



House of Commons  
Public Accounts Committee

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# Covid-19: Supply of ventilators

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Session 2019–21**

*Report, together with formal minutes relating  
to the report*

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## Summary

Between March and early August 2020, in response to the COVID-19 pandemic, the Department of Health and Social Care (the Department) and Cabinet Office secured an additional 26,000 mechanical ventilators for use across the NHS at a total cost of £569 million. We recognise this as a significant achievement and a reflection of the hard work, collaboration, and commitment of individuals across both the public sector and UK industry. Due to the public health pandemic, both Departments prioritised speed over cost and took on more risks than is normal. That approach paid off in this situation although there is no guarantee that it always would.

We recognise that the pace and nature of the emergency presented challenges, but it is nevertheless important that there are clear protocols in place to ensure that public money is protected as far as possible, and that any exceptions or changes to procurement are clearly identified and justified.

We are concerned that the Department had no plan before the pandemic for how it might increase critical care equipment in the event of an emergency. This lack of preparedness was exacerbated by the fact that it did not know how many ventilators were available to the NHS to begin with. As a result, the Department did not start its programme to secure additional ventilators until 3 March, despite the World Health Organisation announcing a ‘public health emergency of international concern’ on 30 January.

Once the programmes to boost the supply of ventilators began, the departments worked quickly in the context of increasing global competition and the impending threat of demand that could far outstrip the existing supply. Fortunately, initial estimates of the worst-case scenario that around 59,000 ventilators might be needed in the spring of 2020 did not come to pass, so the government set targets based on building resilience for a potential second wave. While it was late in meeting its ultimate target of 30,000 ventilators by the end of June, NHS bodies are not aware of any point when a patient who needed a ventilator was unable to get one. It is however concerning that the Department could not clearly set out how it assesses whether the NHS now has the ventilators and other equipment it needs as the pandemic continues.

There are undoubtedly lessons to be learned from the success of this rapid procurement and manufacture of ventilators. But it is also crucial to keep in mind that aspects of the ventilator challenge, an initiative led by Cabinet Office to encourage UK manufacturers to design and scale-up production of ventilators, would not be replicable in its entirety in normal times. That programme depended on the uniqueness of the situation, the clear motivating goal of saving thousands of lives that aligned private and public sector interests, and an abnormally large budget and tolerance for taking risk. It is important that the right lessons are identified and shared with other government departments for use in future programmes.

## Introduction

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Ventilators are medical devices that assist or replace a patient's breathing. Patients with COVID-19 who are admitted to hospital often have problems breathing. On arrival in hospital a patient's blood oxygen level is measured. If it is low, then the patient may be given: standard oxygen therapy using a mask; non-invasive ventilation where oxygen is delivered under pressure via a mask or helmet; or invasive mechanical treatment using a mechanical ventilator, which takes over a patient's breathing. The specific treatment used is a judgement for clinicians and patients may undergo more than one treatment during a stay in hospital.

In the early stages of the pandemic, based on information available at the time, the NHS believed it could need far more mechanical ventilators than were available. From March 2020, the government made efforts to rapidly increase the number of ventilators available to hospitals in the UK. Its strategy included: purchasing ventilators from suppliers on the global market, led by the Department of Health & Social Care (the Department); and encouraging UK manufacturers to design and scale-up production of ventilators as part of the 'ventilator challenge', led by the Cabinet Office.

## Conclusions and recommendations

1. **The Departments lost a crucial month because they were underprepared and reacted slowly to the shortage of mechanical ventilators.** The Government's previous pandemic planning exercises aimed to help the UK prepare for pandemic influenza and did not highlight a specific need for or contain plans to increase the number of ventilators available to the NHS. The Department acknowledges that the NHS does not run with any spare capacity. Therefore, when the World Health Organisation announced a "public health emergency of international concern" on 30 January, it is perhaps no surprise there were limited spare ventilators. But crucially there was also no plan in place to source additional critical care equipment needed in the event of an emergency. This lack of preparedness was compounded by the fact that NHSE&I did not know how many ventilators the NHS already had. It did not put out a call to individual NHS Trusts for this information until late February. It then found that the NHS had around 7,400 mechanical ventilators, far fewer than the 59,000 it then thought might be needed. The Department eventually began its initial efforts to buy more ventilators on 3 March, just over a month after the emergency was announced.

**Recommendation:** *The Department of Health and Social Care and NHS England and NHS Improvement should set out how their future plans for responding to emergencies will address:*

- *Maintaining an adequate asset register of its critical equipment and a method for quickly gathering the up to date data.*
  - *Protocols for rapid procurement of critical equipment.*
  - *The need for surge capacity in the NHS's supply chains.*
2. **It is not clear how the Department of Health and Social Care is assessing whether the NHS has enough critical care equipment for future demand.** NHSE&I's estimate of how many mechanical ventilators the NHS would need in a worst-case scenario has changed repeatedly: on 12 February initial estimates indicated a need of up to 59,000, by early March this had increased to 90,000, before reducing to 17,500 on 24 March and again to just 6,200 by 8 April. On 15 April, after the peak of COVID-19 hospitalisations, the Department set targets of 18,000 ventilators by 30 April and 30,000 by 30 June to prepare for a potential second wave. It missed both these targets but eventually reached 30,000 by 3 August. It is fortunate that the majority of the ventilators were not needed and that additional capacity is now available should it be required. However, given its targets were not finely calibrated to need and the extent to which its estimates of need have varied, we are concerned that the Department has failed to set out how it now assesses the scale of future need. It told us that it no longer does 'mathematical modelling', but looks at the day-to-day situation. It is vital that the Department is transparent on how it assesses whether it has sufficient stocks of not only ventilators but also of any other equipment required to treat COVID-19 as the pandemic evolves.

**Recommendation:** *The Department of Health and Social Care should write to us within one month of this report explaining its current methodology for assessing*

*whether it has all the equipment it needs to respond effectively to the pandemic.*

3. **Despite having to operate at speed, the Department of Health and Social Care still had a duty to carry out full due diligence for all parts of the supply chain.** In early March, initial attempts by the Department to secure additional mechanical ventilators through its normal NHS supply chain routes did not produce sufficient devices to bridge the gap between the available stock and what was needed. From 13 March, alongside the ventilator challenge, the Department concentrated its efforts on purchasing ventilators directly from overseas manufacturers and distributors with the help of the Foreign & Commonwealth Office and the Department for International Trade. The Department says it did its best to confirm that sellers had CE marked ventilators available for sale and were credible organisations, but that it had not fully looked into the organisations supplying parts for the ventilators that it bought. We recognise that the Department had to operate at pace in the face of increasing global competition and the anticipated imminent spike in cases. But Departments are required by the procurement regulations to carry out due diligence on the organisations they buy from and if this is not done thoroughly, the Department puts itself at risk of funding organisations which may be involved in, for example, bribery and corruption or modern slavery. The Department did write to us one month after our evidence session to say that it had carried out ‘open source checks’ on Chinese suppliers and that it had complied with UK procurement regulations. However, it is not clear to what extent open source checks are sufficient to provide assurance over the full supply chain.

**Recommendations:** *The Department of Health & Social Care should set out in its Treasury Minute response its view of the risk resulting from the speed of its due diligence on its purchase of ventilators and how it is ensuring that its due diligence procedures for future procurements cover the full supply chain during emergency procurement. This should include how it will minimise the risk of contributing to modern slavery and meet other legal requirements.*

*The Cabinet Office should also set out what updates it plans to make to its guidance to help departments meet this requirement during emergency procurements.*

4. **The ventilator challenge was an exceptional and far from traditional approach that offers some lessons for future programmes although they could not be applied wholesale under normal circumstances.** The ventilator challenge was undoubtedly a significant achievement, involving a huge effort from industry across the UK. In total it produced around 15,000 mechanical ventilators in just four months – around half the number now available to the NHS, and a volume that we understand would normally take years to produce. However, when examining what government can learn from the challenge, it is crucial to keep in mind that the exceptional circumstances in which it took place were, in part, responsible for its success. For example; the clear motivating goal to potentially save thousands of lives encouraged businesses to collaborate and work at pace; and an unusually low emphasis on cost meant that the Cabinet Office could fund the development of multiple devices until it became clear whether the design was viable or was needed to meet demand. Nonetheless, there are clearly some elements of the programme which could be replicable across future government programmes. For example, the NAO pointed to the steps the Cabinet Office took to control costs and its commitment to

transparency and accountability. Government's requirement for private companies to collaborate is one example of how Government can use its spending power to improve learning and deliver cost savings and efficiencies. These lessons must be identified and shared more widely.

**Recommendation:** *As part of its treasury minute response, the Cabinet Office should work with participants to understand and ensure the right lessons from the ventilator challenge are learnt. It should publicise:*

- *which lessons were unique to the circumstances;*
- *which can be applied to future programmes. It should ensure these lessons are disseminated to the appropriate government departments or functions; and*
- *be clear about the risk to taxpayers' money of this innovative approach.*

5. **Both programmes succeeded in part due to cross-government working and the expertise of key individuals involved.** It is clear that both programmes were successful in part due to the involvement of different government departments that were best placed to carry out specific functions, and the involvement of people with the right skills—something that is not always the case with the programmes we report on. For example, the Department for Health & Social Care was able to secure orders relatively quickly at a reasonable cost due to a significant effort from the Foreign & Commonwealth Office and the Department for International Trade in China, which had a better knowledge of the local market. Similarly, Cabinet Office used the Ministry of Defence's Cost and Assurance Analysis Service to ensure that suppliers' costs were reasonable. Cabinet Office also drew on external expertise where required. The government was fortunate that its Chief Commercial Officer, who led the ventilator challenge, had a background in running engineering and product development companies and was therefore well placed to develop and initiate the programme. The 'technical design authority', put in place to support decision making as part of the ventilator challenge, drew on the expertise of NHS clinicians, the Medical and Healthcare products Regulatory Agency and PA consulting (acting as a programme manager) in addition to other government departments including the Department for Business Energy & Industrial Strategy and the Ministry of Defence.

**Recommendation:** *The Cabinet Office should set out, as part of its Treasury Minute response, what lessons it has learnt from these programmes for how government will, in future, ensure that it identifies the skills it needs, where these skills are, and how it will get them in place quickly when a rapid response is required.*

6. **The ventilator challenge produced intellectual property that should be exploited to maximise value for the taxpayer.** The ventilator challenge produced a number of designs in a very short space of time, even though many did not go on to be manufactured. This was in part due to the Cabinet Office's approach of fostering collaboration between small product designers and large manufacturers. There will be potential value in the intellectual property associated with these designs. Where it paid for a manufacturer's design work as part of the challenge, the Cabinet Office tells us that it will get a royalty if in future a manufacturer uses the design to take

a unit to market. However, this currently relies on the goodwill of manufacturers to inform the Cabinet Office that they have used the design, as there is no plan or mechanism in place for it to monitor whether this occurs.

**Recommendation:** *The Cabinet Office should set out, as part of its Treasury Minute response, how it plans to maximise the value to the taxpayer from the intellectual property created through the ventilator challenge. This should include how it plans to:*

- *use its learning from the ventilator challenge to set out how it could bring together small and large companies to develop workable and scalable products that the government needs in future; and*
- *monitor whether intellectual property it owns is used so that it can achieve value for money for the taxpayer.*

# 1 Preparedness for the pandemic

1. On the basis of a report by the Comptroller and Auditor General, we took evidence from the Department of Health and Social Care (the Department), the Cabinet Office and NHS England and NHS Improvement (NHSE&I) on the government’s efforts to increase the number of ventilators in response to COVID-19.<sup>1</sup>

2. Ventilators are medical devices that assist or replace a patient’s breathing by moving pressurised air with adjustable concentrations of oxygen in and out of the lungs. Patients with COVID-19 who are admitted to hospital often have problems breathing. If their blood oxygen level is low, the hospital may give them: standard oxygen therapy using a loose-fitting mask; non-invasive ventilation where oxygen is delivered under pressure via a mask or helmet; or invasive mechanical treatment using a mechanical ventilator, which takes over a patient’s breathing—in this case a tube is placed in the patients mouth or nose, or through a small cut in the throat (tracheostomy). Patients may need more than one of these treatments during a stay in hospital. The specific treatment used is a judgement for clinicians.<sup>2</sup>

3. In the early stages of the pandemic, based on information available at the time, the NHS believed it could need far more mechanical ventilators than were available. From March 2020, the government made efforts to rapidly increase the number of ventilators available to hospitals in the UK. Its strategy included: purchasing ventilators from suppliers on the global market, led by the Department of Health & Social Care; and encouraging UK manufacturers to design and scale-up production of ventilators as part of the ‘ventilator challenge’, led by the Cabinet Office.<sup>3</sup>

4. In total the departments secured an additional 26,000 ventilators for the NHS at an overall cost of £569 million. However, the majority of these ventilators have not been used. As of 16 September, just 2,150 mechanical ventilators bought or built through the programmes had been distributed to NHS trusts because the anticipated demand for more machines at the peak of the crisis did not materialise. The Department and NHSE&I are currently distributing some of these devices to trusts to help with planning for potential future demand, however it remains uncertain whether all of the devices will ever be used.<sup>4</sup>

## Preparedness

5. Pandemic planning exercises, run by the Department and other bodies in the past decade, aimed to help the UK prepare for a pandemic influenza and did not highlight a need for more ventilators or contain plans to increase ventilator numbers rapidly.<sup>5</sup> Therefore, the Department acknowledged that following the World Health Organisation’s declaration of a “public health emergency of international concern” on 30 January, there was no pre-existing plan in place for how to increase the number of ventilators available to the NHS. It also stressed that the NHS is “not run [...] with spare capacity”.<sup>6</sup>

1 C&AG’s Report, *Investigation into how government increased the number of ventilators available to the NHS in response to COVID-19*, Session 2019–21, HC 731, 30 September 2020

2 C&AG’s Report, para 1.1, Figure 1

3 C&AG’s Report, paras 1 & 2

4 C&AG’s Report, paras 8, 2.17 & 2.20

5 C&AG’s Report, para 2.2

6 Q 41; World Health Organization, [‘WHO Director General’s statement on IHR Emergency Committee on Novel Coronavirus \(2019-nCoV\)’](#), accessed 28 October 2020

6. This lack of planning was compounded by the fact that NHSE&I did not know how many ventilators were already available to hospitals in England. NHSE&I explained that in February, there was no central data on the number of ventilators available as these purchasing decisions are made by individual NHS trusts rather than at a national level. While it knew that there were around 4,123 critical care beds available, all of which would have an ventilator assigned, it did not know what the remaining surge capacity would be.<sup>7</sup> NHSE&I did not put out a call to trusts for this information until late February, some weeks after its modelling indicated a need of up to 59,000 ventilated beds. The survey revealed it had just 7,400 mechanical ventilators, far less than was needed. This included some that would not normally be used to treat patients in a hospital bed such as ventilators from ambulances.<sup>8</sup>

7. When we challenged the Department on why it did not begin its initial efforts to buy more ventilators until the 3 March, it explained that there was a “huge amount” of work done in February to understand the disease and to look at the capacity across the NHS in multiple areas.<sup>9</sup> It added that while modelling throughout indicated that mechanical ventilation may be needed, it was events during February in Lombardy, an Italian region hard hit by COVID-19, that made it clear there was going to be a specific pressure on ventilators. It said that as soon as it was clear that there was going to be a “real need” to purchase additional ventilators it set up a team on 3 March. The Department also told us that while there is now a lot more information on the number of ventilators and other equipment required for the pandemic available, there are no plans to look at other areas where it lacks centralised data.<sup>10</sup>

## Assessment of need

8. From February to April, NHSE&I’s estimate of how many mechanical ventilators the NHS would need in a worst-case scenario changed repeatedly. Its estimates were based on reasonable worst-case planning assumptions assured by the Scientific Advisory Group for Emergencies (SAGE), which provides scientific and technical advice to support government decision-makers during emergencies. On 12 February these estimates indicated a need of up to 59,000 beds with mechanical ventilators at the peak of the crisis and by 1 March, this had had increased to 90,000. On 24 March estimates reduced to a need of up to 17,500 by 13 April and again on 8 April to just 6,200 needed by early May.<sup>11</sup> The Department explained that the reasonable worst-case scenarios, something it thought was only 5–10% likely to happen, reduced due to both the inclusion of the estimated impact of interventions such as social distancing in the models and a better knowledge of how the virus spread.<sup>12</sup>

9. However, when the programmes began in early-March, departments were looking at a potential need of up to 90,000 mechanical ventilators, far more than the 7,400 thought to be available. The Department acknowledged that it was never going to be able to increase capacity to this level, but aimed to raise it as much as possible to provide a buffer in case interventions such as social distancing were not as effective as anticipated.<sup>13</sup> It was not

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7 Qq 42, 45

8 C&AG’s Report, paras 1, 2.7 & Figure 2

9 Q 43

10 Qq 44, 46

11 C&AG’s Report, paras 1, 2.7, 2.9 & Figure 2

12 Q 60

13 Q 60; C&AG’s Report para 2.7 & Figure 2

until after the peak of COVID-19 hospitalisations on 14 April, at which point almost half (43%) of the 6,818 critical care beds with ventilators were unoccupied, that Ministers adopted official targets to make a total of 18,000 ventilators available to the NHS by the end of April and 30,000 by the end of June via both programmes.<sup>14</sup> While the Department recognised that at this point it was evident that the NHS would be “well clear” in terms of the numbers required, it said that it consciously set higher targets to increase capacity for a potential second peak. The departments missed both of the targets, eventually reaching the 30,000 by 3 August.<sup>15</sup>

10. It is fortunate that the majority of the ventilators were not needed and that there is now additional capacity if they should be required in the future. Nevertheless, we are concerned that the Department was not able to give a clear explanation of how it now assesses whether the NHS has sufficient ventilators and other critical equipment for any future need. It told us that its approach to decision making has changed fundamentally since the initial crisis. It said that it has largely “moved away from mathematical models” and that decision making is now more strongly driven by the “situation of the day. It explained that it now uses daily data and the knowledge of how infection rates translate into the numbers of patients requiring hospitalisation and more intensive treatment to assess the situation at a point in time. However, it also emphasised that the number of ventilators the NHS will ultimately need will depend on the non-pharmaceutical interventions, such as lockdowns, that the government puts in place and the level of public compliance with the rules.<sup>16</sup>

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14 C&AG’s Report paras 2.12, 2.14 & Figure 2

15 Qq 62–64; C&AG’s Report paras 7, 2.16

16 Q 121

## 2 The government's approach to securing ventilators

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### The credibility of suppliers

11. From 3 March, in response to the anticipated shortage of ventilators, the Department began to purchase as many ventilators as it could using existing NHS supply chain framework agreements, which are designed to ensure competitive pricing. It explained that as part of these initial efforts, it discussed the possibility of speeding up the manufacture of devices available through the framework, but found that this was not possible as the devices are normally built at the point of order and have complex supply chains. By 12 March the Department had managed to order an additional 2,400 mechanical ventilators. However, it recognised that this still left a 'huge deficit' in terms of what it thought would be needed.<sup>17</sup>

12. From 13 March the Department, therefore, stepped up its efforts to purchase ventilators directly from overseas with significant help from the Foreign and Commonwealth Office and the Department of International Trade in China.<sup>18</sup> The Department told us that while it was somewhat ahead of other countries in moving to international procurement, there was soon "huge competition" for devices as other countries quickly followed based on what was happening in Lombardy, Italy. We heard that this involved large daily price changes and that the Department was "gazumped" on several occasions as it would not go above certain price thresholds.<sup>19</sup>

13. We recognise that given the circumstances the Department had to move quickly. However, regardless of the circumstances, government regulations require departments to carry out due diligence on the organisations that they buy from and exclude organisations that do not comply with various environmental, social and labour laws".<sup>20</sup> The Department told us that it did its best to confirm that ventilators were the correct specification and that sellers were credible—this included looking into suppliers' financial records, any investigations they had been part of, and anything published about them. When asked specifically whether it had, for example, looked into the issue of modern slavery in its supply chains, the Department said that it was not aware of any links to modern slavery as far as the manufacturers of the devices were concerned. However, it acknowledged that it had not looked at exactly where every component in the machine was produced at the time. The Department agreed to check back through its wider supply chains as far as it could to establish whether any links to modern slavery existed. It cautioned that certain aspects of the supply chain may be difficult to investigate.<sup>21</sup> The Department wrote to us one month after the oral evidence session, having considered the matter further. It stated that it and the British Embassy in Beijing had worked closely with external due diligence service providers, to carry out open source checks on Chinese suppliers of ventilators procured during the peak of the pandemic. It said that this due diligence included public records and media checks designed to flag legal, political or reputational risks, including on modern slavery, and assured us that procurement processes were all in line with UK

17 Qq 50–51; C&AG's Report, paras 3.2, 3.3

18 C&AG's Report, para 3.10 & Figure 4

19 Qq 66,79

20 [The Public Contracts Regulations 2015](#), sub section 7

21 Qq 71, 74–75

procurement regulations during this time.<sup>22</sup>

## The ventilator challenge

14. The Cabinet Office’s ventilator challenge, which encouraged UK businesses to develop new ventilators from scratch and increase the production of existing products or modified designs, was undoubtedly a significant achievement. In total, it produced around 15,000 mechanical ventilators in the space of just four months, over 1.5 times the number available to the NHS at the start of the pandemic. The Cabinet Office estimated it would normally take a decade to produce this amount and described it as a “terrific response” from British industry and designers.<sup>23</sup>

15. However, it is important to remember that the challenge did not take place under normal circumstances. Ventilator Challenge UK, the consortium of businesses that worked together to produce the Penlon ES02 ventilators, described the process as “working against a backdrop of life or death urgency”.<sup>24</sup> The Cabinet Office acknowledged that the scale and urgency of the task meant that designers and manufacturers involved in the challenge came together “in the most collaborative way” it had ever seen and that the Cabinet Office team were working “12 hour days, seven days a week for 14 weeks.”<sup>25</sup> The Cabinet Office also explained that the focus of the programme was maintaining public health and that there was therefore a low emphasis on cost. This meant that it was able to fund multiple devices until it became clear whether or not the ventilator would be needed to meet demand.<sup>26</sup>

16. Nevertheless, there are clearly elements of the challenge which could be applied to future programmes. For example, the Cabinet Office told us that it took a number of steps to ensure that suppliers costs were reasonable, such as working on an open-book basis using the Ministry of Defence’s Cost Assurance Analysis Service and working with participants to cancel orders for parts that weren’t needed or selling them on the open market. It also showed commitment to transparency and accountability, maintaining sufficient records of the programmes rationale, key spending decisions it took and the information it had to base it on.<sup>27</sup>

## Skills and expertise

17. In any government programme, departments should aim to work collaboratively across government and to involve people with the right skills from the outset. Yet this is not something we always see in the programmes we report on.<sup>28</sup> In this case, we heard how the departments’ efforts to involve government departments that were best placed to carry out specific functions contributed to the programmes’ success.<sup>29</sup>

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22 Letter from Second Permanent Secretary, Department of Health and Social Care, to PAC Chair, dated 9 November 2020

23 Q84; C&AG’s Report, Figures 3 & 10

24 Ventilator Challenge UK consortium (SOV0002)

25 Qq 57, 126

26 Q85, C&AG’s Report, para 16

27 Q85, C&AG’s Report, paras 25, 4.20

28 See for example, Committee of Public Accounts, Seventy-Eighth Report of Session 2017–19, [Improving government planning and spending](#), HC 1596; paras 13–15

29 Q 77

18. For example, the Department explained that both the Department for International Trade and the Foreign and Commonwealth Office helped it to purchase ventilators directly from China, which it viewed as the largest untapped market for ventilators. Both departments played a substantial role in assessing offers, which meant that the Department was able to secure orders relatively quickly and at a similar level to normal market prices.<sup>30</sup> Similarly, the Cabinet Office sought advice from the Ministry of Defence's Cost Assurance and Analysis Service as part of its process to gain assurance that suppliers' costs were reasonable. It told us that this approach meant it spent an average of £10,000 excluding VAT on the ventilators that were manufactured, which it said was comparable to those bought on the open market.<sup>31</sup>

19. The Cabinet Office also drew on external expertise where required. We heard that the Chief Commercial Officer happened to have a background in running engineering and product development companies that meant he was well placed to develop and initiate the programme. Additionally the Cabinet Office's 'technical design authority', put in place to support decision making as part of the ventilator challenge, drew on the expertise of NHS clinicians, the Medical and Healthcare products Regulatory Agency and PA consulting (acting as a programme manager) as well as other government departments; it also drew on data from device-testing experts.<sup>32</sup> The Cabinet Office emphasised that it believes it was having cross-functional teams working on the project from the beginning that "really proved successful".<sup>33</sup>

## Intellectual property

20. From the outset, Cabinet Office's strategy was to support a number of both new and existing designs. This was to provide it with insurance against new designs not meeting the regulatory standards on time and the likelihood of it facing global competition for parts and components used in existing designs. The Cabinet Office told us that its approach of connecting smaller companies with specialist design knowledge with larger manufacturers that had the ability to scale-up production of the designs worked "very well".<sup>34</sup>

21. In total the Cabinet financed 18 devices from 17 challenge participants over the course of the challenge; the majority of which were either completely new designs or modifications of existing designs. Through its technical design process, which eliminated devices based on whether they met regulatory requirements or were needed to meet government's targets, it identified just 3 participants whose products were required. The remaining 14 designs were not manufactured; of these the Cabinet Office believes that 5 could have gone on to meet the regulatory requirements had they been needed.<sup>35</sup>

22. Designs are a type of intellectual property (IP), which if protected, can provide value for the owner.<sup>36</sup> The Cabinet Office told us that it owns the IP for the designs it paid for and that it either owns all or a "substantial chunk" of the IP for the majority of the designs it could have made but chose not to. We asked the Cabinet Office how it plans to maximise

30 Q 77; C&AG's Report para 3.10

31 Q 85

32 Q 48; C&AG's Report, paras 15, 4.8 & 4.10

33 Q 126

34 Q 126; C&AG's Report, para 4.3

35 C&AG's Report, paras 4.8–4.12 & Figure 6

36 [GOV.UK](https://www.gov.uk/guidance/intellectual-property-and-your-work), 'Intellectual property and your work', accessed 28 October 2020

the value of the IP that it owns. It told us that, where it paid for a manufacturer's design work as part of the challenge it will get a royalty if a manufacture uses the design to take a unit to market.<sup>37</sup> However, while it acknowledged that this was something it would need to check on, it told us that there was no set process in place to do this and that it currently relies on the goodwill of manufacturers.<sup>38</sup> In response to our wider concerns that the government is in the habit of giving away technology without seeking to gain value from it, Cabinet Office agreed that it would look at how government contracts consider the issue of intellectual property.<sup>39</sup>

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37 Qq 90, 135

38 Qq 136–138

39 Q 139

## Formal minutes

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**Monday 16 November 2020**

Virtual meeting

Members present:

Meg Hillier, in the Chair

|                            |                |
|----------------------------|----------------|
| Gareth Bacon               | Peter Grant    |
| Shaun Bailey               | Richard Holden |
| Sir Geoffrey Clifton-Brown | Sarah Olney    |
| Barry Gardiner             | James Wild     |
| Dame Cheryl Gillan         |                |

Draft Report (*Covid-19: Supply of ventilators*), proposed by the Chair, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 22 read and agreed to.

Summary agreed to.

Introduction agreed to.

Conclusions and recommendations agreed to.

*Resolved*, That the Report be the Twenty-seventh of the Committee to the House.

*Ordered*, That the Chair make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Thursday 19 November at 9:15am

## Witnesses

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The following witnesses gave evidence. Transcripts can be viewed on the [inquiry publications page](#) of the Committee's website.

### Monday 12 October 2020

**Alex Chisholm**, Permanent Secretary, Cabinet Office; **Gareth Rhys Williams**, Government Chief Commercial Officer, Cabinet Office; **Sir Chris Wormald**, Permanent Secretary, Department of Health and Social Care; **David Williams**, Second Permanent Secretary, Department of Health and Social Care; **Dr Emily Lawson**, Chief Commercial Officer, NHS England

[Q1-139](#)

## Published written evidence

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The following written evidence was received and can be viewed on the [inquiry publications page](#) of the Committee's website.

SOV numbers are generated by the evidence processing system and so may not be complete.

- 1 Snell, Mr Geoff ([SOV0001](#))
- 2 VentilatorChallengeUK Consortium ([SOV0002](#))

## List of Reports from the Committee during the current Parliament

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All publications from the Committee are available on the [publications page](#) of the Committee's website. The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

### Session 2019–21

|                    |  |        |
|--------------------|--|--------|
| First Report       | Support for children with special educational needs and disabilities   | HC 85  |
| Second Report      | Defence Nuclear Infrastructure   | HC 86  |
| Third Report       | High Speed 2: Spring 2020 Update                                       | HC 84  |
| Fourth Report      | EU Exit: Get ready for Brexit Campaign                                 | HC 131 |
| Fifth Report       | University Technical Colleges  | HC 87  |
| Sixth Report       | Excess votes 2018–19   | HC 243 |
| Seventh Report     | Gambling regulation: problem gambling and protecting vulnerable people | HC 134 |
| Eighth Report      | NHS expenditure and financial management                               | HC 344 |
| Ninth Report       | Water supply and demand  | HC 378 |
| Tenth Report       | Defence Capability and the Equipment Plan                              | HC 247 |
| Eleventh Report    | Local authority investment in commercial property                      | HC 312 |
| Twelfth Report     | Management of tax reliefs  | HC 379 |
| Thirteenth Report  | Whole of Government Response to Covid-19                               | HC 404 |
| Fourteenth Report  | Readying the NHS and social care for the COVID-19 peak                 | HC 405 |
| Fifteenth Report   | Improving the prison estate  | HC 244 |
| Sixteenth Report   | Progress in remediating dangerous cladding                             | HC 506 |
| Seventeenth Report | Immigration enforcement  | HC 407 |
| Eighteenth Report  | NHS nursing workforce  | HC 408 |
| Nineteenth Report  | Restoration and renewal of the Palace of Westminster                   | HC 549 |

|                      |   |        |
|----------------------|---|--------|
| Twentieth Report     | Tackling the tax gap                                      | HC 650 |
| Twenty-First Report  | Government support for UK exporters                       | HC 679 |
| Twenty-Second Report | Digital transformation of the NHS                         | HC 680 |
| Twenty-Third Report  | Delivering carrier strike                                 | HC 684 |
| Twenty-Fourth Report | Selecting towns for the Town Fund                         | HC 651 |
| Twenty-Fifth Report  | Asylum accommodation and support transformation programme | HC 683 |
| Twenty-Sixth Report  | Department for Work and Pensions Accounts 2019–20         | HC 681 |