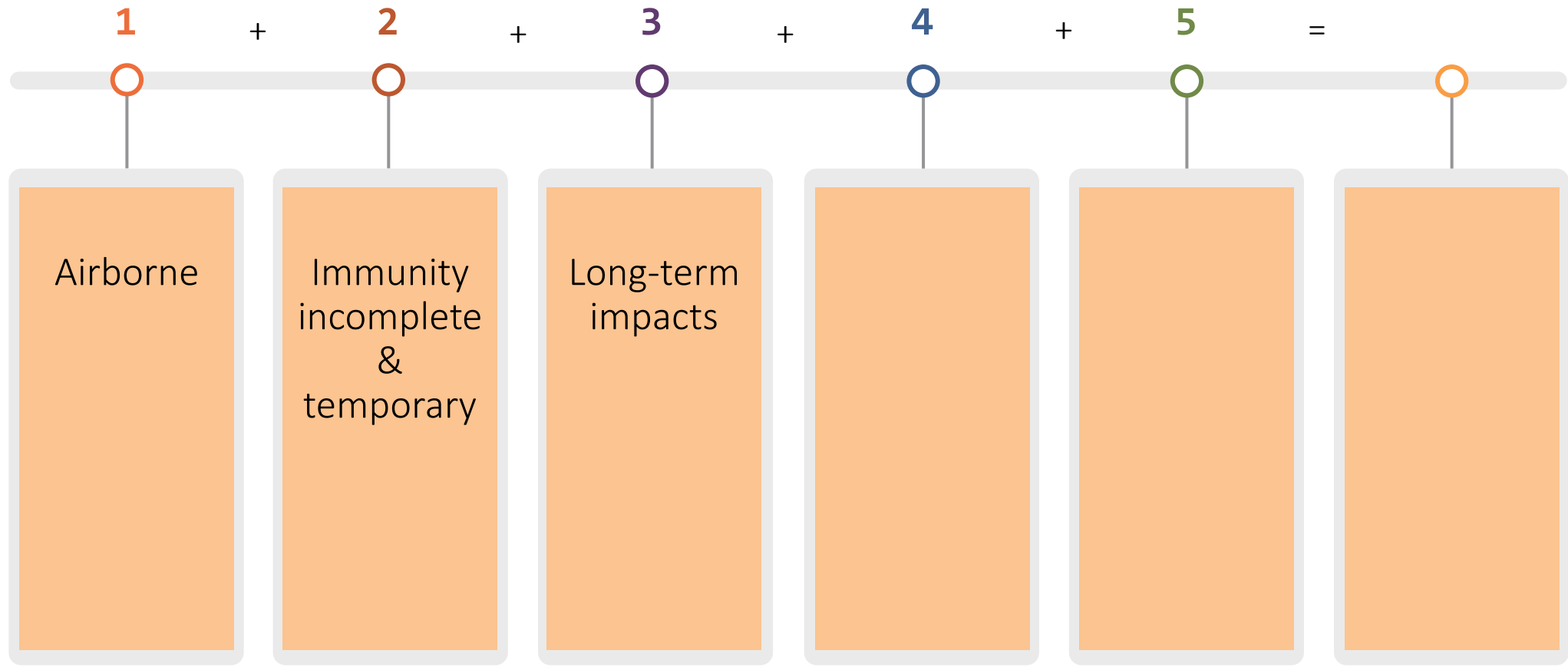


COVID-19



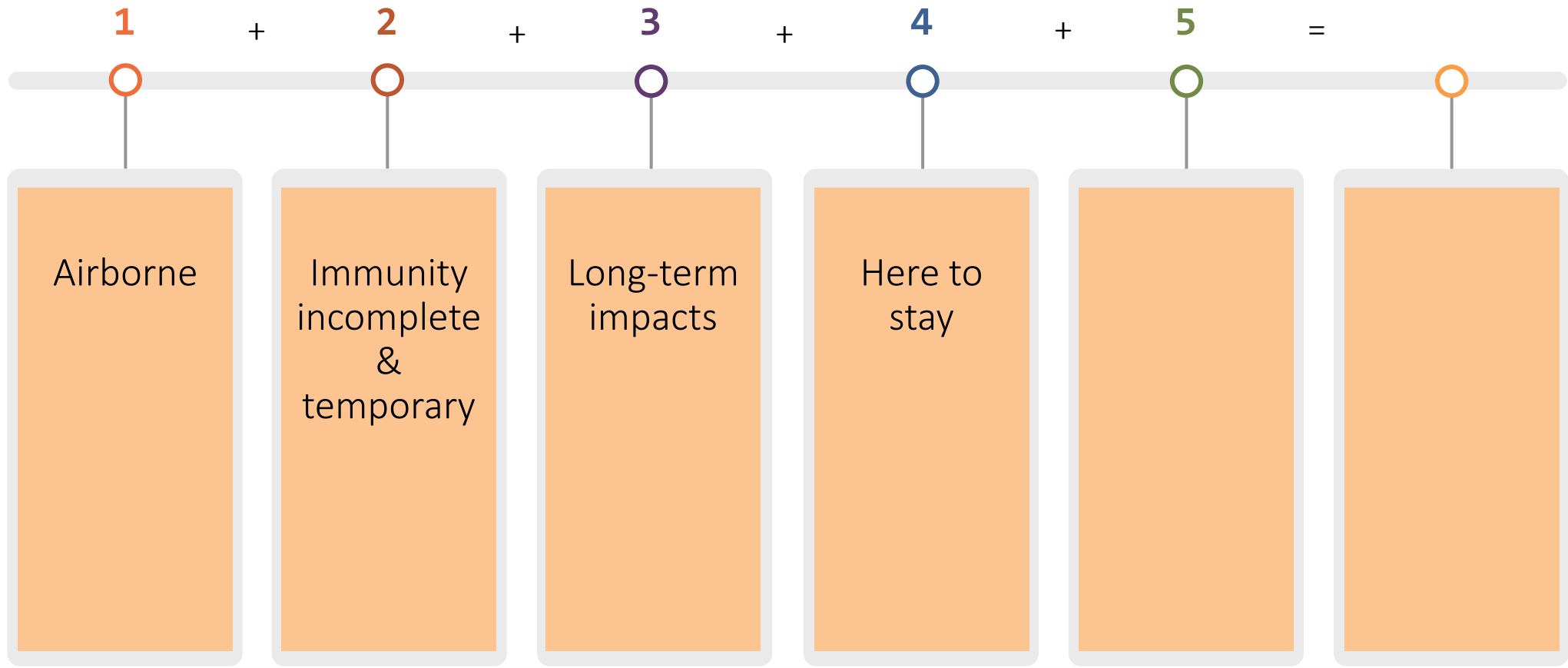


COVID-19



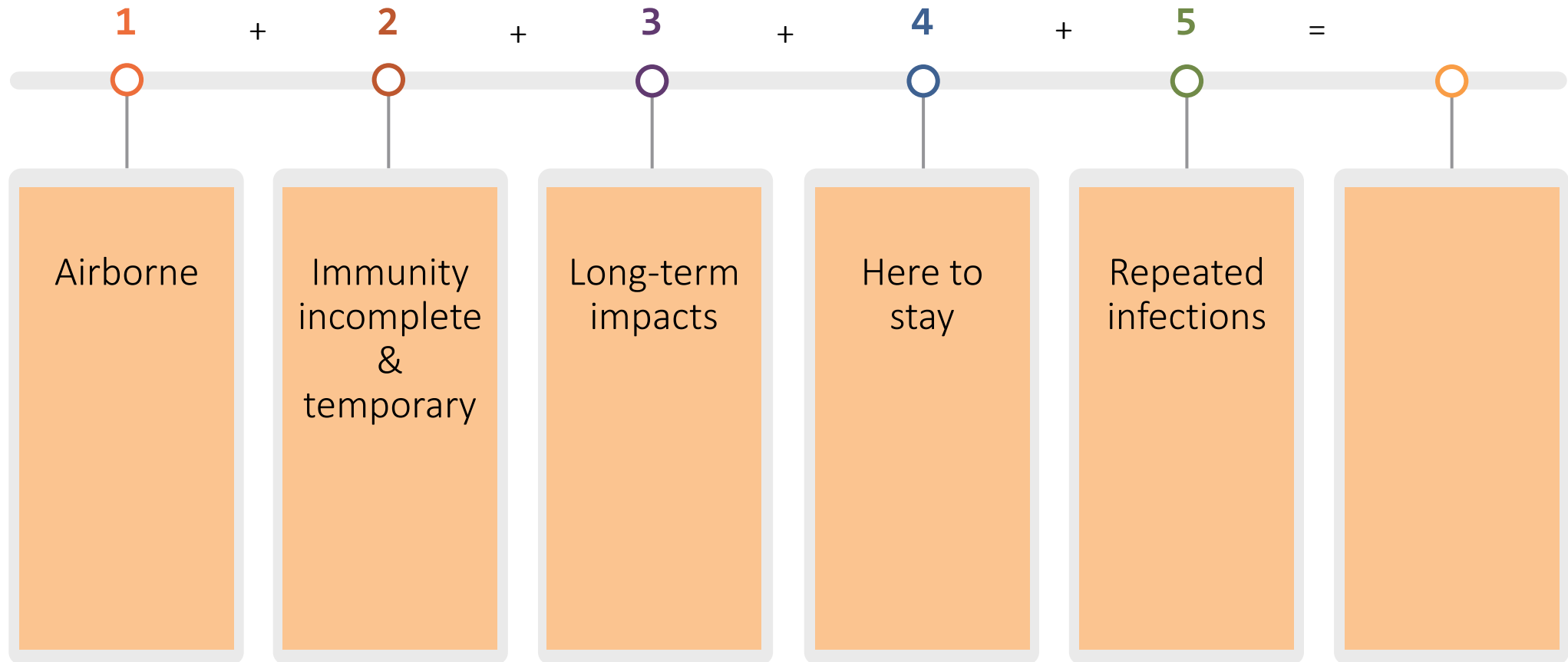


COVID-19





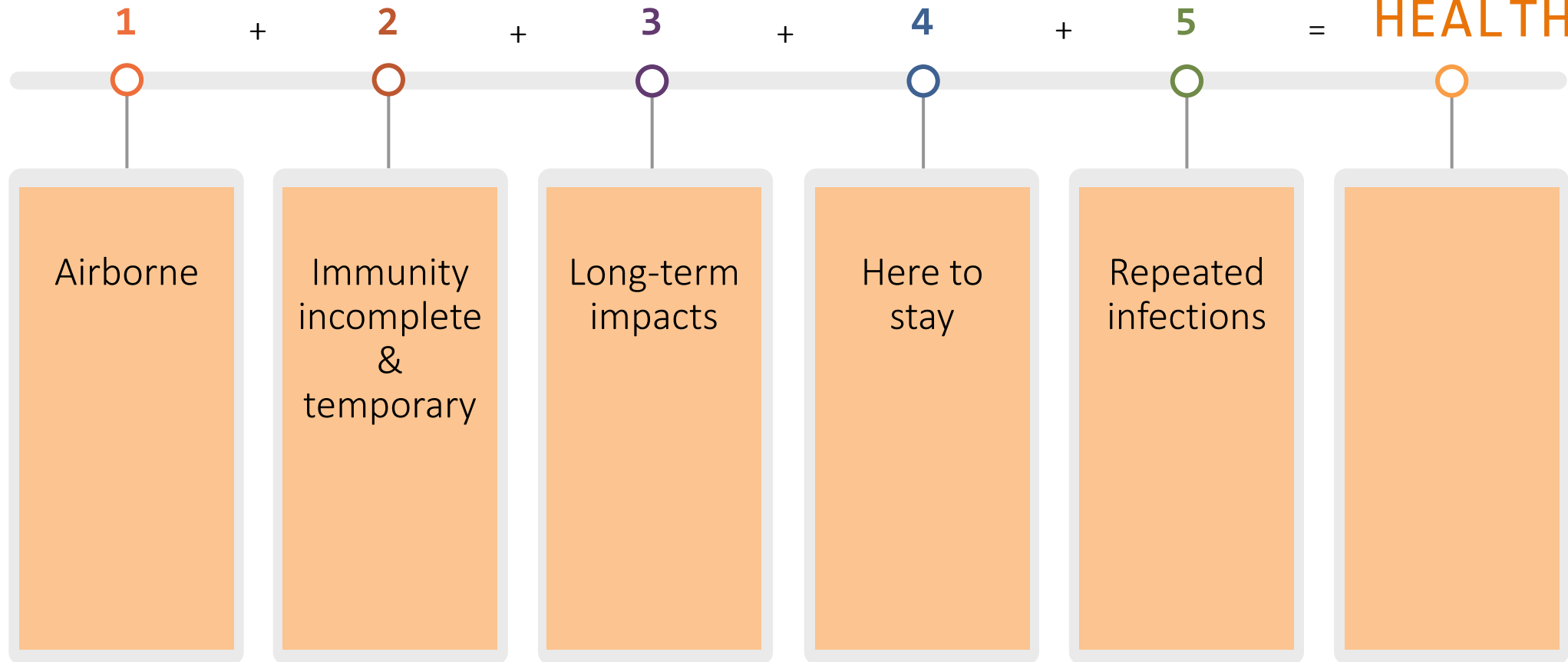
COVID-19





COVID-19

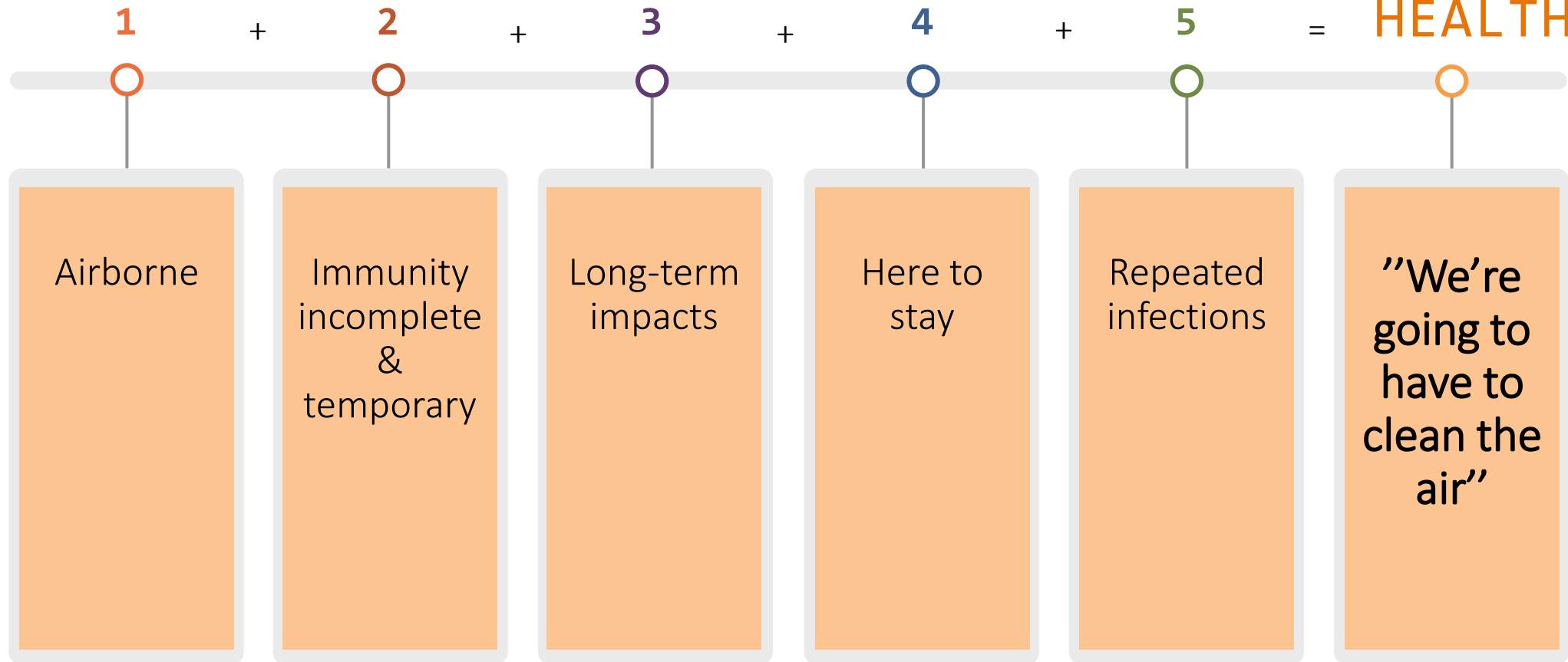
INCOMPATIBLE
WITH GOOD
HEALTH





COVID-19

INCOMPATIBLE
WITH GOOD
HEALTH





CLEAN INDOOR AIR FORUM



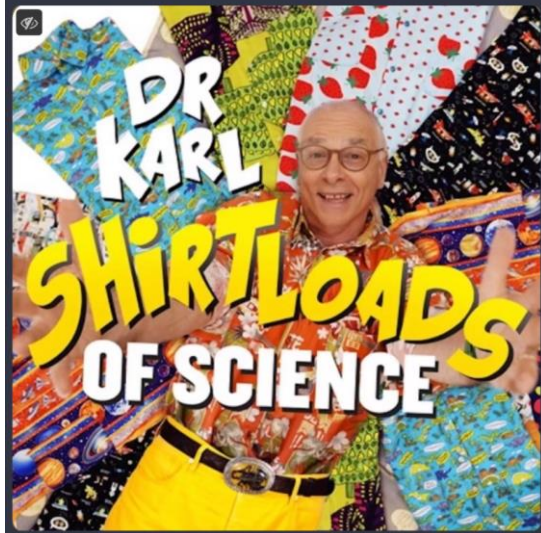


Design by Mitchell Ward. Original photo by Davide Buttani on Unsplash

Public health leader, who is also a former elite athlete, investigates COVID management at the Olympics

Editor: Alison Barrett Author: Bronwyn King Thursday, August 15, 2024

Cleaner air with Dr Bronwyn King, interviewed by Dr Karl on Shirtloads of Science [podcasts.apple.com/au/podcast/...](https://podcasts.apple.com/au/podcast/)



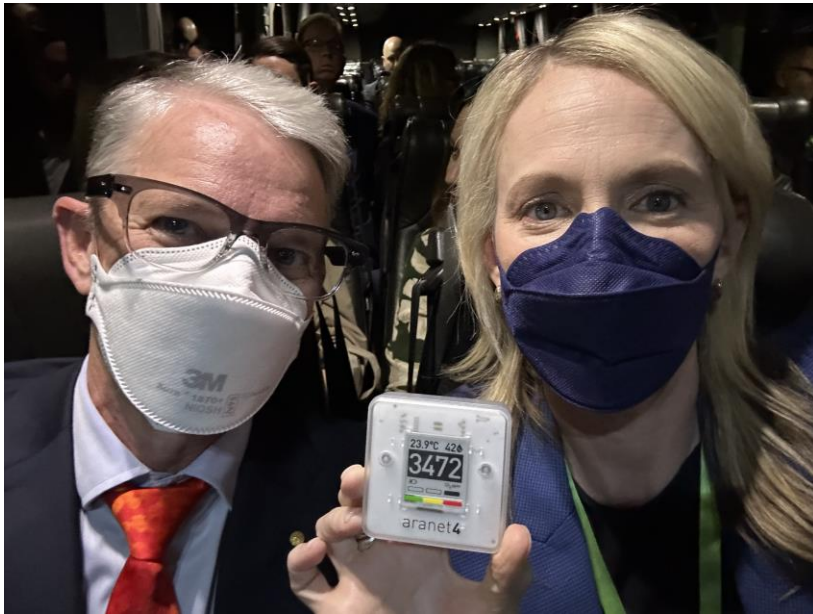
18TH CONFERENCE OF THE INTERNATIONAL SOCIETY OF INDOOR AIR QUALITY & CLIMATE

INDOOR AIR 2024

July 7-11, 2024 | Honolulu, Hawaii, USA







Carbon dioxide

01/08

Lowest

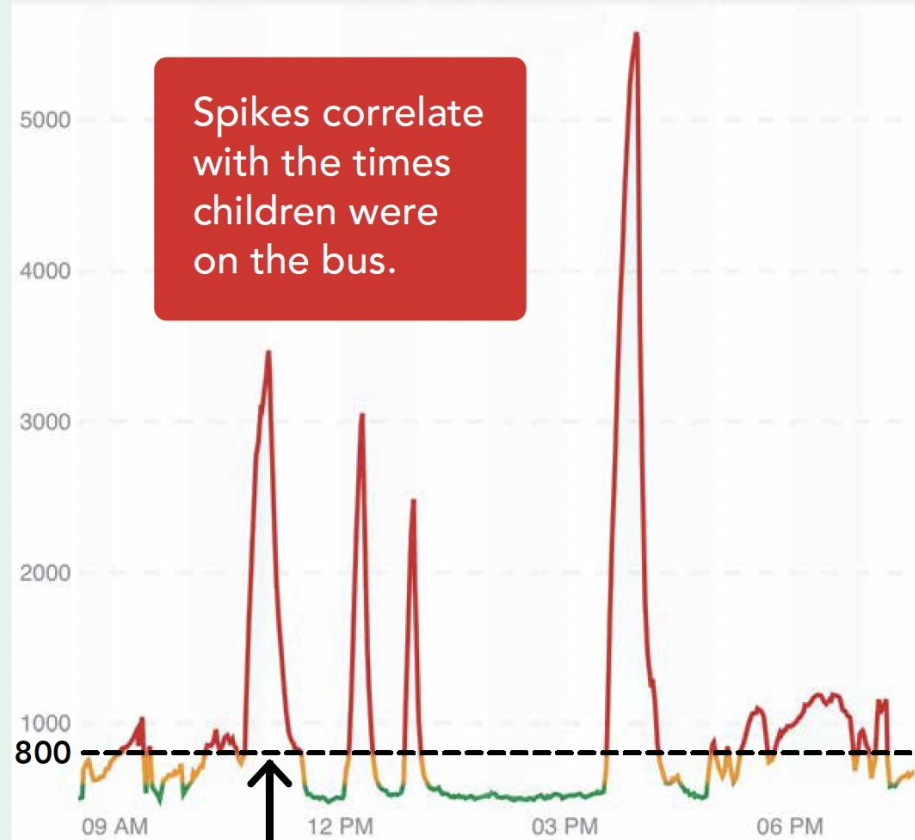
8:31 AM

473 ppm

Highest

3:56 PM

5581 ppm

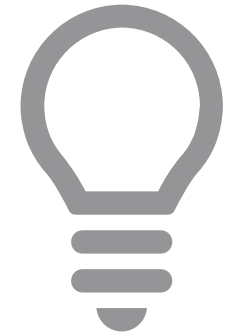
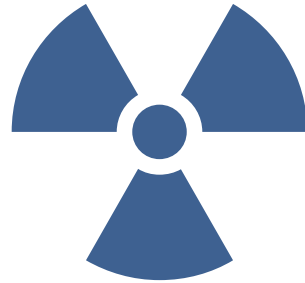


CO2 levels above 800ppm require action



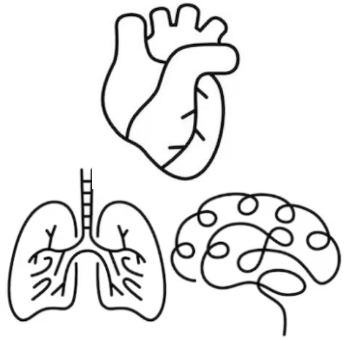


Indoor Air Quality principles





Indoor Air Quality Facts



**CLEAN AIR
MAKES
CLEVER KIDS!**









My healthcare rights

This is the second edition of the **Australian Charter of Healthcare Rights**.

These rights apply to all people in all places where health care is provided in Australia.

The Charter describes what you, or someone you care for, can expect when receiving health care.



PUBLISHED JULY 2019

I have a right to:

Access

- Healthcare services and treatment that meets my needs

Safety

- Receive safe and high quality health care that meets national standards
- Be cared for in an environment that is safe and makes me feel safe

Respect

- Be treated as an individual, and with dignity and respect
- Have my culture, identity, beliefs and choices recognised and respected

Partnership

- Ask questions and be involved in open and honest communication
- Make decisions with my healthcare provider, to the extent that I choose and am able to
- Include the people that I want in planning and decision-making

Information

- Clear information about my condition, the possible benefits and risks of different tests and treatments, so I can give my informed consent
- Receive information about services, waiting times and costs
- Be given assistance, when I need it, to help me to understand and use health information
- Access my health information
- Be told if something has gone wrong during my health care, how it happened, how it may affect me and what is being done to make care safe

Privacy

- Have my personal privacy respected
- Have information about me and my health kept secure and confidential

Give feedback

- Provide feedback or make a complaint without it affecting the way that I am treated
- Have my concerns addressed in a transparent and timely way
- Share my experience and participate to improve the quality of care and health services



My healthcare rights

Be cared for in an environment that is safe and makes you feel safe

This is the second edition of the **Australian Charter of Healthcare Rights.**

These rights apply to all people in all places where health care is provided in Australia.

The Charter describes what you, or someone you care for, can expect when receiving health care.



PUBLISHED JULY 2019

I have a right to:

Access

- Healthcare services and treatment that meets my needs

Safety

- Receive safe and high quality health care that meets national standards
- Be cared for in an environment that is safe and makes me feel safe

Respect

- Be treated as an individual, and with dignity and respect
- Have my culture, identity, beliefs and choices recognised and respected

Partnership

- Ask questions and be involved in open and honest communication
- Make decisions with my healthcare provider, to the extent that I choose and am able to
- Include the people that I want in planning and decision-making

Information

- Clear information about my condition, the possible benefits and risks of different tests and treatments, so I can give my informed consent
- Receive information about services, waiting times and costs
- Be given assistance, when I need it, to help me to understand and use health information
- Access my health information
- Be told if something has gone wrong during my health care, how it happened, how it may affect me and what is being done to make care safe

Privacy

- Have my personal privacy respected
- Have information about me and my health kept secure and confidential

Give feedback

- Provide feedback or make a complaint without it affecting the way that I am treated
- Have my concerns addressed in a transparent and timely way
- Share my experience and participate to improve the quality of care and health services



Occupational health and safety – your legal duties

Occupational Health and Safety Act 2004

Act in force ACT NUMBER 107/2004 | VERSION 044



Employer health and safety duties

A safe work environment

For your employees, you must provide and maintain a working environment that is safe and free of risks to health, so far as is reasonably practicable.



Occupational health and safety – your legal duties

Occupational Health and Safety Act 2004

Act in force ACT NUMBER 107/2004 | VERSION 044



Employer health and safety duties

A safe work environment

For your employees, you must provide and maintain a working environment that is safe and free of risks to health **so far as is reasonably practicable.**



Occupational health and safety – your legal duties

Occupational Health and Safety Act 2004

Act in force ACT NUMBER 107/2004 | VERSION 044



Employer health and safety duties

A safe work environment

For your employees, you must provide and maintain a working environment that is safe and free of risks to health **so far as is reasonably practicable.**

How do you know what's reasonably practicable?

The law requires employers to eliminate risks so far as is reasonably practicable. To decide what is reasonably practicable, you must consider:

- the **likelihood** of the hazard or risk occurring
- **the harm** that would result from the hazard or risk
- what a person knows (or should know) about the hazard or risk, and ways to eliminate or reduce it
- **availability and suitability of ways to eliminate or reduce** the hazard or risk
- **cost** of eliminating or reducing the hazard or risk



Occupational health and safety – your legal duties

Occupational Health and Safety Act 2004

Act in force ACT NUMBER 107/2004 | VERSION 044



“

Clean air is not an optional policy objective. It's a fundamental human right.”

David R. Boyd,
the United Nations
Special Rapporteur
on human rights and
the environment

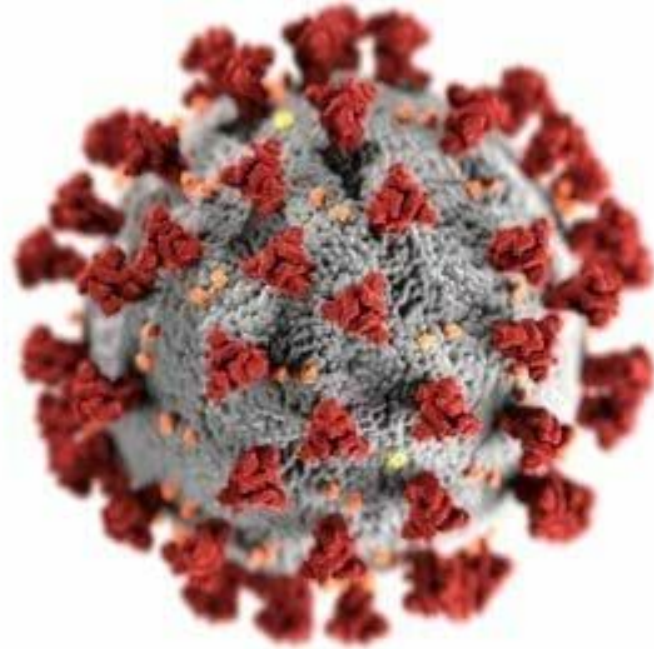




Hospital Acquired Infections



Hospital Acquired Infections





Hospital Acquired Infections

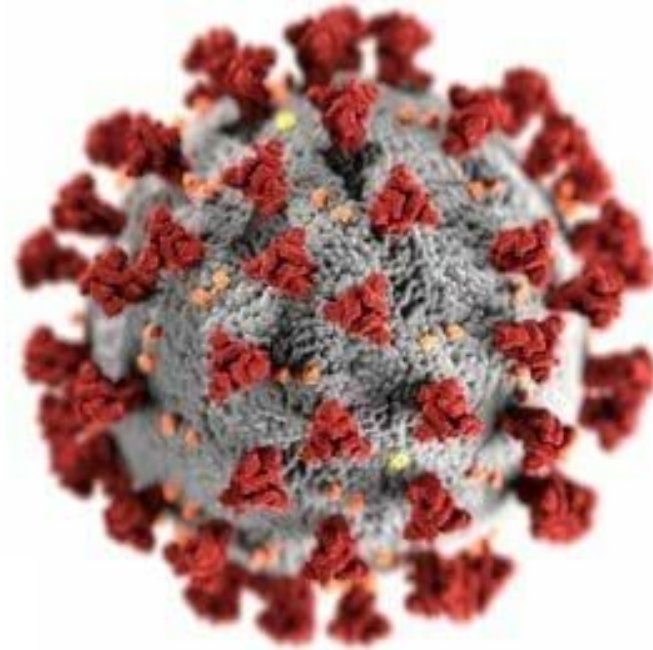
‘A death sentence’: More than 600 people die after catching COVID in hospital

THE  AGE

The Courier Mail

Death every day as patients contract Covid in hospital

Worried doctors and a Right to Information request have revealed one Queenslanders a day is dying after contracting Covid in hospital.



Thousands of patients caught COVID in NSW hospitals last year and hundreds died, new data shows

NEWS



Hospital Acquired Infections

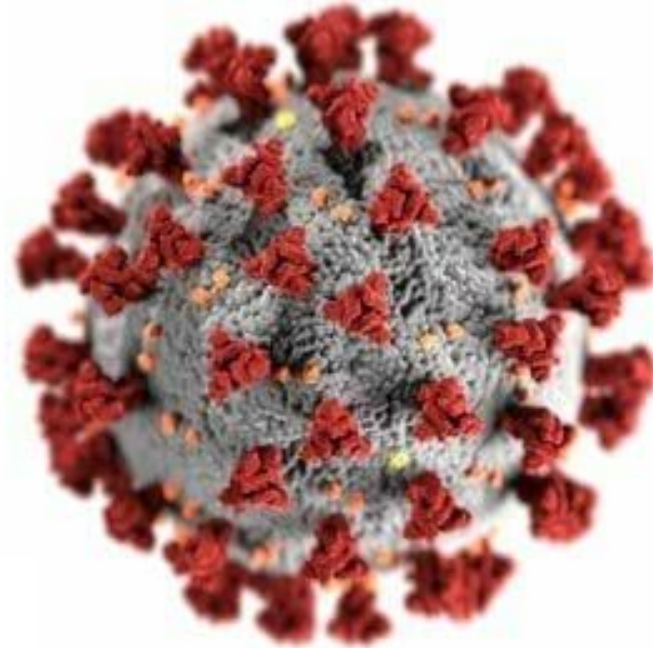
‘A death sentence’: More than 600 people die after catching COVID in hospital

THE  AGE

The Courier Mail

Death every day as patients contract Covid in hospital

Worried doctors and a Right to Information request have revealed one Queenslanders a day is dying after contracting Covid in hospital.



Death 5-10%
Long COVID 5-10%
Treatment delays
Healthcare avoidance

Thousands of patients caught COVID in NSW hospitals last year and hundreds died, new data shows

NEWS



Hospital Acquired Infections

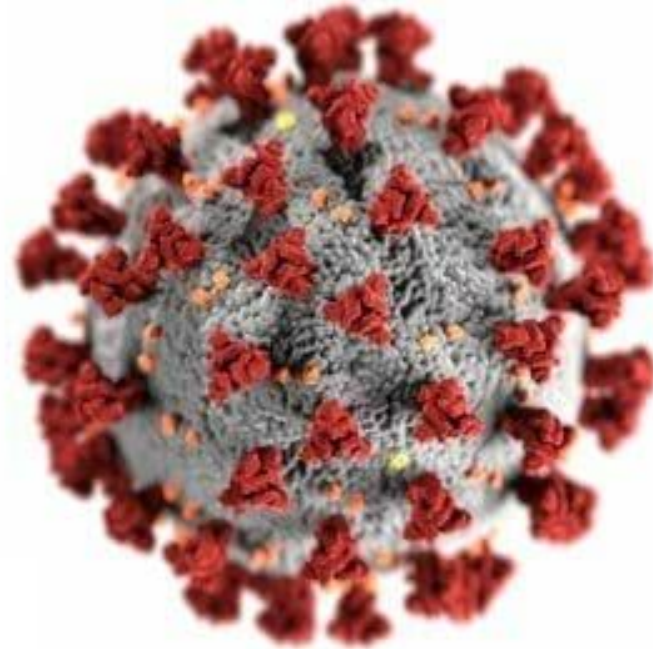
‘A death sentence’: More than 600 people die after catching COVID in hospital

THE  AGE

The Courier Mail

Death every day as patients contract Covid in hospital

Worried doctors and a Right to Information request have revealed one Queenslanders a day is dying after contracting Covid in hospital.



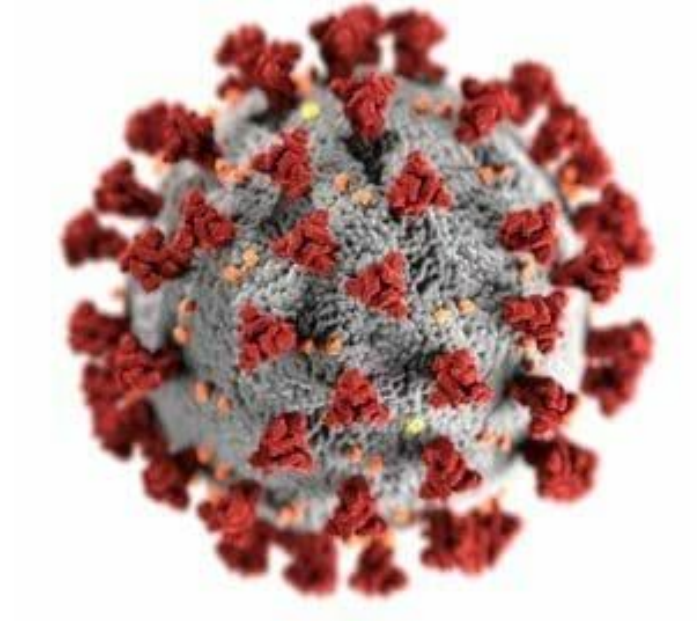
Death 5-10%
Long COVID 5-10%
Treatment delays
Healthcare avoidance

Thousands of patients caught COVID in NSW hospitals last year and hundreds died, new data shows

NEWS

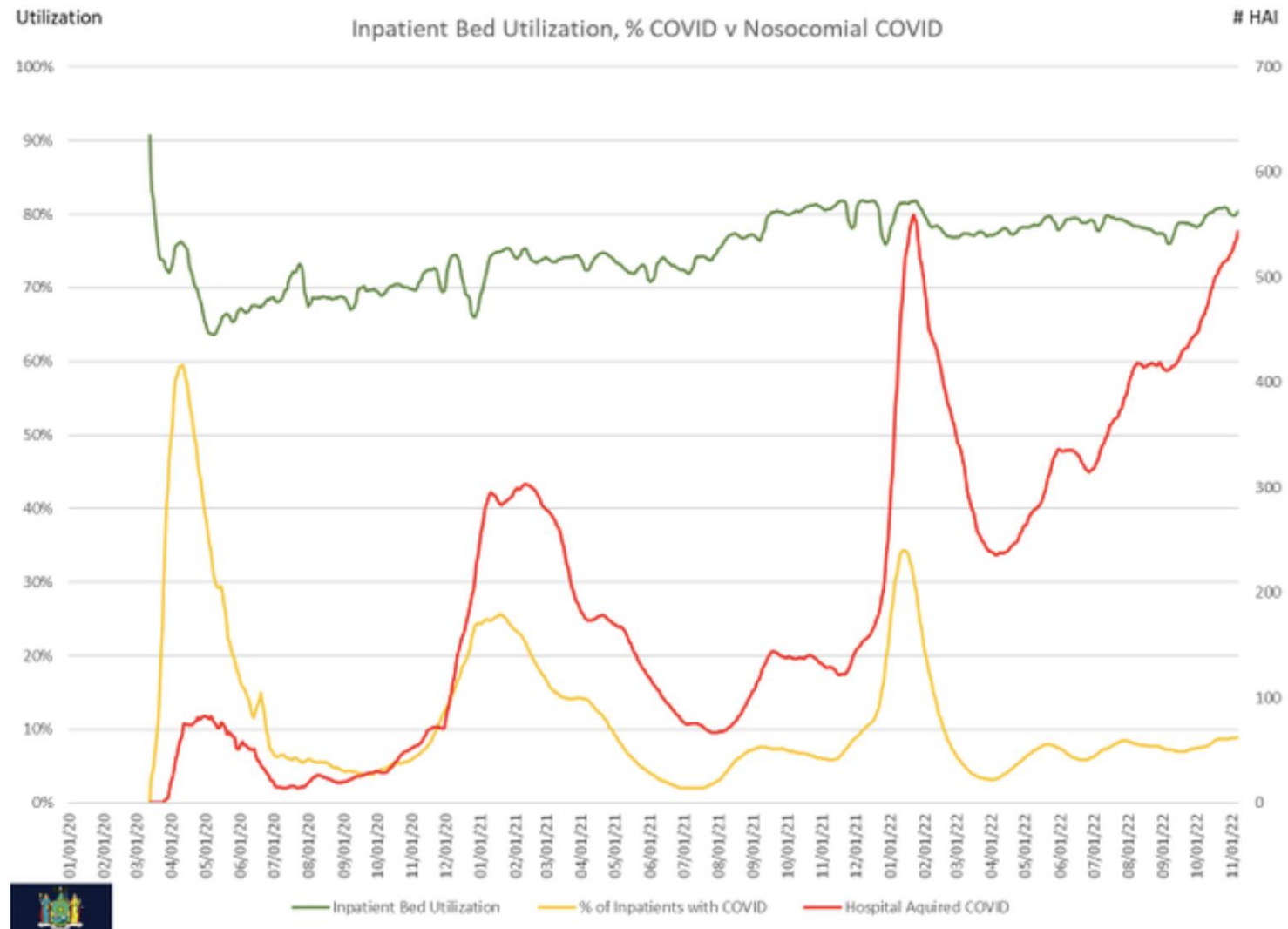


73% of
Hospital
Acquired
Infections





Hospital acquired COVID-19 in New York State





Wales

Hospital acquired COVID-19 = 69% hospitalised COVID pts



GIG
CYMRU
NHS
WALES

Iechyd Cyhoeddus
Cymru
Public Health
Wales

Number of inpatient COVID-19 cases in hospital in Wales on 27/10/2024

Number of inpatient cases in hospital

436

Number of community acquired cases

75

Number of indeterminate acquisition cases

61


Number of hospital acquired cases

300

Number of inpatient cases in critical care

7



 .@covidinquiryuk @DrPhilBanfield @TheBMA on nosocomial Covid infection:

“Beggars belief we report MRSA infections when you have a cluster of 3 or 4 yet we had clusters of 100s of #Covid infections & we are not taking those into account...certainly relevant now”

#LongCovid





Pneumonia
- MRSA

Influenza

Common
cold

Meningitis

RSV

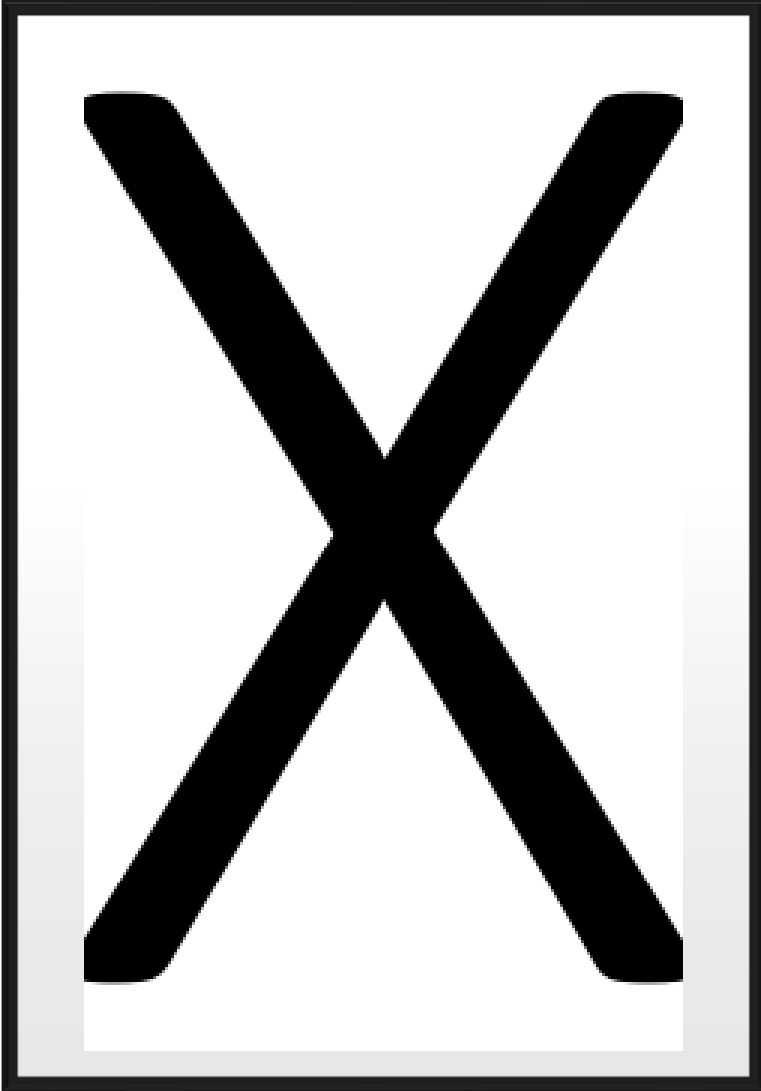
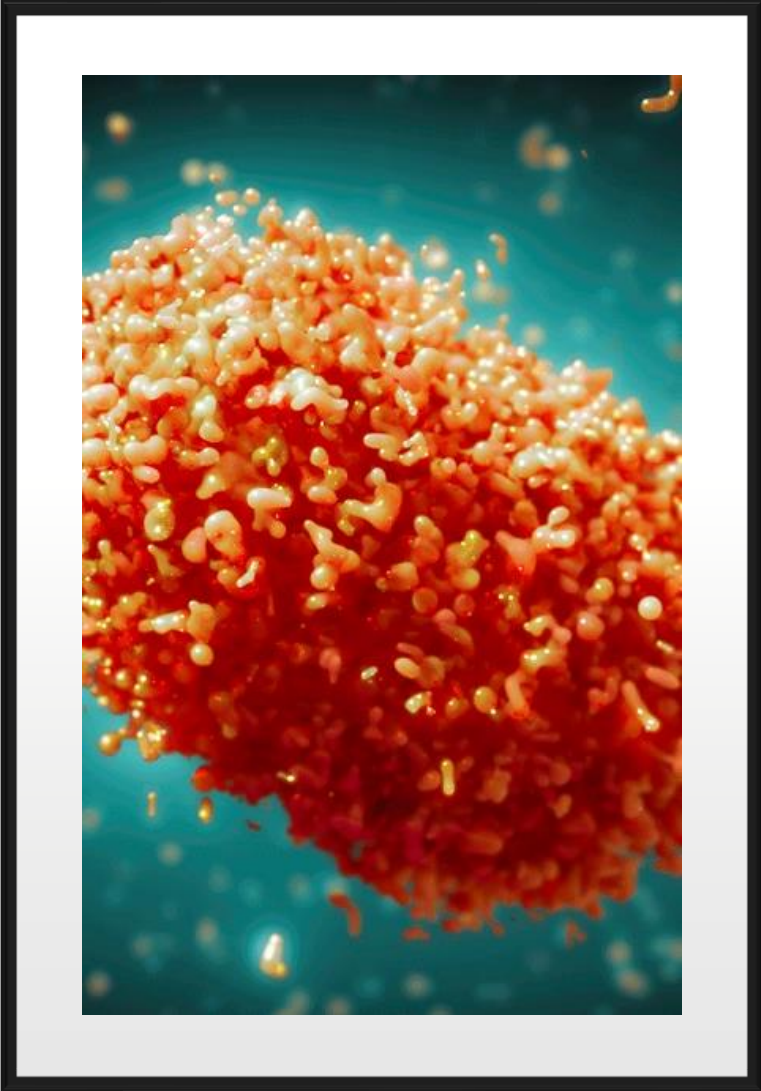
Whooping
cough

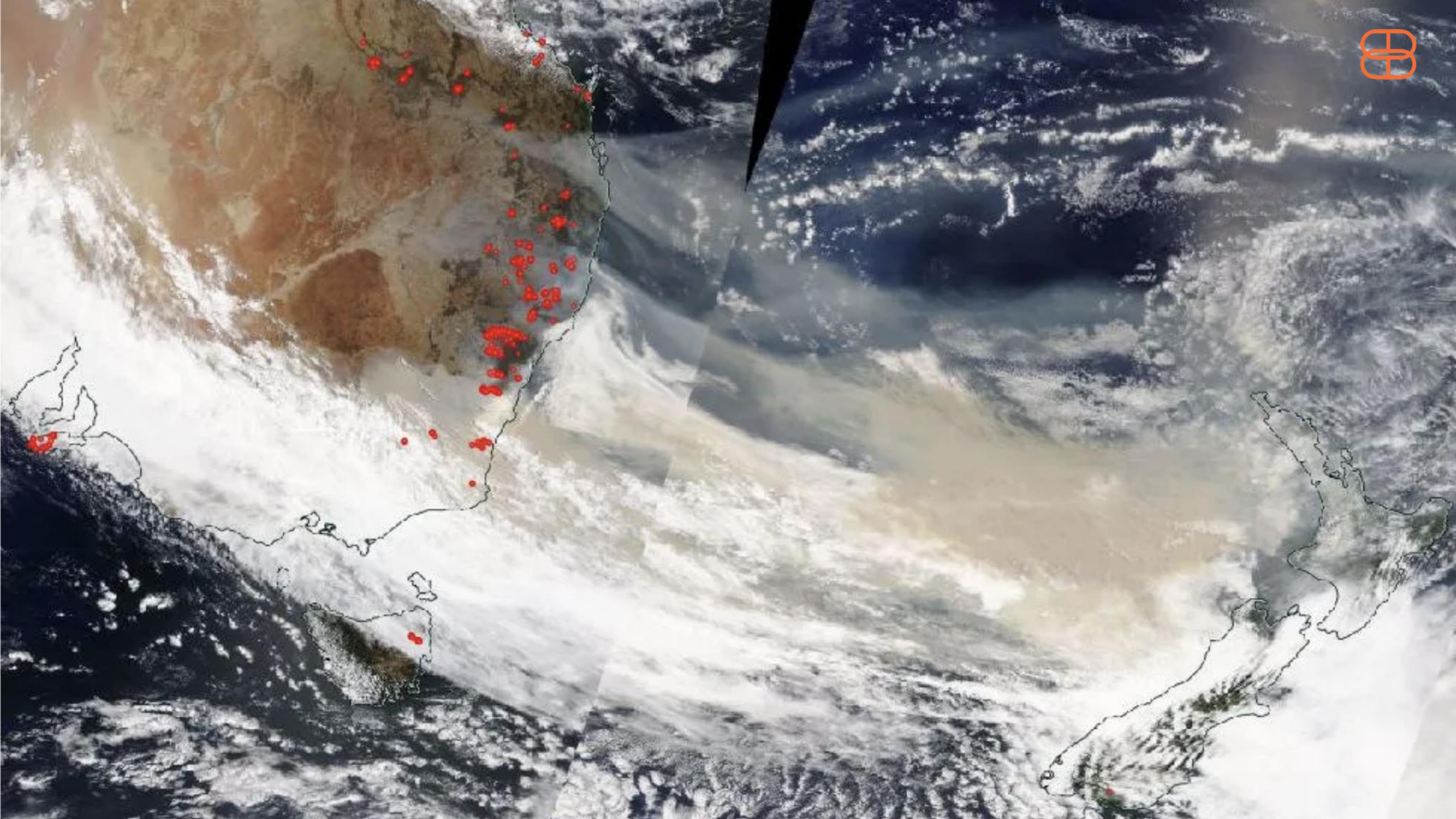
Tuberculosis



Avian influenza (bird flu)

The Australian Government is preparing for a highly contagious strain of bird flu that is not in Australia but has spread quickly across the world. Learn more about the Government's preparations at www.birdflu.gov.au.









What actions can we take?





What actions can we take?

[LEARN MORE](#)





What actions can we take?

LEARN MORE



INTEGRATE IAQ





What actions can we take?

LEARN MORE



INTEGRATE IAQ



Record
Report
Investigate
Set goals
Enhance policies
Monitor



What actions can we take?

LEARN MORE



INTEGRATE IAQ



ACT NOW ON IAQ





1. Reduce pathogens in the air

- Sick staff stay at home
- Test
- N95 masks

ACT NOW ON IAQ





1. Reduce pathogens in the air

- Sick staff stay at home
- Test
- N95 masks



RESPIRATORY

Covid-19: nurses concerned amid summer upsurge

16 AUGUST, 2024 | BY GEMMA MITCHELL



ACT NOW ON IAQ





1. Reduce pathogens in the air

- Sick staff stay at home
- Test
- N95 masks

2. Upgrade ventilation

- HVAC
- Use existing natural ventilation

ACT NOW ON IAQ





1. Reduce pathogens in the air

- Sick staff stay at home
- Test
- N95 masks

2. Upgrade ventilation

- HVAC
- Use existing natural ventilation

3. Clean the air

- Air purifiers

ACT NOW ON IAQ





1. Reduce pathogens in the air

- Sick staff stay at home
- Test
- N95 masks

2. Upgrade ventilation

- HVAC
- Use existing natural ventilation

3. Clean the air

- Air purifiers

4. Measure & display

ACT NOW ON IAQ





1. Reduce pathogens in the air

- Sick staff stay at home
- Test
- N95 masks

2. Upgrade ventilation

- HVAC
- Use existing natural ventilation

3. Clean the air

- Air purifiers

4. Measure & display

5. Advocate

- Retrofitting & upgrading design

ACT NOW ON IAQ





1. Reduce pathogens in the air

- Sick staff stay at home
- Test
- N95 masks

2. Upgrade ventilation

- HVAC
- Use existing natural ventilation

3. Clean the air

- Air purifiers

4. Measure & display

5. Advocate

- Retrofitting & upgrading design

6. Educate

ACT NOW ON IAQ



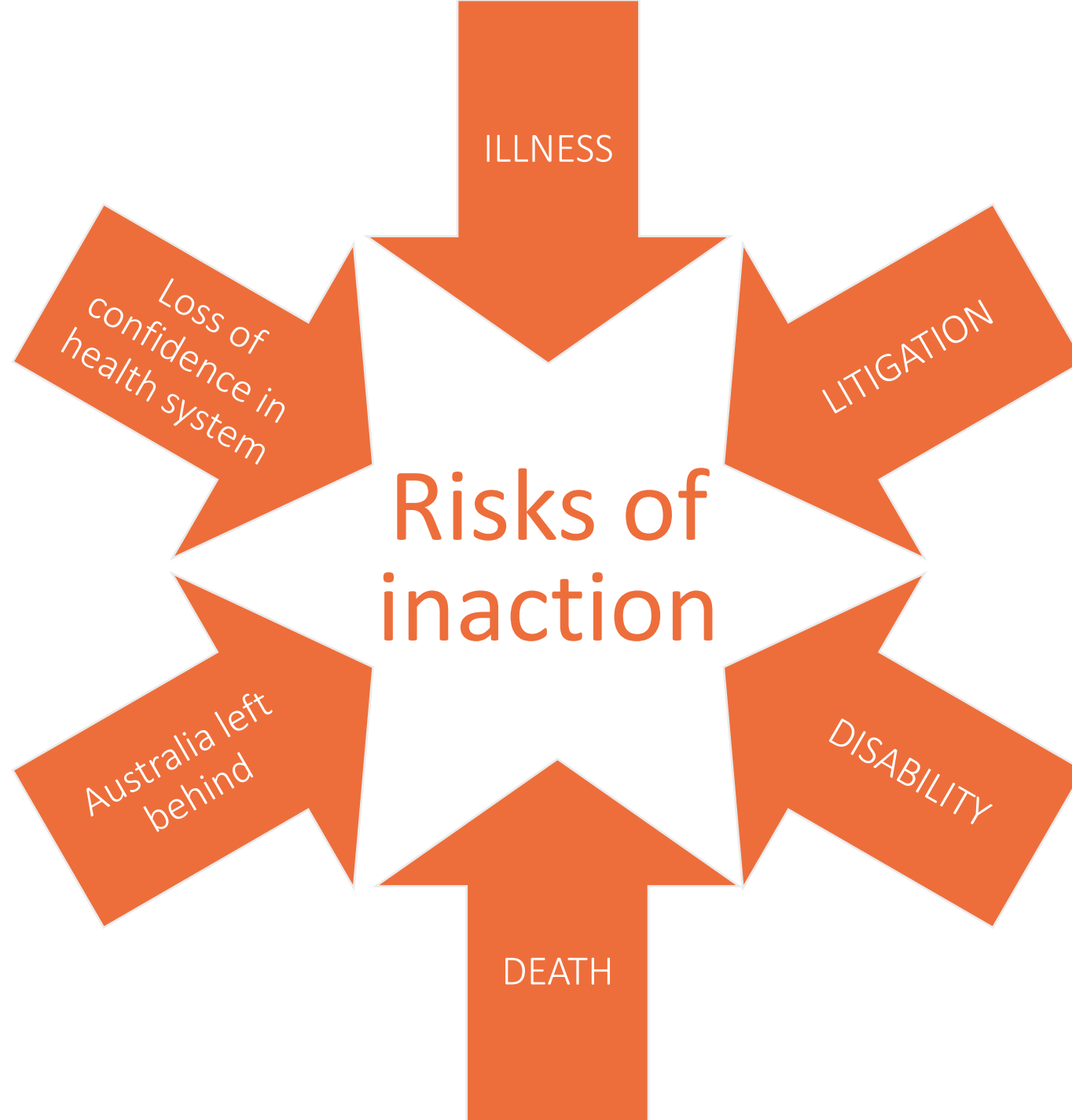












News Centre

Headlines | All news | Spotlight on impact | This week at King's

07 October 2024

Long COVID symptoms prevalent among healthcare workers

New research has found that 33.6% of surveyed healthcare workers in England report symptoms consistent with post-COVID syndrome.



Long Covid: Health staff go to court for compensation

7 March 2024

Share ◀ Save +

Catherine Burns
Health correspondent



THE LANCET

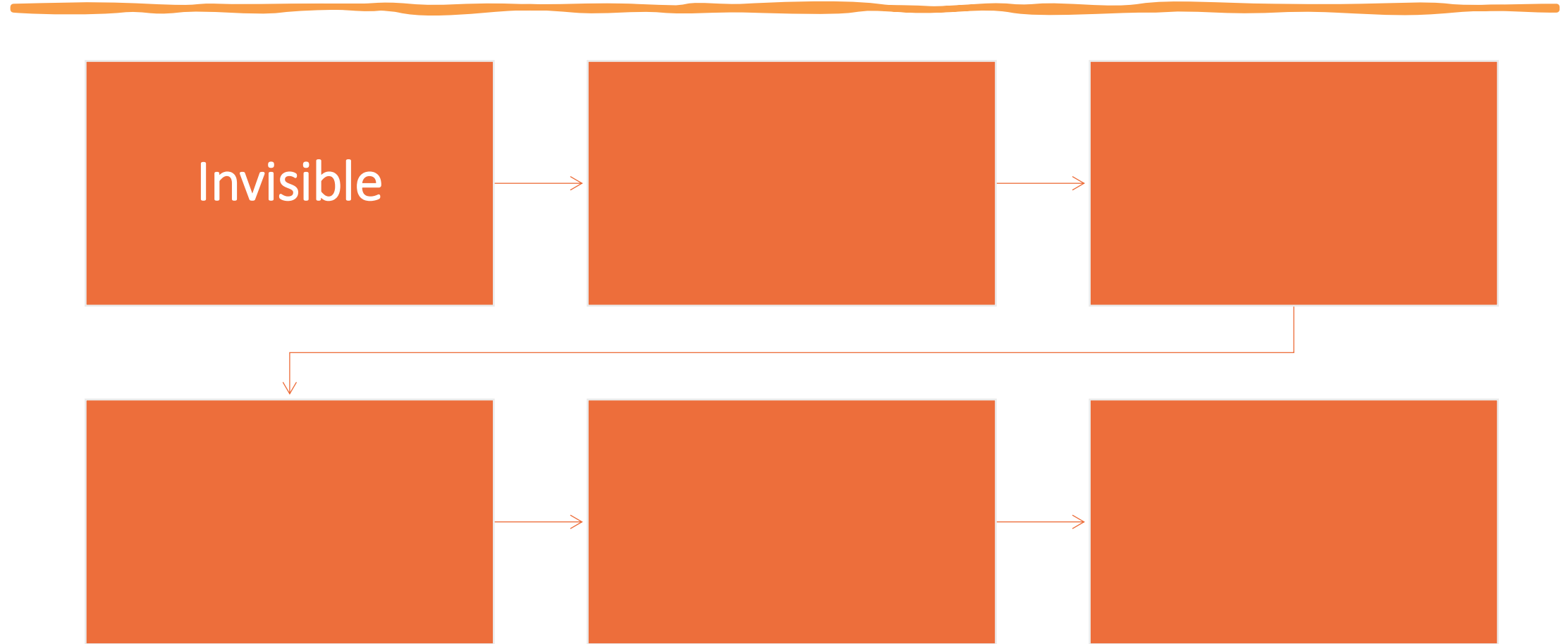
Volume 402 - Number 10 414 - Pages 1723-1804 - November 11-17, 2023

www.thelancet.com

"The level of criminal incompetence exposed by recent witnesses to the UK COVID-19 Inquiry...has proven that many, if not most, of over 230 000 deaths were preventable."

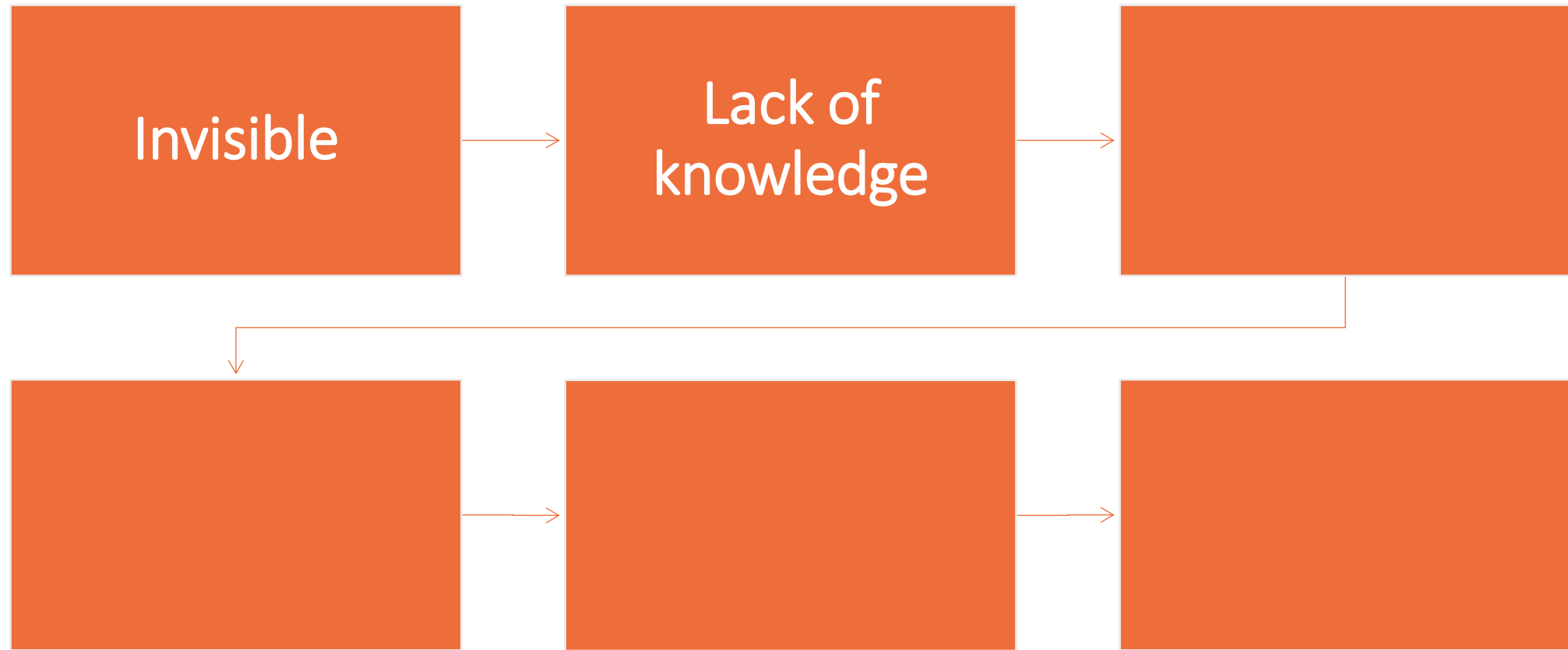


Challenges



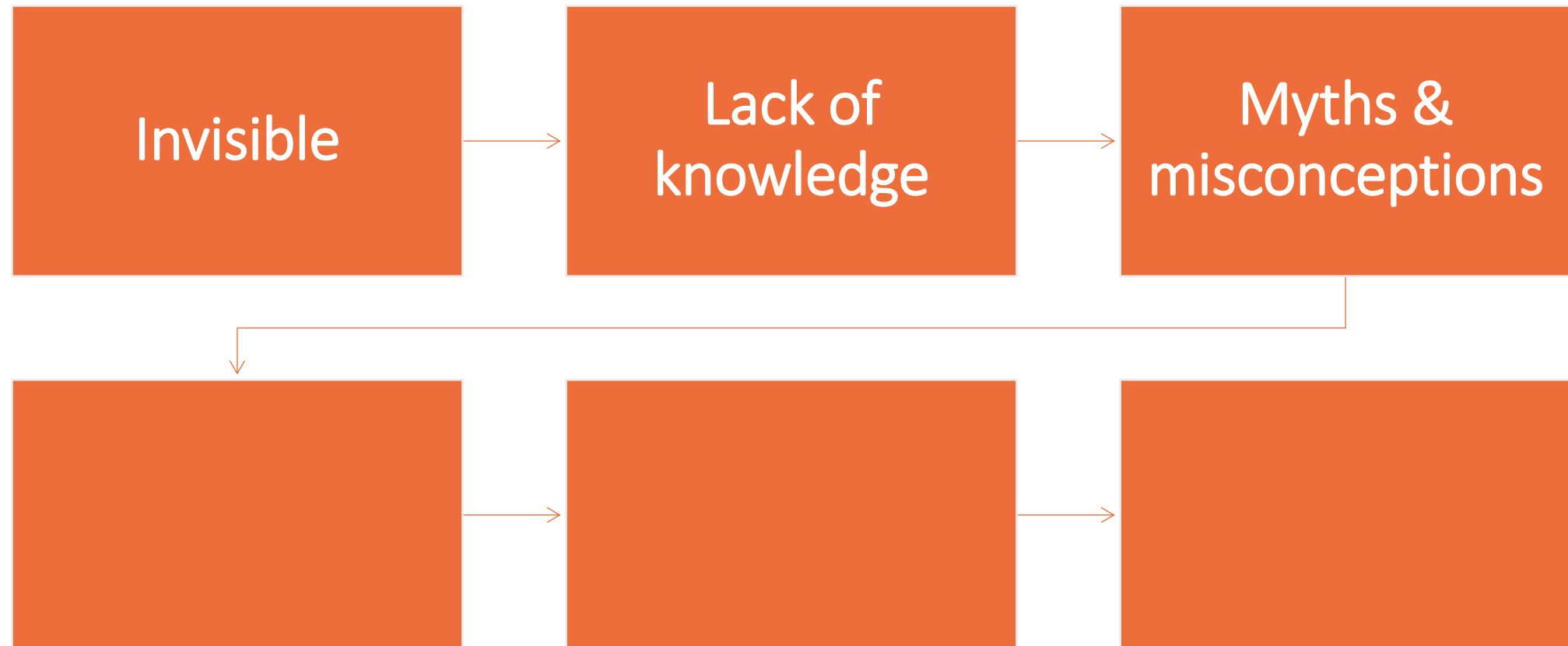


Challenges



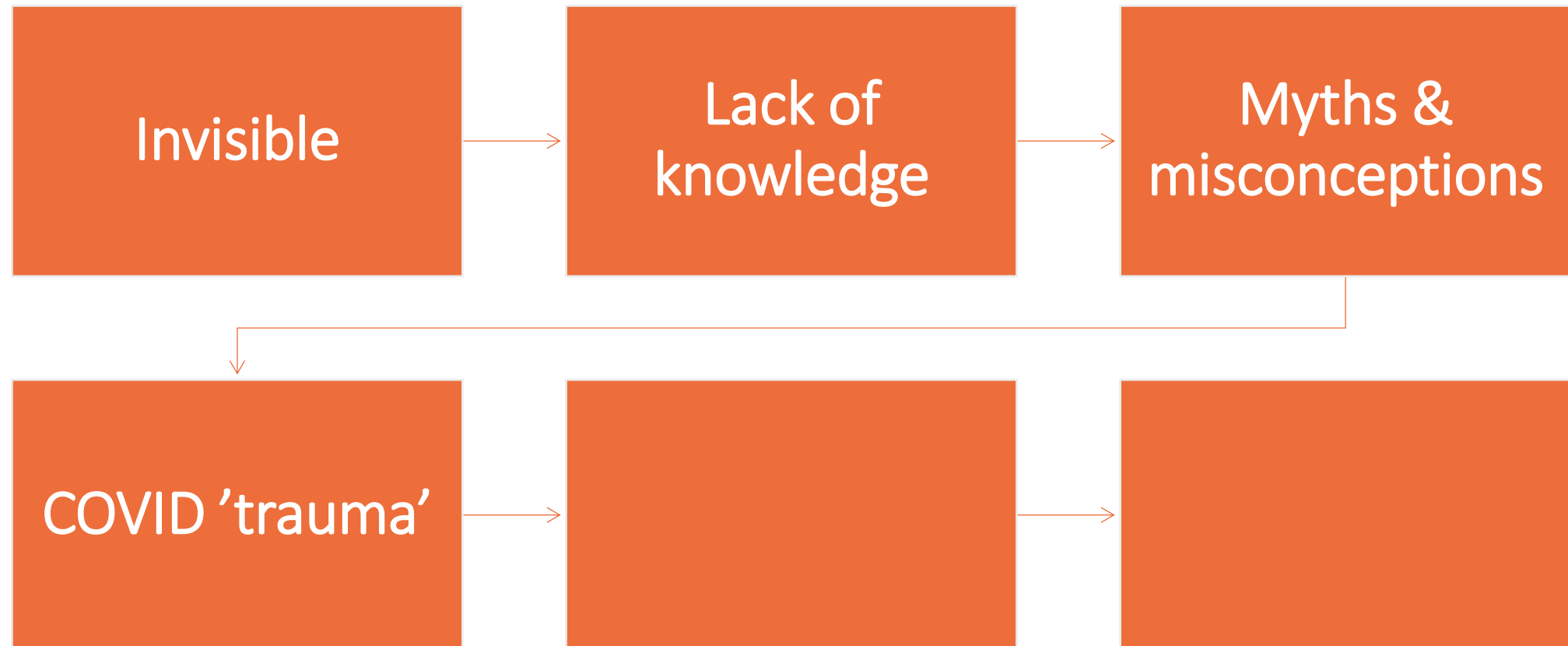


Challenges



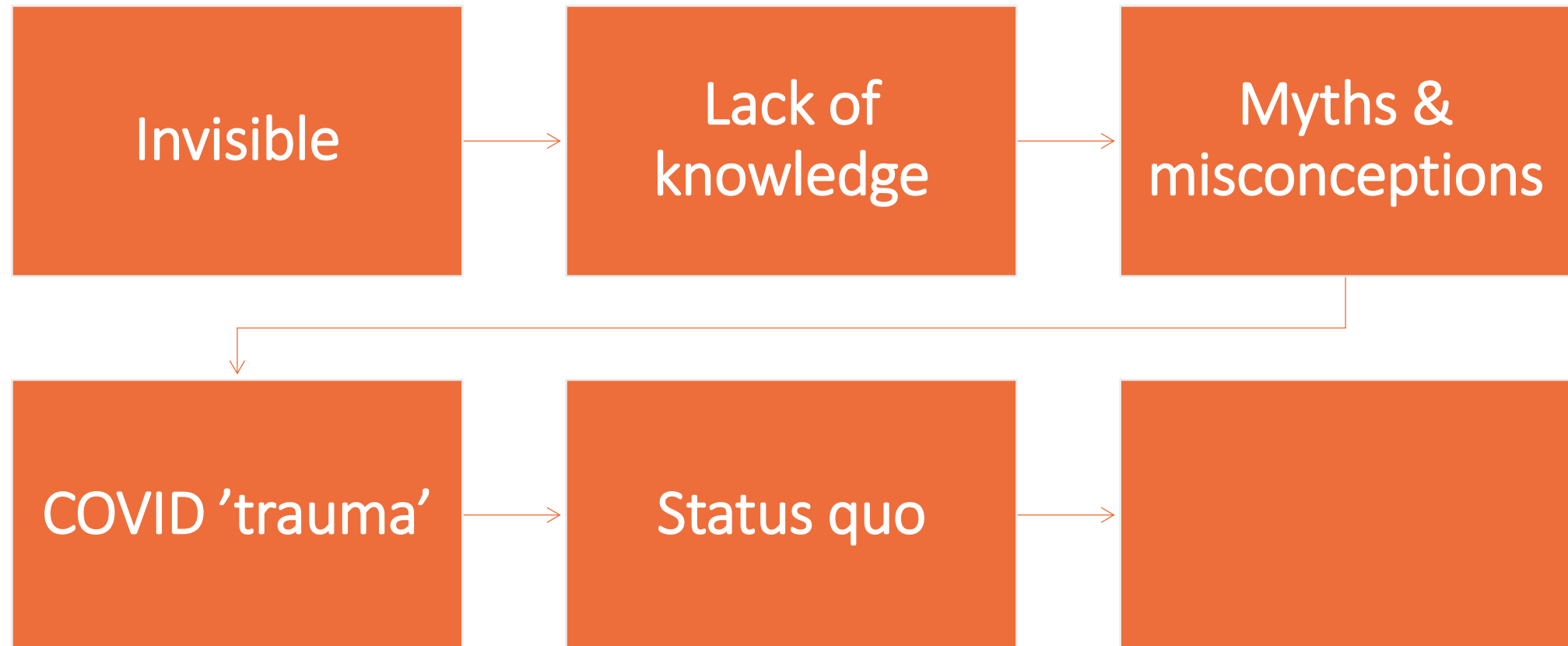


Challenges



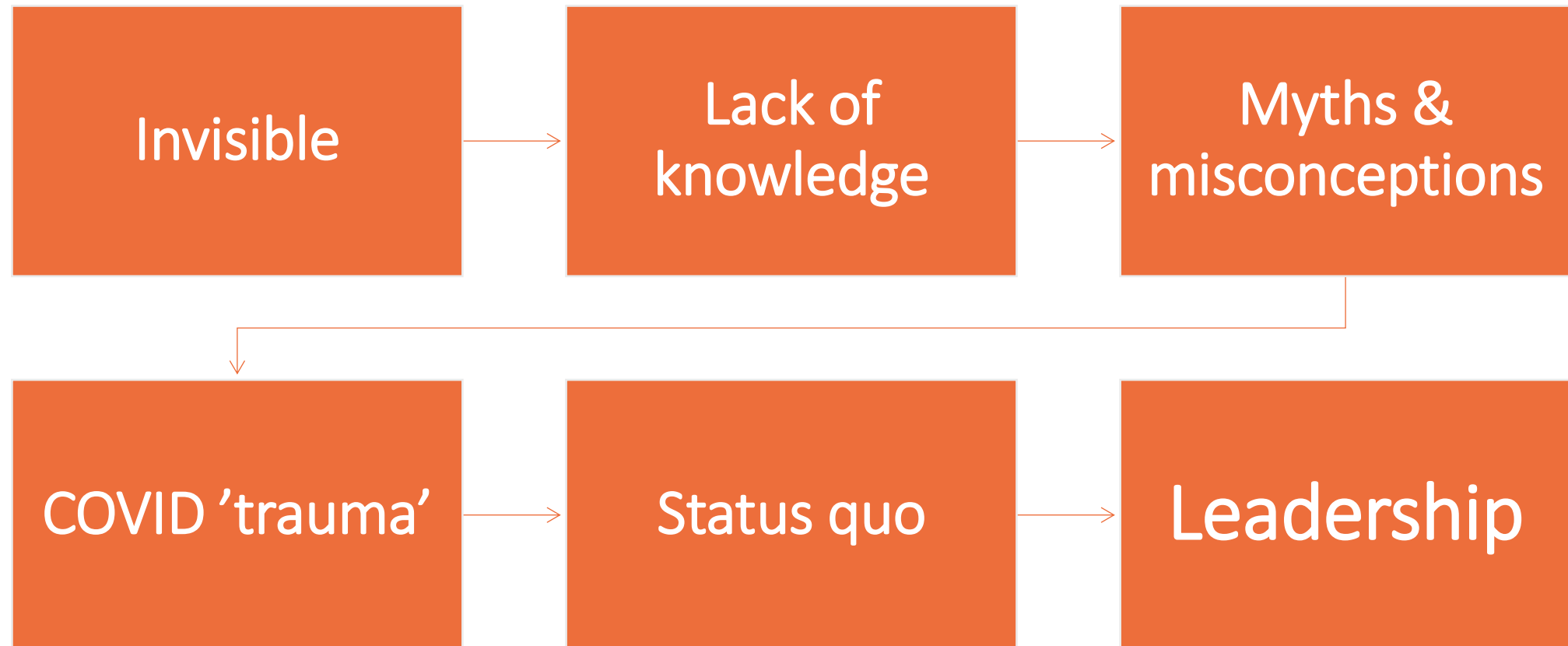


Challenges





Challenges



“It is far, far safer[Ⓢ]
to be wrong
with the majority
than to be right
alone”

Prof. John Kenneth Galbraith



Success stories









