

# Lessons for Foresight from the Coronacrisis

## Foresight and the COVID-19 Pandemic

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## A Necessary First Word

- The Pandemic is far from over, SARS COV-2 will probably become endemic ... It's **not history**!
- Many tragedies and continuing health problems: this needs to be acknowledged as **lived reality**.
- There are also many **heroes**, especially – but not only – workers in the health services and supporting professionals and volunteers.
- We also have to thank scientists, not only those who have rapidly increased our knowledge of the virus, the epidemiology, the disease, and of vaccines and other treatments; but also those who have taken initiatives – e.g. sharing genomic knowledge, assessing policies and strategies.

So: while we need to learn from this experience, these are still early days, so lessons are provisional.

With this said...

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## “Sorry Ma’am — we just didn’t see it coming”

Queen Elizabeth at the London School of Economics



why did nobody notice the "awful" financial crisis earlier?

“In summary, your majesty, the failure to foresee the timing, extent and severity of the crisis and to head it off... was principally a failure of the collective imagination of many bright people, both in this country and internationally, to understand the risks to the system as a whole.”

“We economists and academics should have been louder in our warnings and more proactive in suggesting solutions. Particularly problematic and subject to a serious rethink are the short-term and one-sided incentives prevalent in the financial industry - and the failure by those who took the risks to bear the risks.”

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## Why did nobody warn about this Awful Crisis?

- Economists were asked why they had not warned about the impending “awful” financial crisis – the Great Recession - that knocked the world economy off-course for several years.
- In some countries – notably the UK – the policy response was austerity, with an erosion of public services that played a role in the subsequent CORONACRISIS.
- Futurists are asked now about why they had not warned about the COVID-19 pandemic being on the horizon.
- Did they not? Or did they not warn loudly enough?

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## Foresight is not prediction

### Foresight Exercises

- Mainly about applying knowledge of long-term potentials, derived from a wide range of expert and stakeholder sources, to issues of STI policy
- Prospectives, Participation, Policy
- Mainly focused on **opportunities** for the country/region/organisation to capture benefits from advances in STI
- May examine wild cards, but the advances considered are those believed likely.

### Other “futures” work

- **Major Modelling Exercises** – IPCC, World economy and energy models – *forecasting* – an impending, emerging megacrisis
- **Futures Studies** -a very broad field of work, rarely as in-depth as Foresight
- **Risk Analysis and Strategic Risk Management**;
- Pandemic Preparedness Planning; **resilience** analysis
- These are less liable to be focused on “opportunities”, more on **risks and dangers**.

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## Horizon Scanning

- This is usually an early step in major Foresight exercises (and is a major part of risk analysis, etc)
- Typically identifies, classifies, and assesses relevance of major trends and possibilities for the focus of Foresight
- Pandemics often appear in exercises, sometimes as “wild cards”, sometimes as uncertain eventualities that may require attention – alongside many others
- Potential role in impacting MANY areas of STI – even many areas of bioSTI – is rarely addressed.

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## Foresight can focus here...

**UK  
Foresight  
Programme  
- 2004**

**FORESIGHT**

Infectious Diseases:  
preparing for the future

A Vision of Future Detection,  
Identification and Monitoring  
Systems

OFFICE OF SCIENCE AND INNOVATION

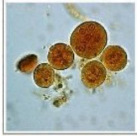
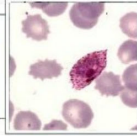
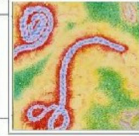
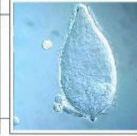
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Making the future work for you

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### The Detection and Identification of Infectious Diseases

Lord Whitty of Camberwell, Minister for Farming, Food and Sustainable Energy at Defra, has agreed to sponsor a new Foresight project on the detection and identification of infectious diseases. You are invited to register your interest by clicking on the link at the end.

**Project Aim:**

To produce a challenging and long-term vision for the detection and identification of infectious diseases in plants, animals and humans. This vision will take account of: the evolving risk of diseases; changing user requirements for detection and identification; and cutting edge science. The project aims to inform policy at a national and international level.

**News**

• **NEW:** On the 29 September 04 the project team held a Scoping Workshop to seek the views of a wide range of experts and stakeholders. [Read the report here.](#)

## What sort of Opportunity?

- UK Foresight Programme was aimed at identifying and exploring circumstances where there was (a) a policy problem, (b) relevant advances expected in STI, (c) need for coordinated action across ministries. [e.g. co-ordination of health, education, industry, environment to support development and application of knowledge (for Wealth Creation and Quality of Life).]
 

Infectious Diseases:  
preparing for the future
- Needed a strong champion within government – e.g. minister, scientific advisor. In the DIID case this was DEFRA – “rural affairs” – so DIID paid much attention to animal/crop diseases.\*
 

A Vision of Future Detection,  
Identification and Monitoring
- Particular emphasis on **TECHNOLOGICAL** opportunities.

## Foresight and hindsight

- Foresight exercises are mainly conducted around identifying opportunities – risks (e.g. pandemics) may be seen in Horizon-Scanning; if examined in detail, they may be framed as **opportunities** (prevention, mitigation, resilience).
- The main focus is on opportunities for technological innovation, and the categories of technology that are emphasised are typically those favoured by sponsors/participants.
- Thus DIID did not consider vaccine development, though it made a strong case for detection/identification systems – based on advanced bioinformatic technology (so not, e.g. sniffer dogs!)
- More often, the risks examined are framed as **difficulties**: complex technology, weak innovation ecosystem, possible dangers of misuse, public opposition, or ethical issues.



Change – or complement?

Ways of enlarging knowledge pool?

Articulation with risk and PP exercises



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## Future Risk

- Some things are true **Wild Cards** (unlikely and often largely unfamiliar – *unknown unknowns*)
- Some are relatively likely – *known unknowns* – but the precise nature, timing and location is unpredictable.
- Coronacrisis was a “**Feral Card**” – a pandemic was widely expected “some time”, but (a) most probable nature was a form of influenza, (b) political response was not widely anticipated (DIID did mention vaccine resistance among key uncertainties, but was out-trumped.)
- Who focuses on Risk?



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# Pandemic (influenza) long seen as UK's no.1 risk – other diseases seen as threats too.

2012, subsequent updates: most likely high-impact risk



Cabinet Office

## National Risk Register of Civil Emergencies

2012 edition

### New and emerging infectious diseases

The likelihood of a new disease like SARS spreading to the UK is low, but if an outbreak of an emerging infectious disease occurred in the UK, and containment measures were not put in place swiftly, the

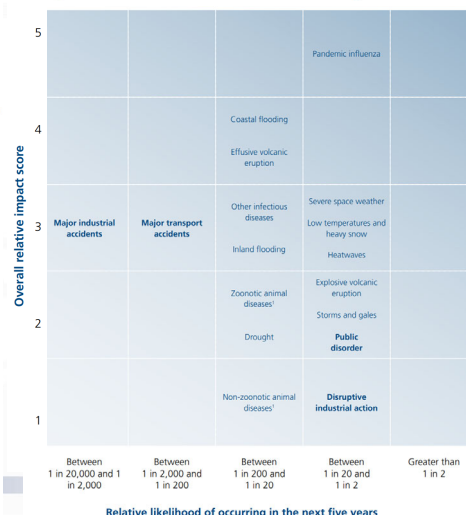
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### The highest priority risks

2.2 The following are considered by the Government to be the highest priority risks, taking both likelihood and impact into account:

**Pandemic influenza** – This remains the most significant civil emergency risk. The outbreak of H1N1 influenza in 2009 ('swine flu') did not match the severity of the scenario that we plan for and is not necessarily indicative of future pandemic influenzas; the three influenza pandemics of the 20th century (1918–19, 1957–58 and 1968–69) all had differing levels of severity. The 2009 H1N1 pandemic does not change the risk of another pandemic emerging (such as an H5N1 (avian flu))

Figure 2: Risks of natural hazards and major accidents



Relative likelihood of occurring in the next five years

## Risks → Responses

- Surveillance, modelling
- Reduction of transmission
- Stockpiles of antivirals/antibiotics
- Reduce pressure on primary care
- Advance purchase agreement for novel vaccines
- Vaccination
- Surge plans for hospitals etc
- Plans regularly reviewed using expert advices
- And fitness for purpose established through stress-test exercises – identify new issues, gaps in response, ensure coordination

### UK Influenza Pandemic Preparedness Strategy 2011

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## But preparedness was not prepared for:

**nature**

NEWS FEATURE  
04 August 2020

### Two decades of pandemic war games failed to account for Donald Trump

The scenarios foresaw leaky travel bans, a scramble for vaccines and disputes between state and federal leaders, but none could anticipate the current levels of dysfunction in the United States.

- In the UK, austerity had run down health service capacity (few spare beds, little Personal Protective Equipment)
- In UK “we are following the science” became a suspect mantra – especially after “we have had enough of experts” – why then was reaction so slow?
- In US, there was the Trump effect – a real Wild Card?
- Vaccine development/acquisition strategies became central and science accelerated progress... but...
- In many cases anti-vax movements and similar (politically-backed) disruption.

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## Moving on...

### • Foresight

- Even horizon-scanning in ongoing UK Foresight\* took little account of STI for pandemics.

### Risk

### • Pandemic Preparedness

- Critical actions not all followed up, but enabled rapid reaction once pandemic was recognised

**One major RISK for all: “post-truth” and (partly manufactured) public distrust of expertise; tendency for policymakers to conceal debate in decision-making.**

Engagement with - more policy domains – not just STI

- with wider range of inputs – e.g. social science (policy guided by weak assumptions as to behaviour) and citizen science (COVID symptoms, long COVID)

More independent oversight: openness, publication of minutes of meetings and of relevant documentation

Better links of Foresight with Risk and Resilience studies and exercises, at all levels


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\* Succession of horizon scanning reports on **Technology Innovation Futures** did not discuss

And this is all very relevant to other Crises – e.g. the Climate Emergency

## End of Presentation

(Some additional slides follow FYI)




Alternative to secrecy in scientific advice

### indie\_SAGE

<https://www.independentsage.org/>

#### 'Scores on the doors' example process

Step 1: Assess the room    Step 2: Rate the room    Step 3: Identify behavioural mitigations needed    Step 4: Produce label



COVID "SCORES ON THE DOORS": AN APPROACH...

8 Oct 2021

**CHRISTINA PAGEL TALKS TO CHANNEL 4 ABOUT THE HOUSE OF COMMONS REPORT ON THE UK'S RESPONSE TO CORONAVIRUS**

14 Oct 2021 | [Front Page](#), [Media highlights](#)

Professor Christina Pagel speaks to Jon Snow from Channel 4 news, giving her reaction to the House...

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**SUSAN MICHIE TALKS TO BBC**

12 Oct 2021 | [Front Page](#), [Media highlights](#)

Professor Susan Michie talks to the BBC about how we can learn from other countries as we go into...


[READ MORE](#)

**STATEMENT ON THE HOUSE OF COMMONS REPORT "CORONAVIRUS: LESSONS LEARNED TO DATE"**

12 Oct 2021 | [Overall COVID-19 Strategy](#), [Recent reports](#), [Short statements](#), [Uncategorised](#)

Independent SAGE welcomes today's report by the Commons Health and Social Care and

**MARTIN MCKEE RESPONDS TO NEW REPORT INTO UK'S COVID-19 RESPONSE IN BMJ**



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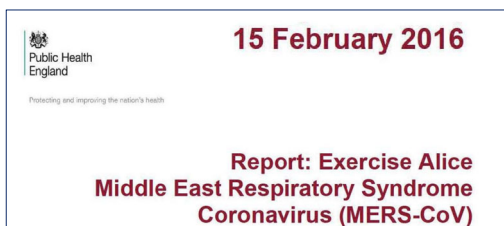
## Pandemic Preparedness Exercises “war games” “stress tests”

Material was only made public as a result of pressure.

**CygnusReports.org**

Transparency in healthcare

### Exclusive – Seven Secret Pandemic Reports (including Alice)



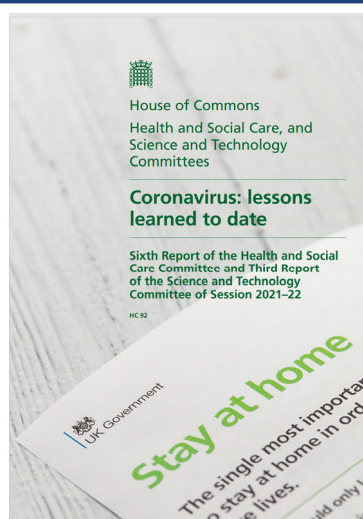
Experts (NHS, MoH, PHE, nations) were presented with a scenario wherein a disease outbreak was described. Through role-playing/discussion they worked through various operational matters and identified areas of stress, bottlenecks, etc.

These exercises did consider diseases other than influenza (though much preparedness related to this, some did raise CoV issues and needs for protective clothing, care homes strategy, etc. Key Alice recommendations were not implemented: possibly they were restrained in explicating scale of crises and of preparedness requirements - contradicted austerity stance. Too in-house?

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## Parliamentary Committees' Report on Pandemic Policy (October 2021)



Notes various successful policies – where NHS role substantial – especially vaccine roll-out and development of treatments. NHS staff praised for flexibility under great stress. NHS “compared to other health systems it ‘runs hot’— with little spare capacity built in to cope with sudden and unexpected surges of demand such as in a pandemic.”

Critical of other elements of policy (without blaming “British exceptionalism”:

- “groupthink”: initial underestimation of risk, failure to learn from other European countries despite warnings: preparedness overestimated (e.g. Personal Protective Equipment)
- test, trace, isolate delayed
- Lockdowns postponed until disease had taken hold
- Neglect of social care (especially of elderly); hospital discharge to care homes stoked disease
- Health inequalities exacerbated.
- etc.

Mild criticism compared to many independent experts.

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