A COMPLETELY NEW HEALTH SYSTEM TO DEAL WITH INFECTIOUS DISEASE NEGATIVE EXTERNALITIES

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These slides: https://bit.ly/3RV2n8M

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Australians for Science and Freedom

Negative externalities of infectious diseases will remain with us for ever

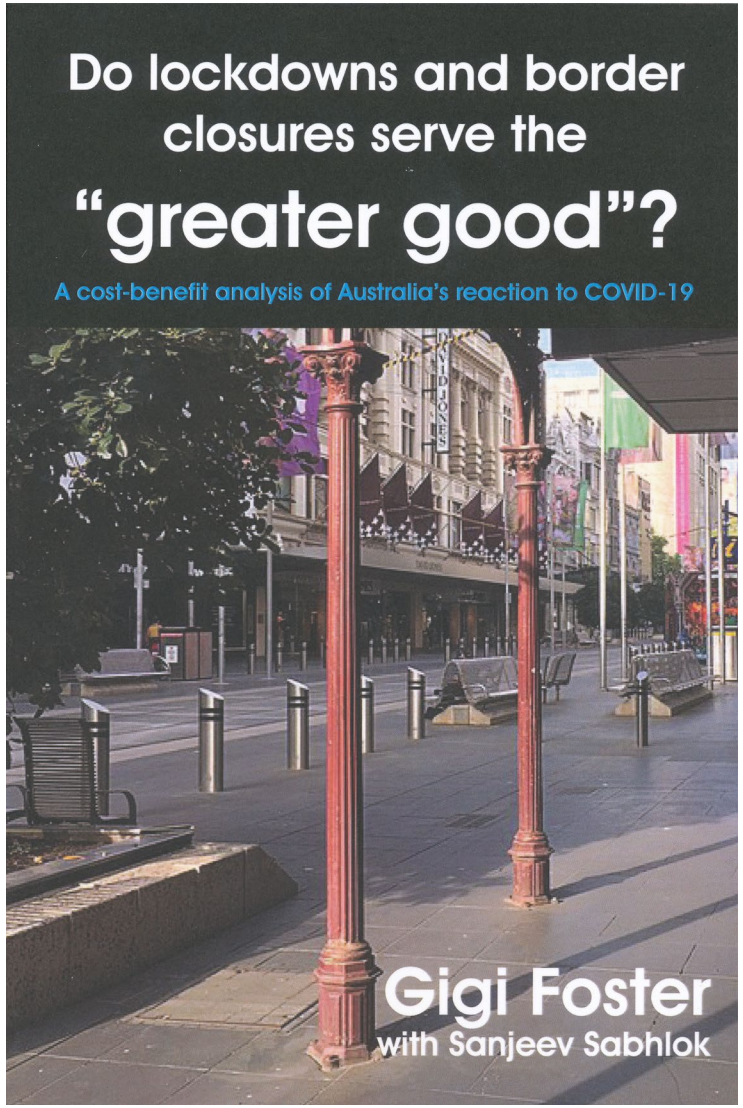
- Only one disease has been **eradicated**: smallpox
- While polio and malaria are on the table for possible eradication, Donald Henderson showed why doing so is **very hard**.
- Eradicating most respiratory viruses like the flu and coronaviruses is **impossible**.

*At best, we can **reduce**, not eliminate infectious disease negative externalities – at a **cost**.*

We need options for which benefits > costs

- All options come with a **cost** – direct and indirect
- There is, of course, the question of feasibility and **workability** of options.

- We are interested in **cost-effective** options (for which B>C)



Recommended options based on my findings

Recommended (benefits> costs)

1. **Sanitation** (and clean water)
2. More **effective isolation** of the **sick** (isolation hospitals)

Not recommended (costs> benefits)

1. **Quarantine** (isolation of the **healthy**) – abolish.

My approach to today's presentation

- Lots of slides
  - Will skip much of the content to keep to the time.
  - Those interested can read the slides later, before possibly going on to read the more detailed papers.

- No Q/A possible but happy to take questions/ comments via email.

Zooming out of covid – to see the Big Picture

First principles review of public health – what would happen in the absence of government – i.e. what market failures would occur? What options? What cost-effective solutions?

Stylised fact: Over 650 years of medical panics and quarantine

- Almost everything during the covid response has occurred earlier
- A need to review the entire literature

I've skimmed through hundreds of books and articles

Stylised facts/ patterns

1. Public health **literature and textbooks** (and much of health economics) include high praise for quarantine (and vaccine mandates – which are out of scope of this talk)
   - Since around 2001, the number of models promoting mass quarantine has exploded
2. **Panics** of a kind comparable with covid (albeit smaller) have occurred over the past 650 years, for real or fake pandemics.
3. **Doctors have panicked the most.** Frontline doctors and nurses can't work from home, and are particularly vulnerable to panic.
4. Where the lead doctor doesn't panic (e.g. Spanish flu, Ebola-Fauci in 2014, Covid-Tegnell in 2020), the public doesn't panic.
5. Overall, panics have been *increasing* in frequency and intensity over the past few decades.

E.g. Prof George Annas predicted in 2007 the misuse of emergency powers

[I]t is quite remarkable that **some public health officials still embrace draconian nineteenth-century quarantine and compulsory treatments**.

Public health officials also seem to believe that the military and police forces can effectively control the behaviour of Americans in the event of an epidemic or bioterrorist attack.

To the extent that this faith in coercion remains alive in the public health community, **it is predictable that public health officials with the power to arbitrarily quarantine people in an emergency will use it immediately**, whether it is warranted or not.

Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2267247/

I'm reviewing almost everything in public health (PH)

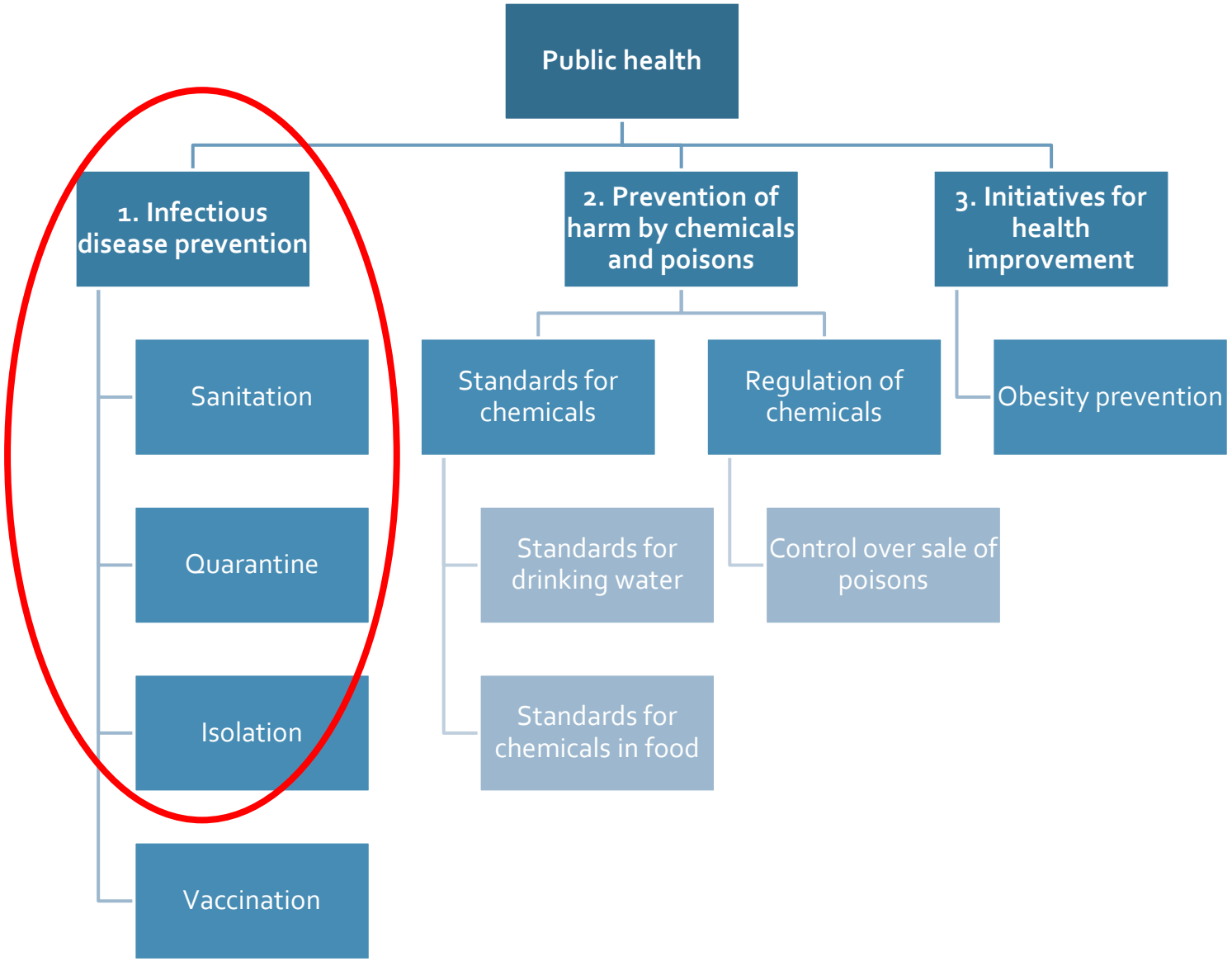
- Review started in early 2023. Expect to take 2-4 years to complete.
- Ongoing updates at ph.sabhlokcity.com
- Daily updates on social media (Twitter, Facebook, Telegram)

- **A public domain review – everything is up for question.**
- Already many improvements through feedback received

Public health arose in the early 19th century to address two types of market failures

- **Negative externalities** from infectious disease
  - Including nosocomial infections in hospitals
- **Positive externalities:** herd immunity provided by those who take a vaccine

Many of the current solutions to these market failures cause greater harm than good



Functions 1 and 2 mainly relate to **negative externalities.**

Vaccines relate to **positive externalities**.

Function 3 is about preventing self-harm and has very little justification.

PH has no interest in empiricism (science). It prefers models and "ethics".

- No empirical analysis of quarantine effectiveness
  - (the last such attempt before covid was by **Dr Charles Maclean** 200 years ago – I'll come to that)
- Instead, it mass-produces "models" and "ethics".

A 2007 paper wrote about this lack of empiricism in public health

A paper by three PH experts :

"Although the potential benefits of NPIs are supported by mathematical **models**, **the historical evidence for the impact of such interventions in past pandemics has not been systematically examined**".

Source: https://www.pnas.org/doi/10.1073/pnas.0610941104

A surfeit of models to prove effectiveness of quarantine

- from the US National Academies (2020)

No empirical analysis.

Source

TABLE 7-2 Summary of Findings on the Effectiveness of Quarantine from 12 Modeling Studies

Disease	Quarantine Likely Effective?	Notes
Ebola	Yes	Two studies find quarantine can drive R_e <1[a] (D'Silva and Eisenberg, 2017; Peak et al., 2017).
Hepatitis A	Yes based on 1 study	One study finds quarantine can drive R_e <1 (Peak et al., 2017).
Influenza A/ H1N1	Maybe	Two studies. One study finds quarantine can drive R_e <1 (Peak et al., 2017). Another study focuses on delaying the epidemic peak and suggests that quarantine can possibly be effective depending on the specific features of the pathogen in the population and the level of intervention (An der Heiden et al., 2009).
Middle East respiratory syndrome (MERS)	Yes	Two studies find quarantine can drive R_e <1 (Ahn et al., 2018; Peak et al., 2017).
Pertussis	No based on 1 study	One study finds quarantine is unlikely to drive R_e <1 (Peak et al., 2017).
Severe acute respiratory syndrome (SARS)	Maybe	Seven studies. Three studies identify situations in which quarantine may not be effective in driving R_e <1, with effectiveness depending on the pathogen's basic reproductive number (R_0) in a given population (less likely with higher R_0), the likely effectiveness of isolation of symptomatic individuals as an alternative strategy, the likelihood of there being individuals who are asymptomatic but contagious and the fraction of those individuals, and the ability to quickly identify a large fraction of exposed individuals for quarantine (Day et al., 2006; Hsieh et al., 2007; Peak et al., 2017). Four studies find (or in essence assume [based on models of past limited outbreaks]) that sufficiently effective, properly scaled and targeted, or potentially dynamic quarantine policies can drive R_e <1 (Feng et al., 2009; Gupta et al., 2005; Mubayi et al., 2010; Podder et al., 2007).
Smallpox	Maybe	Two studies. One study finds quarantine is unlikely to drive R_e <1. Another study finds that early initiation of quarantine that removes a large fraction of exposed cases can likely avoid an epidemic resulting from a smallpox bioterrorism attack (Meltzer et al., 2001; Peak et al., 2017).
Measles	Yes/maybe based on 1 study	One study finds that despite measles having a high R_0, if there is a sufficient level of background immunity, it may be possible to use quarantine to end an outbreak quickly. However, with lower levels of background immunity, quarantine is unlikely to drive R_e <1 or to do so quickly (Enanoria et al., 2016).

Within its models, PH gravitates to the worst-case scenarios

- The WHO Bulletin admitted in 2011:
  - a "culture of fear" in PH
  - "worst-case thinking" during the avian and swine flu.
  - "The pandemic policy **was never informed by evidence**, but by fear of **worst-case scenarios**".

Why has PH so little interest in science?

<u>Economics can explain</u>

- **Opportunism**
- **Public choice theory**

PH tendency for lies, panic and corruption

1. Public health stokes hysteria with lies (i.e. model **worst case**)
2. Frontline doctors/nurses are the first to panic (**shortfalls in health system capacity**)
3. The public (and media) then clamours for protection
4. Public health "supplies" quarantine & ***further*** **enhances its political and financial power**
5. No interest in preparing for pandemics

We got lucky with covid. What if a real pandemic hits the world?

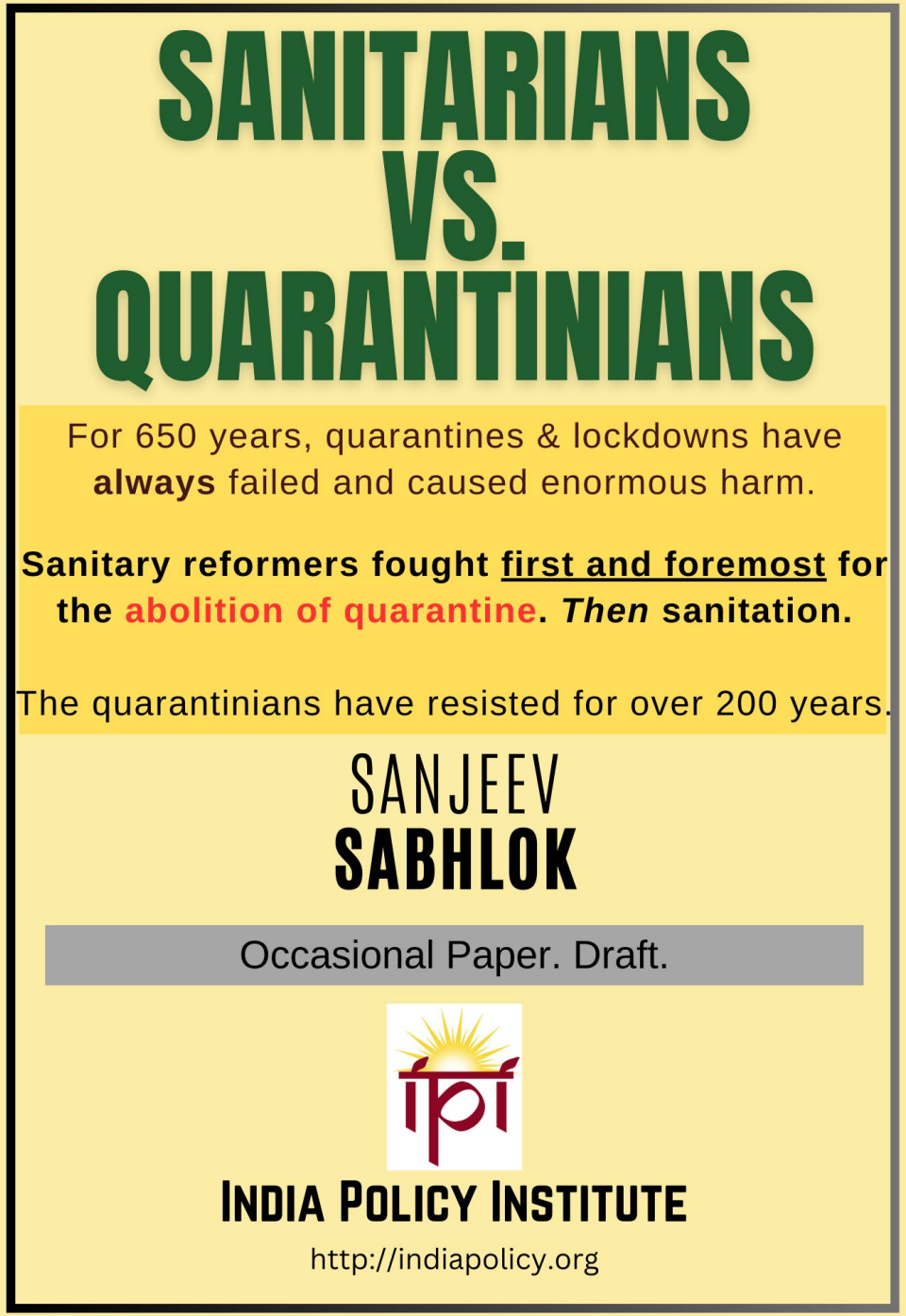
- **If a Spanish flu-category pandemic emerges:**
  - Hospital capacity will fall short by 50-100 times
  - No vaccines for many months, possibly never
- **My best guess:**
  - *Massive medical panic*: All hospitals largely shut down
  - *Massive public panic*: Total lockdowns and border closures

The covid response cost the world $15 trillion

A real pandemic could cost $50+ trillion

PAPER 1:
SANITARIANS
VS
QUARANTINIANS

https://indiapolicy.org/Documents/Quarantine-Paper1-draft.pdf



- The founders of public health (the Sanitarians) **wanted, first and foremost**, the **abolition of quarantine.**
- The evidence for their demands for (1) abolition of quarantine and (2) sanitation, came mainly from the work of Dr Charles Maclean.
- In Paper 1, I provide a vast number of examples of the historical failure of quarantine.

[T]he Quarantine Laws are … invariably found to **increase sickness and mortality.**

Dr. Charles Maclean, M.D. c.1815

Quarantines ... [are] of as **little avail** as they would be against the east wind. ...

Cordons sanitaires, internal as well as external by quarantine, ... **aggravate instead of mitigating** the evils.

Edwin Chadwick, 1883

Dr Charles Maclean, MD
In my view, the greatest public health analyst

- The work of Charles Maclean **strongly influenced** Dr Southwood Smith and Edwin Chadwick – who spearheaded the public health movement.
- **Maclean's main findings:**
  - quarantines have never worked since their inception – mainly due to **human factors**.
  - plague lockdowns increased both plague and non-plague deaths (he examined excess deaths from plague lockdowns)
  - he conducted the first CBA of quarantine

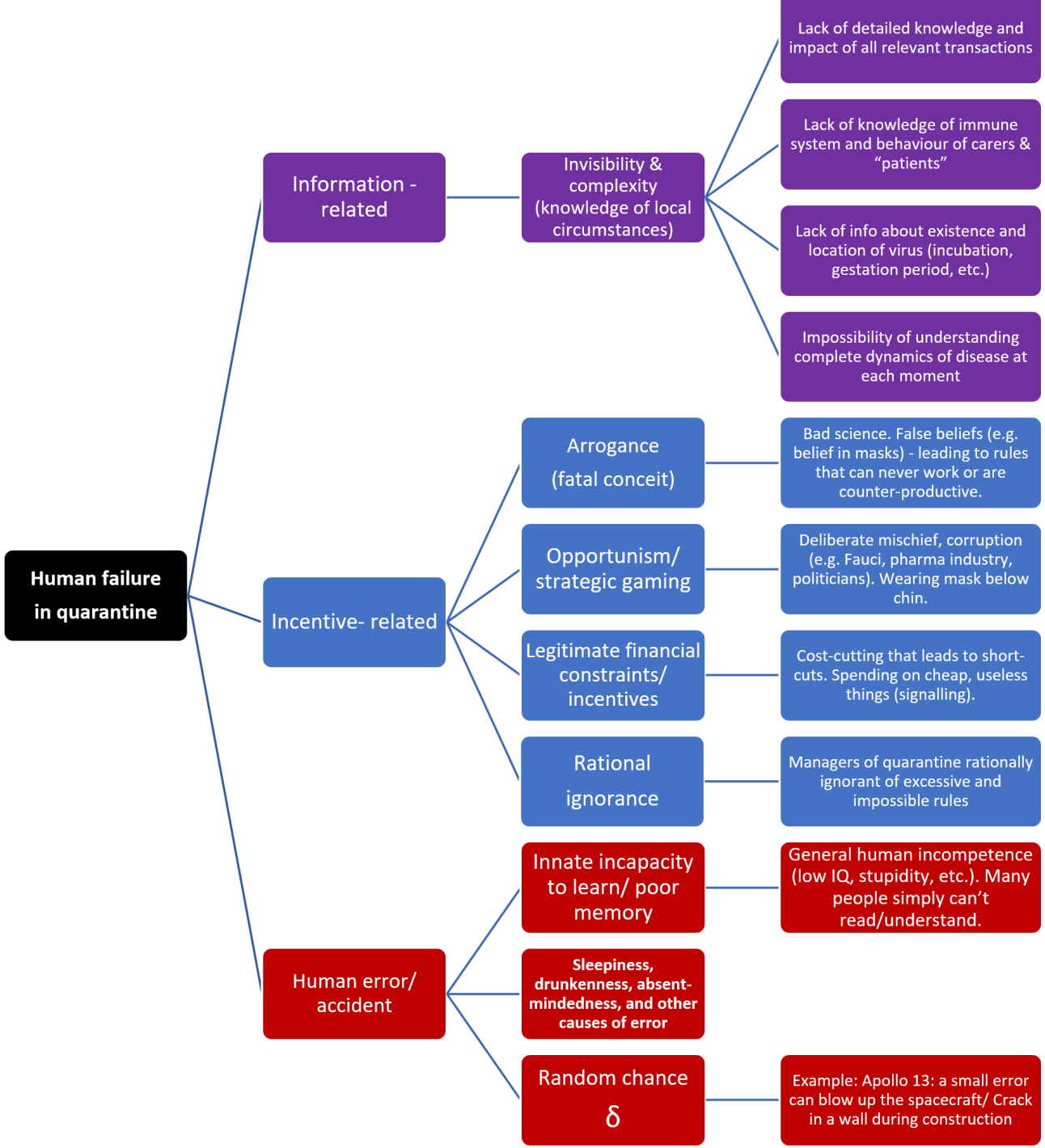
<u>Gigi Foster and I have found this to hold for covid lockdowns</u>

Human factors make the failure of quarantine inevitable

- Many examples in Paper 1

=>

1. Quarantines can't work
2. They cause only harms, no benefits



Sanitation was the *alternative* to quarantine

- Sanitation did not come first.
- 90% of Maclean's work is against quarantine.
- The Sanitarians challenged and refuted quarantine.

- **The question *<u>then</u>* became: If not quarantine, then what?**
- Only then arose the alternative: sanitation.

PAPER 2:
MEDICAL PANIC

https://indiapolicy.org/Documents/Quarantine-Paper2-draft.pdf

MEDICAL PANICS:

NUCLEAR EXPLOSIONS OF FEAR

- **Medical panics** are the hallmark of real or fake pandemics
- Once doctors panic, they exacerbate public panic
- A rational solution to pandemic panics would focus on reducing medical panic: that will also reduce public panic

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Occasional Paper. Draft.

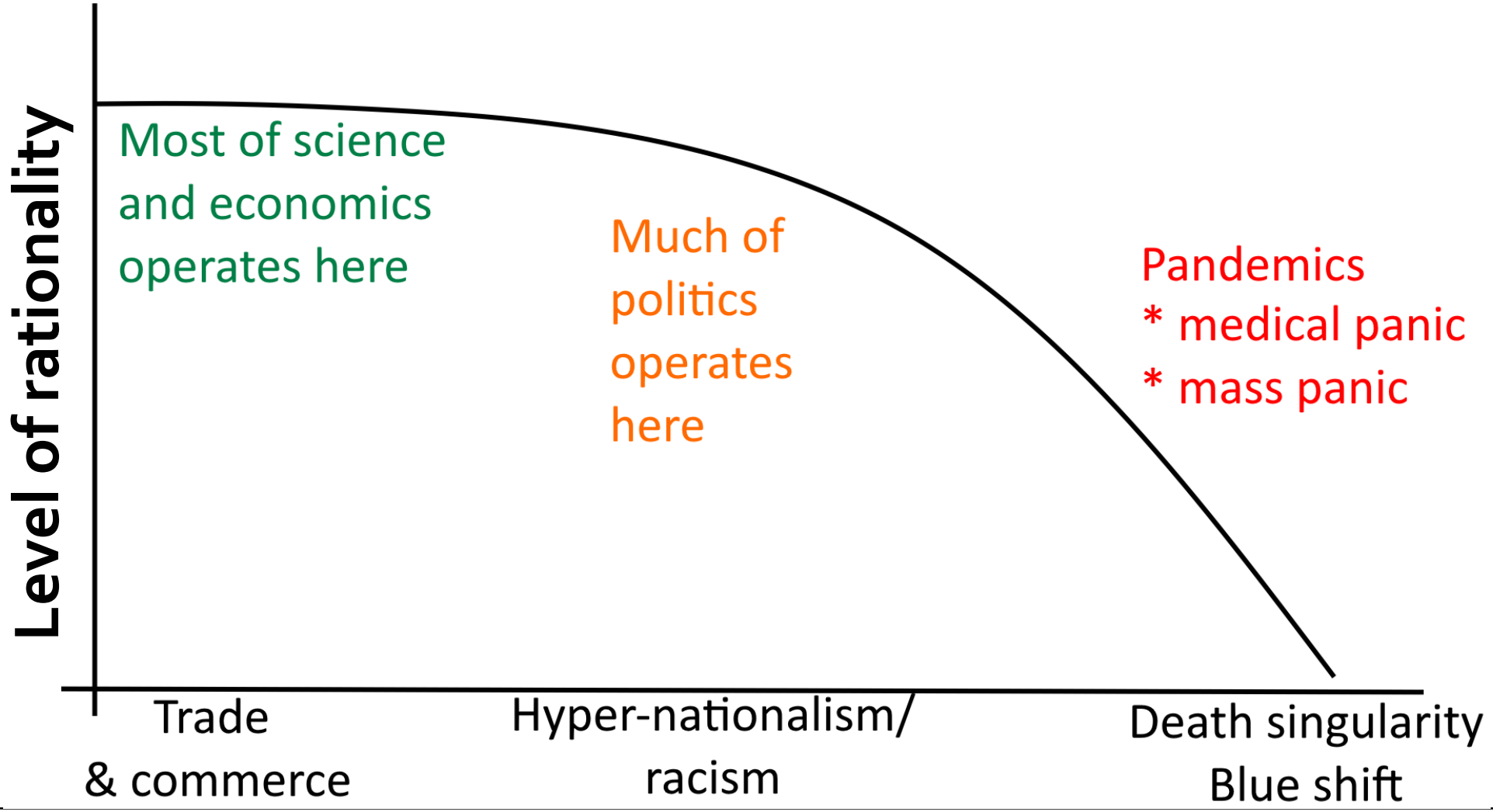
INDIA POLICY INSTITUTE

http://indiapolicy.org

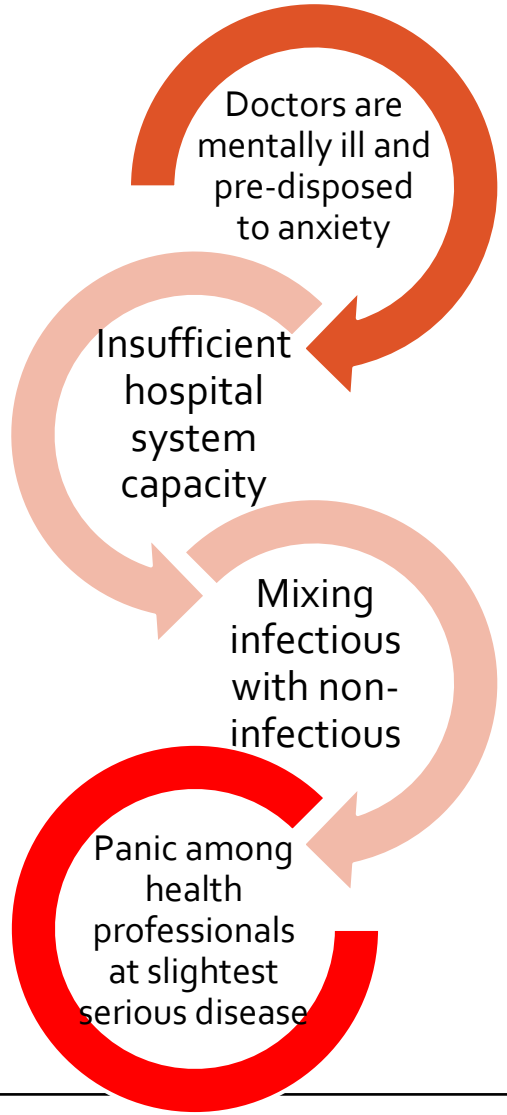
My research shows that **medical panic** is the key driver of public panic.

Paper 2 studies pandemic panics, with a focus on medical panic.

Standard economic theory fails in the face of death-related panics



Doctors put enormous pressure to shut hospitals and lock down society



- More mentally ill: Doctors and nurses have higher levels of **mental illness** and anxiety than the general population – *numerous studies*
- Nosocomial disease: Infectious and non-infectious patients are mixed in hospitals.
- Insufficient health system capacity: Overwhelmed by even the smallest pandemic
- Blue Shift: Doctors are the **first to experience rapidly approaching death** in the face of new pandemic

Examples

Date	Event
5 Feb 2020	Hong Kong medical staff go on strike demanding closing of borders with China
11 Feb 2020	Brighton nursing home in lockdown after covid positive doctor visited
14 Feb 2020	Doctors surgery shut down for deep clean over suspected covid
5 March 2020	Doctors dancing
6 March 2020	Doctors dancing
6 March 2020	Reported that 10% of Lombardy doctors and nurses are in quarantine
March 2020	Nursing journal talks about "oncoming storm heading for our NHS" + 30-40% of doctors out of action
17 March 2020	Greg Kelly boasts that over 3000 doctors have signed his open letter to the PM
18 March 2020	Sanjay Gupta on CNN stoking panic and demanding ultra-social distancing
21 March 2020	The Lancet actively stoking fear in the medical community
Reported early stage	At the start of the pandemic, hospital services and local authorities involved in discharge planning were reported as prioritising hospital discharges to the detriment of patient safety.
6 April 2020	Doctors panicked in Singapore
Early April 2020	Letter sent by medical practitioner to release stocks of sedatives and paralytics for used "for intubations and mechanical ventilation"
5 May 2020	Italian doctors trying to drum up global panic (because they are themselves panicked).
8 May 2020	Doctors having panic attacks - report

Where the lead doctor doesn't panic, the public doesn't panic

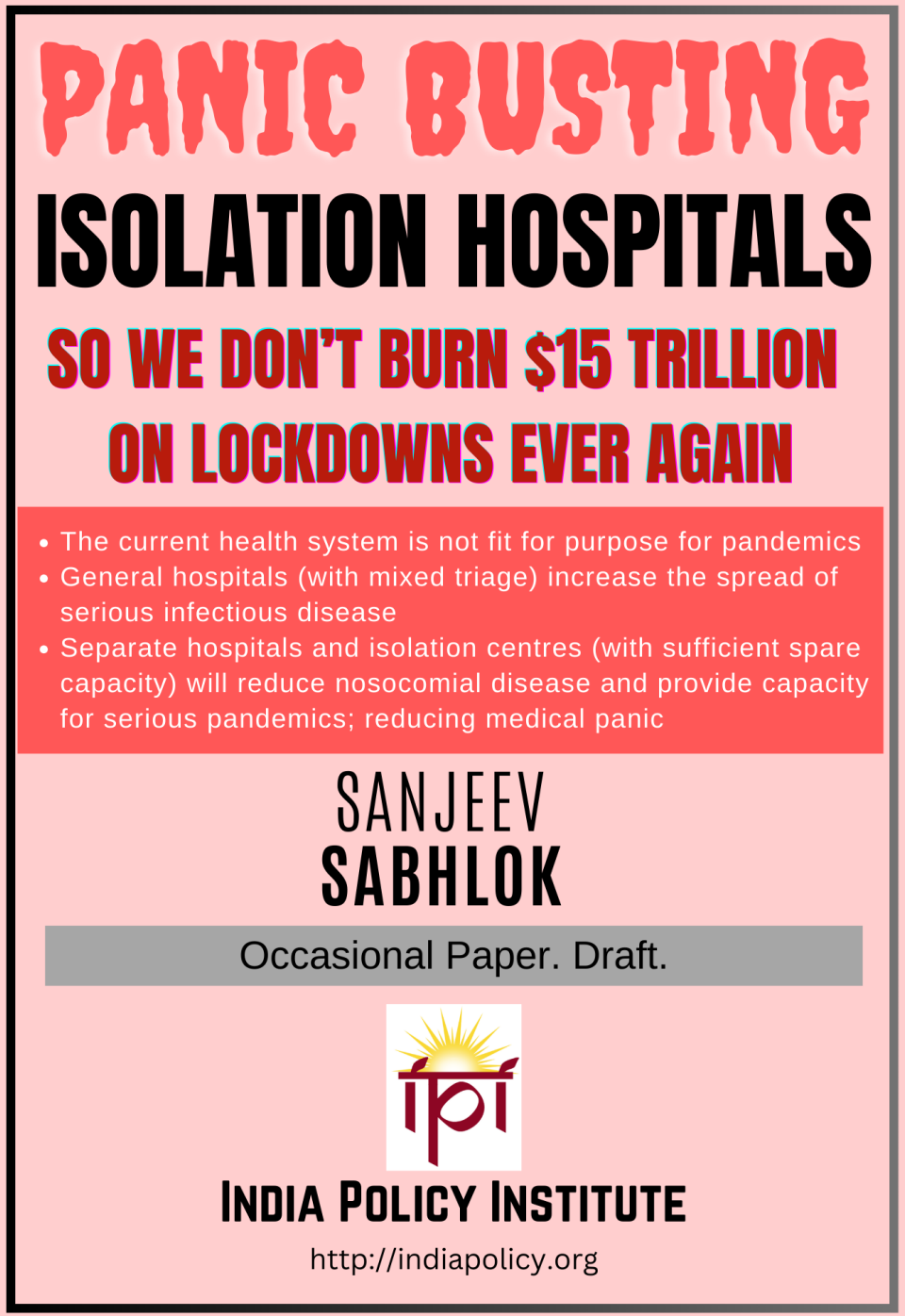
Creating more Faucis and Tegnells should be attempted - but not a viable/ sustainable strategy (e.g. Tegnell panicked in 2009 and Fauci cracked in 2020)

Public panic can't be easily fixed but we can certainly reduce medical panic

- Let's put ourselves in doctors' shoes
  - Recognise and alleviate their **legitimate fears**

PAPER 3:
ISOLATION HOSPITALS

https://indiapolicy.org/Documents/Quarantine-Paper3-draft.pdf



- **We never prepare for serious pandemics**
  - ➢ Poor funding, low quality research on infectious diseases.

- When even minor diseases (like 1976 Swine flu/ SARS/ Ebola) arise, we go bananas.

- Can we systematically **reduce panic**?

<u>Yes, we can.</u>

Benefits> costs for isolation of the sick

- Proven that isolation is effective for many diseases.
  - E.g. smallpox, pneumonic plague, TB, SARS, flu and covid
- Panicked doctors correctly use isolation as the primary remedy when a pandemic strikes
  - They convert general hospitals into **isolation wards**
  - They build **new hospitals for infectious disease**
- Doing this after a pandemic strikes is a bad idea! Let's **do this properly, in advance.** *A stitch in time saves nine.*

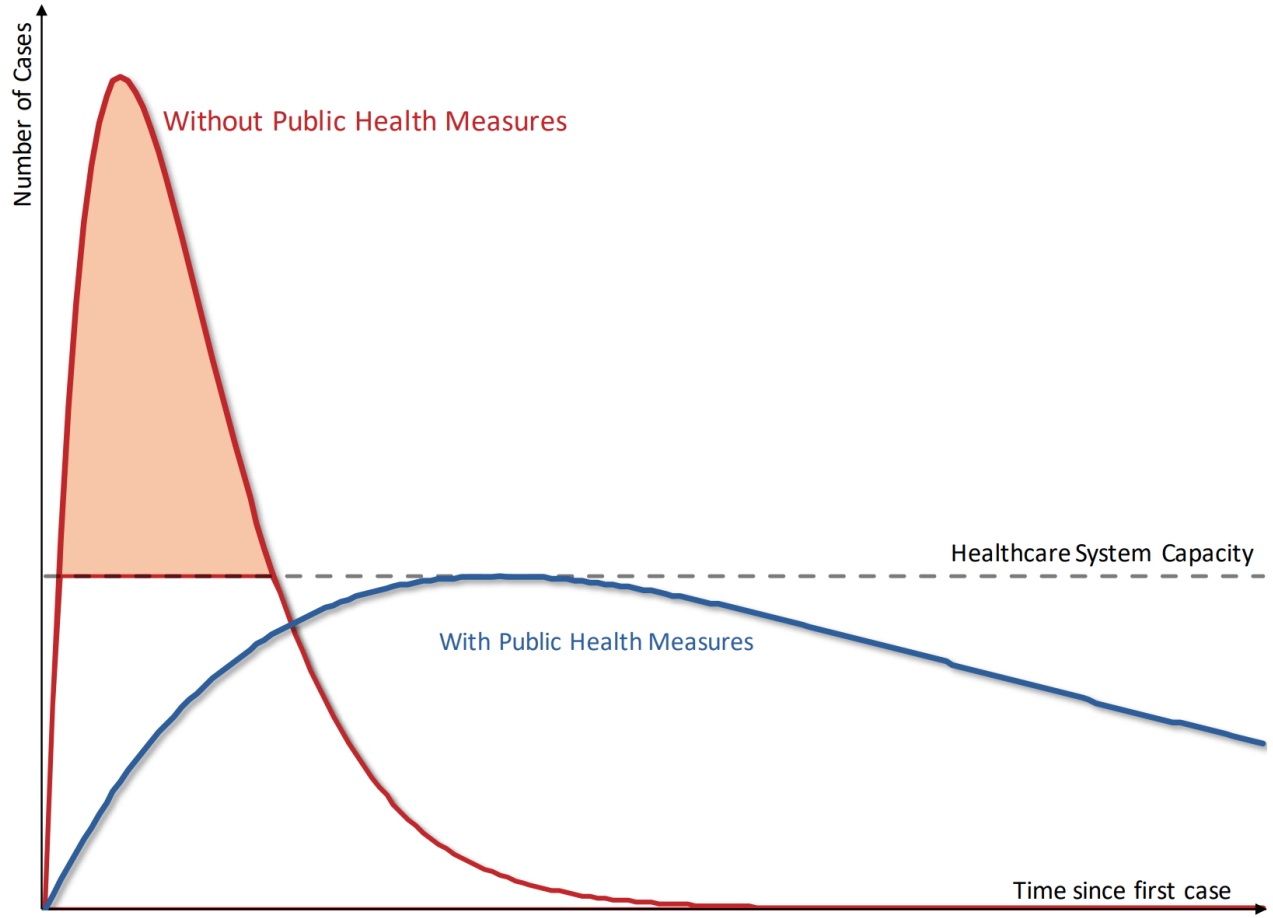
1. Separate general from infectious hospitals:
Reduce nosocomial disease and deaths

The Centers for Disease Control and Prevention (CDC) has estimated that, in the United States, approximately 99,000 deaths each year are related to HAIs, on the basis of data obtained from multiple healthcare databases.[2]

A nurse in Australia has reported that around 80% of covid patients had caught their disease within the hospital.

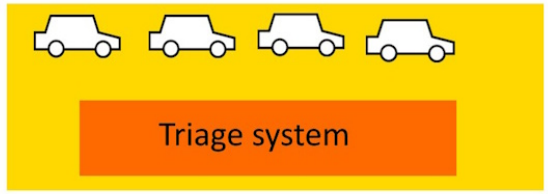
2. Build plenty of spare ("surge") capacity: Eliminate the "flattening of the curve" argument

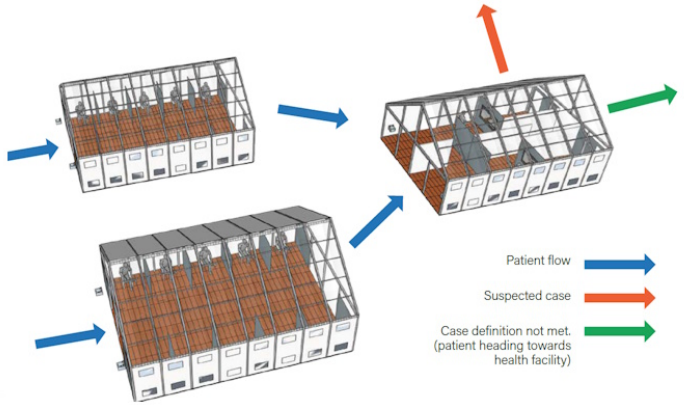
Figure 1 Flattening the pandemic curve



How the **new system** might look like

1) Drive through Triage centre/ Tent triage (WHO)

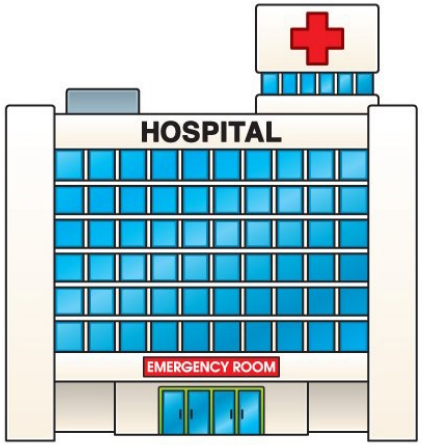




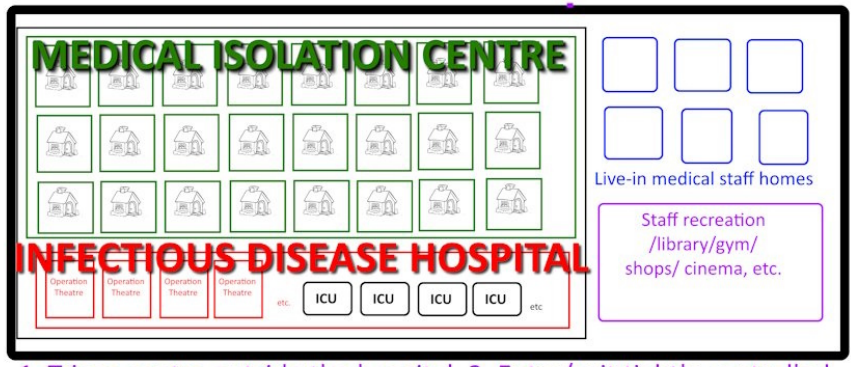
2) Home triage system

Mobile triage vans visit homes to directly assess and pick up seriously infectious patients

SEPARATION BEFORE HOSPITAL



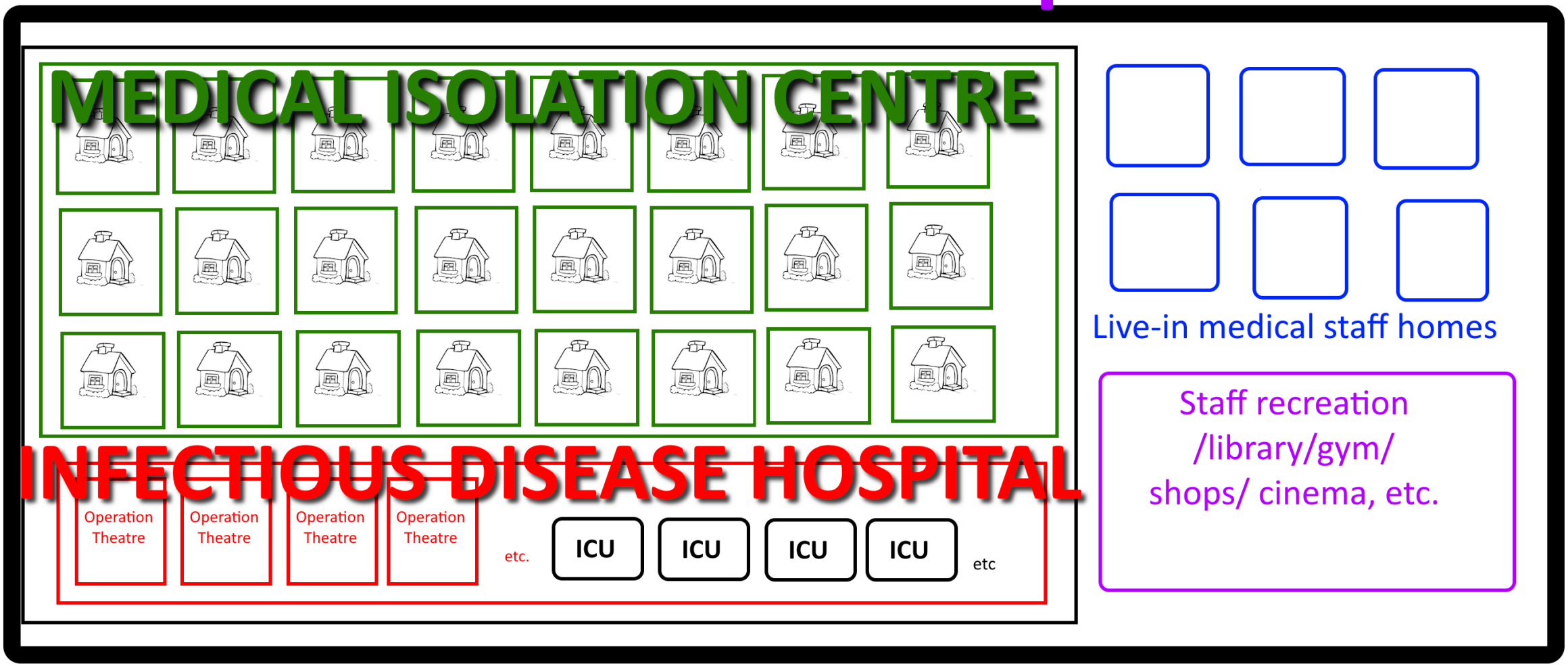
General Hospital



1. Triage centre outside the hospital. 2. Entry/exit tightly controlled.
3. All supplies via pipes/robots

Isolation Hospital

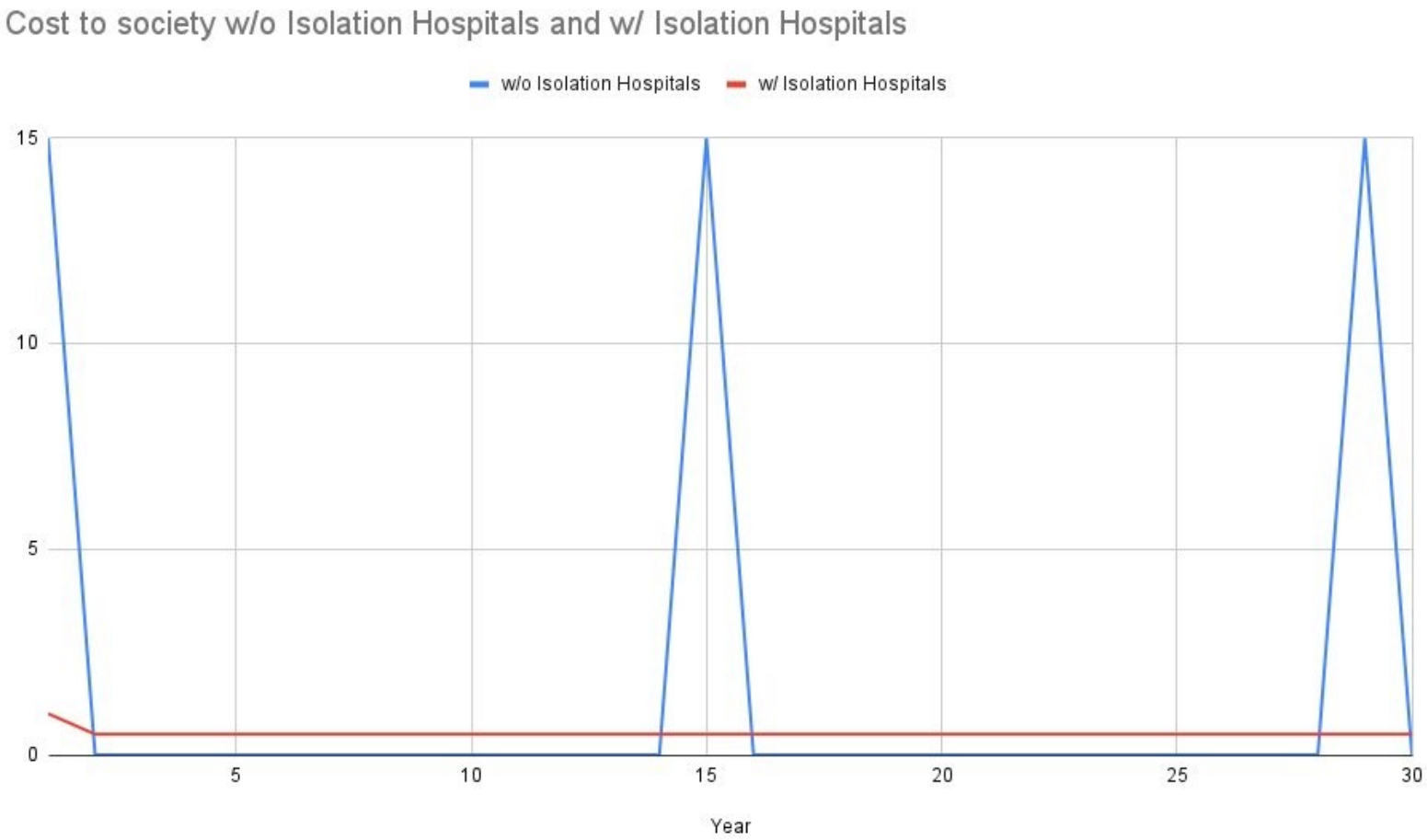
Isolation Hospital



1. Triage centre outside the hospital. 2. Entry/exit tightly controlled.

3. All supplies via pipes/robots

Benefits of Isolation Hospitals will vastly exceed costs



Source

The current model (of medical panic and lockdowns) costs the world **$26.4 trillion over 30 years** at a discount rate of 5%.

The alternative (Isolation Hospitals) will cost **$8.57 trillion over 30 years**, but will also save vastly more lives.

Isolation Hospitals OR Lockdowns. *Not both!*

Economists can advocate for:

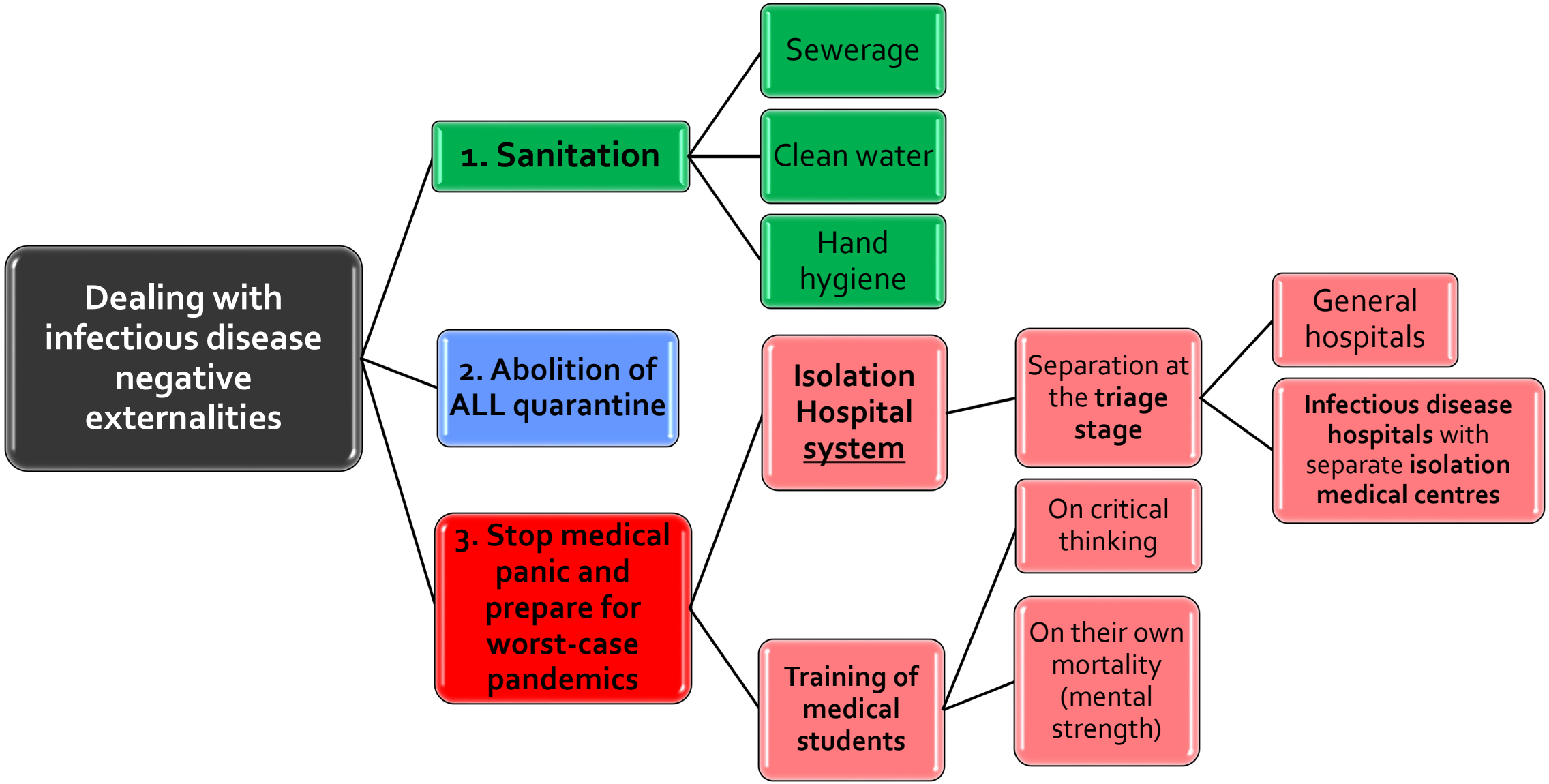
1. Effective Isolation Hospital system; and
2. Higher pay for infectious disease doctors;

On one condition: LOCKDOWNS AND BORDER CLOSURES MUST BE CONSTITUTIONALLY AND LEGALLY ABOLISHED.

Arguments against Isolation Hospital system

- **We have not had any serious pandemic for many years**
  - Response: I agree, and agree with Sunetra Gupta's view that a major pandemic is highly unlikely. But that's not good reason to not prepare in case we ever have one. **Hope is not a strategy**. Plus, we need to fix nosocomial disease.
- **We have antibiotics, vaccines, etc. now, and can deal with serious situations**
  - Response: Not really. We can't even stop nosocomial infections today. And what if we have something as big as Spanish flu? Where will the millions of ICUs be found? Further, vaccines take time to produce and may not work. Without strong preparation, doctors **will** panic and cause havoc.
- **Serious pandemics come quickly and go quickly**
  - Response: Not always true. The Spanish flu came in multiple waves over two years. We need to prepare for the worst. Don't assume away big pandemics.
- **Giving in to doctors' demands will simply increase their demands**
  - Response: Not if we do this properly: (a) Abolition of lockdowns and vaccine mandates will need to be legislatively/constitutionally mandated as part of the "deal", (b) Standard due diligence will be needed to prevent over-expenditure. Lockdowns etc. have cost $15 trillion + many lives; we can do much better with far less, but only if we think rationally and don't assume away real problems.

CONCLUSION


Dealing with infectious disease negative externalities
1. Sanitation
Sewerage
Clean water
Hand hygiene
2. Abolition of ALL quarantine
3. Stop medical panic and prepare for worst-case pandemics
Isolation Hospital system
Separation at the triage stage
General hospitals
Infectious disease hospitals with separate isolation medical centres
Training of medical students
On critical thinking
On their own mortality (mental strength)

Much more detail in my papers, e.g.

Disease	Causes of spread	Prevention of spread	Treatment location	Treatment method	Solution to disease externalities
Bubonic plague	Rat infestation	Vaccines, sanitation	Outpatient (at home)	Antibiotics	Sanitation + antibiotics when sick
Cholera	Water borne	Vaccines, sanitation	Outpatient (at home)	Antibiotics	Sanitation + antibiotics when sick
Pneumonic plague	Droplets from coughing	Vaccines, isolation of the sick	Strong isolation in hospital	Antibiotics	Sanitation **+ Isolation**+ antibiotics when sick
Spanish flu	Aerosols/ droplets	Vaccines, isolation of the sick	Outpatient (home)/ hospital	Not available. Ventilators in hospital in extreme cases	**Isolation**
Covid	Aerosols/ droplets	Vaccines, isolation of the sick	Outpatient (home)/ hospital	Not available. Ventilators in hospital in extreme cases	**Isolation**

Thanks for your interest!

- Thanks also to **Australians for Science and Freedom** for organizing this event
- Thanks to **Prof. Gigi Foster** for my access to the UNSW library
- If you want to support my research, consider funding me at: https://www.gofundme.com/f/the-worlds-first-review-of-public-health
- Please share your thoughts with me at sabhlok@gmail.com

These slides can be found at: https://bit.ly/3RV2n8M