

Whatever happened to Public Health ?

An assessment of the response to the
Covid19 Pandemic

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30 November 2023

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An assessment of the response to the Covid Pandemic

- What is Public Health ?
- Were we prepared for the pandemic ?
- So ... how did we do ?
- Lessons for the future ?

What is Public Health ?

- Population focus on:
 - Health Improvement/Disease Prevention
 - Service Improvement - needs assessment & EBM
 - Health Protection – communicable disease control
(including pandemic planning)
- PH depts within every NHS Board
- National organisations, e.g. PHScotland, UKHSA, CDC etc.
- PH depts in most major universities

Were we prepared for a Pandemic ?

- WHO Pandemic Influenza Preparedness and Response 2009
- UK Influenza Pandemic Preparedness Strategy 2011
- UK Pandemic Flu Guidance 2013
- NHS Board & partners Pandemic Plans for every area
- Annual review and updates to these plans
- Global Health Security Index Nov 2019
 - USA 83.5/100 (1st)
 - UK 77.9/100 (2nd)

UK Influenza Pandemic Preparedness Strategy 2011

“It will not be possible to halt the spread of a new pandemic influenza virus, and it would be a waste of PH resources .. to attempt to do so.”

“During a pandemic, the government will encourage those who are well to carry on with their normal daily lives for as long and as far as that is possible.”

“Response will continue to be:

- Evidence based
- Based on best practice in absence of evidence
- Based on ethical principles”

So ... how did we do ?

- 1 Ensuring **accurate data** on health & disease
- 2 Assessing **evidence for all interventions** and their **costs & benefits**
- 3 Broad focus on the **whole population** and **all health problems**
- 4 Providing **accurate information to the public** and avoiding unnecessary alarm

1 Ensuring accurate data on health & disease

Pre-pandemic planning	Covid pandemic response
Confirmed case definition – symptoms with positive test.	Positive test only with PCR cycles up to 40.
No widespread community testing.	Widespread community testing with wide range of symptoms or none (2 million tests/week x 1% false positive rate = 20,000 false positives/week)

1 Ensuring accurate data on health & disease

Pre-pandemic planning	Covid pandemic response
Confirmed case definition – symptoms with positive test.	Positive test only with PCR cycles up to 40.
No widespread community testing.	Widespread community testing with wide range of symptoms or none (20,000 false positives/week).
Hospital admission from viral disease	Admission from or with Covid19 or positive PCR.
Deaths – viral disease as underlying cause	Deaths within 28 days of positive PCR & any position on death certificate

2a Evidence for all interventions - costs & benefits

Measures to reduce transmission

Pre-pandemic planning	Covid pandemic response
Isolate those with symptoms.	Isolation of those with positive tests (real cases & false +s) and close contacts.
Contact tracing ineffective except in earliest phase.	Widespread contact tracing throughout most of pandemic.
Mask wearing only for healthcare staff.	General community mask wearing

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Measures to reduce transmission

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Isolate those with symptoms.	Isolation of those with positive tests (real cases & false +s) and close contacts.
Contact tracing ineffective except in earliest phase.	Widespread contact tracing throughout most of pandemic
Mask wearing only for healthcare staff.	General community mask wearing.
Mucosal vacc'n of super-spreaders, potential school closures early in pandemic.	Repeated school closures
“Focused protection” of vulnerable.	Lockdown of businesses, healthcare and individuals. No cost/benefit analysis

Evidence for Non-Pharmaceutical PH Interventions



UK Health
Security
Agency

**Effectiveness of non-pharmaceutical
interventions to reduce transmission
of COVID-19 in the UK**

A rapid mapping review

Published 28 Sept 2023

Included 151 studies, 100
modelling, only 2 RCTs

“... the body of evidence
available on the effectiveness
of NPIs in the UK provides
weak evidence in terms of
study design “

Evidence for Non-Pharmaceutical PH Interventions

GLOBAL INFLUENZA PROGRAMME

Non-pharmaceutical
public health measures
for mitigating the risk and
impact of epidemic and
pandemic influenza



Published by WHO autumn 2019

Systematic review of the evidence
on the effectiveness of NPIs.

“The evidence base on the effectiveness of NPIs in community settings is limited, and the overall quality of evidence was very low for most interventions ... there are few RCTs ... much of the evidence base is from observational studies and computer simulations.”

WHO Systematic Review of NPIs, 2019

Severity of Pandemic	Recommended Measures
Any	Hand hygiene & respiratory etiquette Surface & object cleaning Increased ventilation Isolation of sick individuals
Moderate	As above plus: Avoid crowding
High	As above plus: Face masks for public School measures & closures
Extraordinary	As above plus: Workplace measures & closures
Not rec'd in any circumstances	Contact tracing Isolation/quarantine of contacts Entry & exit screening Borders closures Lockdown of citizens not even contemplated

2b Evidence for all interventions - costs & benefits

Measures to protect and treat individuals

Pre-pandemic planning	Covid pandemic response
Vaccination of H & SC staff and vulnerable groups.	Vaccination of most population despite limited evidence on effectiveness and safety. No emphasis on obesity or Vit D .

Effectiveness of vaccination

- Not black or white – all about **degree** and **patient selection**
- Degree
 - which outcome measure – cases, severe disease or deaths ?
 - which risk reduction measure – absolute or relative RR:

Control
1.7%

Vaccinated
0.5%

ARR

$$1.7 - 0.5 = 1.2\%$$

RRR

$$\frac{1.2}{1.7} \times 100 = 70\%$$

Data are confirmed cases from Oxford/AZ trial –
Voysey et al Lancet 397:10269:99, Jan 2021

Patient selection for vaccination

Age	Infection Fatality Rate (1.5%)*	ARR^	NNV"	NNV (IFR=0.23%)#
10	0.002	0.0014	71,430	465,724
25	0.01	0.007	14,290	93,171
55	0.4	0.28	357	2,328
65	1.4	0.98	102	665
75	4.6	3.22	31	202
85	15	10.5	10	65

* Levin et al, Eur J Epid 35(12) 1123, Dec 2020

^ Assuming 70% RRR in IFR with vaccination

" Number needed to vaccinate to avoid one death (100/ARR)

Ioannidis J. Bull WHO 99(1) 19, Jan 2021

What data is needed for fully informed consent ?

Chart 1: Men - Risks of Disease and Treatment Impact

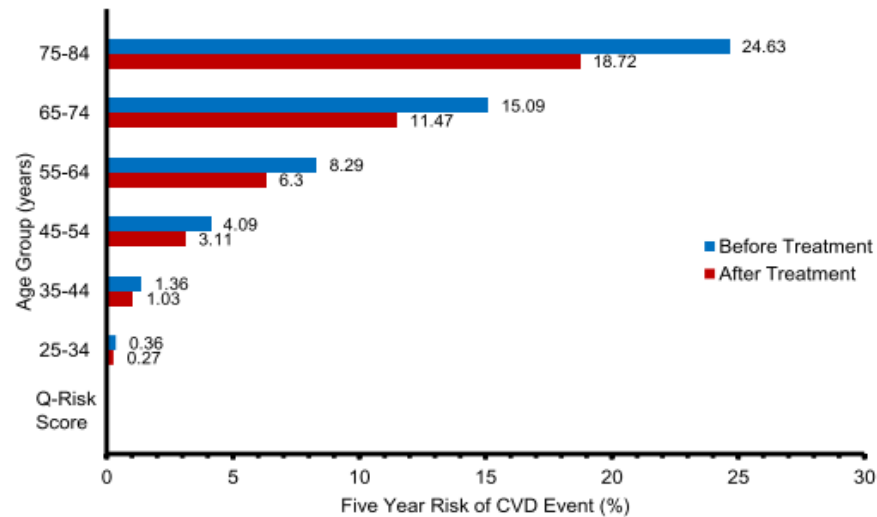
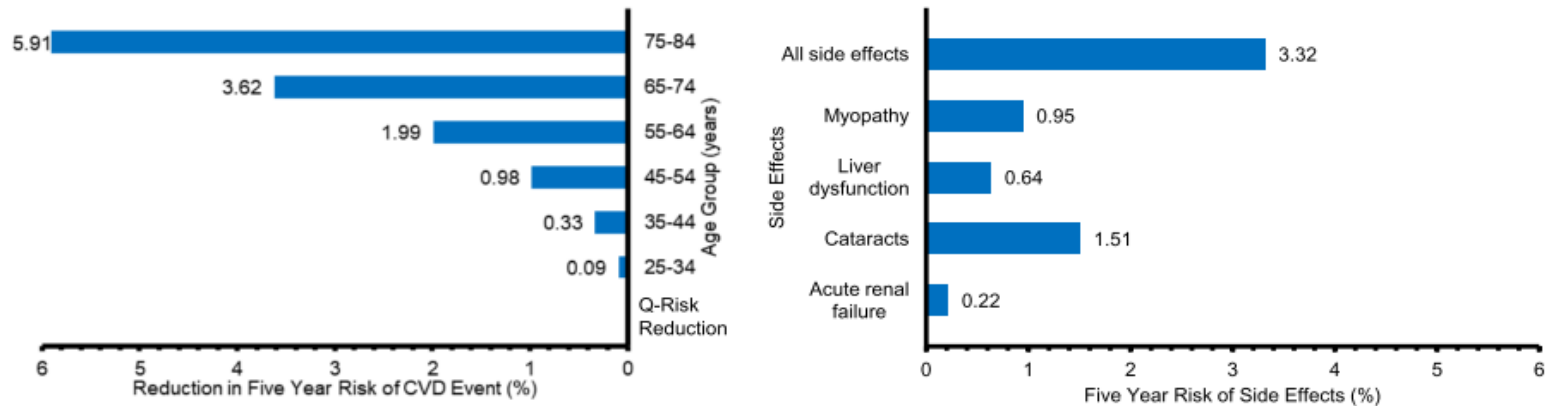


Chart 2: Men – Benefits (L) & Side-Effects (R) of Treatment



2b Evidence for all interventions - costs & benefits

Measures to protect and treat individuals

Pre-pandemic planning	Covid pandemic response
Vaccination of H & SC staff and vulnerable groups.	Vaccination of most population despite limited evidence on effectiveness and safety. No emphasis on obesity or Vit D .
Anti-virals if effective for higher risk groups.	Anti-virals used after testing. No early community treatment of high risk groups to prevent deterioration.
Symptomatic clinical support as needed with antibiotics for secondary bacterial pneumonia.	Ditto.

3 Broad focus on **whole** population & **all** health problems

Narrow focus during pandemic	The broader focus neglected
Covid19	Cancer, heart disease, chronic pain and disability, mental health etc.
Elderly & those with co-morbidities	Children and young , working age, other health problems in elderly
Present population	Future generations – legacy management issues and financial debt
Secure public sector	Insecure private sector affected by lockdowns – business and job losses, inequalities increase
Professional laptop class	Physical working classes less secure, unable to work from home, inequalities increase
UK population – booster vaccination programmes	Developing world – many elderly with no vaccination yet, inequalities increase

4 Providing accurate information to the public and avoiding unnecessary alarm

- **Inaccurate data** – inflation of Covid19 cases, hospitalisations and deaths
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- **Inaccurate data** – inflation of Covid19 cases, hospitalisations and deaths
- **Focus on extreme modelling scenarios** without clarity on assumptions – “policy-based evidence making”
- **Mis-representation** of effectiveness and harms from NPIs
- **Mis-representation** of safety and effectiveness of vaccines and risk/benefit ratios
- **Deliberate** heightening of fear and alarm to aid compliance

So .. how did we do ?

Process

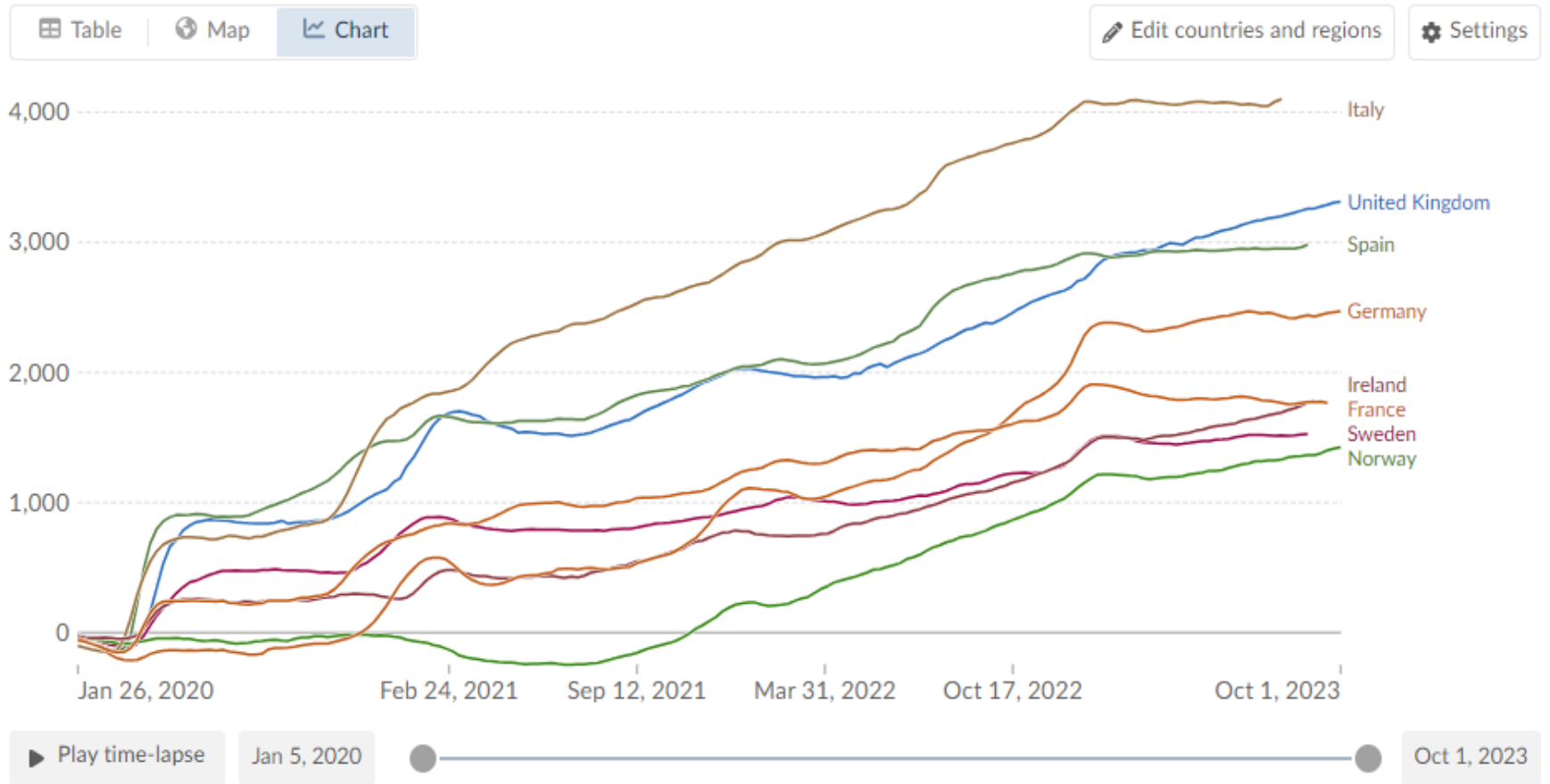
- Abandoned fundamental principles of PH
- Abandoned accepted codes on informed consent, coercive measures to take vaccines
- Abandoned fundamental human rights

Outcome

- Far higher excess mortality than Sweden
- Excess mortality 2022/23 in post-pandemic period

Excess mortality: Cumulative deaths from all causes compared to projection based on previous years, per million people

The cumulative difference between the reported number of deaths since 1 January 2020 and the projected number of deaths for the same period based on previous years. The reported number might not count all deaths that occurred due to incomplete coverage and delays in reporting.



Data source: Human Mortality Database (2023); World Mortality Dataset (2023); Karlinsky and Kobak (2021) - [Learn more about this data](#)

Note: Comparisons across countries are affected by differences in the completeness of death reporting. Details can be found at our Excess Mortality page.



Lessons for the future ?

- Open debate - no censorship
- Fully informed consent
- Maintain sovereignty
&
democratic accountability

“Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.’

Universal Declaration of Human Rights

“Open discourse is the central pillar of a free society”

Westminster Declaration