



National Audit Office



REPORT

Investigation into the UK Health Security Agency's health security campus programme

UK Health Security Agency

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National Audit Office

Investigation into the UK Health Security Agency's health security campus programme

UK Health Security Agency

Report by the Comptroller and Auditor General

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National Audit Act 1983 for presentation to the House
of Commons in accordance with Section 9 of the Act

Gareth Davies
Comptroller and Auditor General
National Audit Office

20 February 2024

Investigations

We conduct investigations to establish the underlying facts in circumstances where concerns have been raised with us, or in response to intelligence that we have gathered through our wider work.

The health security campus programme (the programme) sits on the Government Major Projects Portfolio. The Infrastructure and Projects Authority (IPA) recorded an ‘amber’ rating for this programme in its early years before downgrading this to a ‘red’ rating in 2021-22, meaning that it regarded successful delivery as unachievable with major issues needing resolving. It became apparent across 2023 that decisions on the future of the programme were being delayed, so we decided to investigate the issue to understand the causes of those delays.

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Contents

Key facts 4

What this investigation is about 5

Summary 7

Part One

Early years of the health security
campus programme 13

Part Two

Delays to the health security
campus programme 18

Part Three

Progress at the Harlow site 32

Appendix One

Our investigative approach 39

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Key facts

£400mn

amount UK Health Security Agency (UKHSA) and its predecessors have spent on the health security campus programme (the programme) at Harlow up to the end of October 2023

£530mn

Public Health England's (PHE's) initial estimated cost for the whole programme in 2015. PHE revised this figure to £888 million later in 2015 (both amounts are in 2015 prices)

£3.2bn

UKHSA's total estimated cost of the programme in 2023

- 2006** year that the Health Protection Agency (HPA) first identified the need for investment in facilities at Porton Down
- 2017** year that PHE purchased the site at Harlow
- 2021** PHE's initial estimated completion date for the programme
- 2036** UKHSA's current estimate for the earliest date by which the site could be fully operational, if the programme remains at Harlow
- 3** number of business cases produced by PHE and UKHSA so far, with the programme still to receive full programme approval

What this investigation is about

UKHSA's health security campus programme

1 The UK Health Security Agency's (UKHSA's) health security campus programme (the programme) is a long-running programme that aims to enhance and replace UKHSA infrastructure, most importantly its highest containment laboratories, which are essential for protecting the nation against potentially highly infectious diseases. These laboratories detect and study the most dangerous pathogens, including Ebola and Lassa fever, and more recently COVID-19. Existing UKHSA infrastructure at sites in Porton Down (Wiltshire) and Colindale (North London) are nearing the end of their operational life and, unless properly replaced, the UK would lose this capability.

2 The programme was initially established by the Health Protection Agency (HPA), a non-departmental public body that was superseded in 2013 by Public Health England (PHE). In 2021, the government established UKHSA to replace PHE. As part of that transfer of responsibilities from PHE, UKHSA took over the management of the programme. UKHSA is an executive agency of the Department of Health & Social Care (DHSC), as was PHE.¹

3 HM Treasury approved an outline business case for the programme in 2015, which estimated the total programme cost at just over £500 million and identified a GlaxoSmithKline site in Harlow (Essex) as the preferred site for new facilities, including the highest containment laboratories. PHE purchased that site for £30 million in 2017. Since then, however, the programme has not received full business case approval. Total estimated costs have increased significantly, and doubts have emerged as to whether the Harlow site will be utilised, with DHSC ministers asking UKHSA to consider whether replacing infrastructure at existing sites, including at Porton Down, is a viable alternative option. While full approval of a programme business case is yet to be given, the programme has spent just over £400 million, with the bulk of this spending being on design and construction works.

¹ The Department of Health became the Department of Health & Social Care in 2018. For ease of reading, we refer to DHSC throughout.

4 The programme sits on the Government Major Projects Portfolio (GMPP), which comprises the largest, most innovative and highest-risk projects and programmes delivered by government.² In its published reports, the Infrastructure and Projects Authority (IPA) recorded an 'amber' rating for the programme in its early years. In 2021-22 this was downgraded to a 'red' rating, meaning that it regarded successful delivery of the programme as unachievable, with major issues needing resolving.³ We conducted preliminary discussions with UKHSA in spring 2023 and were told that a future decision on the programme was expected by ministers over summer 2023. When it became apparent that decision had been delayed until the end of 2023, we decided to investigate the issue in detail to understand the causes for delays in the programme.

Our scope

5 Our report sets out information on key facts and decision points for the programme. It does not seek to examine and report on the overall value for money of the programme but considers key risks to manage. We look at:

- the early history of the programme including the case for change (Part One);
- the causes of delays in the programme so far (Part Two); and
- what has been achieved at the Harlow site (Part Three).

² The programme was initially called the PHE science hub and is listed as such in the IPA's GMPP reports. For ease of reference, we refer to the current programme name, the health security campus programme, throughout the report.

³ The IPA states that an 'amber' rating means that successful delivery is feasible, and, while significant issues exist, they appear resolvable. An 'amber/red' rating means that successful delivery is in doubt, with risks or issues in key areas. A 'red' rating means that its successful delivery appears to be unachievable.

Summary

Key findings

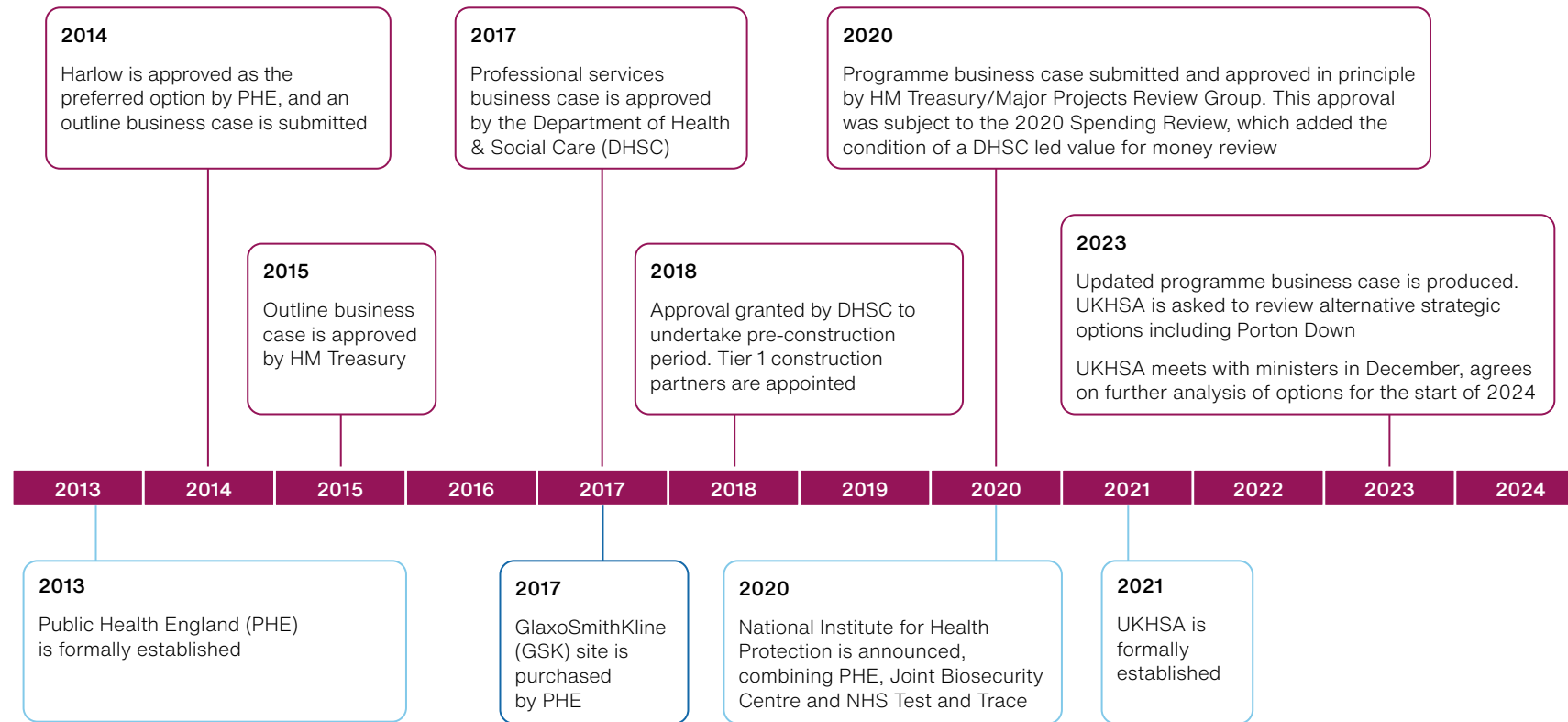
6 The HPA identified the need to replace its highest containment laboratories at Porton Down as far back as 2006. These laboratories are essential for protecting the nation against potentially highly infectious diseases and include facilities where scientists work to identify, study and respond to the most dangerous pathogens in the world, including Ebola, Lassa fever, and more recently COVID-19. The majority of facilities at Porton Down are over 55 years old. This can present challenges with respect to meeting the standards required by licensing bodies such as the Health and Safety Executive, which can result in increasing operational and maintenance costs for these buildings. In the last decade, these highest containment laboratories have been working with at least one known issue for 50% to 60% of the time, although this largely had no impact on service or health and safety. UKHSA acknowledges that these increasing periods of downtime present a significant but managed risk to public health (paragraphs 1.5, 1.6 and 2.9).

7 In 2015, HM Treasury approved PHE's outline business case requesting investment of £530 million to create a new national integrated hub for public health science at a site in Harlow. The funding was to be used to purchase and adapt a site in Harlow then owned by GlaxoSmithKline (GSK) and to relocate the highest containment laboratories and workforce from sites in Colindale and Porton Down (**Figure 1** overleaf). Harlow was PHE's preferred option because the GSK site had space to co-locate PHE's existing facilities and headquarters, and the location in the London-Cambridge corridor would provide good access to academic knowledge and skills, making staff recruitment easier. It was also felt that developing a new site and then transitioning to it would provide the greatest operational continuity and resilience. PHE assessed that this option would involve lower construction costs compared with developing existing sites as the existing GSK facilities could be adapted, and set out a programme timeline to completion by 2021 (paragraphs 1.9 to 1.12, 2.2, 2.5 and 2.15 and Figure 8).

Figure 1

Major events for the UK Health Security Agency's (UKHSA's) health security campus programme from 2013 to 2024

There have been multiple business cases produced and approved for the campus programme, in addition to changes to the organisation responsible for the programme since 2013



- Proposals, business cases and approvals
- Organisational changes
- Site purchase

Notes

- 1 HM Treasury guidance requires that programmes must have a programme business case. The business case process for a project is divided into three stages: a strategic outline case, an outline business case (OBC) and a full business case (FBC).
- 2 The professional services business case relates to the procurement of specialist services to support design and business change that the organisation could not deliver in house.
- 3 The Major Projects Review Group is a panel that provides scrutiny of proposals to HM Treasury and Cabinet Office to support advice to ministers ahead of an approval decision.

Source: National Audit Office analysis of UK Health Security Agency documentation

8 DHSC gave approval to PHE in 2017 to purchase the Harlow site from GSK for £30 million. Following on from the outline business case, PHE produced a business case to support the £30 million purchase of the Harlow site, and this was approved by DHSC in line with HM Treasury guidance for an investment of this value. Four main contracts were let in 2018 to three construction suppliers following the site acquisition. Since then, however, the programme is yet to receive full business case approval, and there is no clear decision on whether the programme should continue at Harlow. DHSC ministers have asked UKHSA to consider whether investing at existing sites, starting with Porton Down, is a viable alternative option (paragraphs 2.8, 2.12, 2.22 and 3.4).

9 PHE/UKHSA has refined its options appraisals for the programme in recent years, on each occasion concluding that Harlow is the best value for money option. With agreement from DHSC and HM Treasury, and in line with relevant guidance, PHE produced a programme business case in 2020, which, as with the 2015 outline business case, compared the plan for Harlow with the option of switching the programme to Porton Down. PHE concluded, however, that Harlow remained the best value option, with an estimated cost of £2 billion at that point. HM Treasury approved that business case in principle, following the advice of the Major Projects Review Group, but, as part of the 2020 Spending Review, asked for a further study to be conducted in 2021 to compare the Harlow and Porton Down options. This study reiterated that Harlow offered the best value for money, but the creation of UKHSA in October 2021 led to a further re-assessment of the options. In December 2021, the then Secretary of State supported the continued development at Harlow and UKHSA's new Executive Committee endorsed the Harlow option in autumn 2022. This led to UKHSA producing a further programme business case in 2023, which again assessed that Harlow was the best option. It concluded, however, that it could not be built there within the £2 billion that HM Treasury had previously indicated it was willing to fund and that DHSC want to stick to (paragraphs 1.7, 2.7, 2.17, 2.20 and 2.22 and Figure 4).

10 UKHSA's most recent cost estimate for the programme in Harlow has risen to £3.2 billion, an increase of £2.7 billion, or over 500%, from PHE's initial estimate in the outline business case. The initial cost estimate in 2015 was £530 million (in 2015 prices, and excluding any assessment of potential inflation, contingency costs, or VAT liabilities), which HM Treasury approved. By 2020, this cost estimate had increased to £2 billion with many contributing factors, of which the key drivers included a maturing risk analysis (£248 million), increased estimation accuracy (£183 million), and additional irrecoverable VAT (£174 million). By 2023, as a result of further delays and with rising inflation, the estimated cost had risen again to £3.2 billion. UKHSA assesses that it could construct new high containment and other bioscience facilities at Porton Down within the £2 billion envelope, but this would not factor in the additional costs required to further maintain and modernise the Porton Down and Colindale sites, which would require a separate business case (paragraphs 2.12, 2.15, 2.17, 2.18 and 2.22 and Figures 6 and 8).

11 The current absolute benefit–cost ratio for the programme is marginal but there are significant potential benefits that are not included. UKHSA's most recent assessment, in 2023, was that the benefit–cost ratio for Harlow was 1.02, meaning that the benefits only just outweigh the costs. Porton Down has a ratio of 0.86, meaning that the costs outweigh the benefits. UKHSA assesses that the main benefits of both are the delivery of new and enhanced facilities with updated laboratories and improved capabilities for UKHSA, but in addition to this Harlow is seen to represent a quicker way to realise benefits. Both assessments of benefits have potentially significant non-monetised benefits that are not included, for example, the fiscal transfer costs that could be averted as a result of mitigating a future pandemic (paragraphs 2.10 and 2.11 and Figure 5).

12 UKHSA's current assessment is that, if the programme remains in Harlow, at best that site will become fully operational in 2036, 15 years later than the initial timeline. When the initial outline business case was put together in 2014, PHE's timeline suggested that the programme would be completed by 2021. Delays to the programme due to uncertainty over the scope, location, costs and a lack of funding now mean that the best-case scenario might see Harlow become fully operational in 2036. Switching the programme to focus on maintaining and modernising Porton Down and Colindale could lead to further delays as design work would largely need to be reset and key construction contracts would have to be reprocurd (paragraphs 2.2, 2.4, 3.3 and 3.6 and Figure 3).

Progress at Harlow

13 UKHSA, and its predecessors, have spent just over £400 million on the programme at Harlow up to the end of October 2023. This is around 75% of the initial cost estimate that was approved by HM Treasury in 2015. The largest elements of that spend have been on design, revenue, project/programme support and management, and construction costs, at £91 million, £89 million, £76 million and £66 million respectively, and the £30 million that was spent on acquiring the site. The majority of these costs would be written off if the programme elects to pivot to Porton Down, though some value would be recuperated through the sale of the site and from existing design work (paragraphs 3.2 and 3.3 and Figures 10 and 11).

14 UKHSA suspended all its main construction suppliers in 2022, after DHSC, in agreement with UKHSA and HM Treasury, reallocated funding to other departmental priorities amidst continuing uncertainty as to the preferred location for the programme. Three main suppliers were appointed in 2018, tasked with completing enabling and design works before moving on to construction across the site. All three have completed a significant proportion of enabling works at Harlow alongside significant design work. In March 2022, amidst continuing uncertainty over the preferred location for the programme, DHSC agreed with HM Treasury and UKHSA to reallocate funding to other departmental priorities, as part of the Living with COVID-19 strategy. Consequently, UKHSA suspended contracts with its suppliers at a cost of over £2 million, and has not been in a position to remobilise them since. Between March 2022 and October 2023, the programme spent £2 million on running costs for the Harlow site, including £1 million on security. UKHSA has asked suppliers to continue to provide some advice, but they are all contractually free to walk away from the programme. With continued uncertainty around the programme, a key risk that UKHSA is currently bearing is that key suppliers do leave the programme or there is a failure in the construction supply chain (paragraphs 2.9, 2.22 and 3.4 to 3.6).

Concluding remarks

15 Replacing and modernising UKHSA's facilities through the programme is of crucial importance to ensure the UK has the capabilities to identify, study and respond to the most dangerous pathogens in the world. Yet the programme still has no clear decision on where it should be located, despite a site having been purchased in Harlow back in 2017 with an original timeline that would have seen the new site fully operational by 2021. The government is committed to the programme but has not yet made a decision on the programme's location. Over six years on from purchasing the Harlow site, very little progress has been made and just over £400 million has been spent against an initial total cost estimate of just over £500 million. Revised timelines show that, at best, the programme might be fully operational in Harlow by 2036.

16 PHE's original estimate of the programme cost was plainly wrong, and the full implications emerging from design development, as well as the inclusion of contingencies, VAT and inflation, led to significant cost increases through to the programme business case in 2020, which was approved in principle by HM Treasury. The latest total programme cost estimate as of the 2023 business case is £3.2 billion, with changes to the scope and delays to the timetable, with an ensuing impact on inflation, contributing significantly to pushing up costs. We have seen similar challenges in other major government programmes, where decisions to proceed were not accompanied by sufficiently robust and realistic assessments of affordability.

17 Since 2022, UKHSA has suspended all main construction suppliers on the programme, and the programme has essentially stopped. UKHSA has been asked repeatedly by HM Treasury, DHSC and relevant ministers to re-evaluate whether Harlow is the best value for money option. It has consistently concluded that it is, but that it is no longer deliverable for the £2 billion the programme estimated it would cost in 2020. There needs to be clarity between all parties as to the way forward on this programme otherwise further delays and increases to costs are inevitable.

18 DHSC considers that delays to the programme have not affected the UK's resilience to dangerous diseases in the short-term, as UKHSA continues to maintain and manage risks at both the Porton Down and Colindale sites. In our view, as things stand, the UK's future resilience to dangerous diseases and value for taxpayers' money are both being undermined by failures in decision-making for a key part of the national infrastructure.

Part One

Early years of the health security campus programme

1.1 This part of the report gives the background and early history of the health security campus programme (the programme) and explains the UK Health Security Agency's (UKHSA's) role and responsibilities.

What is health security?

1.2 The COVID-19 global public health emergency has put the importance of effective health security into sharp relief, and UKHSA has a key role in providing critical national infrastructure for it. Health security refers to proactive and reactive activities to reduce vulnerabilities to public health incidents that can pose threats to the health of a population.

1.3 Successive public bodies of the Department of Health & Social Care (DHSC) have had responsibility for health security and public health.⁴ Until 2013, the Health Protection Agency (HPA), a non-departmental public body, had responsibility for protecting UK public health through the provision of support and advice to bodies including DHSC and the NHS. HPA was superseded by Public Health England (PHE) in 2013, and in 2021 PHE merged with NHS Test and Trace and the Joint Biosecurity Centre to form UKHSA.

1.4 UKHSA is responsible for protecting citizens from the threats of infectious diseases, chemical, biological, radiological, nuclear incidents, and other health threats. Its role is to provide scientific and operational leadership with local, national and international partners to protect the public's health and build the nation's health security capability. Its remit covers England, with the majority of health protection in Scotland, Wales and Northern Ireland being devolved. UKHSA holds some UK-wide responsibilities such as representing the UK internationally and in deploying specialist capabilities across the UK in areas such as radiation.

⁴ The Department of Health became the Department of Health & Social Care in 2018. For ease of reading, we refer to the Department of Health & Social Care (DHSC) throughout.

The UK's health security infrastructure

1.5 The UK's health security infrastructure includes a range of high containment laboratories. UKHSA has laboratories that are licensed to operate at the highest level of containment. These highest containment laboratories are specialist facilities and are essential for protecting the nation against potentially highly infectious diseases. There are laboratory spaces at Porton Down (Wiltshire) and at Colindale (North London) (**Figure 2**) where scientists work to identify, study and respond to the most dangerous pathogens in the world, including Ebola and Lassa fever, and more recently COVID-19.

The deteriorating state of the infrastructure

1.6 HPA realised as early as 2006 that investment was needed to ensure the capabilities of the highest-level containment laboratories. In 2008, it was estimated that the laboratories had only five years of service life left, and remedial investment and derogations have been required to keep them operational beyond that period. Between 2013 and 2022, there was at least one known issue across the laboratories for 50% to 60% of the time, although largely this had no impact on service or health and safety. In that time, all high containment laboratories had between six months and 12 months of downtime responding to critical updates where the facility was unavailable as it was unsafe to use. This can present challenges with respect to meeting the standards required by licensing bodies such as the Health and Safety Executive, which can result in increasing operational and maintenance costs for these buildings. UKHSA states this presents a significant but managed risk to public health and that replacing these facilities is becoming urgent to maintain the safety and security of UK public health. The COVID-19 pandemic has only further highlighted the critical need for resilient access to modern highest containment laboratories.

HPA and the early years of the programme

1.7 HPA developed a strategic outline case to submit to DHSC in 2008 to replace the facilities at Porton Down and subsequently received approval to produce an outline business case.⁵ In 2009 HPA became aware of an opportunity to purchase a site, Terlings Park, in Harlow (Essex) which was then recommended to DHSC as the preferred option by the HPA board. This option was put on hold, however, when an opportunity to purchase a site from GlaxoSmithKline (GSK), also in Harlow, emerged and was investigated in 2010. An outline business case was submitted to DHSC in 2010 with the preferred option being the GSK site in Harlow.

⁵ HM Treasury guidance requires that programmes must have a programme business case. The business case process for a project is divided into three stages: a strategic outline case, an outline business case (OBC) and a full business case (FBC).

Figure 2

UK Health Security Agency (UKHSA) sites in the south of England

There are three main UKHSA sites, in addition to its headquarters and the site currently proposed at Harlow

- Site currently proposed at Harlow
- Current UKHSA sites

**Notes**

- 1 In addition to Chilton, Porton Down, Colindale and its headquarters, UKHSA has sites and staff across the country and the figure does not show dispersed health protection teams that operate across England.
- 2 The map shows the regions across the south of England as these are where the main UKHSA sites are located.
- 3 The Ministry of Defence, through its Defence Science and Technology Laboratory body, also has a site in Porton Down.

Source: National Audit Office analysis of UK Health Security Agency documentation, Office for National Statistics licensed under the Open Government Licence v.3.0. Contains OS data © Crown copyright and database right 2024

The transition from HPA to PHE

1.8 DHSC's review of the outline business case was protracted, and there were uncertainties with the transition from HPA to PHE in 2013. PHE inherited a disparate estate covering 180 organisations, also taking on responsibility for the programme. Harlow was approved as the preferred option for the programme in 2014 and, in addition to replacing laboratory facilities, the relocation of corporate and headquarter functions was added to the programme's scope. An outline business case was formally submitted to DHSC in 2014, following design work and stakeholder engagement.

The 2014-15 outline business case

1.9 PHE set out in the 2014-15 outline business case that the Harlow site would be used to create a national headquarters and a public health science hub. It described the Harlow site as a modern, fully operational facility which had space to co-locate PHE's two large national level public health facilities, with other London-based sites and most of the headquarters function in one space, bringing together a critical mass of scientists and knowledge into a national centre for public health.

1.10 Other advantages of the preferred Harlow option in 2015 were stated as:

- it could give an opportunity to bring together non-core services and develop working practices that rely on people being close to each other;
- since it is within the London-Cambridge corridor it could make it easier to recruit staff with the necessary academic skills and knowledge; and
- it could offer the potential to work with other bioscience centres, such as the Medical Research Council and University of London.

1.11 PHE also stated that the preferred option of a national headquarters and science hub at Harlow would have lower construction costs than equivalent options at Porton Down or Colindale as there were existing facilities at the GSK site that would only require adaptation. Additionally, it was felt that developing a new site and then transitioning to it would provide the greatest operational continuity and resilience. PHE recognised that there were significant risks related to the relocation of its existing workforce but said that these had been identified and mitigation strategies were being developed.

Approval of the outline business case in 2015

1.12 HM Treasury approved PHE's outline business case in December 2015. In that outline business case, PHE presented a full relocation to the GSK site in Harlow as the preferred of 10 shortlisted options, down from a longlist of 22 options that considered other locations. This option was to create a new national headquarters and public health science hub at the GSK site in Harlow. Work included the replacement of facilities from Porton Down and Colindale (and the closure of the Colindale site), as well as rented office and laboratory space in central London, and construction of new highest containment laboratory facilities. We explain the progress that has been made on the programme since 2015 in Parts Two and Three.

Summary of the current governance arrangements

1.13 The programme is managed by UKHSA, and we set out the programme management and governance structure in Part Three. UKHSA is an executive agency of DHSC (as was its predecessor, PHE) and, consequently, all major approval points in the programme need to be signed off by DHSC. The programme has also been listed on the Government Major Projects Portfolio (GMPP) since at least 2012-13, a portfolio which comprises the largest, most innovative and highest risk projects. Consequently, the programme's business cases are subject to the highest level of scrutiny within HM Treasury, through what is called the Major Projects Review Group. The programme has also received regular assurance from the Infrastructure and Projects Authority.

Part Two

Delays to the health security campus programme

2.1 This part of the report examines the delays to the UK health security campus programme (the programme) and the reasons for those delays.

Overview of the delays to the programme schedule

2.2 At the time Public Health England (PHE) submitted the initial outline business case for this programme in July 2014, PHE set out a timeline that would see new high containment laboratories ready for use in July 2020 (see **Figure 3** on pages 20 and 21). According to that timeline, by June 2021, the transition from PHE's legacy sites would be complete and the programme finished.

2.3 That timeline has not been met. Since 2015, PHE/UK Health Security Agency (UKHSA) has created a number of business cases. Each time, estimates of costs have increased significantly.

- In late 2015, PHE revised the original outline business case estimate of the programme cost to £888 million.
- In 2020, PHE submitted a programme business case that included an estimated cost of £1,971 million. At the 2021 Spending Review, HM Treasury set a cap of £2 billion in response to the 2020 programme business case.
- At the beginning of 2023, UKHSA created a revised programme business case with an estimated cost to completion of £2,858 million, in addition to the £345 million already incurred. In March 2023, and again in December of that year, DHSC ministers asked UKHSA to consider other options to stay within the HM Treasury spending cap.
- UKHSA expects to develop a further business case once the preferred way forward is agreed with ministers.

2.4 PHE updated its expected timeline for the programme in its 2020 programme business case, with the expectation that the programme would be complete in 2031. In late 2023 UKHSA produced a new expected timeline that would see Harlow (Essex) reaching full operating capability by 2036 at the earliest. The timeline has been repeatedly delayed due to a lack of clarity over the scope of the programme, and its location, as well as escalating forecast costs and a lack of funding. We explore these causes and consequences in more detail through the rest of this part, including:

- changes to the scope of the programme;
- reconsideration of the location for the facility;
- escalating costs; and
- lack of funding.

Changes to the scope of the programme

2.5 In 2015, PHE's vision for the programme was to create a national integrated hub for public health science that delivers the core national responsibilities of PHE. The preferred option was co-location of PHE services at the Harlow site and the creation of a Harlow national headquarters and public health science hub. The site would incorporate replacement facilities for existing PHE sites at Porton Down (Wiltshire) and Colindale (North London) and rented office and other accommodation in central London. Other features of the option included:

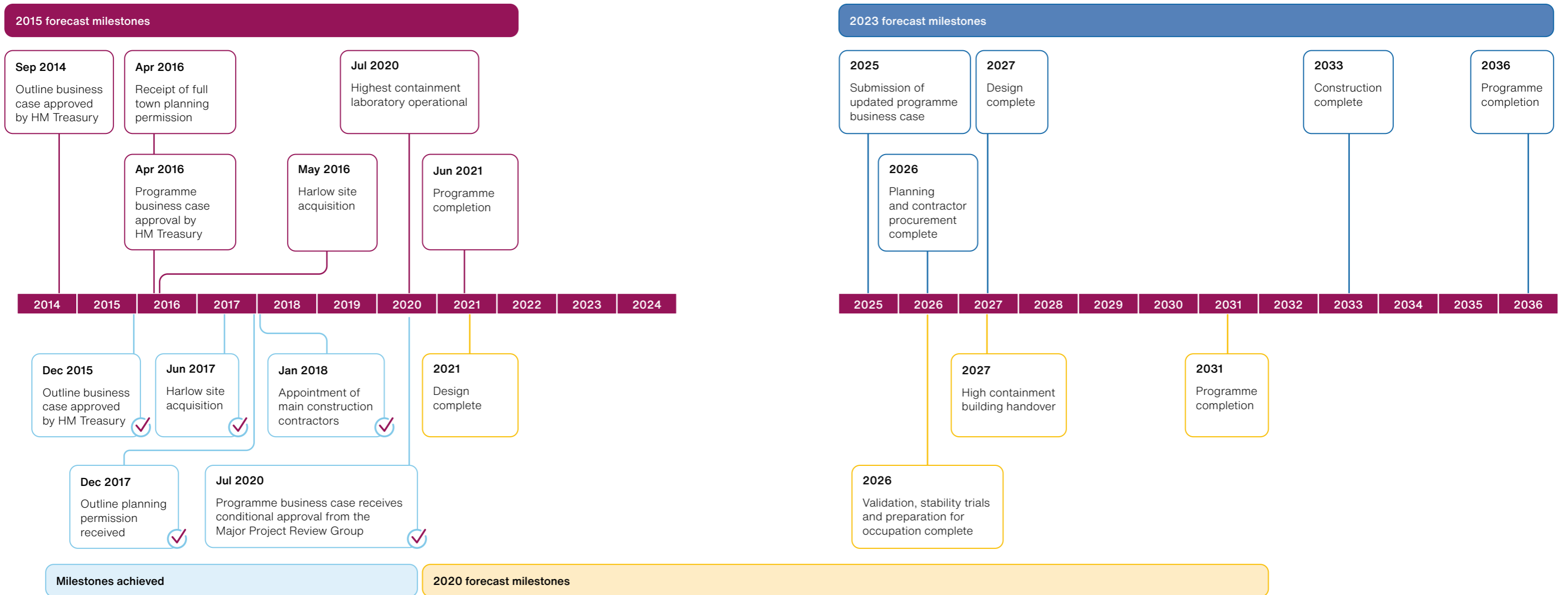
- establishment of a PHE hub with potential for expansion and clustering with collaborative organisations;
- Colindale site to close;
- Porton Down site to remain as a location for Development and Production functions;⁶ and
- other PHE functions, such as South West/South local Food, Water and Environmental facilities, would remain at or near Porton Down.

2.6 In 2016, PHE changed the scope of the programme to accommodate an additional estimated 800 staff previously based in London at the Harlow site. This broadening of scope contributed to delays to design work, and the programme team identified this increase in scope as one of the causes of increased revenue costs in 2019. In 2020, PHE's programme business case presented revised costs and timeframes, with the preferred option for progression remaining the development at Harlow of a public health science hub and national headquarters, with the increased scope of bringing in the majority of functions from central London premises.

⁶ In 2015 Porton Biopharma Limited (PBL), a limited liability company, was spun out of PHE. PBL produces vaccines and medicine on a commercial basis.

Figure 3
Timeline of forecast and achieved milestones for the UK Health Security Agency's (UKHSA's) health security campus programme

The programme's schedule has been repeatedly extended and has not achieved its expected milestones



Notes

- 1 The 2015 forecast milestones are taken from the 2015 outline business case.
- 2 The 2020 forecast milestones are taken from the 2020 programme business case.
- 3 The 2023 forecast milestones are taken from the UK Health Security Agency December 2023 submission to ministers and are indicative.
- 4 HM Treasury guidance requires that programmes must have a programme business case. The business case process for a project is divided into three stages: a strategic outline case, an outline business case (OBC) and a full business case (FBC).
- 5 The Major Projects Review Group is a panel that provides scrutiny of proposals to HM Treasury and Cabinet Office to support advice to ministers ahead of an approval decision.
- 6 Currently the preferred option is to develop the campus at Harlow, however this is not yet confirmed.

2.7 In August 2020 the then Secretary of State announced the creation of the National Institute for Health Protection (NIHP), to incorporate health protection and resilience functions from PHE with the Joint Biosecurity Centre and NHS Test and Trace. NIHP was renamed the UK Health Security Agency (UKHSA) in March 2021, and the programme transferred to UKHSA in October 2021. As a new organisation, and with the impact of the COVID-19 pandemic, UKHSA re-assessed plans for the programme in 2021, concluding that, while the strategic context had changed, Harlow remained the right approach. In December 2021 the then Secretary of State supported the continued development of the Harlow health security campus. This approach was also endorsed by the UKHSA Executive Committee in autumn 2022 and UKHSA's revised 2023 programme business case presented a move to Harlow as the preferred option. This business case broadly reflected the scope in the 2020 business case but included an opportunity to partner with the Medicines and Healthcare products Regulatory Agency (MHRA). It also left open the possibility for an enduring organisational presence at Porton Down in the long term. This was to be financed by seeking additional funding through private investment.

Location of the programme

2.8 Alongside a continued lack of clarity on the scope of the programme, there has also been uncertainty about the location. **Figure 4** shows that as the programme has developed, PHE/UKHSA has considered various different options across the three main sites of Colindale, Harlow and Porton Down. Harlow was seen to offer the best value for money in 2015, and it was on this basis that PHE produced a business case to support the £30 million purchase of the site in 2017. This was approved by the Department of Health & Social Care (DHSC) in line with HM Treasury guidance for an investment of this value.

2.9 Since then, every time PHE/UKHSA has revisited its options analysis, it has always concluded that Harlow remains the best value for money option. Despite this, HM Treasury and DHSC ministers have asked PHE/UKHSA for further consideration of the Porton Down option on more than one occasion. The majority of buildings at Porton Down are over 55 years old. Safety and security requirements in recent years at Porton Down have led to increased investment in that site, and there was also £41 million of investment in the site through the Vaccine Taskforce up until 2022-23. This created 18 new laboratory spaces, though these have a shorter design life than the programme's specification and are not the highest-level containment laboratories that are critical to the overall programme.

Figure 4

Options assessed for the UK Health Security Agency's health security campus programme, 2015 to 2023

Harlow has remained the preferred option throughout the options analysis processes the programme team has performed since 2015

Options appraisal date	2015	2020	2021	2023
Options considered	<ul style="list-style-type: none"> Do nothing Outsource facilities Do minimum: virtual Hub Porton Down National Infectious Diseases Science Hub Colindale National Infectious Diseases Science Hub Harlow National Headquarters and Public Health Science Hub Enhanced do minimum: re-provision research facilities Porton Down National Headquarters and Public Health Science Hub Colindale National Headquarters and Public Health Science Hub Harlow National Infectious Diseases Science Hub 	<ul style="list-style-type: none"> Do minimum: virtual Science Hub, ongoing maintenance at Colindale and refurbishment of Porton Down Harlow National Headquarters and Public Health Science Hub Porton Down National Headquarters and Public Health Science Hub 	<ul style="list-style-type: none"> Do minimum: re-provision of Colindale and Porton Down facilities Harlow Science Hub, including corporate functions Porton Down Science Hub, including corporate functions Harlow National Infectious Diseases Science Hub Porton Down National Infectious Diseases Science Hub 	<ul style="list-style-type: none"> Do minimum Harlow Health Security Campus Porton Down Health Security Campus
Preferred option	<ul style="list-style-type: none"> Harlow National Headquarters and Public Health Science Hub 	<ul style="list-style-type: none"> Harlow National Headquarters and Public Health Science Hub 	<ul style="list-style-type: none"> Harlow Science Hub, including corporate functions 	<ul style="list-style-type: none"> Harlow Health Security Campus

Notes

- Quantitative analysis of the options in the 2015 outline business case was undertaken on the basis of the HM Treasury Green Book rules, and involved assessing for each option: benefits, costs, value for money (VfM) and risks.
- The 2020 programme business case gave costs and benefits to calculate a risk adjusted Net Present Social Value (NPSV) for each option, including financial costs and wider benefits. A benefit-cost ratio for each option was also produced.
- The 2021 VfM study evaluated costs and benefits for each option by updating assumptions from the 2020 programme business case. The VfM study also produced a benefit-cost ratio for each option. Cost assumptions were developed around two broad categories: people/transition and capital/construction.
- The 2023 programme business case revisited options appraisals in the 2015 outline business case and 2020 programme business case, incorporating a change in organisational scope and responsibilities and the updated delivery schedule.

Source: National Audit Office analysis of Public Health England and UK Health Security Agency documentation

2.10 UKHSA's programme business case in 2023 again concluded that Harlow was the best value for money option, although with rising costs the absolute benefit-cost ratio was marginal and only assessed at 1.02, whereas the Porton Down option was seen to have a ratio of less than 1 at 0.86, meaning that the costs outweigh the benefits (see **Figure 5**).⁷ Both options involve the creation of a health security campus with new and enhanced facilities, including updated laboratories, and both generate similar kinds of benefits, but the Porton Down option would likely increase the length of time needed to construct new high containment laboratories by at least two years. This is in part due to the requirement for re-procurement of construction suppliers which may lead to further delays to realising the full benefits (see paragraph 3.6).

2.11 The assessment of the benefits for both options do not include potentially significant non-monetised benefits. For example, in line with HM Treasury guidance, consideration of the fiscal transfer costs avoided through mitigating a future pandemic are not included as a benefit. We reported in June 2022 that the total cost to government as a result of COVID-19 was £376 billion.⁸ Both the Harlow and Porton Down options also assume that, should there be another pandemic similar to COVID-19, they could have helped speed up the rollout of a vaccine by 14 days, and the reduced number of infections across those 14 days is taken into account in the calculation of benefit-cost ratios. However, the modelling of this does not account for the fact that bringing forward a vaccine not only impacts the number of infections across those 14 days but would also suppress subsequent infections, and so it is a conservative estimate. Other unquantified benefits that formed part of the assessment included further preventative measures and build capacity, commercial opportunities, recruitment, reputation, and environmental impact.

2.12 At a meeting with DHSC ministers in December 2023, UKHSA and DHSC were instructed to spend the early part of 2024 working up further details on the Porton Down option. UKHSA had given the advice that the Harlow option offered the best return on investment, despite having a higher initial cost than other options as it had the potential to deliver economic value as well as cost savings along with levelling-up impacts for the local area. However, ministers were still keen to see more on options that fit within a £2 billion funding package (see section on funding below). In June 2023, UKHSA had suggested that developing a new high containment facility at Porton Down could contain costs to less than £2 billion, with that funding also being enough to refurbish 15% to 20% of existing general UKHSA laboratories. This option does not, however, factor in additional costs that would be required to maintain and modernise the rest of the Porton Down and Colindale sites, work which would require a separate business case. Once this further work on the Porton Down option has been conducted, and subject to a decision on the preferred option for the programme, UKHSA expects to develop a further business case.

⁷ The benefit-cost ratio compares the benefits and costs of a project in monetary terms. A project with a benefit-cost ratio greater than 1.0 is estimated to deliver more benefits than it costs to achieve them.

⁸ We produced a COVID-19 cost tracker to bring together data from across the UK government and provide an estimate of the cost of measures announced in response to the COVID-19 pandemic. Available at: www.nao.org.uk/overviews/covid-19-cost-tracker/

Figure 5

Benefit–cost ratios of options assessed in the health security campus programme's 2023 business case

The UK Health Security Agency (UKHSA) estimates that the Harlow option has a higher benefit–cost ratio compared to the 'do minimum' and Porton Down options

Option	Do minimum	Harlow only	Porton Down only
Cashable benefits (£mn)	1	-20	7
Non-cashable benefits (£mn)	0	126	103
Societal benefits (£mn)	234	7,483	6,324
Total benefits (£mn)	235	7,589	6,434
Capital and implementation costs (£mn)	1,340	1,927	1,650
Revenue costs (£mn)	5,226	5,224	5,237
Total costs (£mn)	6,567	7,151	6,888
Total risk adjusted cost (£mn)	6,967	7,478	7,500
Benefit–cost ratio (total benefits/total risk adjusted cost)	0.03	1.02	0.86

Notes

- 1 UKHSA splits out the benefits into three areas.
 - Health and wider economic benefits (non-cash releasing/societal): these are quantified averted economic costs and government expenditure and averted loss in quality adjusted life years.
 - Collaboration benefits (non-cash releasing/societal): these are quantified benefits from improved exchange of knowledge and information from consolidating sites.
 - Cashable benefits (cash releasing): these are facilities and estate savings through estate consolidation and staff efficiencies.
- 2 UKHSA estimated the costs here "for a period of 60 years post implementation as well as the cost of implementing the change", and so the majority of these costs relate to revenue across the whole life of the programme.
- 3 The business case describes the 'do minimum' option as including: significant investment in replacement of facilities at Porton Down over 15 years and the relocation and replacement of Colindale in the 2040s. It would require new-build high containment and other facilities at Porton Down.
- 4 The negative cashable benefits for the Harlow option reflect increased utility costs, ie electricity and gas, due to newer technology and an increase in high containment lab size.
- 5 There are other potential benefits that have not been monetised and included in the calculation of the benefit–cost ratios, including further preventative measures and build capacity, commercial opportunities, recruitment, reputation, and environmental impact.
- 6 Sums may not reconcile exactly due to rounding.

Source: National Audit Office analysis of UK Health Security Agency documentation

Cross-government collaboration

2.13 At the same December 2023 ministerial meeting, ministers asked for further consideration to be given to the prospect of UKHSA working with other areas of government who also have a need for high containment laboratories. The MHRA has long been seen as a potential partner for UKHSA at Harlow, with co-location in scope for the Health Protection Agency before 2013. The option has continued to be discussed since the development of the 2020 programme business case, but no firm decision has been reached on that.

2.14 The Ministry of Defence, through its Defence Science and Technology Laboratory (DSTL) body, and the Department for Environment, Food & Rural Affairs (DEFRA), through its Animal and Plant Health Agency (APHA), are some other public bodies with a need for high containment laboratories. We reported on DEFRA's site management in 2022, noting that it had limited funding approval from HM Treasury at that time to progress its own programme, which includes a new science hub forecast for construction to start in 2027.

Escalating costs of delivering the programme

2.15 The estimated total cost of delivering the programme has escalated by £2.7 billion, or over 500%, since PHE's outline business case received approval for £400 million of capital funding and £130 million in revenue funding (excluding VAT, inflation, and contingency). In the draft 2023 programme business case, UKHSA estimated the costs to completion of the Harlow option were £2,858 million, on top of £345 million of costs already incurred. Costs in the draft 2023 programme business case, the 2020 programme business case and the 2015 outline business case are expressed as single point figures, rather than as ranges, with the later estimates including risk, contingency and optimism bias. **Figure 6** shows how the costs have increased each time the business case has been revisited.

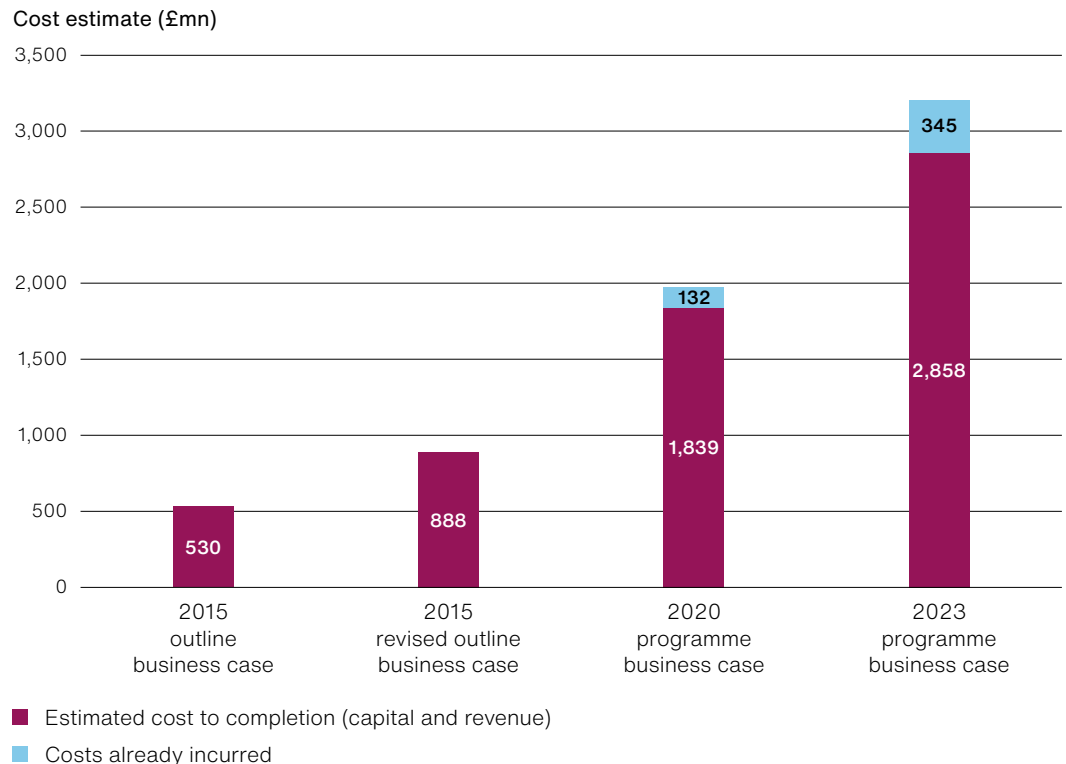
2.16 In late 2015, PHE adjusted the outline business case estimate to take account of inflation and contingencies including optimism bias. With the inclusion of VAT as well, following a change to the organisation's VAT status, and some other small adjustments PHE estimated that the adjusted cost of the outline business case was, as of December 2015, £888 million.

2.17 By the 2020 programme business case, PHE had more than doubled its estimate for the total cost of the programme to £1,971 million, an increase of £1,083 million on the £888 million in the revised outline business case from 2015 (see **Figure 7** on page 28). PHE attributed these increased costs to a number of factors, including £248 million due to maturing risk analysis, which meant increased risk allowances from a greater understanding of risks by external project teams, £183 million from increased estimating accuracy, £174 million from irrecoverable VAT, and £157 million due to inflation from the programme schedule being prolonged.

Figure 6

Estimated total costs of the health security campus programme, 2015 to 2023

The estimated cost of the programme has increased from £530 million in 2015 when the outline business case was approved to £3.2 billion in 2023

**Notes**

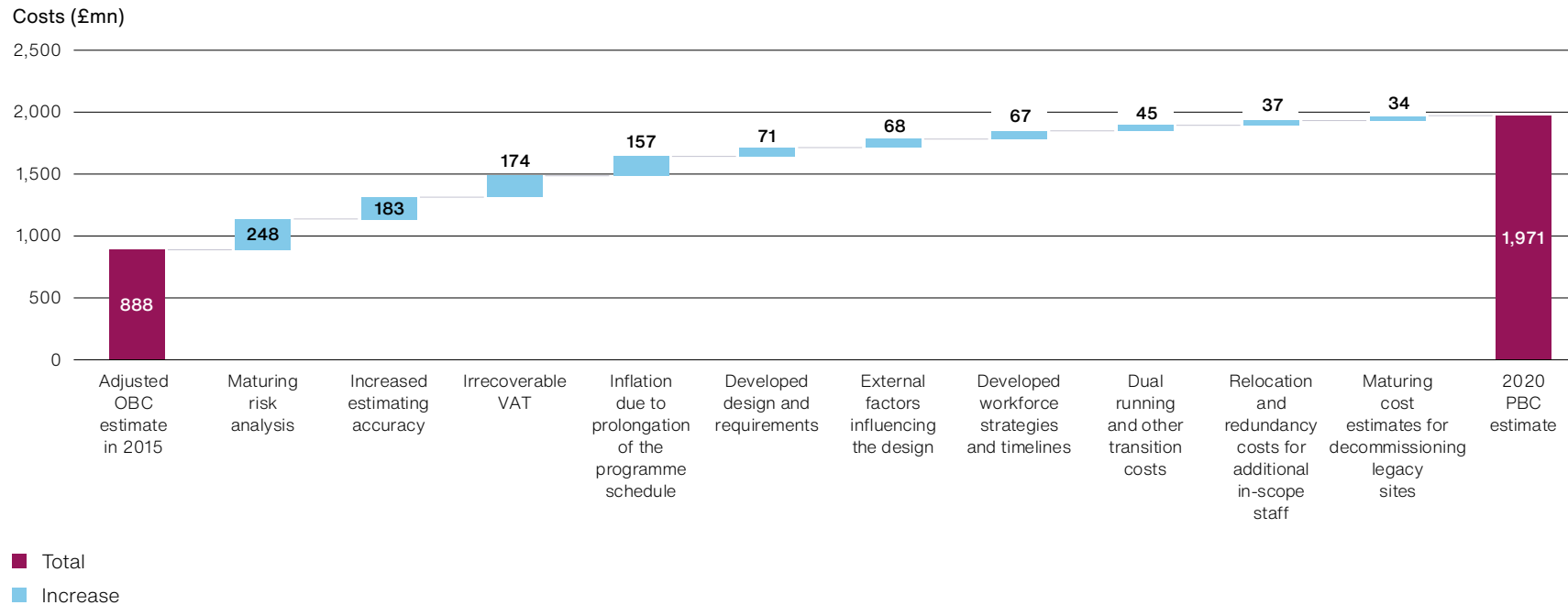
- 1 Cost estimates in the 2015 outline business case exclude VAT and contingency costs while the other business case estimates do include these.
- 2 Cost estimates reflect the cost at that time and have not been adjusted to 2023-24 prices.
- 3 Cost estimates reflect necessary investment for programme completion, rather than whole-life operational costs of the resulting infrastructure.
- 4 For the 2015 outline business case cost estimate, and its revised estimate, it is assumed that the total estimated cost includes costs already incurred, but these are not explicitly stated in the business case. The 2020 and 2023 business cases include values for costs already incurred.
- 5 Cost estimates from 2015 to 2020 were produced by Public Health England while the 2023 estimate was produced by the UK Health Security Agency.

Source: National Audit Office analysis of Public Health England and UK Health Security Agency cost estimates

Figure 7

Public Health England's (PHE's) assessment of the reasons for increased costs for the health security campus programme between 2015 and 2020

Total estimated cost for the programme increased from £888 million in 2015 to £1,971 million in 2020 due to a number of significant cost pressures



Notes

- Initially the outline business case estimated the cost of the programme at £530 million, PHE adjusted this outline business case estimate later in 2015 to account for inflation and increased scope. With the inclusion of VAT and contingencies, the revised cost of the outline business case was £888 million.
- The contributors for the increased cost are: maturing risk analysis, which relates to increased risk allowances from a greater understanding of risks; increased estimating accuracy, which relates to improved cost estimates after identifying under-estimation and cost pressures; irrecoverable VAT, which is VAT that could not be recovered by PHE; inflation due to prolongation, which relates to the cost of inflation due to increased timeframes for the programme; developed design and requirements, which relate to changes to the design from third parties, designers/constructors or from PHE; external factors influencing the design; developed workforce strategies and timelines; dual running and other transition costs, which relate to increased costs in running the new site and existing sites; relocation and redundancy costs for additional in-scope staff; and maturing cost estimates for decommissioning legacy sites, which relate to the increased cost estimates for the disposal of existing sites.
- Sums may not reconcile exactly due to rounding.
- OBC stands for outline business case, PBC stands for programme business case.

Source: National Audit Office analysis of UK Health Security Agency data

2.18 UKHSA's revised programme business case in 2023 estimated a total cost to completion of £2,858 million, an increase of over £1 billion or 55% on top of PHE's estimated cost to completion in the 2020 business case. UKHSA data suggest the increase was made up of the contributing factors below:

- £360 million due to change such as design changes due to regulations, technological advances and future proofing;
- £185 million from prolongation due to pausing the programme and costs of remobilising and reprocurring;
- £325 million from inflation; and
- £150 million from additional VAT.

Lack of funding

2.19 UKHSA needs DHSC and HM Treasury agreement to get funding approval for the programme. **Figure 8** overleaf shows that, while HM Treasury approved funding for the outline business case in 2015, the programme did not get full funding approval for its 2020 programme business case, with the programme instead ending up with a one-year settlement of £129 million for 2021-22.

2.20 HM Treasury approved the 2020 programme business case in principle, following the advice of the Major Projects Review Group, but as part of the 2020 Spending Review asked for a further value for money review in light of the pandemic response and the upcoming organisational transition from PHE to UKHSA. That value for money review was commissioned by HM Treasury, and was led by DHSC with involvement from PHE and HM Treasury. A final report produced in August 2021 concluded that Harlow remained the preferred option.

2.21 For the 2021 Spending Review, HM Treasury allocated funding of £442 million to the programme for 2022-23 to 2024-25 (see **Figure 9** on page 31), subject to UKHSA, and DHSC ministers confirming their preferred way forward for the programme, and whether they intended to pursue the Harlow scheme only, or a combined Harlow/Porton Down approach. At this point, DHSC was working to the £2 billion programme funding 'cap' that HM Treasury had previously indicated it was willing to fund, reflecting the requested spend of £1,971 million from the 2020 programme business case.

Figure 8

Health security campus programme approvals, 2015 to 2021

The programme received numerous approvals for funding from the Department of Health & Social Care (DHSC) and HM Treasury (HMT) between 2015 and 2021, but has not received full approval of funding for the programme business case

Item seeking approval	Approved by	Date	Amount seeking approval (£mn)	Fully approved
Outline business case	HMT – Chief Secretary to the Treasury	December 2015	530	Yes
Acquisition of Harlow site	DHSC	March 2017	30	Yes
Overarching professional services business case	DHSC	December 2017	79	Yes
Pre-construction early enabling works	DHSC	June 2018	21	Yes
Programme business case	HMT – Chief Secretary to the Treasury	July 2020	1,971	No – a one-year settlement of £129 million for 2021-22 was approved in the 2020 Spending Review
Concrete works ahead of value for money review	DHSC (HMT was aware)	December 2020	24	Yes
Spending Review 2021 funding to cover three years (2022-23, 2023-24 and 2024-25)	HMT	November 2021	442	Yes – but later reduced by DHSC

Notes

- 1 While programme funding was allocated by HM Treasury for financial years 2021-22 to 2024-25, this allocation was subsequently reduced due to other pressures on departmental budgets.
- 2 We have reflected the most senior level of approval at each stage, rather than listing all the stages of approval required.
- 3 HM Treasury guidance requires that programmes must have a programme business case. The business case process for a project is divided into three stages: a strategic outline case, an outline business case (OBC) and a full business case (FBC).

Source: National Audit Office analysis of UK Health Security Agency documentation

Figure 9

UK Health Security Agency's (UKHSA's) capital allocation and spend for the health security campus programme, 2021-22 to 2024-25

The programme's funding has been reduced by £169 million by the Department of Health & Social Care (DHSC) from its expected allocations since 2022-23

Date	Spending Review allocations (£mn)	Actual budget allocation (£mn)	Actual spend (£mn)
2021-22	129	129	77.4
2022-23	53	21.6	25.4
2023-24	149	11.9	5.9 (as of October 2023)
2024-25	240	TBC	TBC

Notes

- 1 UKHSA forecasts it will spend £10.7 million in 2023-24. Up to October 2023 it had spent £5.9 million in 2023-24.
- 2 DHSC initially reduced the budget for 2022-23 down to £18 million. Following further discussions between UKHSA and DHSC, this was increased to £21.6 million.
- 3 The programme's actual budget allocation for 2024-25 is yet to be confirmed (TBC).

Source: National Audit Office analysis of UK Health Security Agency data

2.22 Following the Spending Review in 2021, DHSC took the decision to reduce the programme's funding for 2022-23, resulting in UKHSA wholly or partially suspending its main programme contracts in March 2022. This decision was led by DHSC priorities, with the agreement of UKHSA and HM Treasury, in the context of other budgetary pressures including the Living with COVID-19 strategy, and work on other major projects within the DHSC portfolio including on NHS spending. The contracts remained suspended, while UKHSA conducted further work progressing a new programme business case that was ready in spring 2023. This confirmed that the preferred Harlow option could not be delivered within the £2 billion funding envelope identified in 2020, and instead could cost up to £3.2 billion. This draft business case did not enter the DHSC approvals process and has not yet been formally taken to HM Treasury, as DHSC ministers are still seeking to pursue an option within the initial £2 billion funding envelope. At the end of 2023, UKHSA was asked by ministers to conduct further analysis before a decision can be taken.

Part Three

Progress at the Harlow site

3.1 This part of the report looks at what has been achieved at Harlow (Essex) so far and the management of the health security campus programme (the programme).

Spend on the programme

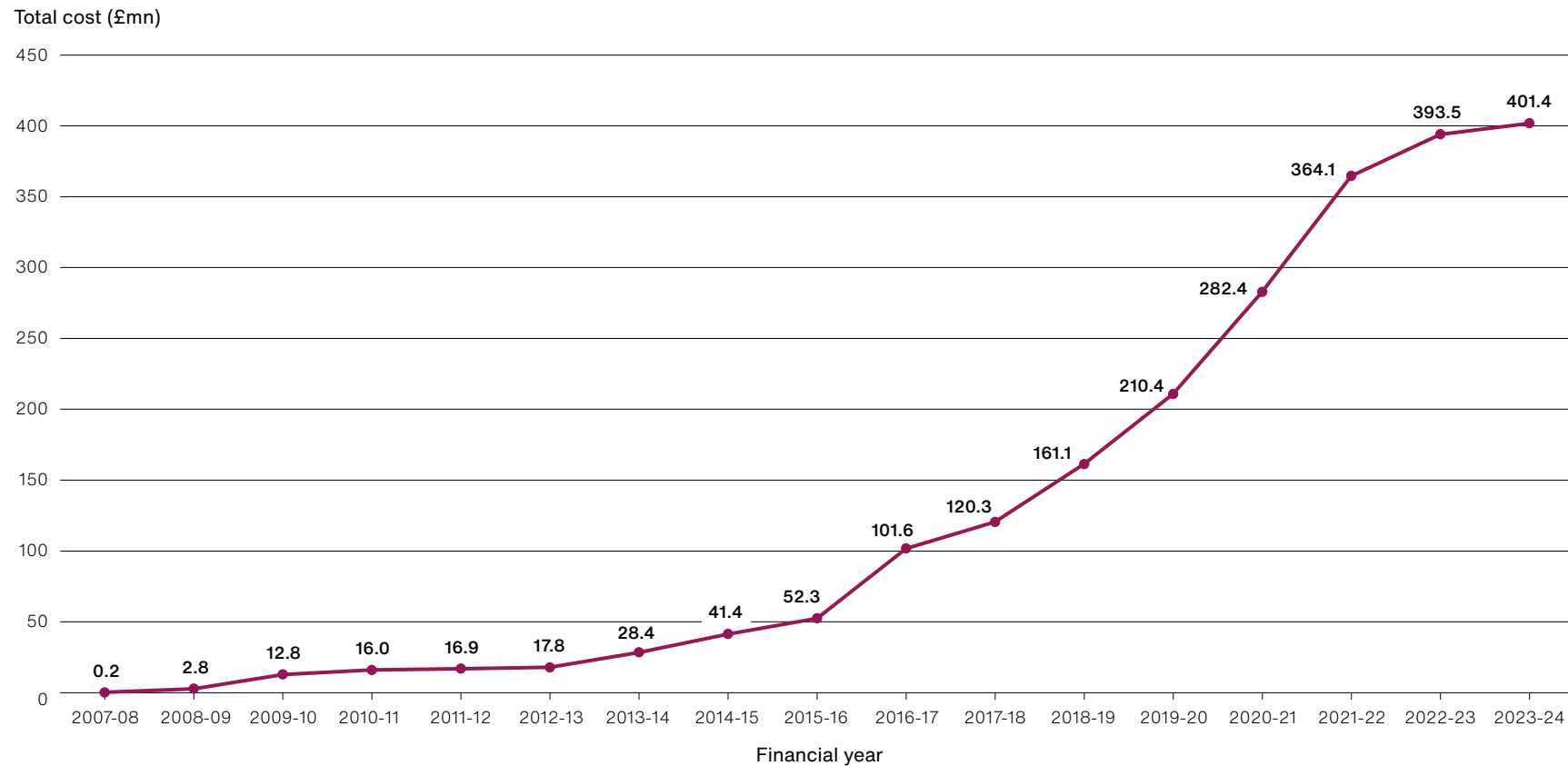
3.2 Up to October 2023, the UK Health Security Agency (UKHSA) had spent £401 million on the programme, around 75% of the initial cost estimate in 2015, with £313 million of this capital and £89 million revenue expenditure (**Figure 10**). Revenue expenditure is expenditure on the programme that cannot be categorised as developing an asset. Between 2016-17 and 2021-22 the programme spent an average of £52 million a year. This fell to £29 million in 2022-23. In 2023-24, up to the end of October, only £8 million had been spent. This reflects the stalled progress on the programme as funding has been reduced, and a lack of certainty over the scope and location of the programme, as set out in Part Two.

3.3 **Figure 11** on page 34 shows that the highest category of spend so far has been on design work (£91 million), with £89 million classified as revenue expenditure. £76 million has been spent on project/programme support and management, and £66 million has been spent on construction works. UKHSA assesses that, were the decision to switch the programme to focus on maintaining and modernising Porton Down (Wiltshire) and Colindale (North London) be taken, of the spend to date, most of the £400 million expenditure would be written off. The exceptions are around £40 million to £50 million in design work should the new building design be recycled, although further design would still be needed, and whatever costs could be recuperated from selling the Harlow site.

Figure 10

Cumulative spend on the health security campus programme up to 31 October 2023

The UK Health Security Agency (UKHSA), and its predecessors, have spent over £400 million on the programme up to the end of October 2023, and UKHSA has spent less on the programme in the last two years as progress has stalled

**Notes**

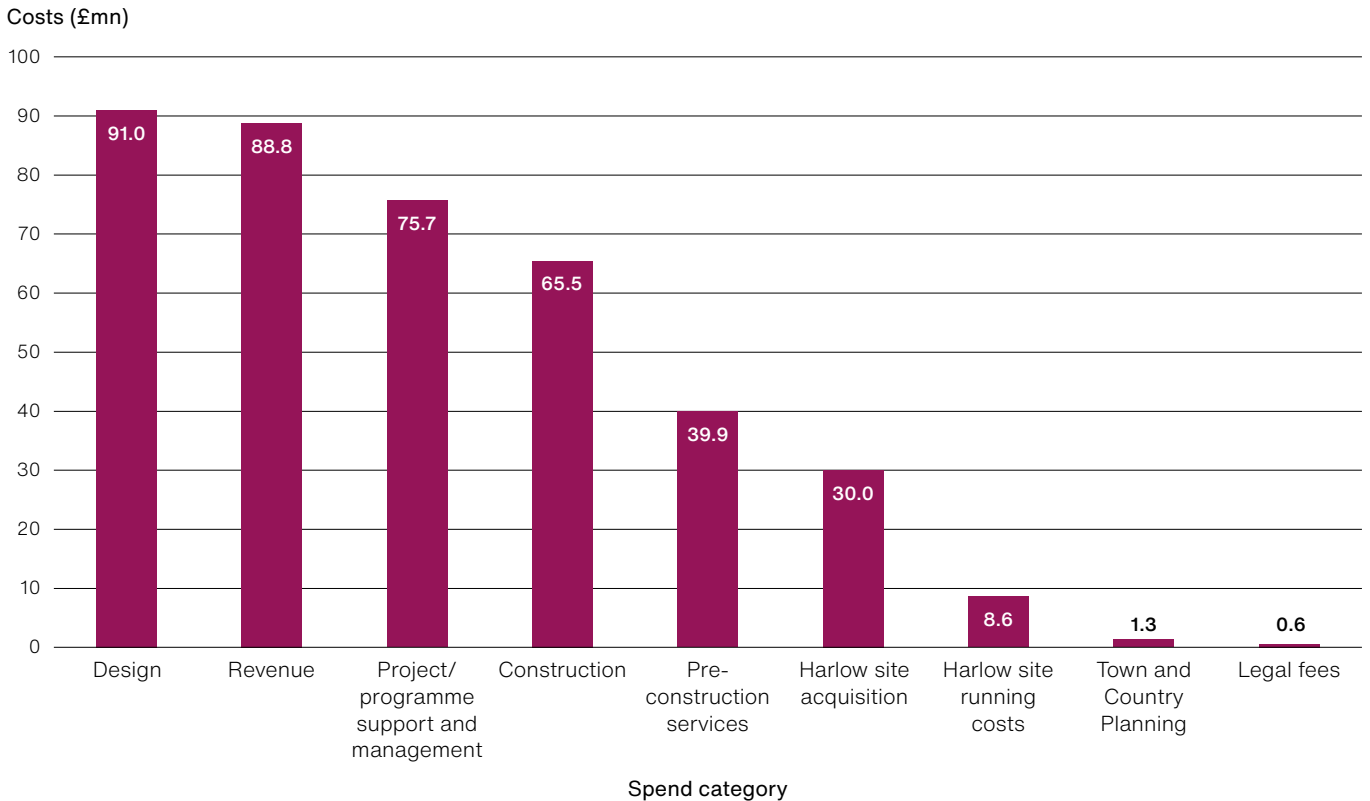
- 1 Data for 2023-24 are only up to end of October 2023.
- 2 The organisation responsible for the health security campus programme was the Health Protection Agency up to 2013, Public Health England from 2013 to 2021 and UKHSA from 2021.

Source: National Audit Office analysis of UK Health Security Agency spend data

Figure 11

The UK Health Security Agency’s , and its predecessors’, spend on the health security campus programme by category, up to 31 October 2023

The largest category of spend has been on design work, costing just over £90 million



Notes

- 1 Revenue expenditure is expenditure on the programme that cannot be categorised as developing an asset.
- 2 Revenue expenditure has included the following categories: payroll (£24 million), agency staff (£5.7 million), professional fees and consultancy (£28.1 million), site costs (£25.2 million), demobilisation costs (£2.4 million) and other (£3.4 million).
- 3 The organisation responsible for the health security campus programme was the Health Protection Agency up to 2013, Public Health England from 2013 to 2021 and the UK Health Security Agency from 2021.

Source: National Audit Office analysis of UK Health Security Agency spend data

Commercial arrangements

3.4 The spend on design and construction works is primarily through contracts that Public Health England (PHE) procured and UKHSA now manage. Four main contracts were awarded in 2018 across three construction suppliers. These contracts were awarded as part of a two-stage procurement process, whereby the suppliers complete enabling works and design in the first stage before finalising the second stage of the contract, which allows the construction work to begin. A significant proportion of the enabling works have been completed and the designs work has progressed up to developed design stage, with just the technical design stage to be completed before construction can start.⁹ In order to proceed to the next stage, the construction contracts would need to be formally entered into. The programme plans the refurbishment of an existing building to provide around 102 laboratories as well as office space, in addition to the construction of a new specialist high containment and bioscience facility. These are to be supported by new arrivals, education and logistics buildings and the necessary supporting energy centre and infrastructure.

3.5 In March 2022, UKHSA suspended all three of these main construction contractors, as well as a construction project management contract, as the programme did not have sufficient funding approval to progress the work further. Suspending these contracts cost UKHSA £2.4 million (including VAT), with most of these costs reflecting the demobilisation of staff and equipment. As the second stage of the construction contracts are yet to be finalised, UKHSA expects that this represents the majority of any costs that would need to be paid should the programme not resume at Harlow. At present, those suppliers remain suspended, as UKHSA seeks a decision on the future of the programme. Although this means no work is currently ongoing at the site, between March 2022 and October 2023, UKHSA spent £2 million on running costs for the site, including £1 million on security.

3.6 UKHSA has asked suppliers to continue to provide some advice, but they are contractually free to walk away from the work at any stage, and failures in the construction supply chain is one of the main risks that UKHSA is currently bearing. UKHSA acknowledges that, if there are further delays to the programme, it will only increase the risk of suppliers walking away as well as adding to costs, as suppliers will continue to factor this risk into their assessment of costs. Should the decision be taken to move the programme over to Porton Down, UKHSA does not believe it could compliantly transfer these contracts over to that site and would have to begin the procurement process again.

⁹ The Royal Institute of British Architects (RIBA) has a plan of work that outlines eight stages (numbered 0 to 7) in the design and construction of building projects. Stage 4 in this plan of work is the technical design phase, with construction beginning at stage 5. See RIBA Plan of Work for more information: www.architecture.com/knowledge-and-resources/resources-landing-page/riba-plan-of-work

Programme management

3.7 The programme is managed within UKHSA, though, as noted in Part One, with oversight from DHSC and HM Treasury on key approval points and with assurance from the Infrastructure and Projects Authority (IPA). **Figure 12** reflects the latest governance structure for the programme. The programme is headed within UKHSA by the Harlow Programme Board, which has delegated responsibility from the UKHSA Executive Committee to progress the business case for the programme, and reports on progress, escalates risks and issues and seeks approval to changes to the overall programme baseline through the UKHSA's Strategy and Change Board. The following sit below the programme board.

- Programme Delivery Board (PDB), which has delegated responsibility from the Harlow Programme Board to provide strategic direction, senior oversight, scrutiny and support of programme and project level budgets, plans, progress and risk. The PDB maintains oversight of all significant changes in the wider policy and strategic context that might impact on the programme and to agree or endorse any subsequent modifications to the programme subject to Programme Board agreement.
- Science and Estates Requirements Board (SER), which has delegated responsibility from the Harlow Programme Delivery Board to ensure that UKHSA requirements on science, estates, facilities, technology and systems are captured and articulated to inform the design, construction and delivery of the UKHSA health security campus.

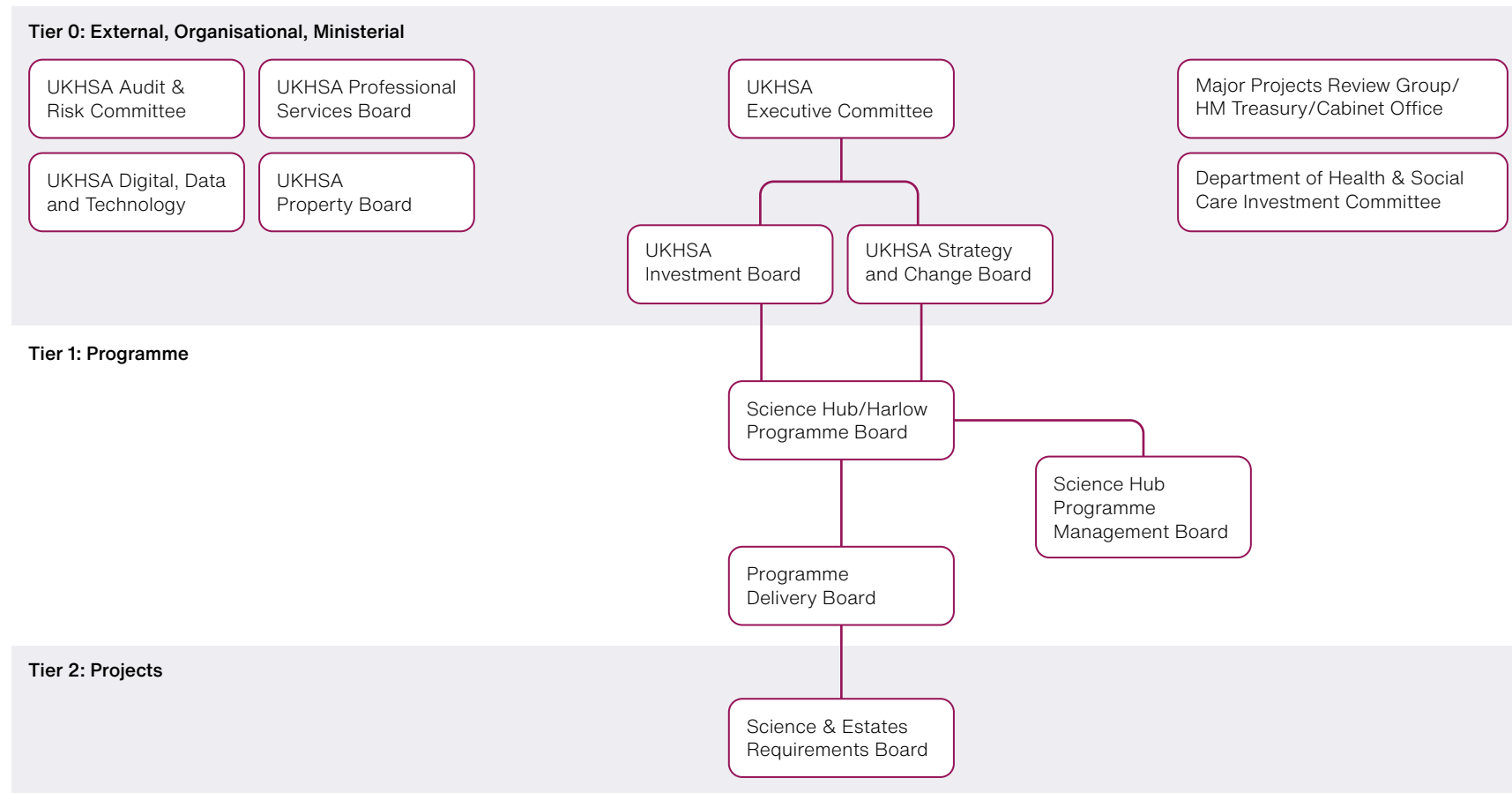
3.8 The programme currently has an interim senior responsible officer (SRO) with delegated authority from UKHSA's Chief Executive to deliver the programme, and day-to-day leadership is provided by a full-time programme director. Both the Major Projects Review Group and the IPA have recommended that a full-time SRO be appointed ahead of awarding the main construction contracts. A recent recruitment campaign failed to attract candidates of sufficient quality to take over the role. The interim SRO expects to be in post to manage the ongoing development of the business case, with a replacement being brought in once that business case has been approved.

3.9 In February 2022, the programme had a staff team of 92 full-time equivalent (FTE), based across multiple sites including Porton Down, London and other regional UKHSA centres, working across programme operations, management, and delivery and capability, in addition to construction, finance and commercial and leadership teams. In November 2023, there were 69 FTE staff on the programme. The programme team is made up of civil servants and service providers, and has input from colleagues from other parts of UKHSA.

Figure 12

Governance model for the health security campus programme, October 2023

The programme currently has three tiers of governance



— Reporting line

Source: National Audit Office analysis of UK Health Security Agency documentation

Assurance reviews

3.10 The programme is on the Cabinet Office’s Government Major Projects Portfolio (GMPP), and consequently receives assurance from the IPA. The programme has appeared in the IPA’s annual report since 2012-13. The programme had an ‘amber’ rating in its early years and had a ‘red’ delivery confidence rating in 2021-22 and 2022-23, meaning that its successful delivery appears to be unachievable, with major issues with project definition, schedule, budget, quality and/or benefits delivery that need resolving. In addition to the annual report ratings, the IPA has provided assurance reviews at a number of checkpoints throughout the programme (**Figure 13**).

3.11 The Government Internal Audit Agency also published a report on the programme in May 2021. This report gave an overall ‘moderate’ rating, meaning that “some improvements are required to enhance the adequacy and effectiveness of the framework of governance, risk management and control”.

Figure 13
Infrastructure and Projects Authority (IPA) reviews of the health security campus programme, 2017 to 2020

In addition to yearly progress updates through the annual report, the programme has also received reviews by IPA teams

Date	Type of review	Rating
September 2017	Gateway review 0	Amber
July 2019	Gateway review 0	Amber/red
November 2019	Assurance of action plan	Amber/red
February 2020	Gateway review 0	Amber/red
June 2020	Project assessment review	Amber

Notes

- 1 Gateway 0 reviews are strategic assessments of programmes conducted at the start of a programme and at key decision points, aiming to look at the planned direction of a programme.
- 2 Assurance of action plans (AAPs) review a programme after actions have been taken following a review with a rating of ‘red’ or when the IPA decides that an AAP would add value. They assess if these actions have improved the likelihood of successfully delivering a programme.
- 3 Project assessment reviews focus primarily on risk, highlighting key risks, issues and concerns in delivering the programme and provide recommendations on managing these risks.
- 4 These reviews are in addition to ratings in the IPA annual reports, receiving ‘red’ ratings in 2021-22 and 2022-23.
- 5 The IPA states that an ‘amber’ rating means that successful delivery is feasible, and, while significant issues already exist, they appear resolvable. An ‘amber/red’ rating means that successful delivery is in doubt, with risks or issues in key areas. A ‘red’ rating means that successful delivery appears to be unachievable.

Source: National Audit Office analysis of UK Health Security Agency documentation

Appendix One

Our investigative approach

Scope

1 The health security campus programme (the programme) is a proposed development of a new site for the UK Health Security Agency (UKHSA). The development is intended to provide an integrated hub for public health science, including the highest containment laboratories which are essential facilities for conducting research into potential pandemic infections and preserving the health security of the UK. In 2021, responsibility for the programme passed from Public Health England to UKHSA.

2 This study provides an overview of the programme, factors that have contributed to delays in the programme's delivery, and what has been achieved to date. The study examined:

- the early history of the programme, including the case for change;
- the cause of delays in the programme so far; and
- what has been achieved at the Harlow site.

3 The report has not sought to examine and report on value for money, but considers key risks to manage. Our findings are based on evidence we collected between November 2023 and February 2024.

Methods

4 In examining these issues, we drew on a variety of evidence sources, including interviews, site visits and document review.

Interviews

5 We carried out eight interviews with officials from UKHSA, HM Treasury and the Department of Health & Social Care (DHSC). These interviews were with individuals and teams with experience or knowledge of the health security campus programme. We covered a range of areas including the background to the programme, management of the programme, risk, contracting and engagement with other departments. All but one of our interviews was carried out on Microsoft Teams, with one interview taking place in person. We did not record the interviews, but we did take a note of each interview, and these notes have informed our findings.

Site visits

6 We visited UKHSA's existing facilities at Porton Down, and the site in Harlow that has been proposed as an option for the development of the new site. During these visits we spoke to relevant officials to inform our understanding of UKHSA's work and how the programme has developed to date.

Document review

7 We reviewed more than 100 documents provided by UKHSA and DHSC. We reviewed these documents to inform our findings and help us understand the initial objectives and set up of the programme, and how it has progressed. These documents included:

- relevant outline and programme business cases;
- governance documents, including programme board meeting minutes;
- risk management documents, including risk management strategies and risk registers;
- contractual information;
- ministerial submissions;
- internal audit and assurance documents;
- Public Health England reports related to science hub; and
- stakeholder strategy and site reports.

8 We also used in-house experts to review business cases and programme risk registers.

Data analysis

9 We analysed financial data provided to us by UKHSA on the spend on the programme up to October 2023, split by revenue and capital, and the categories of capital spend, to understand what has been spent on the scheme so far and on what. This is in addition to increases in cost to completion estimates, to allow us to understand how the programme has progressed and reasons for delays.

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