



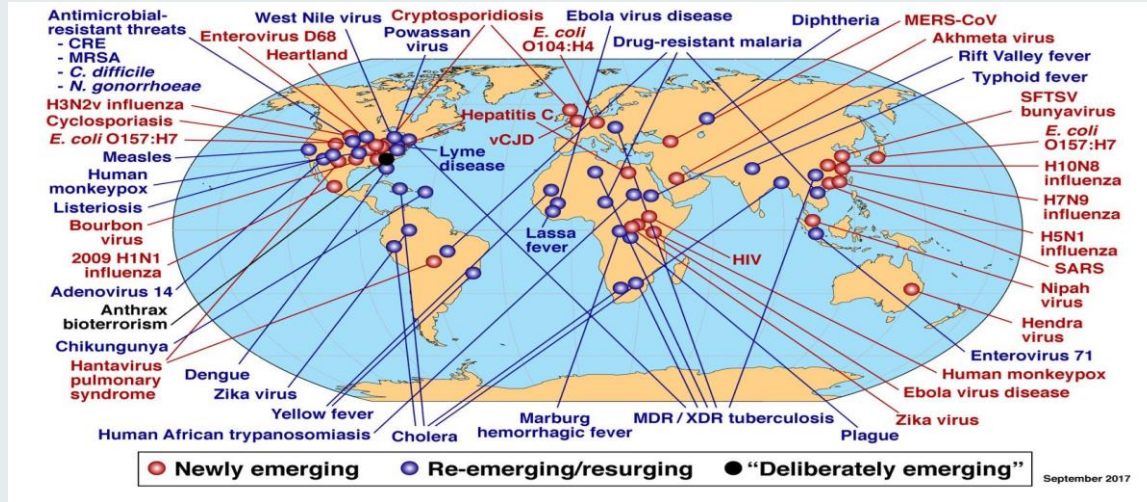
Cancer care and research: lessons from COVID-19

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Building future preparedness and resilience



- Zoonotic spillovers are increasing (**Nature**, 2022. 605. 420)
- The reality of the pandemic treaty (Blinken *et al* **JAMA** 2021, Aug)

VK Nguyen. An epidemic of suspicion – Ebola and violence in DR Congo **NEJM** 2019; 380:1298



Pandemic preparedness: cancer & health systems strengthening

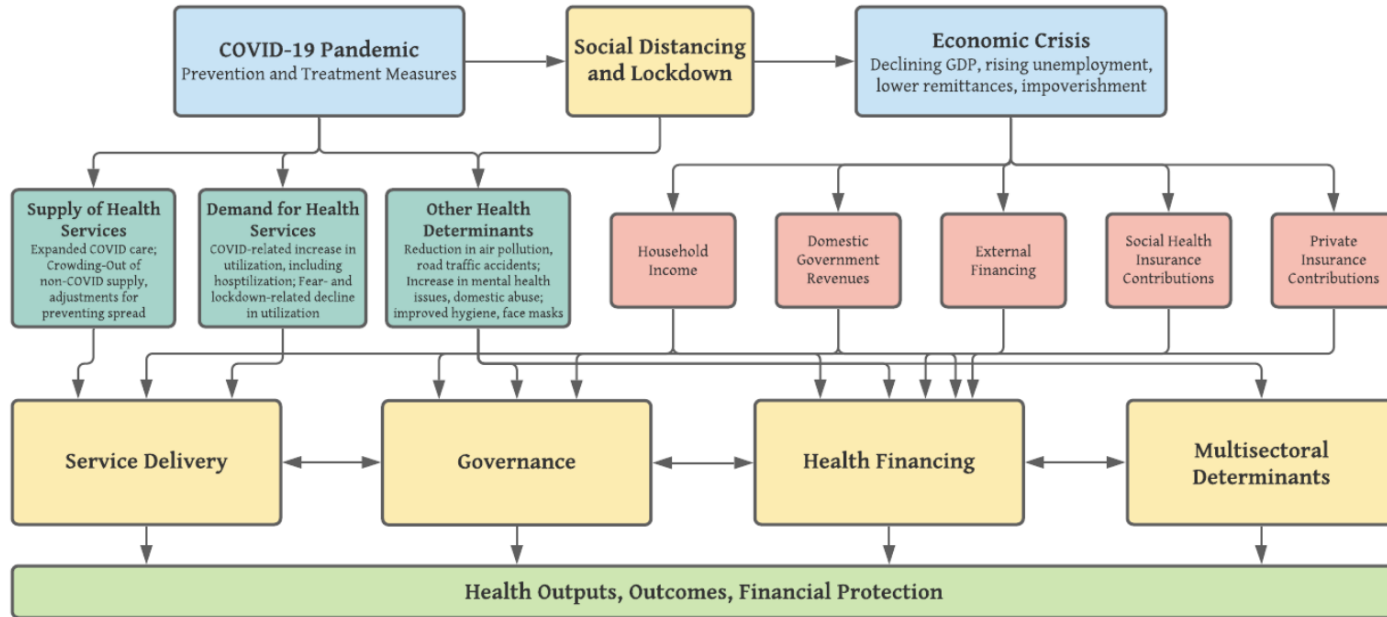


Preparing for Disease X across a wide range of possible and potential scenarios including MERS-like but with SARS-CoV-2 properties

Abbey EJ, et al. (2020) The Global Health Security Index is not predictive of coronavirus pandemic responses among Organization for Economic Cooperation and Development countries. **PLoS ONE** 15(10): e0239398

Impact of COVID-19 on services & systems: did we learn anything?

Complex to unpack impact & lessons learnt



What Went 'Well'?

Rapid adaptation of patient pathways and care

Some diagnostic and surgical pathways were kept open using a variety of models

- Radiotherapy (Katie Spencer et al, Lancet Oncol, 2021: 22:309)
- Systemic therapy: (James Clark et al. Lancet Oncol, 2021: 22:66)
- Palliative Care: (Charlotte Chamberlain et al. BMJ Open 2021 11: e043795)

Cancer research

- COVID vaccinations in context of cancer patients
(Sheeba Irshad et al. Lancet Oncol 2021: 22: 765)
- Risk to cancer patients from COVID-19
(Mieke Van Hemelryck et al. Brit J Cancer 2021: 125:939)

Pre-existing fragile systems, poor public health, fragmented pathways, poor leadership, are cumulatively lethal



- Treatment delay: range 3 to 76%.

Frey MK, Ellis AE, Zeligs K, et al. Impact of the COVID-19 Pandemic on quality of life for women with ovarian cancer. Am J Obstet Gynecol 2020;S0002-9378(20)30674-8.

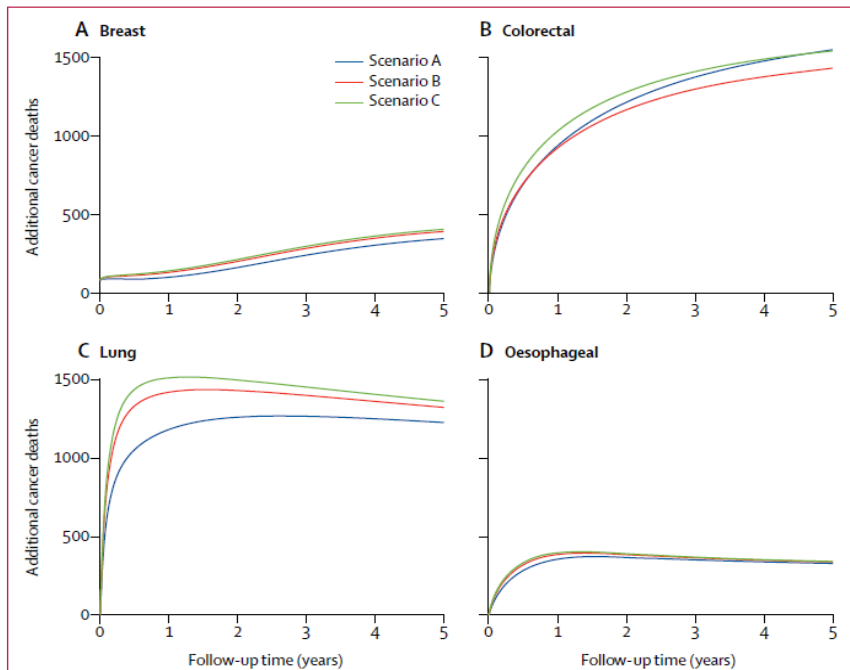
- Interruption of surgery: 25-80% of centres

Caricato M, Baiocchi GL, Crafa F, et al. Colorectal surgery in Italy during the Covid19 outbreak: a survey from the iCral study group. Updates Surg 2020;72(2):249-257.

- Reduction in number of operations: 15-84%

Highlighted what delays mean to outcomes

Diagnostic



Treatment

Study design



Systematic review
and meta-analysis

Patients of all ages with
seven major cancer types

Data sources



34 studies on 17 cancer treatment indications
1 272 681 participants treated

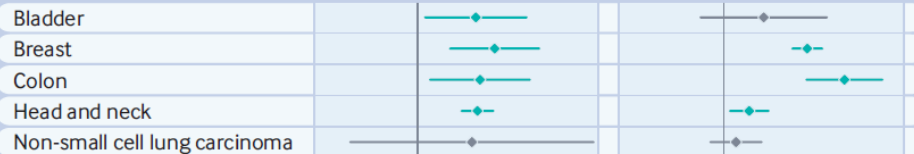
Comparison

Exposure and outcome

Patient survival according to wait time for treatment
including surgery, systemic treatment, or radiotherapy

Outcomes

Mortality for each four
week increase in delay



Mortality increases as delay increases

Breast cancer surgery
delay for 1000 women
(baseline 12% mortality)

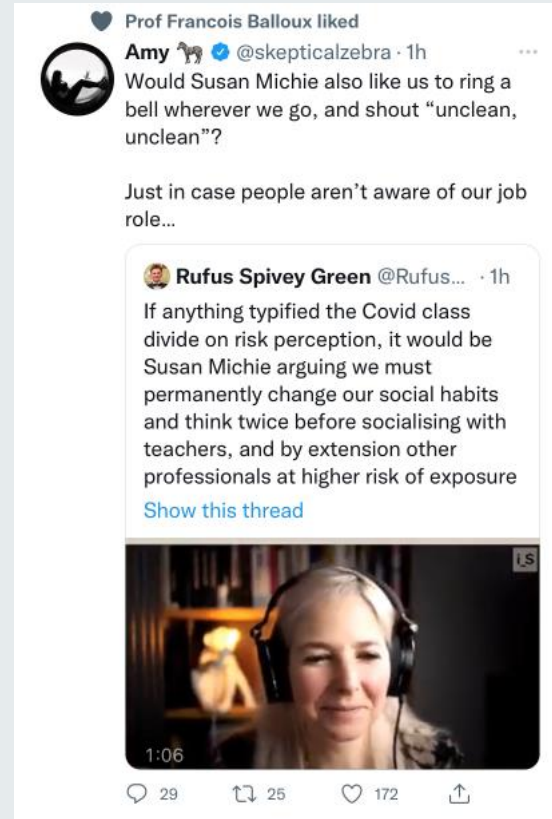
Projected additional deaths due to delay:

4 weeks +10
8 weeks +20
12 weeks +31

Evidence quality

Only high validity
studies accounting
for major prognostic
factors were included

Culture wars, mis and dis-information, and asymmetry all had huge effects on healthcare and patient behaviour



Not been good about learning how structure and organization of care improves both resilience and delivers better care

Whilst drive for care closer to home, especially for some types SACT, little thinking about how you continue services during a crisis¹

Little evidence that any country has rethought cancer service delivery in light of COVID-19

¹The future of cancer care in the UK-time for a radical and sustainable National Cancer Plan. **Lancet Oncol.** 2024 Jan;25(1):e6-e17.



Building resilience into research systems

A lot of anecdote and ‘potential’ impacts on research

- (1) COVID-19 halting cancer research activity.
- (2) COVID-19 limiting cancer research activity.
- (3) Forced adaptation of research protocols.
- (4) Disruption to supply chains.
- (5) Impacts on cancer diagnosis, cases, and services.
- (6) Availability of resources for cancer research.
- (7) Impacts on the private sector.

The **potential consequences** could be segregated into:

- (1) Potential changes to future research practice.
- (2) Delays to the progression of the field.
- (3) Potential new areas of research interest.

Fox L *et al.* (2021) Impact of the COVID-19 Pandemic on Cancer Researchers in 2020: A Qualitative Study of Events to Inform Mitigation Strategies. **Front. Public Health** 9:741223

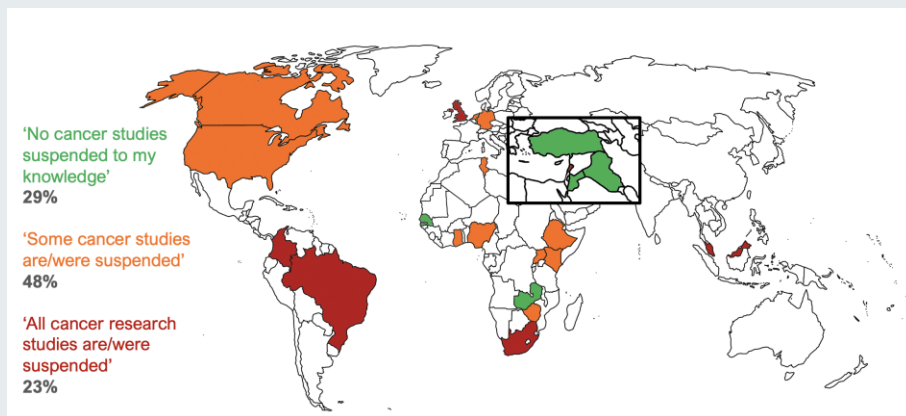


COMMENT | VOLUME 22, ISSUE 12, P1652-1654, DECEMBER 01, 2021

Global cancer research in the post-pandemic world

Deborah Mukherji  • Raul Hernando Murillo • Mieke Van Hemelrijck • Verna Vanderpuye • Omar Shamieh • Julie Torode • C S Pramesh • Aasim Yusuf • Chris M Booth • Ajay Aggarwal • Richard Sullivan • on behalf of the COVID-19 and Cancer Task Force • [Show less](#)

Published: December, 2021 • DOI: [https://doi.org/10.1016/S1470-2045\(21\)00602-1](https://doi.org/10.1016/S1470-2045(21)00602-1) •  Check for updates



REVIEW

The impact of COVID-19 on cancer care and oncology clinical research: an experts' perspective

C. Sessa^{1*}, J. Cortes², P. Conte³, F. Cardoso⁴, T. Choueiri⁵, R. Dummer⁶, P. Lorusso⁷, O. Ottmann⁸, B. Ryll⁹, T. Mok¹⁰, M. Tempero¹¹, S. Comis¹², C. Oliva¹³, S. Peters¹⁴ & J. Tabernero¹⁵

Even view that COVID-19 was good for research!



Silver linings: a qualitative study of desirable changes to cancer care during the COVID-19 pandemic

Dorothy Lombe¹ , Richard Sullivan², Carlo Caduff³, Zipporah Ali⁴, Nirmala Bhoo-Pathy⁵, Jim Cleary⁶, Matt Jalink⁷, Tomohiro Matsuda⁸, Deborah Mukherji⁹, Diana Sarfati¹⁰, Verna Vanderpuye¹¹, Aasim Yusuf¹² and Christopher Booth⁷

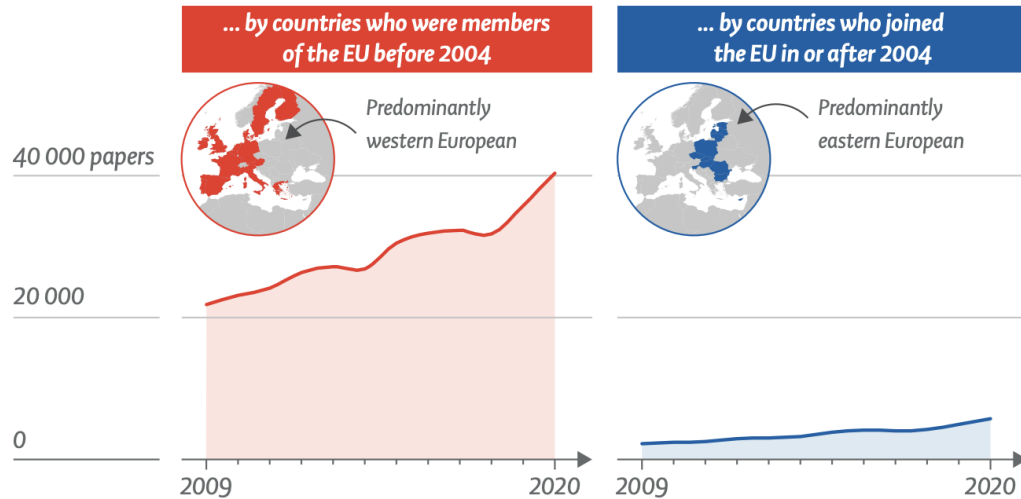
Some **silver linings**: ditching unproductive studies, catching up, virtual working practices

Wyatt D, Faulkner-Gurstein R, Cowan H, Wolfe CDA (2021) Impacts of COVID-19 on clinical research in the UK: A multi-method qualitative case study. **PLoS ONE** 16(8): e0256871.



Where's the impact?

Number of cancer research papers published...



Fiscal contraction is generic and global

Little evidence that clinical trials materially impacted

Hard to find evidence of any impact, anywhere, despite us assuming there was!

Lancet Oncology European Groundshot Commission

Clinical Trials in Global Health 4

How COVID-19 has fundamentally changed clinical research in global health

Jay J H Park, Robin Mogg, Gerald E Smith, Etheldreda Nakimuli-Mpungu, Fyezah Jehan, Craig R Rayner, Jeanine Condo, Eric H Decloedt, Jean B Nachega, Gilmar Reis, Edward J Mills

Focus instead has been on how we'd do research differently to determine risk, vaccine efficacy, changes to pathways and models of routine care: **but there has been no follow up except for specific areas** e.g. vaccine production

Little evidence we've thought deeply about how we'd keep 'mission critical' clinical trials going

COVID-19 showed that we need research to



A patient awaiting treatment for cancer in an Indian hospital.

Look beyond technology in cancer care

Treating cancer with the latest drugs and techniques is costly and will not improve survival globally, warn **Richard Sullivan**, **C. S. Pramesh** and **Christopher M. Booth**.

build resilience into health and cancer systems to withstand acute shocks

as well as **research into research**; what and how do you keep most critical clinical studies going?

Closing reflections

World has moved on very quickly!



Covid-19 and Cancer Global Taskforce



<https://ecancer.org/en/news/17690-uicc-covid-19-resources-page>