IN THE UK COVID-19 PUBLIC INQUIRY
BEFORE BARONESS HEATHER HALLETT
IN THE MATTER OF:
THE PUBLIC INQUIRY TO EXAMINE THE COVID-19 PANDEMIC IN THE UK

Covid-19 Bereaved Families for Justice UK and NI Covid-19 Bereaved Families for Justice
M1 CLOSING SUBMISSIONS: ANNEX A
SCHEDULE OF RECOMMENDATIONS

ANNEX A		
No.	**Recommendation**	**Relevant evidence**
Resilience, public health, inequality and austerity		
1.	**The UK Government and devolved administrations should publicly restate their commitment to improving health inequalities, and publish clear plans as to how they intend to do so.**	INQ000195843/47§26; Fenton:D15:P91:L25:P92-92:L4 INQ000195843/82§199.1
2.	**Resilience planning, and healthcare, public health and social care capacity should be adequately resourced. In order to ensure democratic accountability, the responsible Secretary of State should publish an annual statement setting out the sufficiency of resilience and capacity resources, and how deficiencies are being addressed.**	INQ000203349/186§1c; INQ000203349/191§26
3.	**The UK and devolved administrations should commission and fund research to examine the drivers of pandemic inequalities and how to reduce them. This should include combatting structural and institutional discrimination.**	INQ000195843/82§199.2
4.	**Pandemic planning and preparation should integrate a 'health equity lens' across all aspects of the process.**	INQ000195843/82§199.3
5.	**Plans and programmes relating to health inequalities must be co-produced (produced in collaboration with relevant communities) and culturally competent.**	INQ000148405/11§38; INQ000196611/34§87b
6.	**Scientific, practitioner (e.g. local authority Directors of Public Health, regional officers from the Office for Health Improvement and Disparities) and voluntary sector expertise on health inequalities should be integrated into all planning and preparation processes.**	INQ000195843/83§199.4
7.	**Health Equity Impact Assessments should be routinely applied to pandemic planning to ensure that the full range of differential social, economic and health risks - and how to mitigate them - are systematically identified, understood, and acted upon.**	INQ000195843/83§199.5
8.	**To aid policymaking in general and preparedness for a pandemic in particular, better data surveillance and monitoring of health inequalities needs to be undertaken across all of the UK administrations.**	INQ000195843/83§199.6

9.	**There should be a duty on all who hold responsibilities regarding resilience and planning, or advising on the same, to raise with the responsible Secretary of State any issues of capacity or resourcing which might impact on the ability of the UK to optimise its response to a pandemic.**	INQ000203349/190§23
10.	**All civil emergency plans should incorporate clear statements indicating (a) how they will combat the effects of structural and institutional racism, other forms of structural discrimination relating to protected characteristics, the effects of health inequalities, and how they will protect vulnerable persons. (b) how the plans protect human rights and ensure a people-centric approach.**	INQ000195843/83§199.5; INQ000203349/196§42
Failure in risk assessment and planning		
11.	**The NSRA should set out for each risk the full scientific evidence base for the assumptions made within that risk. There should be an assumption that the full risk scenario and underlying evidence base is made public unless this is not possible for national security reasons.**	Mann and Alexander:D3:P177:L1-8; McMahon:D16:P93:L13-17
12.	**Responsibility for the NSRA should lie with the Minister identified in the recommendation dealing with 'Single Point Of Responsibility'.**	Letwin:D6:P54:L17-P55:L14; Walport:D7:P31:L7-P32:L25
13.	**The devolved administrations should provide an important layer of scrutiny and develop their own processes for challenge so that risks are considered, analysed and if appropriate, adapted, rather than simply reflexively adopted.**	Russell:D11:P55:L25-P57:L1; Russell:D11:P61:L8-L16; Goodall:D14:P4:L4-P6:L14
14.	**A range of scenarios should be generated for each risk and these should be included within the NSRA to ensure transparency.**	Walport:D7:P35:L20-P36:L20
15.	**The NSRA should address prevention and mitigation measures in respect of each risk.**	Walport:D7:P30:L16-25; Walport:D7:P40:L10-P42:L17
16.	**There should be a 'data needs' analysis for each risk on the NSRA which sets out what data is needed to assess, prevent, mitigate and respond. This should be integrated into an overall civil emergency data strategy and published.**	INQ000186622/7-8
17.	**Expert scientific advice and scrutiny should be built into the risk assessment process. In particular, the proposed independent standing scientific committee on pandemics (see recommendation 27) should have a formal role in advising on the NSRA.**	INQ000022709/7
18.	**Risks should not be prioritised according to likelihood, beyond an initial assessment of plausibility. Particular attention should be paid to high impact risks.**	Mann:D3:P108:L14-P109:L3 Letwin:D6:P31:L24-P33:L20; Walport:D7:P46:L4-P47:L4
19.	**The advice that forms the basis of the national risk assessment should be appended to it and should have recorded on it the names of the experts and institutions or organisations giving the advice, and the date for review.**	Vallance:D8:P140:L8 – P141:L18

20.	**Alongside the 'scenarios based' NSRA there should be an assessment of flexibility and adaptability of planning for each group of risks.**	Whitworth and Hammer:D2:P136:L9-L20; Heymann:D3:P63:L10-L18; Walport:D7:P36:L4-L7
Civil contingencies structures		
21.	**There should be a Secretary of State for Resilience and Civil Emergencies, who is the single point of responsibility for UK civil emergency resilience and planning. They should be responsible for the assurance of resilience across Central Government, intergovernmental cooperation with the devolved administrations, and assurance of regional and local civil emergency tiers. The responsibilities of this Minister should not be diluted by other portfolios.**	INQ000203349/189§21-2 & 191§25; Letwin:D6:P39:L14-P40:L14
22.	**For whole system risks, the responsibility for planning and preparedness should lie with the Secretary of State for Resilience and not with a Lead Government Department.**	Letwin:D6:P54:L17-P55:L14; Walport:D7:P31:L7-P32:L25
23.	**Each devolved administration should appoint a counterpart Minister.**	INQ000203349/190§22
24.	**There should be an inspectorate established to assure resilience, both at central and local levels.**	INQ000203349/186-8§3-13; Mann and Alexander:D3:P133:L25-P134:L12
25.	**There should be an independent agency - a 'National Office for Resilience' - which brings together research and knowledge, sets standards and provides training and independent advice to the Secretary of State, and local tiers.** The first task of this organisation should be to conduct an urgent review of the National Standards, in line with the concerns raised by the Independent Commission and opinions of Bruce Mann and Professor Alexander. The Office should report annually to Parliament. The inspectorate could be based in this organisation.	Mann and Alexander INQ000203349/190§21, 189/21, 192§32, 192/34
26.	**Legal duties should be placed on central government to ensure up to date national planning, and guidance, information sharing and oversight to the local tier, and assurance.**	INQ000203349/190§23; Mann and Alexander:D3:P142:L20-P143:L6; Hargreaves:D8:P24:L2-10
27.	**There should be an independent, UK standing scientific committee on pandemics with terms of reference to advise those formulating the N(S)RA and planning and to challenge where necessary, and to advise Government on resilience and preparedness for pandemics, including prevention, mitigation and adequate levels of resourcing.** This Standing Committee should include a diversity of experience and expertise including frontline medics and social care experts. The Standing Committee, should be funded and supported, meet regularly, publish an annual report, which should include preparedness (resilience, capacities, planning, and prevention and mitigation measures, monitoring lessons learned and implementation of recommendations) and it should be as transparent as possible in all its activities.	INQ000196611/35§88d; Farrar:D12:P11:L10-25; INQ000195843/83§199.4; INQ000203352/23§69; Farrar:D12:P3:L13-14
28.	**A 'red team challenge' mechanism should be established.**	Farrar:D12:P14:L14-P15:L1;

		INQ000184637/10§7.4; INQ000177796/7§27 & 15-16§70; INQ000177810/3§9
29.	**Structures must ensure that scientific advice is not only independent but autonomous. In particular, advisers must have the discretion to pose their own questions and a budget to commission necessary research.**	INQ000196611/34§87c [26.05.23] Prof Jimmy Whitworth & Dr Charlotte Hammer
Learning from infectious disease outbreaks and exercises		
30.	**The Inquiry should adopt the recommendations of Professor Heymann, Professor Whitworth and Dr Hammer, and Dr Kirchhelle.**	INQ000195846/56§266; INQ000196611/35§88a-g; INQ000205178/95§148
31.	**Reports on exercises and learning from infectious disease outbreaks should routinely be published to support corporate memory and ensure that lessons are publicly-available, collated, and learned.**	Swinson:D5:P182:L21-22
32.	**There should be a 'transparent independent assessment of the UK's preparedness capacities, which should also be available for public scrutiny.'**	INQ000148421/7§12
33.	**'The UK must be an energetic contributor – financially, technically and diplomatically - to WHO and its work on global health security'.**	INQ000148421/11§20; INQ000182610/24
34.	**UK funding should be sufficient for national academic and technical experts to support international activities that strengthen global epidemic and pandemic preparedness.** Funding for research and development should not be limited to vaccine programmes.	INQ000195846/55§264; INQ000207281/7; INQ000148421/11§19
35.	**There should be continued and sufficient Official Development Assistance funding on pandemic prevention, preparedness and response capacity.**	INQ000182610/24
36.	**The UK should be proactive in negotiations around the revised International Health Regulations and Pandemic Treaty, to expedite change, and to try to make them as binding and enforceable as possible.**	INQ000195846/56§263
37.	**The UK should meet its commitment to returning to the UN target of 0.7% of Gross National Income on Overseas Development Assistance, which is essential to global pandemic resilience and warning systems.**	INQ000182610/24; INQ000195846/56§263
Core capabilities		
38.	**An urgent review of the UK's capacity to respond to an emerging infectious disease with a view to making a business case for the financial investment required.** The review must include tangible assets such as infectious disease beds and stockpiles of pharmaceutical and nonpharmaceutical countermeasures, and intangible assets such as staffing levels, staff training and the integration of the adult social care sector through mechanisms such as a national care system.	INQ000196611/35§88c [26.05.23] Prof Jimmy Whitworth & Dr Charlotte Hammer; INQ000182608/22§52 [28.04.23] Clara Swinson Wormald:D5:P153:L24-P155:L14; INQ000148421/8§15 [12.04.23] Dr Richard Horton; INQ000182610/22-23 [10.03.23] Sir Jeremy

		Farrar; INQ000184638/75§7.2 [05.05.23] WS2 Sir Chris Whitty; INQ000205178/100-1§147 [01.06.23] Dr Claas Kirchhelle; INQ000192268/10-11§39 [24.05.23] Duncan Selbie
39.	**Ensure a public health workforce that is fit for the future.** There must be a clear plan for recruiting and retaining public health specialists, at all levels, with expertise and knowledge in health protection, and clarification and strengthening of the role of Directors of Public Health	INQ000183419/47 [03.05.23] Prof Jim McManus; McManus:D15:P64:L22-P65:L2; INQ000148405/12§40 [13.04.23] Prof Kevin Fenton; INQ000182604/3-4§9-11 [19.04.23] Jeane Freeman; Freeman:D11:P129:L17-24; INQ000177803/77-78§317 [19.04.23] Mark Lloyd INQ000196611/36§88h [26.05.23] Report of Prof Jimmy Whitworth & Dr Charlotte Hammer
40.	**Ensure there is sufficient resource in the health and social care sectors to deliver high quality care on a routine basis <u>and</u> to respond to infectious disease outbreaks with pandemic potential as required.**	INQ000182610/26 [10.03.23] Sir Jeremy Farrar; INQ000177796/15§67 [04.04.23] Jeremy Hunt; Hunt:D7:P186:L17-18; INQ000177809/47§119-121 [20.04.23] Rosemary Gallagher MBE; INQ000177802/52§205 [20.04.23] Chris Llewelyn; INQ000148416/19§69 & 22§85 [12.04.23] Nigel Edwards; INQ000148421/8§15 [12.04.23] Dr Richard Horton Hancock:D10:P95:L17-P96:L17
41.	**The Secretary of State for Resilience should be responsible for ensuring that all sectors of the public have adequate access to PPE.** Every health and social care setting should be required to have its own stockpile of PPE resourced by the Government. It should be the responsibility of the Secretary of State for Resilience to ensure all frontline	Hancock:D10:P68:L24-P69:L9

	essential services have access to sufficient, in-date and appropriate PPE, and to provide guidelines for the private sector. The Secretary of State for Resilience should ensure that PPE planning includes key workers from all sectors, and not simply health and social care. Emergency supply lines and surge manufacturing contingencies for PPE must be in place, to maintain provision for essential services and workers, and for the general public. There must be an adequate plan for distribution of PPE.	
42.	**Establish a national care service.** Consideration should be given to the creation of a national care service to improve resilience and preparedness in the social care sector in order to better protect service users and health and social care staff from the next pandemic. This should address the disparity in quality of care and preparedness within the social care sector.	INQ000181825/19§86 [23.04.23] Matt Hancock; INQ000148421/8§15 [12.04.23] Dr Richard Horton; INQ000203352/24-25§73 [06.06.23] Sir Michael McBride
43.	**Ensure that it is possible to rapidly scale test and trace capabilities.** There should be a review of capacities across the four nations for testing and tracing contacts of those infected. This should also include support for people to self isolate.	INQ000205274/12§43 [18.04.23] Baroness Foster; INQ000177802/52§205 [20.04.23] Chris Llewelyn; INQ000148421/8§15 [12.04.23] Dr Richard Horton
44.	**Invest in specialist isolation facilities for infectious diseases.** The UK government should learn from the Covid-19 pandemic and specifically consider the role of ventilation in the transmission of infection.	INQ000177809/47§118 [20.04.23] Rosemary Gallagher MBE
Institutional culture		
45.	**A legislative framework such as that proposed in the Public Authority (Accountability) Bill should be passed to encourage a culture of candour amongst public authorities, especially in their approach to inquests and inquiries.**	Open Source link to Bill
46.	**A National Oversight Mechanism should be established to monitor lesson learning from major inquests and inquiries.**	Open source link to INQUEST proposal
47.	**There should be a people first approach with duties placed on both local responders and at the national level, to require the integration of community and voluntary groups into civil emergency plans, to require positive community engagement with transparent public communication regarding threats and planned mitigations.**	INQ000203349/196§42-3

48.	**There should be trauma informed national guidance for the local tier about dignity in death.** This should provide analysis of burial rights of different communities, analysis of the importance of the grieving process for coming to terms with the loss of a loved one and examples to local authorities of the poor treatment of bereaved families during the Covid-19 pandemic and other emergencies to ensure that lessons are learned. Minimum standards for local planning and operations in relation to burial rites and the grieving process should be included. These minimum standards should include the requirement to analyse needs in the local community and the requirement to ensure that measures taken are necessary, based on the risk of infection.	Lloyd:D19:P134:L3-P141:L3
49.	**There should be a review of processes from other sectors where integrating learning and safety is better achieved, specifically the airline industry, with consideration of whether processes can be adopted.**	Open Source comparative review of aviation and healthcare with implications for patient safety.

SECTION B		
The absence of the NI Executive		
50.	**The Inquiry recommends that the UK government introduce legislation to require that if the ministers of the Northern Ireland Executive with powers and duties for civil contingencies and pandemic preparedness have not be in position for a period of no more than 6 months, all the powers and duties of that/those minister(s) shall revert to a designated minister of His Majesty's Government at the end of a 6 month period from the first date of the Northern Ireland minister(s) absence.**	McBride:D17:P130:L1-23; Foster:D18:P22:L6-P23:L15; O'Neill:D19:P35-P39; Pengelly:D18:P93:L13-14; McMahon:D16:P13:L13-18; Swann:D16:P158:L15-P159:L9
The impact of No Deal EU Exit planning		
51.	**The Inquiry recommends that Westminster and devolved legislation be introduced in which minimal levels of funding and staffing for civil contingencies and pandemic preparedness are identified and below which funding and staffing cannot fall. There should also be statutory provision that such levels are indexed linked, be kept under review and amended in accordance with identified risks.**	Dawson:D19:P174-177; McBride:D17:P185:L15-22; O'Neill:D19:P61:L13-P62:L1; McMahon:D16:P15:L21-P16:L1
Scientific advice		
52.	**The Inquiry recommends that there should be legislation at Westminster and/or devolved level requiring that a Chief Scientific Adviser to the Northern Ireland Executive be appointed.**	Foster:D18:P53:L17-20; O'Neill:D19:P55:L25-P57:L8
53.	**The Inquiry recommends that a review of the failed process to appoint a Chief Scientific Adviser to the Northern Ireland Executive be undertaken in order to identify the reasons for that failure.**	McMahon:D16:P94:L6-11

54.	**The Inquiry recommends that legislation be introduced at Westminster requiring that Northern Ireland, Scotland and Wales each have permanent and full rights of participation and representation on all central governmental scientific networks and organisations in the UK.**	INQ000187306/1§70,74 & 84; McBride:D17:P158:L7-9; Foster:D18:P55:L16-17
55.	**The Inquiry recommends that the Public Health Act (Northern Ireland) 1967 be updated urgently to: (a) at least mirror the rest of the UK so that it encompasses non-disease public health hazards; and (b), list new pathogens with a provision to keep same updated by way of regulations to be made the relevant Northern Ireland minister.**	Dawson:D19:P162:L7-P163:L16
Civil contingency legislation		
56.	**The Inquiry recommends that a complete review of the civil contingencies in Northern Ireland takes place overseen by an independent chair with a terms of reference to consider how the civil contingency structures in Northern Ireland can be improved, simplified and codified in legislation with the objective of creating accountability, transparency and statutory duties. Such a review must take into consideration the other recommendations of this Inquiry.**	Foster:D18:P60:L14-16; O'Neill:D19:P58:L8-P59:L13
57.	**The Inquiry recommends that, at the very least and as a matter of urgency, similar provisions of the Civil Contingencies Act 2003 that pertain elsewhere in the UK are extended to Northern Ireland either through amendments to the 2003 Act or through separate devolved legislation in Northern Ireland and should make Part 1 applicable to Northern Ireland government Departments.**	McMahon:D16:P59:L2-15; McMahon:D16:P101:L1-15
58.	**The Inquiry recommends that legislation be introduced which requires NI departments with responsibilities for civil contingencies to publish regular reports on the state of civil contingencies in general including funding issues, and with a requirement that those ministers have due regard to such reports with a duty to provide reasons for not following recommendations made therein.**	McMahon:D16:P18:L9-P20:L16
59.	**The Inquiry recommends that legislation be introduced which requires NI departments with responsibilities for civil contingencies to undertake and publish regular risk assessments on civil contingencies and with a requirement that those ministers have due regard to such reports with a duty to provide reasons for not following recommendations made therein.**	Allen:D19:P91:L5-P92:L24
60.	**The Inquiry recommends that legislation be introduced requiring that civil contingency budgets are ringfenced, perhaps with direct funding from central government, and regularly updated.**	McMahon:D16:P40:L16-18; McMahon:D16:P101:L15-17
61.	**The Inquiry recommends that legislation be introduced requiring the consultation and involvement of local councils in Northern Ireland and/or the Northern Ireland Local Government Association in the development, drafting and review of civil contingency plans, policy and guidance.**	Allen:D19:P107:L2-18; Allen:D19:P91:L5-P92:L24

62.	**The Inquiry recommends that the Westminster and the devolved governments attempt to agree between themselves and the Irish government, perhaps using the framework of the Belfast/Good Friday Agreement, a statutory framework in each jurisdiction to allow for cross-border co-ordination and co-operation on civil contingencies, and in particular pandemic planning.**	McBride:D17:P154:L11-P155:L1; McBride:D17:P152:L25-P153:L16; Pengelly:D18:P119:L20-P120:L15
63.	**The Inquiry recommends that legislation be introduced to require social dialogue between central and devolved governments and trade unions on civil contingencies and in particular pandemic preparedness**	Bell:D21:P39:L1-P41:L23; Murphy:D21:P41:L17-21
The chronically poor state of the health service and the impact of austerity in NI		
64.	**The Inquiry recommends that legislation be introduced to require that before any real-term reductions are made to the NI central block grant and/or any NI departmental budgets, an impact assessment must be carried out by the Chancellor of the Exchequer and/or the NI Minister for Finance on how such cuts will affect resilience for pandemics, and that the Chancellor of the Exchequer and/or the NI Minister for Finance must take into consideration any such impact assessment before the reduction is made.**	Kirchhelle:D17:P21:L10-13; Kirchhelle:D17:P109:L19-P110:L2
65.	**The Inquiry recommends that legislation be introduced to prohibit single-year budgets for the NI Department of Health and that recurrent budgets for the NI Department of Health are guaranteed.**	Swann:D16:P175:L1-P176:L6
66.	**The Inquiry recommends that the structural reforms to the NI health and social care system identified in the Bengoa Report are implemented as a matter of urgency.**	Swann:D16:P159:L22-P160:L4; Dawson:D19:P182
Statutory exercises		
67.	**The Inquiry recommends that legislation is introduced to require that regular and scheduled pandemic planning exercises are undertaken and published by the devolved government in Northern Ireland.**	O'Neill:D19:P22:L20-P24:L16; Foster:D18:P40:L15-16; Pengelly:D18:P114:L15-P117:L1; McBride:D17:P121:L16-P125:L15
68.	**The Inquiry recommends that legislation is introduced to require that pandemic planning exercises have the direct involvement of the First and Deputy First Ministers and the Minister for Health in Northern Ireland.**	Ibid
69.	**The Inquiry recommends that legislation is introduced to require that the First and Deputy First Ministers and the Minister for Health in Northern Ireland have due regard to the outcome and recommendations of pandemic planning exercises.**	Ibid
70.	**The Inquiry recommends that legislation is introduced to require that Ministers who decide not to introduce recommendations made by the statutory pandemic planning exercises are required to give reasons for not doing so.**	Ibid

71.	**The Inquiry recommends that legislation is introduced to require that, once a minister has made a decision to implement certain recommendations of a pandemic planning exercise, an oversight group to be appointed to ensure their implementation within a reasonable period.**	Ibid

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BEFORE BARONESS HEATHER HALLETT

IN THE MATTER OF:

THE PUBLIC INQUIRY TO EXAMINE THE COVID-19 PANDEMIC IN THE UK

On behalf of Covid-19 Bereaved Families for Justice UK and NI Covid-19 Bereaved Families for Justice

M1 CLOSING SUBMISSIONS – ANNEX B

Chronology: knowledge of risk of a pandemic similar to Covid-19 during the Relevant Period

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Chronology: knowledge of risk of a pandemic similar to Covid-19 during the Relevant Period				
	Date	**Source**	**Summary**	**Reference**
1	2002	Government	**Getting ahead of the curve** In 2002, the then Chief Medical Officer called for an effective strategy for combatting infectious diseases that 'must address the ever-present threat arising from new diseases, newly discovered diseases or old diseases posing a new or different threat' and found that, *'Although this country is respected internationally for its work on infectious disease surveillance, the present system falls short of what is necessary fully to protect the public health.'*	RH/54: Getting Ahead of the Curve (2002) INQ000097690 p.12, p.55

2	2003	Scientific	**Knowledge gained from SARS-Cov-1 'SARS'** In his evidence to the Inquiry, Professor Heymann highlighted the following key learning that had been gained from SARS about coronaviruses: (a) Coronaviruses could spread widely. Between February 2003 until July 2003, SARS spread from China to 28 countries, and only fortuitously did not spread further. (b) Coronaviruses spread by airborne transmission. SARS spread among healthcare workers through aerosol-generating procedures and close physical contact with infected patients (c) Community transmission happens (d) Effective infection prevention and control ('IPC') is vital. (e) Coronaviruses could cause longer-term disability. (f) There was a risk that an outbreak could occur from a laboratory leak. (g) Coronaviruses need to be contained using non-pharmaceutical intervention: (i) the strengthening of infection control measures in health facilities; (ii) the isolation of patients and their contacts; and (iii) a global coordinated effort to curb travel to sites with uncontrolled outbreaks.	Report of Professor David L. Heymann [19.05.23] INQ000195846/8§28 INQ000195846/7§22 INQ000195846/10§35 INQ000195846/7§21 INQ000195846/8§27 INQ000195846/9§30 Heymann: D3:P20:L2-3 D3:P30:L14-16 D3:P16:L18-25 D3:P18:L24-P19:L8 D3:P27:L5-25
3	2004	Scientific	**SARS had put coronaviruses on the map as a serious human threat** In his oral evidence Dr Horton, from the Lancet, referred to and produced a 2004 report commissioned by the US institute of Medicine in the wake of SARS which warned the world community that it needed to understand coronaviruses and put them on the map as a serious human threat. He told the Inquiry that there was an enormous discussion in the general and specialist medical literature about the dangers of SARS CoV, MERS and zoonotic infections in general: *"we knew that it wasn't just influenza. It's a whole range of different viruses, from coronaviruses to Ebola, and others."* This had been a central debate in the global health community over 20 years.	Horton D20:P67:L20-P68:L13 D20:P87:L22 – P88:L11
4	2013 – 2017	Government	**Draft guidance for SAGE on emerging infections, diseases (golden hour documents)** Sir Mark Walport provided the Inquiry with draft guidance for SAGE on emerging infections, diseases, which was produced between 2013 and 2017. This morphed into the Golden Hour documents. The purpose of the draft guidance stated: *"This document is intended to assist the Government Chief Scientific Adviser and the Scientific Advisory*	Draft guidance for SAGE on emerging infections, diseases INQ000142139/3, 6-8

			Group for Emergencies (SAGE) to provide timely, relevant scientific advice to the Cabinet Office Briefing Rooms (COBR) in the event of an emergency involving a non-influenza emerging or unidentified infectious disease which might affect the UK." In that guidance, the possibility of an emerging infectious disease with a case fatality rate similar to smallpox was contemplated, alongside the possibility of ready asymptomatic transmission, affecting most of the population. It was said that the RWCS for such a disease was based on smallpox which had *"circulated worldwide prior to the introduction of vaccination."* As set out in the section considering impact *"the population is unlikely to have immunity to an emerging pathogen"* and *the majority of the population could be susceptible."* Therefore, *"if the disease is readily transmissible and particularly if transmission can occur before clear symptoms arise in those affected, then there is potential for the majority of the population to become infected during an epidemic that may last from months to one or two years."* The guidance listed key questions that needed to be asked to assess the hazard which reflected an understanding that the disease may transmit asymptomatically. We set out the key parts of this important document in our oral closing submission. Professor Sir Christopher Whitty was aware of and had contributed to this document.	See also summary in CBFFJ UK oral closing D22:76:10-77:23
5	2013 – 2016	Scientific	**<u>Knowledge gained from Ebola</u>** Ebola outbreaks from 2013 to 2016 reinforced the vital importance of rapid containment without a vaccine and highlighted the overlap in capabilities for High Consequence Infectious Diseases ('HCIDs'). The outbreaks underlined that 'when health systems are unable to accommodate an epidemic-related surge of patients, routine health problems cannot be managed either.'	Report of Professor David L. Heymann (19.05.23) INQ000195846/ 29-30§144-5, /30§146
6	2015	Government	**<u>David Cameron speech to the G7</u>** On 8 June 2015, then PM David Cameron gave a speech to the G7 in Bavaria. A UK Government press release ahead of the speech said this: *"In a stark warning to other G7 leaders the PM will say that the world must be far better prepared for future health pandemics that could be more aggressive and harder to contain than the recent Ebola outbreak…experts have warned that lessons must be learnt from what happened. A more virulent disease in future – transmitted by coughing, like flu or*	Report regarding G7 Speech (07.06.15) INQ000146555

			measles for example – would have a much more devastating impact if a better approach is not put in place."	
7	2016	International	**United Nations General Assembly** The Chair of the High level Panel on the Global Response to Health Crises, Jakaya Mrisho Kikwete, warned the UN of the failure to prepare for a major epidemic in the starkest terms in 2016: '*The outbreak of Ebola in West Africa was only one of several epidemics experienced so far in the twenty-first century. These include the four major outbreaks of Middle East respiratory syndrome (MERS) in Saudi Arabia and the Republic of Korea, the pandemics of H1N1 and H5N1 influenza, and severe acute respiratory syndrome (SARS). These all serve as a stark reminder of the threat to humanity posed by emerging communicable diseases…* *Following its extensive consultations, the Panel notes that the high risk of major health crises is widely underestimated, and that the world's preparedness and capacity to respond is woefully insufficient. Future epidemics could far exceed the scale and devastation of the West Africa Ebola outbreak. The Panel was very concerned to learn that the emergence of a highly pathogenic influenza virus, which could rapidly result in millions of deaths and cause major social, economic and political disruption, is not an unlikely scenario…* *Too often, global panic about epidemics has been followed by complacency and inaction. For example, the 2009 influenza pandemic prompted a similar review of global preparedness, but most of its recommendations were not addressed. Had they been implemented, thousands of lives could have been saved in West Africa.*'	Exhibit OBR/20: Report from the United Nations General Assembly 'Protecting humanity from future health crises' (9.2.16) INQ000119282, pp.5-6
8	2017	International	**WHO 2017 Annual Review of Diseases Prioritised Under the Research and Development Blueprint** The UK had been told by the World Health Organisation in 2017 and 2018 of an urgent need for accelerated research into a priority list of diseases, including SARS, MERS and highly pathogenic coronaviral diseases, because of their potential to cause a public health	MW/351: WHO Research & Development Blueprint (2017) INQ000149108

			emergency and the absence of efficacious drugs or vaccines. UK scientists were on those prioritization committees.	
9	2017	Government	**Public Health England Response Plan for Possible, Presumptive and Confirmed Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Cases** PHE planning for MERS recognised the potential risk of infection from both '*previously symptomatic cases may become well enough to be discharged from hospital care but still be PCR positive for MERS-CoV'* and *'asymptomatic contacts diagnosed on respiratory swabbing.'*	Public Health England Response Plan for Possible, Presumptive and Confirmed Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Cases (06.01.17) INQ000179069/14
10	2018	Government	**PHE HCID programme planning** As reflected in minutes from a HCID Programme Board meeting, community sampling plans were based on the understanding both of the threat of community transmission and that there was a possibility of asymptomatic transmission. *'MK asked why we are thinking of having people take samples in PPE if the patients are asymptomatic? [name redacted] said that there was a possibility that patients were positive for a HCID we could not take chances. They might be taking samples from households where there are confirmed cases so they have to wear PPE.'*	Minutes of a Public Health England HCID Programme Board Meeting (01/05/2018) INQ000187814/2§2(c)(i)
11	2018	International	**WHO 2018 Annual Review of Diseases Prioritised Under the Research and Development Blueprint** See above (Row 8)	WHO Research & Development Blueprint (2018) Open source
12	2018	Government	**Professor Sir Chris Whitty Gresham College speech** Professor Sir Chris Whitty gave a speech at Gresham College entitled '*How to control a pandemic'* which included a warning about the pandemic potential of non-influenza respiratory Emerging Infectious Disease.	Whitty D8:P94:L19-P95:L11 Exhibit CJMW3/01 Video of speech INQ000183383
13	2019	International	**Global Preparedness Monitoring Board Report 'A world at risk'** Professor Farrar was a member of the Global Preparedness Monitoring Board, convened in May 2018 by the World Bank Group and WHO to build on the work done by the Global	Global Preparedness Monitoring Board 'A world at risk'

			Health Crises Task Force and Panel in the wake of the 2014-2016 Ebola epidemic. For its first annual report in 2019, 'A World at Risk' the Board analysed evidence and commissioned seven review papers, including papers on preparing for and managing the fallout of a high-impact respiratory pathogen pandemic and lessons learned and persistent gaps revealed by recent outbreaks of Ebola virus disease in Africa. It also reviewed recommendations from previous high-level panels and commissions following the 2009 H1N1 influenza pandemic and the 2014-2016 Ebola outbreak. The report concluded that there was a very real threat of a rapidly moving, highly lethal pandemic of a respiratory pathogen and that the world was not prepared. Recommendations from previous reviews had been poorly implemented, or not implemented at all, and a cycle of panic and neglect had been allowed to persist.	(Sept 2019) INQ000183301/6
14	2019	Government International Scientific	**John Hopkins Preparedness for a High-impact Respiratory Pathogen Pandemic'** In relation to an outbreak of a high-impact respiratory pathogen, the UK had been warned in 2019 that, *'the combined possibilities of short incubation periods and asymptomatic spread can result in very small windows for interrupting transmission, making such an outbreak difficult to contain.'* The report asked *"What if a disease as transmissible as measles had a case fatality as high as SARS or Ebola, for which there was no effective vaccine and no population level immunity?"* Senior UK scientific advisors were informants to this report, including the Deputy Chief Medical Officer.	Johns Hopkins Center for Health Security, 'Preparedness for a High-Impact Respiratory Pathogen Pandemic' (Sept 2019) INQ000198916/6,21
15	2019	International	**Global Health Security index** The key message from the 2019 Global Health Security Index was that *'National health security is fundamentally weak around the world. No country is fully prepared for epidemics or pandemics, and every country has important gaps to address.'*	Johns Hopkins Global Health Security Index 2019 INQ000023063, pp.9 and 12.

IN THE UK COVID-19 PUBLIC INQUIRY

BEFORE BARONESS HEATHER HALLETT

IN THE MATTER OF:

THE PUBLIC INQUIRY TO EXAMINE THE COVID-19 PANDEMIC IN THE UK

On behalf of Covid-19 Bereaved Families for Justice UK and NI Covid-19 Bereaved Families for Justice

M1 CLOSING SUBMISSIONS – ANNEX C

Summary of evidence regarding the methodology through which the flawed risk assessment was reached

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Evidence regarding lack of scrutiny

1. The 2014 and 2016 summaries refer to the Risk Assessment being based on advice from the Advisory Committee on Dangerous Pathogens (ACDP), which *"considered the evidence presented in a review by Public Health England."*[1] This role was acknowledged in the Advisory Committee's Annual Report which detailed their advisory role in considering the scenarios in 2013.[2] The 2019 risk assessment did not explain the basis on which it adopted the previous assessments and continued to use SARS as a basis for the RWCS.[3] In fact, the advice on which the risk assessment was based did not support the assessment made in the NRA. The key meeting at which the Advisory Committee considered the risk assessment scenarios records the following: *"ACDP moved onto discussion of the respiratory scenario, and agreed that it was similar to SARS, so in that respect was likely, but beyond that no estimate of likelihood or impact could at this stage be suggested. ... There was some discussion over the likelihood of potentiation of other respiratory diseases, which could significantly raise mortality rates. Overall it was agreed that all three developed scenarios [influenza, vector-borne and EID] were probable."*[4] We have seen no evidence of justification as to why the RWCS reflected a *"probable"* scenario based on SARS and not the recognised potential of another respiratory disease with significantly raised mortality rates. The ACDP input in relation to this risk, where the Committee were presented with ready-made scenarios for limited discussion appears to reflect the systemic problem identified by the Royal Academy in its 2021 report of a *"rushed"* process where expert approval is sought, rather than advice and challenge, and which is

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[1] INQ000176766/3(01.01.2014) 2014 NRA - Chapter 4 - Hazards - Full Assessments - Scenario H24 - Emerging infectious diseases (pp.130-134), INQ000176771/3 [01.01.2016] 2016 NRA - Annex A - Detailed risk assessments Part I (Hazards) - Scenario H24 - Emerging Infectious Diseases (pp.151-158)

[2] INQ000148360/10 [12.05.2015] Exhibit JH/0072j: Report, titled Advisory Committee on Dangerous Pathogens - Annual Report 2013

[3] INQ000185135/9 [19.04.2023] C19 Inquiry] 2019 NSRA - Annex B - Full Scenario Assessments - R97

[4] INQ000013824/4§5.3.2-3 [14.02.2013] Draft Minutes of the 100th meeting of the Advisory Committee on Dangerous Pathogens, including a discussion of National Risk Scenarios regarding potential infectious diseases

perceived as a *'tick-box exercise'* rather than ensuring that an assessment is more considered and robust.[5]

2. It does appear that before the publication of the 2016 NRA, there was consideration of an upwards revision to the fatality assumptions which could have had a material impact on planning. The Cabinet Office briefed the Risk Assessment Steering Group (RASG) that *"The DH risk H24 (Emerging Infectious Disease) appears likely to increase in overall impact from 3 to 4. This will put H24 within the red-shaded area of the Risk Matrix ... This indicates a need to consider bespoke contingency planning for H24. The change was largely as a result of revisions to fatality and economic assessments."*[6] Given that this issue was directly brought to the attention of the Cabinet Office and given the widely differing understanding of risk within the scientific world and the Government's corporate knowledge from that contained in the NSRA (as set out above) it is extraordinary that the risk was in fact to remain unchanged and that there was no consideration of 'bespoke contingency planning'.

3. This may have been because we have not seen evidence of external expert scrutiny of the N(S)RA risk, beyond the brief input from the ACDP. Katharine Hammond asserted that it had been scrutinised by experts external to Government. She pointed to the role of the expert challenge groups.[7] However none of those groups, listed in the 2016 NRA methodology,[8] provided expertise in emerging diseases and we have not seen any evidence of their scrutiny of this risk.

4. The failure to include expert scrutiny and challenge was in fact a well-known flaw in the risk assessment process well before this time. The 2011 Blackett Review highlighted that the *"most notable over-arching factor in these recommendations"* was *"the repeated need for the inclusion of external experts and readiness to consider unlikely risks."*[9] In an NSC(O) meeting in 2013 following on from the review, Professor Sir Mark Walport highlighted that in relation to disease threats in the N(S)RA *"there was a considerable amount of research being done but queried whether it was being monitored and captured effectively."*[10] That this issue was not adequately addressed is demonstrated by the fact that ten years later the same issue was identified in the Royal Academy 2021 report.[11]

5. The apparent lack of scrutiny by external experts in relation to the Risk Assessments was also true in relation to the input from scientists within Government. Katharine Hammond relied in her evidence on *"scrutiny from across the chief scientific adviser community."*[12] However, Professor Sir Patrick Vallance explained that as CSA he *was not* tasked to assess specific risks and raised specifically with Katharine Hammond the need for greater expert input.[13] Professor Dame Sally Davies explained that she was not an expert in this areas and so would have deferred to Professor Sir Chris Whitty.[14] Professor Sir Chris Whitty did not, either in his oral evidence or in his witness statements, refer to having conducted any scrutiny of the risk assessment for an emerging infectious disease. If he had done, it would have been obvious to

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[5] INQ000068403/105 [01.09.2021] Royal Academy of Engineering, External Review of the National Security Risk Assessment (NSRA) Methodology - Recommendations for greater resilience
[6] INQ000196317/2§8 [01.01.2016] RASG(1) 01: 2016 National Risk Assessment - Risk Scenarios, by Cabinet Office, Civil Contingencies Secretariat
[7] Hammond:D4:P151:L9-17
[8] INQ000147768/5-6 (2016) 2016 NRA Annex C Methodology and Production
[9] INQ000022709/7 (2011) Blackett Review of High Impact Low Probability Risks
[10] INQ000013667/4§2.7 (19.06.13) Draft minutes of NSC(O) meeting
[11] INQ000068403/103 Recommendation 10 (2021) Royal Academy of Engineering External Review of NSRA Methodology
[12] Hammond:D4:P150:L4-14
[13] Vallance :D8:P154 :L8-P156:L10
[14] Davies :D6:P144:L19-22

him that the RWCS identified in the NSRA was different than that in the Golden Hour guidance to which he had contributed.

Flawed methodology - the Reasonable Worst-Case Scenario

6. A second flaw in the risk assessment process was the RWCS model itself. As set out at paragraphs 79-87 of our submissions, the RWCS scenario for an Emerging Infectious Disease did not reflect a worst-case scenario at all, but instead reflected a 'likely' scenario based on SARS. This was not the result of an aberration, but the result of a bug in the system that was well known. The problems with defining and selecting a RWCS had been identified by the Hines review in 2011.[15] Following on from the Hines review, the CCS would conduct two workshops in 2014 to determine whether the RWCS model was still fit for purpose. The workshops deemed that the RWCS model *was* fit for purpose, however *"gaps were highlighted"* and it was felt that *"the RWCS would benefit from enhancements."*[16] Of particular relevance, the following weaknesses were identified:
    - *Reasonable'* was subjective and interpreted differently by departments.
    - There needed to be greater transparency on uncertainties within the assessment process.
    - There were *"challenges in incorporating empirical evidence (where do the expert's assumptions come from?)".*
    - Historical evidence does not always provide the best basis for a RWCS.
    - There could be better identification of high impact and less likely events.
    - There was a fixation on specific scenarios and a lack of flexibility (tunnel vision). Also, the scenarios can be misleading as to impacts.
    - Vulnerabilities are not integrated well enough.
    - There are more problems in the natural hazard/accident risks.
    - There was a weakness in understanding emerging risks
    - The risk assessments did not effectively translate into action.
    - There was a lack of adequate data.

    There were a number of suggested actions which included:
    - The use of multiple scenarios.
    - A greater focus on what do we want to prevent.
    - A greater focus on less likely, more impactful events.

    However, there was also discussion of the drawbacks of incorporating changes, specifically including the need for greater resources to produce analyses for multiple scenarios. The suggestion that the RASG should consider amending the definition of the RCWS to focus on low likelihood, high impact risks[17], may have been informed by the Blackett Review which highlighted the importance of particular focus on these risks.

7. Despite the recognition of these flaws in the RWCS model, there was no change during the Relevant Period. In particular, the definition of what was expected for a reasonable worst-case scenario would remain unclear and would not reflect the known need to focus on less likely but high impact risks. In 2016, the NRA methodology defined the RWCS as a plausible 'but challenging' manifestation of a risk. Plausible was defined as a risk which had a 1/20,000 chance of occurring within the next 5 years.[18] A 'challenging' manifestation of a risk was one which would pose a *"challenge for central Government — this could be because it would*

[15] INQ000022705/75-76 (July 2010) Review of the UK Response to the 2009 influenza pandemic
[16] INQ000186622/2 [07.01.2014] Report from Cabinet Office titled RASG (14)12: National Risk assessment review - reasonable worst-case scenario methodology: summary of findings
[17] INQ000186622/1 [07.01.2014] Report from Cabinet Office titled RASG (14)12: National Risk assessment review - reasonable worst-case scenario methodology: summary of findings
[18] INQ000205483/14 [05.05.16] Guide, titled 2016 National Risk Assessment Production Process

overwhelm local/departmental resources and/or because it would require cross-government coordination for planning, response or recovery."[19] However, a guidance presentation on selecting a RWCS informed departments that they should use the CCS 'risk scenario builder' to select *"the scenario that combines the greatest impacts with the greatest likelihood."*[20] This clearly does not reflect a 'worst case scenario' by any ordinary understanding of these words. It was a reflection of probability which was contrary to the recommendations of the Blackett review and the 2014 workshops.

8. The confusion and inconsistency regarding the RWCS was raised by Sir Patrick Vallance, who informed Katharine Hammond in 2019 that there *"doesn't seem to be a clear consistent way of doing this across departments,"* and "*what was needed was more of a sort of workshopping approach in departments to really stress test what they were putting forward as their reasonable worst-case scenarios."*[21]

Flawed methodology – failure to integrate prevention and mitigation into the risk assessment and planning framework

9. The Royal Academy review of the risk assessment process in 2021 would recommend that *"to consider resilience holistically, it is not enough to understand the risk and its different possible manifestations this has to be translated into action across prevention, response, mitigation and recovery, and must reduce vulnerabilities at both the national and local levels."*[22] This analysis is supported by Mann and Alexander who recommended that *"A robust risk and emergency management system should include arrangements for the identification of risk-specific prevention measures as part of routine planning."*[23]The gap that both reviews identified in in the UK relation to translating risk assessment into preventative measures had been evident throughout the Relevant Period and was repeatedly emphasised but no action was taken.

10. In October 2013, Sir Mark Walport wrote to David Cameron expressing his concern that *"a good risk register should drive thinking about how risks can be prevented… The NRA is used fairly effectively for the handling and clear-up but variably to drive decisions about prevention and mitigation."* When asked whether he felt that the use of the NRA in prevention and mitigation had improved during his time in office, he told the Inquiry that he felt it had been a "*work in progress*" and still was.[24]

11. In the same year, the UK completed a peer review with the UNISDR and OECD assessing its implementation of the Hyogo Framework. A key finding of that review was that the UK should focus resilience efforts on prevention, recommending that *"a new momentum should enlarge the focus of the UK resilience approach from emergency preparedness and response towards more prevention and vulnerability reduction."*[25]

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[19] INQ000205483/13 [05.05.2016] Guide, titled 2016 National Risk Assessment Production Process
[20] INQ000128144/11 [01.11.2017] Presentation from Cabinet Office, titled A basic guide to to the 2018 National (Security) Risk Assessment

[21] Vallance D8:P155:L9-22
[22] INQ000068403/8 [01.09.2021] Royal Academy of Engineering, External Review of the National Security Risk Assessment (NSRA) Methodology - Recommendations for greater resilience

[23]INQ000203349/79 Mann & Alexander expert report
[24] Walport D7:P29-31
[25] UNISDR Peer Review Report (2013) Available at: https://www.preventionweb.net/files/32996_32996hfaukpeerreview20131.pdf?_gl=1*2ud1oi*_ga*MTE5NDA5Njk4NS4xNjg5ODQ5ODA0*_ga_D8G5WXP6YM*MTY4OTg0OTgwMy4xLjAuMTY4OTg0OTgxMy4wLjAuMA

12. The CCS was well aware of this need for 'a culture of prevention' to improve resilience. As set out in an internal briefing produced in 2015 as part of the 'Resilience 2020' initiative, *"there is a clear direction of travel provided by the international dimension (in particular the UN) to move into the sphere of 'disaster risk reduction' to promote a 'culture of prevention'. This means focusing risk management onto mitigation where possible, not just preparing for emergencies."*[26]

13. However, no changes were made during the Relevant Period to the risk assessment process to implement a focus on prevention and mitigation. This appears to have been a deliberate decision by the RASG, chaired by Katharine Hammond, which cryptically commented that *"Protect vs. prepare – the board felt that whilst it was admirable to produce a risk assessment that supported decisions about risk prevention as well as risk preparation and response, this should not reduce the agility of the document."*[27] Consequently, while an additional section on 'vulnerabilities' was included within the NRA risk template following the refresh there was no shift to prevention. The actions which had been suggested in the 2015 CCS briefing paper to implement a prevention approach, including *"introducing better structures for ensuring resilience is considered when making policy decisions"* were never implemented.[28]

14. In relation to the inclusion of vulnerability, an additional section was added into the NRA template and CCS guidance requested that risk assessment owners consider the impacts of their RWCS on vulnerable populations.[29] However, this appears to have been treated as a tick box exercise, with the 2019 full scenario assessment simply stating that there would be 'variation' and marking it a '4' for impact in this area.[30] There was no analysis of which groups might be more impacted by a pandemic or of any issues of inequality. The inclusion of this additional consideration by CCS indicates that 'vulnerability' was within its contemplation. The fact that CCS had apparently not wholly overlooked this issue makes the failure to plan with respect to inequalities and structural and institutional discrimination, even worse than if it had.

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[26] INQ000127915/6§25 [27.07.2015] Report titled SDSR Workstrand 6: UK Resilience and Crisis Response
[27] INQ000187355/4 [14.03.2017] Minutes of the Risk Assessment Steering Board 1st meeting held on 14 March 2017

[28] INQ000127915/6§25 [27.07.2015] Report titled SDSR Workstrand 6: UK Resilience and Crisis Response
[29] INQ000128144/21 [01.11.2017] Presentation from Cabinet Office, titled A basic guide to to the 2018 National (Security) Risk Assessment
[30] INQ000185135/4 [19.04.2023] 2019 NSRA – Annex B – Full Scenario Assessment- R97