

## Response to Lady Hallett, Chair to the Covid-19 Public Inquiry

Mark Jit, London School of Hygiene & Tropical Medicine

7 October 2022

### 1. A brief overview of your qualifications, career history, professional expertise and major publications.

#### *Educational qualifications*

2007 – 2009	<b>Kings College London</b> Master of Public Health (Distinction)
1998 – 2003	<b>University College London</b> PhD in Mathematics
1995 – 1998	<b>University College London</b> BSc (Hons) in Mathematics (First Class)

#### *Career history*

My substantive appointments are listed below. For brevity, I have excluded honorary/voluntary appointments, secondments and short-term summer jobs prior to the award of my PhD.

Jan 2022 – Aug 2017 – Dec 2021	<b>London School of Hygiene &amp; Tropical Medicine, Department of Infectious Disease Epidemiology</b> Head of Department and Professor (band Bi) of vaccine epidemiology Professor (band Bii) of vaccine epidemiology (50% fte to Dec 2017, then 70% to April 2020, then 90%)
Aug 2016 – July 2017	Professor (band C) of vaccine epidemiology (50% fte)
Jan 2016 – July 2016	Reader in vaccine epidemiology (50% fte)
Dec 2012 – Dec 2015	Senior lecturer in vaccine epidemiology (50% fte)
Oct 2008 – Aug 2009	<b>University of Birmingham, Health Economics Unit</b> Senior lecturer in mathematical modelling
April 2018 – April 2020	<b>Public Health England (formerly Health Protection Agency), Modelling &amp; Economics Unit</b> Principal mathematical modeller (30% fte)
Sept 2009 – Mar 2018	Senior infectious disease modeller (50% fte to Dec 2017, then 30%)
Jan 2006 – Sept 2008	Health economist / mathematical modeller
Sept 2003 – Dec 2005	<b>University College London, Clinical Operational Research Unit</b> Research fellow

#### *Professional expertise*

- Mathematical modelling of infectious diseases
- Health economic evaluation
- Epidemiology of vaccine-preventable diseases

#### *Major publications*

My ten first or senior authored publications that I consider most influential are listed below.

- 1) Liu Y, Morgenstern C, Kelly J, Lowe R, CMMID COVID-19 Working Group, **Jit M**. The impact of non-pharmaceutical interventions on SARS-CoV-2 transmission across 130 countries and territories. *BMC Medicine* 2021; 19:40.
- 2) Wouters OJ, Shadlen KC, Salcher-Konrad M, Pollard AJ, Larson HJ, Teerawattananon Y, **Jit M**. Challenges in ensuring global access to COVID-19 vaccines: production, affordability, allocation, and deployment. *Lancet* 2021; 397(10278):1023-34.
- 3) Russell TW, Wu JT, Clifford S, Edmunds WJ, Kucharski AJ, **Jit M**, CMMID COVID-19 Working Group. Effect of internationally imported cases on internal spread of COVID-19: a mathematical modelling study. *Lancet Public Health* 2020; 6(1):e12-e20.
- 4) Chen C, Cervero Licerias F, Flasche S, Sidharta S, Yoong J, Sundaram N, **Jit M**. Effect and cost-effectiveness of pneumococcal conjugate vaccination: a global modelling analysis. *Lancet Global Health* 2019; 7(1):e58-e67.
- 5) Atkins KE, Lafferty EI, Deeny SR, Robotham J, **Jit M**. Using mathematical modelling to evaluate the impact of vaccines on antibiotic resistance: a mechanistic framework and literature review. *Lancet Infectious Diseases* 2017; 18(6):e204-13.
- 6) Cromer D, van Hoek AJ, Newall A, Pollard A, **Jit M**. The potential health and economic impact of future vaccines and prophylactic antibodies to prevent paediatric respiratory syncytial virus disease. *Lancet Public Health* 2017; 2(8):e367-e374.
- 7) Prem K, Cook A, **Jit M**. Projecting social contact matrices in 152 countries using contact surveys and demographic data. *PLoS Computational Biology* 2017; 13(9):e1005697.
- 8) **Jit M**, Brisson M, Portnoy A, Hutubessy R. Cost-effectiveness of female human papillomavirus vaccination in 179 countries: a PRIME modelling study. *Lancet Global Health* 2014; 2(7):e406.
- 9) **Jit M**, Chapman R, Hughes O, Choi YH. Comparing bivalent and quadrivalent human papillomavirus vaccines: a transmission model-based economic evaluation. *BMJ-British Medical Journal* 2011; 343:d5775.
- 10) **Jit M**, Choi YH, Edmunds WJ. Economic evaluation of human papillomavirus vaccination in the United Kingdom. *BMJ-British Medical Journal* 2008; 337:a769.

**2. A list of the groups (i.e. SAGE and/or any of its sub-groups) in which you have been a participant, and the relevant time periods.**

I have been a member of SPI-M-O from 20 March 2020.

**3. An overview of your involvement with those groups between January 2020 and February 2022, including:**

- a. When and how you came to be a participant;**
- b. The number of meetings you attended, and your contributions to those meetings;**
- c. Your role in providing research, information and advice.**

*a. When and how you came to be a participant;*

I became a participant in SPI-M-O on 20 March 2020. I was invited to that meeting because I was involved in one of the groups estimating the number of true cases of COVID-19 in the UK. I stayed on SPI-M-O throughout the pandemic because my skills in infectious disease modelling and work around COVID-19 continued to be relevant.

*b. The number of meetings you attended, and your contributions to those meetings;*

Date	Contribution
20 March 2020	Presenting estimates of true COVID-19 cases in the United Kingdom
2 December 2020 9 December 2020	Discussing health and economic modelling of the potential impact of COVID-19 vaccination
26 January 2020	Contributing to the discussion of long-term COVID-19 epidemiology

*c. Your role in providing research, information and advice.*

I did not attend most SPI-M-O meetings as much of the work I was leading (as opposed to contributing to) was focused on the global COVID-19 pandemic rather than the UK response. However, I did contribute to SPI-M via occasional email messages to the Secretariat, and attended meetings where I had relevant results to present.

**4. A summary of any documents to which you contributed for the purpose of advising SAGE and/or its related subgroups on the Covid-19 pandemic. Please include links to those documents where possible.**

The SPI-M-O Secretariat has provided (on 30 September 2022) this list of papers I am a co-author on which were presented to SAGE.

SAGE Meeting No.	Date of SAGE (Clearance if off-SAGE week)	Paper	Author(s): main SPI-M-O contacts

SAG E 17	18/03/20	COVID-19 dynamics in children: implications for policy DRAFT [Not in the public domain but part of it formed the basis of this publication: Davies, N.G., Klepac, P., Liu, Y. <i>et al.</i> Age-dependent effects in the transmission and control of COVID-19 epidemics. <i>Nat Med</i> <b>26</b> , 1205–1211 (2020). <a href="https://doi.org/10.1038/s41591-020-0962-9">https://doi.org/10.1038/s41591-020-0962-9</a> ]	Nick Davies, Rosalind Eggo, Petra Klepac, Mark Jit
SAG E 18	23/03/20	Nowcasting the COVID-19 ICU demand in England <a href="https://www.gov.uk/government/publications/lshtm-nowcasting-the-covid-19-icu-demand-in-england-19-march-2020">https://www.gov.uk/government/publications/lshtm-nowcasting-the-covid-19-icu-demand-in-england-19-march-2020</a>	Thibaut Jombart, Mark Jit, John Edmunds
SAG E 85	31/03/21	Interim roadmap assessment: prior to Step 2 <a href="https://www.gov.uk/government/publications/lshtm-interim-roadmap-assessment-prior-to-step-2-31-march-2021">https://www.gov.uk/government/publications/lshtm-interim-roadmap-assessment-prior-to-step-2-31-march-2021</a>	Rosanna Barnard, Nick Davies, Mark Jit, John Edmunds
SAG E 88	05/05/21	Interim roadmap assessment: prior to steps 3 and 4 <a href="https://www.gov.uk/government/publications/lshtm-interim-roadmap-assessment-prior-to-steps-3-and-4-5-may-2021">https://www.gov.uk/government/publications/lshtm-interim-roadmap-assessment-prior-to-steps-3-and-4-5-may-2021</a>	Rosanna C. Barnard, Nicholas G. Davies, Mark Jit & W. John Edmunds
SAG E 92	09/06/21	Interim roadmap assessment: prior to step 4 <a href="https://www.gov.uk/government/publications/lshtm-interim-roadmap-assessment-prior-to-step-4-9-june-2021">https://www.gov.uk/government/publications/lshtm-interim-roadmap-assessment-prior-to-step-4-9-june-2021</a>	Rosanna C. Barnard, Nicholas G. Davies, Mark Jit & W. John Edmunds
SAG E 93	07/07/21	Updated roadmap assessment: prior to delayed step 4 <a href="https://www.gov.uk/government/publications/lshtm-updated-roadmap-assessment-prior-to-delayed-step-4-7-july-2021">https://www.gov.uk/government/publications/lshtm-updated-roadmap-assessment-prior-to-delayed-step-4-7-july-2021</a>	Rosanna C. Barnard, Nicholas G. Davies, Mark Jit & W. John Edmunds
SAG E 96	14/10/21	Autumn–winter scenarios 2021–2022 <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1030874/S1385_SAGE96_LSHTM_Autumn_and_Winter_scenarios.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1030874/S1385_SAGE96_LSHTM_Autumn_and_Winter_scenarios.pdf</a>	Rosanna C. Barnard, Nicholas G. Davies, Mark Jit & W. John Edmunds
SAG E 96	14/10/21	Autumn–winter scenarios 2021–2022: Contingency Scenarios <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1030875/S1397_LSHTM_AW_scenarios_-_contingency_measures.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1030875/S1397_LSHTM_AW_scenarios_-_contingency_measures.pdf</a>	Rosanna C. Barnard, Nicholas G. Davies, Mark Jit & W. John Edmunds
SAG E 99	16/12/21	Modelling the potential consequences of the Omicron SARS-CoV-2 variant in England <a href="https://www.gov.uk/government/publications/lshtm-modelling-the-potential-consequences-of-the-">https://www.gov.uk/government/publications/lshtm-modelling-the-potential-consequences-of-the-</a>	Rosanna C. Barnard, Nicholas G. Davies, Mark Jit & W. John Edmunds



		<a href="#">omicron-sars-cov-2-variant-in-england-11-december-2021</a>	
SAG E 101	23/12/ 21	Omicron scenarios: 28th December restrictions <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1043855/S1464_LSHTM-Omicron-SPI-M.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1043855/S1464_LSHTM-Omicron-SPI-M.pdf</a>	Rosanna C. Barnard, Nicholas G. Davies, Mark Jit & W. John Edmunds

**5. A summary of any articles you have written, interviews and/or evidence you have given regarding the work of the above-mentioned groups and/or the UK's response to the Covid-19 pandemic. Please include links to those documents where possible.**

*Letters written about the work of SPI-M-O*

**Jit M**, Medley G, Brooks Pollock E, Baguelin M, House T, Tildesley M, Kao R. SPI-M modellers: a response to our critics. *The Spectator*. 21 December 2021.

<https://www.spectator.co.uk/article/spi-m-modellers-a-response-to-our-critics>

Thibaut J, Flasche S, Baguelin M, Gog J, Funk S, Kucharski A, **Jit M**, Edmunds J, Klepac P, Dyson L, Birrell P, Charlett A, van Leeuwen E, De Angelis D, Keeling M, Danon L, Eggo R, Tildesley M, Hill E, Brooks Pollock E, Finnie T, Pellis L, Friston K, Jewell C, House T, Gent N. Tackling COVID-19: a collaborative scientific effort. An open letter published on 9 May 2020 and reported by the Guardian and the Daily Mail.

<https://www.mrc-bsu.cam.ac.uk/blog/tackling-covid-19-a-collaborative-scientific-effort/>

*Interviews given about the work of SPI-M-O*

'Lockdown 1.0 - Following The Science?' on BBC2 at 21:00 GMT on Thursday 19 November 2020.

<https://www.bbc.co.uk/programmes/m000pjr1>

<https://www.bbc.co.uk/news/health-54976192>

Full Fact: How media reporting of modelling has shaped our understanding of the pandemic

<https://fullfact.org/health/scientific-modelling-covid/>

*Articles written about the UK response to COVID-19*

For full transparency, I was a co-signatory to the John Snow Memorandum

(<https://www.johnsnowmemo.com/john-snow-memo.html>), although I do not consider this a commentary on the UK response to COVID-19.

**Jit M**, Jombart T, Nightingale ES, Endo A, Abbott S; LSHTM Centre for Mathematical Modelling of Infectious Diseases COVID-19 Working Group, Edmunds WJ. Estimating number of cases and spread of coronavirus disease (COVID-19) using critical care admissions, United Kingdom, February to March 2020. *Euro Surveill*. 2020 May;25(18):2000632. doi: 10.2807/1560-7917.ES.2020.25.18.2000632. PMID: 32400358; PMCID: PMC7219029.

Sandmann FG, White PJ, Ramsay M, **Jit M**. Optimizing Benefits of Testing Key Workers for Infection with SARS-CoV-2: A Mathematical Modeling Analysis. *Clin Infect Dis*. 2020 Dec 15;71(12):3196-3203. doi: 10.1093/cid/ciaa901. PMID: 32634823; PMCID: PMC7454477.

Davies NG, Barnard RC, Jarvis CI, Russell TW, Semple MG, **Jit M**, Edmunds WJ; Centre for Mathematical Modelling of Infectious Diseases COVID-19 Working Group; ISARIC4C investigators. Association of tiered restrictions and a second lockdown with COVID-19 deaths and hospital admissions in England: a modelling study. *Lancet Infect Dis*. 2021 Apr;21(4):482-492. doi: 10.1016/S1473-3099(20)30984-1. Epub 2020 Dec 24. PMID: 33357518; PMCID: PMC7758181.

Davies NG, Abbott S, Barnard RC, Jarvis CI, Kucharski AJ, Munday JD, Pearson CAB, Russell TW, Tully DC, Washburne AD, Wenseleers T, Gimma A, Waites W, Wong KLM, van Zandvoort K, Silverman JD; CMMID COVID-19 Working Group; COVID-19 Genomics UK (COG-UK) Consortium, Diaz-Ordaz K, Keogh R, Eggo RM, Funk S, **Jit M**, Atkins KE, Edmunds WJ. Estimated transmissibility and impact of SARS-CoV-2 lineage B.1.1.7 in England. *Science*. 2021 Apr 9;372(6538):eabg3055. doi: 10.1126/science.abg3055. Epub 2021 Mar 3. PMID: 33658326; PMCID: PMC8128288.

Sandmann FG, Davies NG, Vassall A, Edmunds WJ, **Jit M**; Centre for the Mathematical Modelling of Infectious Diseases COVID-19 working group. The potential health and economic value of SARS-CoV-2 vaccination alongside physical distancing in the UK: a transmission model-based future scenario analysis and economic evaluation. *Lancet Infect Dis*. 2021 Jul;21(7):962-974. doi: 10.1016/S1473-3099(21)00079-7. Epub 2021 Mar 18. Erratum in: *Lancet Infect Dis*. 2021 Oct;21(10):e302. PMID: 33743846; PMCID: PMC7972313.

Forman R, Shah S, Jeurissen P, **Jit M**, Mossialos E. COVID-19 vaccine challenges: What have we learned so far and what remains to be done? *Health Policy*. 2021 May;125(5):553-567. doi: 10.1016/j.healthpol.2021.03.013. Epub 2021 Mar 26. PMID: 33820678; PMCID: PMC7997052.

Sweeney S, Capeding TPJ, Eggo R, Huda M, **Jit M**, Mudzengi D, Naylor NR, Procter S, Quaife M, Serebryakova L, Torres-Rueda S, Vargas V; CHiL COVID Working Group, Vassall A. Exploring equity in health and poverty impacts of control measures for SARS-CoV-2 in six countries. *BMJ Glob Health*. 2021 May;6(5):e005521. doi: 10.1136/bmjgh-2021-005521. PMID: 34039588; PMCID: PMC8159665.

Sherratt K, Abbott S, Meakin SR, Hellewell J, Munday JD, Bosse N; CMMID COVID-19 Working Group, **Jit M**, Funk S. Exploring surveillance data biases when estimating the reproduction number: with insights into subpopulation transmission of COVID-19 in England. *Philos Trans R Soc Lond B Biol Sci*. 2021 Jul 19;376(1829):20200283. doi: 10.1098/rstb.2020.0283. Epub 2021 May 31. PMID: 34053260; PMCID: PMC8165604.

Forman R, **Jit M**, Mossialos E. Divergent vaccination policies could fuel mistrust and hesitancy. *Lancet*. 2021 Jun 19;397(10292):2333. doi: 10.1016/S0140-6736(21)01106-5. Epub 2021 Jun 1. PMID: 34087111; PMCID: PMC8169059.

**Jit M**, Ananthakrishnan A, McKee M, Wouters OJ, Beutels P, Teerawattananon Y. Multi-country collaboration in responding to global infectious disease threats: lessons for Europe from the COVID-19 pandemic. *Lancet Reg Health Eur*. 2021 Oct;9:100221. doi: 10.1016/j.lanepe.2021.100221. Epub 2021 Oct 7. PMID: 34642675; PMCID: PMC8495250.

Barnard RC, Davies NG; Centre for Mathematical Modelling of Infectious Diseases COVID-19 working group, **Jit M**, Edmunds WJ. Behaviour, booster vaccines and waning immunity: modelling the medium-term dynamics of SARS-CoV-2 transmission in England in the Omicron era. *medRxiv [Preprint]*. 2022 May 20:2021.11.22.21266584. doi: 10.1101/2021.11.22.21266584. Update in: *Nat Commun*. 2022 Aug 19;13(1):4879. PMID: 34845459; PMCID: PMC8629203.

Liu Y, Sandmann FG, Barnard RC, Pearson CAB, Pastore R, Pebody R, Flasche S, **Jit M**. Optimising health and economic impacts of COVID-19 vaccine prioritisation strategies in the WHO European Region: a mathematical modelling study. *Lancet Reg Health Eur*. 2022 Jan;12:100267. doi: 10.1016/j.lanepe.2021.100267. Epub 2021 Nov 30. PMID: 34870256; PMCID: PMC8629724.

Kucharski AJ, **Jit M**, Logan JG, Cotten M, Clifford S, Quilty BJ, Russell TW, Peeling RW, Antonio M, Heymann DL. Travel measures in the SARS-CoV-2 variant era need clear objectives. *Lancet*. 2022 Apr 9;399(10333):1367-1369. doi: 10.1016/S0140-6736(22)00366-X. Epub 2022 Mar 2. PMID: 35247312; PMCID: PMC8890754.

McCarthy CV, O'Mara O, van Leeuwen E; CMMID COVID-19 Working Group, **Jit M**, Sandmann F. The impact of COVID-19 vaccination in prisons in England and Wales: a metapopulation model. *BMC Public Health*. 2022 May 18;22(1):1003. doi: 10.1186/s12889-022-13219-4. PMID: 35585575; PMCID: PMC9115545.

Tildesley MJ, Vassall A, Riley S, **Jit M**, Sandmann F, Hill EM, Thompson RN, Atkins BD, Edmunds J, Dyson L, Keeling MJ. Optimal health and economic impact of non-pharmaceutical intervention measures prior and post vaccination in England: a mathematical modelling study. *R Soc Open Sci*. 2022 Aug 10;9(8):211746. doi: 10.1098/rsos.211746. PMID: 35958089; PMCID: PMC9364008.

Barnard RC, Davies NG; Centre for Mathematical Modelling of Infectious Diseases COVID-19 working group, **Jit M**, Edmunds WJ. Modelling the medium-term dynamics of SARS-CoV-2 transmission in England in the Omicron era. *Nat Commun*. 2022 Aug 19;13(1):4879. doi: 10.1038/s41467-022-32404-y. PMID: 35986002; PMCID: PMC9389516.

#### *Interviews given about the UK response to COVID-19*

Date	Media type	Media outlet(s)	Summary
04-Mar-20	Print	Multiple (including Sky News, Telegraph, Mirror, Sun, Daily Star)	Coronavirus outbreak: These are the best and worst-case scenarios.
27-Mar-20	Print	Associated Press	Not all or nothing: Anti-virus lockdowns could lift slowly.

19-Jun-20	Internet	Investigate Europe	Covid Vaccine: All in this Together?
16-Jul-20	TV	Sky News	Coronavirus: From a second wave to the hunt for a vaccine - what the future may hold for COVID-19.
27-Sep-20	Radio	Times Radio	National lockdown.
27-Oct-20	TV	Channel 4	Three-tier lockdown system 'not having enough of an effect', says epidemiologist Prof Mark Jit.
28-Oct-20	TV	BBC News Channel	Christmas lockdown restrictions
31-Oct-20	Print	Daily Telegraph	The real Contagion: governments face agonising decisions about who to vaccinate first.
10-Nov-20	Print	Daily Telegraph	How past vaccines changed the world – and what their rollout tells us about the challenges ahead.
20-Nov-20	Print	Scientific American	Doing the Touchy Math on Who Should Get a COVID Vaccine First.
25-Nov-20	Print	Multiple (including Independent, Washington Post, LA Times and SF Gate)	With high hopes for vaccine, Britain prepares to roll it out.
03-Dec-20	Radio	Mitch Albom Show	COVID-19 vaccine rollout.
03-Dec-20	TV	BBC News Channel	Covid vaccine: your questions answered.
04-Dec-20	TV	Sky News	Social distancing could still be necessary, even with a vaccine, Sky News has been told.
07-Dec-20	Radio	BBC World	COVID-19 vaccine rollout.
08-Dec-20	Print	Daily Mail	Shutting Britain's borders at the start of coronavirus's first wave could have prevented major outbreak, another study suggests.
08-Dec-20	Print	The Times	International air travel curbs 'of little use' against Covid.
18-Dec-20	TV	BBC World	COVID-19 vaccine rollout.
19-Dec-20	Periodical	Prospect	Vaccines are being approved. Now comes the hard part.
22-Dec-20	Internet	Nature News	What the data say about border closures and COVID spread.
07-Jan-21	TV	BBC News Channel	COVID-19 vaccine rollout in the UK
08-Jan-21	Internet	BBC News	Coronavirus: Why is the UK bringing in travel testing?
11-Jan-21	Radio	National Public Radio (NPR)	Math Problem: What's The Best Strategy For COVID-19 Vaccination?
25-Jan-21	Internet	Al Jazeera	COVID: How has the UK managed to master the vaccine roll-out?
29-Jan-21	Internet	Wired	We asked coronavirus experts what summer 2021 will be like
05-Feb-21	Print	The Times	Coronavirus: Scientists raise hopes of March meetings and normal summer
09-Feb-21	Radio	TalkRADIO	Mark Dolan live: COVID-19 vaccination and lockdown



12-Feb-21	Internet	Lonely Planet	Will festivals happen in 2021? Here's what we know so far
13-Feb-21	Internet	Sky News	COVID-19: Vaccine nationalism, high prices and supply chain issues slowing worldwide coronavirus inoculation, say scientists
14-Feb-21	Internet	Associated Press	Virus may never go away but could change into mild annoyance
14-Feb-21	TV	Sky News	COVID-19 vaccination in England
22-Feb-21	Periodical (Scientific)	New Scientist	Face masks needed in the UK until 2022, says poll of disease experts
25-Feb-21	TV	BBC Two	Coronavirus: A Horizon Special
22-Mar-21	Internet	National Post (Canada)	They kill jobs, overwhelm treasuries, harm mental health but COVID lockdowns work, science suggests
02-Apr-21	Radio	Times Radio	New guidance on shielding, with Manveen Rana
06-Apr-21	TV	Sky News	Government easing of lockdown restrictions
15-Apr-21	TV	ITV	Tonight : Summer Holidays: What's the Truth?
28-Apr-21	Print	Times	40m people in England live in areas almost free from Covid
30-Apr-21	TV	Fuji News Network (Japan)	In parallel with vaccination in the UK ... Free distribution of test kits twice a week
13-May-21	Radio	TalkRADIO	Ian Collins live: COVID-19 variants
16-May-21	Internet	VnExpress	Separation of arrivals from high-risk countries and other Covid quarantine measures
17-May-21	Print	Times	However things work out, it won't be the old normal after lockdown
31-May-21	TV	Sky News	Mixing during the bank holiday
03-Jun-21	TV	BBC Newsnight	Travel restrictions
19-Jun-21	TV and print	BBC News	Covid: Queues at pop-up vaccine centres amid jabs push
19-Jun-21	Radio	BBC Five Live	Covid third wave
05-Jul-21	TV	Sky News	UK reopening after COVID-19 restrictions
19-Jul-21	Radio	Bloomberg	U.K. Set for Big Reopening as Cases Soar
27-Jul-21	Print	Times	The fall in Covid cases is great news (but a bit baffling)
09-Aug-21	Print	Newsweek	COVID Breakthrough Cases Worrying, but Vaccine Hesitancy Is Worse: Experts
17-Aug-21	Print	Telegraph	Childhood vaccination campaigns should not be cancelled due to Covid, researchers say
23-Aug-21	Radio	Bloomberg	Bloomberg radio with Yuan Potts
24-Aug-21	TV	Arirang News	At home COVID-19 treatment
13-Sep-21	Radio	Times Radio	Matt Chorley live: Vaccination teenagers
13-Oct-21	TV	Arirang News	The Daily Report: UK's continued battle with COVID-19

18-Oct-21	Internet	Wired	We asked Covid experts what this winter will be like
25-Oct-21	Internet	Huffington Post	Will Covid ever end?
30-Oct-21	Internet	Patient.info	Does being vaccinated against COVID-19 stop you getting infected?
09-Nov-21	Radio	Bloomberg	Bloomberg radio with Yuan Potts
30-Nov-21	Print	Newsweek	As Omicron Variant Spreads, Will the COVID Pandemic Ever End?
11-Dec-21	TV	ITV	Modelling spread of the Omicron variant
11-Dec-21	TV	Channel 4	Modelling spread of the Omicron variant
13-Dec-21	Radio	LBC Radio	Omicron
13-Dec-21	TV	Sky News	Omicron COVID variant: Your questions answered
14-Dec-21	Podcast	The Economist	Unpacking Omicron—making sense of the data (Babbage podcast)
15-Dec-21	Internet	VICE	Why Does It Feel Like Everyone You Know Has COVID-19?
15-Dec-21	TV	Sky News	Omicron COVID update: Q&A
17-Dec-21	Internet	Timeout	Why London's terrible vaccination statistics aren't quite what they seem
20-Dec-21	TV	BBC News Channel	Covid
22-Dec-21	TV	Fuji News Network (Japan)	Covid
23-Dec-21	TV	BBC News Channel	Covid
27-Dec-21	TV	BBC News Channel	Covid
30-Dec-21	Print	Newsweek	Omicron May Be the 'Harbinger of the End' of COVID's Epidemic Phase, Study Says
14-Jan-22	Print	Newsweek	Omicron COVID Variant Symptoms and Severity in Vaccinated Adults Explained

**6. Your views as to whether the work of the above-mentioned groups in responding to the Covid-19 pandemic (or the UK's response more generally) succeeded in its aims. This may include, but is not limited to, your views on:**

- a. The composition of the groups and/or their diversity of expertise;**
- b. The way in which the groups were commissioned to work on the relevant issues;**
- c. The resources and support that were available;**
- d. The advice given and/or recommendations that were made;**
- e. The extent to which the groups worked effectively together;**
- f. The extent to which applicable structures and policies were utilised and/or complied with and their effectiveness.**

I do not have a public opinion on most of the questions above. The only questions I have a public opinion on are as follows:

- a. The composition of the groups and/or their diversity of expertise**

My personal opinion is that expert advisory committees advising governments on COVID-19 response require expertise from and dialogue between epidemiologists and economists, so that the trade-offs between health and socioeconomic aspects of human welfare can be made clear.

Further details and justification for this opinion can be found in articles I have co-authored:

- **Jit M.** Improving the role of health technology assessment in pandemic response. *HTAsia Link Newsletter* 2021; 15. <https://www.hitap.net/documents/181084>
- Vassall A, Sweeney S, Barasa E, Prinja S, Keogh-Brown MR, Jensen HT, Smith R, Baltussen R, Eggo RM, **Jit M.** Integrating economic and health evidence to inform Covid-19 policy in low- and middle- income countries. *Wellcome Open Research* 2022, 5:272. <https://wellcomeopenresearch.org/articles/5-272>

#### **d. The advice given and/or recommendations that were made**

My personal opinion is that the work of the UK modelling community to inform government response to COVID-19 (via SPI-M-O, SAGE, JCVI and other expert groups) represents high-quality science given the constraints of time, data and resources at that time.

More detailed expressions of these views in response to particular situations are available in two letters that my name has been included on.

- **Jit M**, Medley G, Brooks Pollock E, Baguelin M, House T, Tildesley M, Kao R. SPI-M modellers: a response to our critics. *The Spectator*. 21 December 2021. <https://www.spectator.co.uk/article/spi-m-modellers-a-response-to-our-critics>
- Thibaut J, Flasche S, Baguelin M, Gog J, Funk S, Kucharski A, **Jit M**, Edmunds J, Klepac P, Dyson L, Birrell P, Charlett A, van Leeuwen E, De Angelis D, Keeling M, Danon L, Eggo R, Tildesley M, Hill E, Brooks Pollock E, Finnie T, Pellis L, Friston K, Jewell C, House T, Gent N. Tackling COVID-19: a collaborative scientific effort. An open letter published on 9 May 2020 and reported by the Guardian and the Daily Mail. <https://www.mrc-bsu.cam.ac.uk/blog/tackling-covid-19-a-collaborative-scientific-effort/>

#### **7. Your views as to any lessons that can be learned from the UK's response to the Covid-19 pandemic, in particular relating to the work of the above-mentioned groups. Please describe any changes that have already been made, and set out any recommendations for further changes that you think the Inquiry should consider making.**

My personal recommendations for future pandemic preparedness in the UK and other countries, based on our experience of COVID-19 (as well as other emergencies such as 2009 influenza A/H1N1, Ebola and monkeypox) include the importance of the following:

- Strong global and national surveillance systems put rapidly in place early in a pandemic and maintained so that policy decisions can draw on good epidemic intelligence.
- Communication and collaboration between epidemiologists, economists, behavioural scientists and ethicists in order to inform an integrated whole society approach to

pandemic response, rather than one where advice is siloed into separate public health, economic, public values etc. considerations.

- Multilateral collaboration between countries in order to coordinate containment at source, procurement and distribution of essential supplies (personal protective equipment, antivirals, tests, vaccines etc.) and international travel policies.

These personal opinions should not be construed as an appraisal of the performance of the UK or any of its institutions in response to the COVID-19 pandemic starting in 2020.

I have made these points in publicly available documents, for example:

- **Jit M.** Improving the role of health technology assessment in pandemic response. *HTAsia Link Newsletter* 2021; 15. <https://www.hitap.net/documents/181084>
- **Jit M**, Ananthakrishnan A\*, McKee M\*, Wouters O\*, Beutels P\*, Teerawattananon Y\*. Multi-country collaboration in responding to global infectious disease threats: lessons for Europe from the COVID-19 pandemic. *Lancet Regional Health – Europe* 2021; 9:100221. [https://www.thelancet.com/journals/lanep/article/PIIS2666-7762\(21\)00198-8/fulltext](https://www.thelancet.com/journals/lanep/article/PIIS2666-7762(21)00198-8/fulltext)
- Vassall A, Sweeney S, Barasa E, Prinja S, Keogh-Brown MR, Jensen HT, Smith R, Baltussen R, Eggo RM, **Jit M**. Integrating economic and health evidence to inform Covid-19 policy in low- and middle- income countries. *Wellcome Open Research* 2022, 5:272. <https://wellcomeopenresearch.org/articles/5-272>

**8. A brief description of documentation relating to these matters that you hold (including soft copy material held electronically). Please retain all such material. I am not asking for you to provide us with this material at this stage, but I may request that you do so in due course.**

I have computer code and detailed results for the publications and reports that I am first author on.