

# The 2018/19 audit of NHS Lothian

Delay to the opening of the Royal Hospital for Children  
and Young People



AUDITOR GENERAL 

Prepared for the Public Audit and Post-Legislative Scrutiny Committee by the Auditor General for Scotland  
Made under section 22 of the Public Finance and Accountability (Scotland) Act 2000  
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# Introduction

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**1.** I have received audited accounts and the auditor's report for NHS Lothian for the year ended 31 March 2019. I submit these accounts and the auditor's report under section 22(4) of the Public Finance and Accountability (Scotland) Act 2000, together with this report, which I have prepared under section 22(3) of the Act.

**2.** The auditor issued an unqualified audit opinion on the 2018/19 financial statements. As part of the 2018/19 audit the auditor carried out a high-level review of the arrangements around the settlement agreement between NHS Lothian and the contractor, Integrated Health Services Lothian Limited (IHSL) considering project governance and value for money.

**3.** The purpose of this report is to draw Parliament's attention to the issues surrounding the delay to the opening of the Royal Hospital for Children and Young People, the Department of Clinical Neurosciences and the Child and Adolescent Mental Health Service in NHS Lothian. There has been much speculation about the issues and the costs incurred and this report sets out a factual account of what I currently understand about the situation.

**4.** It draws on the annual audit report and the reports of the reviews carried out by KPMG and NHS National Services Scotland (NSS).<sup>1 2 3 4</sup> I may, in due course, report again under section 23 of the Public Finance and Accountability Act 2000.

<sup>1</sup> [NHS Lothian Annual Audit Report 2018/19](#), Scott Moncrieff, June 2019.

<sup>2</sup> [Royal Hospital for Children and Young People: independent assessment of governance arrangements](#), KPMG, September 2019.

<sup>3</sup> [Royal Hospital for Children and Young People and Department of Clinical Neurosciences: review of water, ventilation, drainage and plumbing systems](#), NHS National Services, September 2019.

<sup>4</sup> [Royal Hospital for Children and Young People and Department of Clinical Neurosciences: review of water, ventilation, drainage and plumbing systems - supplementary report](#), NHS National Services, October 2019.

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# Summary

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- 5.** The Royal Hospital for Children and Young People, Department of Clinical Neurosciences and Child and Adolescent Mental Health Services project (the project) is a high profile, strategically important development for NHS Lothian. A number of organisations and experts have been involved in the project, which has been subject to several delays and incurred extra costs.
- 6.** The initial business case for the new hospital was approved in 2008, as part of modernising, redesigning and integrating services. In 2010, the Scottish Government announced that a Non-Profit Distributing (NPD) funding route would be used for the project. NHS Lothian appointed Integrated Health Services Lothian Limited (IHSL) to design, build, finance and maintain the project. The full business case was approved by the board and the Scottish Government in April 2015. Total costs were estimated at £230 million, made up of construction costs of £150 million, plus enabling and equipment works of £80 million outwith the agreement with IHSL.
- 7.** Early in 2017 it became clear that the hospital would not open in July 2017 as originally planned. A series of technical and contractual disputes continued throughout 2017. In May 2018, NHS Lothian agreed the principle of a Settlement Agreement with IHSL. In February 2019, NHS Lothian signed the Settlement Agreement with IHSL, with Scottish Government approval. An £11.6 million payment was agreed to facilitate resolution of several issues with the building.
- 8.** Later, in February 2019 the Independent Tester (Arcadis NV) issued a Certificate of Practical Completion. This meant the construction phase came to an end and the operational phase started; the hospital was handed over to NHS Lothian and the board began making unitary payments of £1.35 million per month.
- 9.** The hospital was due to open on 9 July 2019 but final compliance checks revealed that the ventilation system within the Critical Care department did not comply with the current guidance. On 4 July 2019 the Cabinet Secretary for Health and Sport made the decision to halt the move to the new site. As a result, children's services will remain on the current site until autumn 2020, and the Department of Clinical Neurosciences (DCN) is expected to move in spring 2020. Additional costs for rectification work are estimated at £16 million.
- 10.** The Cabinet Secretary commissioned two independent reviews by KPMG and NHS National Services Scotland (NSS). The focus of the KPMG review was to establish what decisions were made by NHS Lothian in relation to the air ventilation issues and any other material issues that led to the delay. The KPMG report sets out a picture of human error and confusion over interpretation of the relevant specifications and guidance and missed opportunities to spot and rectify that error.
- 11.** NSS undertook a two-phased review, carrying out a series of checks to ensure that the relevant technical specifications and guidance applicable to the new hospital had been followed and are being implemented. They identified a range of issues and NHS Lothian have drawn up action plans in response to the recommendations made by NSS.
- 12.** NHS Lothian currently faces a number of wider challenges. There has been an increasing reliance on non-recurring savings in 2018-19, financial sustainability continues to be a significant risk for 2019-20 onwards, and work continues to ensure that all the actions raised following the 2017 investigation into waiting times reporting are implemented.

**13.** Due to the scale of the challenge relating to the delivery of the new hospital, NHS Lothian has been escalated to level 4 in the NHS Board Performance Framework for this specific issue. Scottish Government has put in place a Senior Programme Director to strengthen the management and assurance arrangements for completing all of the outstanding works necessary to open the new facility. A public inquiry is to be held to examine the issues at the new Royal Hospital for Children and Young People in Edinburgh and the Queen Elizabeth University Hospital in Glasgow.

# Findings

**14.** There has been much public and parliamentary interest in the issues surrounding the delay to opening the hospital. What follows summarises:



- the parties involved
- a timeline of events leading up to the decision to postpone the opening
- what is currently known about the costs involved
- findings from the reviews by KPMG and NSS
- the Scottish Government response; and
- issues for further consideration.

## Roles and responsibilities

**15.** Building a new hospital of this scale is not something an NHS board does often and presents a number of risks from the outset. A significant number of organisations and advisors have been involved to date. [Exhibit 1](#) provides a summary of each party involved in the project and their respective roles and responsibilities.

## Exhibit 1

### Role and responsibilities of the parties involved in the project

Party	Role
<p>Scottish Government</p> 	<p>The Scottish Government (SG) announced a Non-Profit Distributing (NPD) funding route and approved the full business case and addendum for the project. Scottish Government engages with NHS Lothian via several routes:</p> <ul style="list-style-type: none"> <li>• Quarterly meetings are held between a representative from SG's Health Finance and Infrastructure team and NHS Lothian.</li> <li>• A representative from SG has a formal role on the Programme Board. They rarely attended but did receive a copy of the minutes of meetings.</li> <li>• NHS Lothian provides an annual report to the Chief Financial Officer for Health and Social Care at SG, giving an update on ongoing and potential future projects.</li> <li>• Ongoing dialogue to allow any significant issues to be raised and discussed.</li> </ul>
<p>NHS Lothian Board</p> 	<p>The NHS Lothian Board delegated authority for the project to its Finance and Resources Committee. The board retained oversight of the status of the project and any risks raised.</p>

## Finance and Resources Committee



The Committee has delegated authority from the NHS Lothian Board in relation to financial governance, property and asset management strategy and strategic capital projects (such as the project). The Committee membership includes seven non-executive directors and four executive directors (who were also members of the NHS Lothian Board).

## Programme Board



The Finance and Resources Committee established the Programme Board, which had day-to-day responsibility for managing the project, and a smaller project team (see below). The Programme Board comprised the Project Team as well as representatives from clinical and operational areas, the Deputy Chief Executive, the Director of Finance, the Director of Communications, an NHS Lothian Non-Executive Director, a representative from Scottish Government and other stakeholders. The Programme Board is responsible for oversight of the project and specifically:

- creation of a business case for the project for approval by the Finance and Resource Committee and the NHS Lothian Board
- ownership of the procurement process and tender documentation, and the selection of three bidders (the final selection of the preferred bidder was performed by the Finance and Resource Committee)
- oversight of the project from commissioning to completion.

## Project Team



The Project Team, led by the Project Director, includes individuals with diverse specialisms, including those with engineering, clinical, medical and operational backgrounds as well as technical advisors from Mott MacDonald. The Project Team is responsible for the day-to-day project activities and is located at the hospital site.

## Project Company



Integrated Health Services Lothian (IHSL) is the party that the NHS Lothian Board entered into a project agreement with for the design, build, finance and maintenance of the project. It comprised Macquarie Capital and Dalmore along with their contractors: Brookfield Multiplex, Bouygues Energies and Services and HCP Management Services Limited.

## Professional advisors



Throughout the project the NHS Lothian Board were supported by a group of professional advisors which included:

- Mott MacDonald (technical advisors and project managers)
- MacRoberts (legal advisors)
- Ernst and Young (financial advisors).



## Arcadis NV



NHS Lothian, IHSL and IHSL's funders appointed Arcadis NV as independent tester. Their role was to act as an advisor to provide certain services independently, fairly and impartially in connection with the project and to certify that the project had been built in accordance with what had been agreed between NHS Lothian and IHSL.

## Institute of Occupational Medicine (IOM)



IOM are a third-party firm of specialist validation experts whom NHS Lothian instructed to undertake testing on the hospital's ventilation.

## Scottish Futures Trust



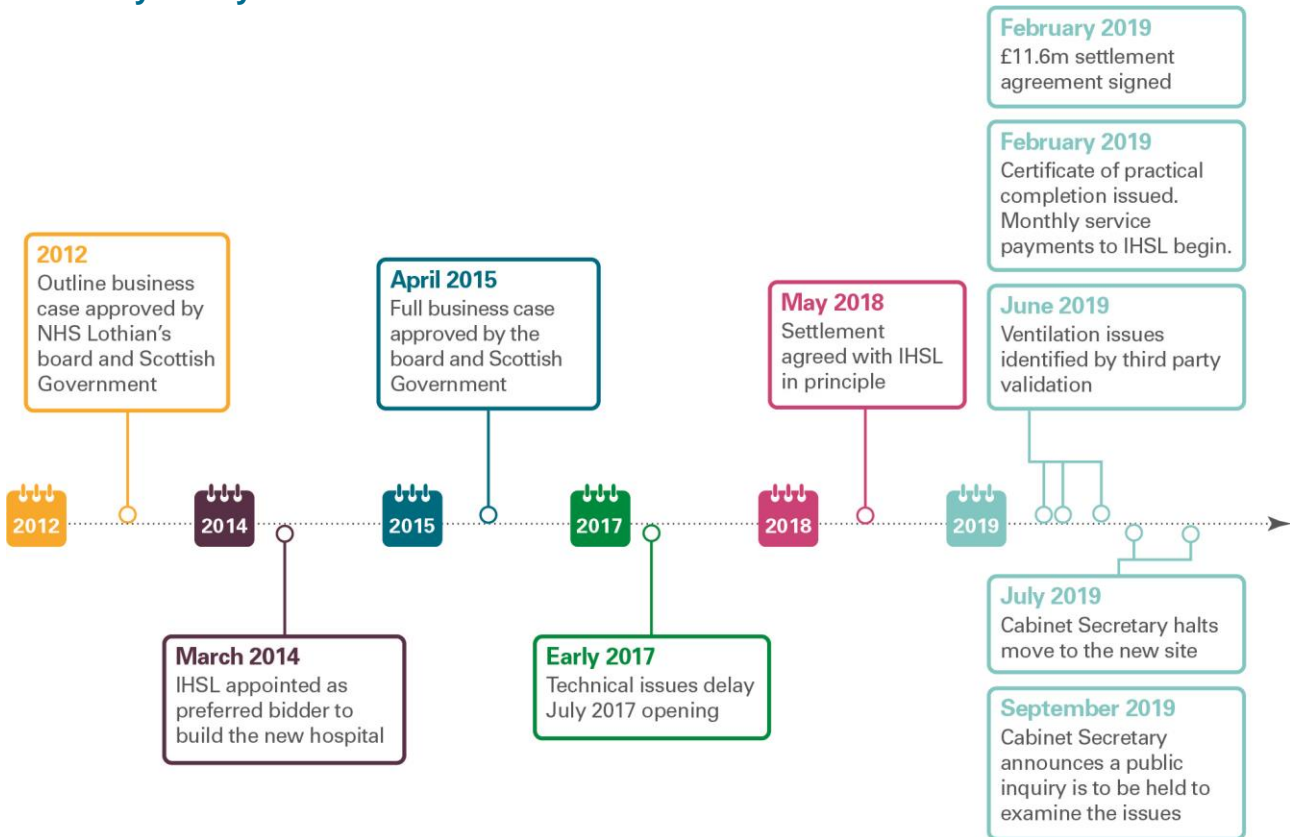
The Scottish Futures Trust (SFT) developed the NPD model and manages the overall programme of NPD projects delivered on behalf of the Scottish Government. It produces standardised project documentation, including contracts and wider guidance, and carries out key stage reviews at specific project milestones to ensure compliance with these. The SFT is also involved in project procurement and helps with contract management, working alongside the public sector and contractors. SFT is not accountable for the successful delivery of individual projects; this responsibility remains with the public sector organisation responsible for the project.

Source: Audit Scotland and *Independent Assessment of Governance Arrangements: NHS Lothian Royal Hospital for Children and Young People*, KPMG, September 2019

## Timeline of events




**16.** The development of the new hospital began back in 2008. [Exhibit 2 \(page 10\)](#) provides a summary of key dates and [Exhibit 3 \(page 10\)](#) provides a detailed timeline of significant events throughout the project since its inception.

## Exhibit 2 Summary of key dates



Source: Audit Scotland

## Exhibit 3 Timeline of events

Date	Event
	The board approved a capital-funded business case for the hospital. This business case was approved by the Scottish Government for a children's hospital only.
	The Scottish Government announced a Non-Profit Distributing (NPD) funding route, not only in relation to the Children's Hospital but also the Department of Clinical Neurosciences. NPD is a way of increasing the amount available to spend on public infrastructure by entering into contracts in which the private sector finances the upfront construction costs of the asset and manages and maintains it for a period. During the contract period, the public sector uses its revenue budgets to make annual payments to the private sector to cover the cost of financing the asset, plus associated maintenance and service charges for ongoing services (known as 'unitary charges'). At the end of the contract period, typically 25 to 30 years, ownership and responsibility for maintenance of the asset transfers to the public-sector body.
	The outline business case was approved by the board and Scottish Government.



NHS Lothian went to the market for a partner for the project.



NHS Lothian proceeded to engage with three bidders during a nine-month competitive process. The winning bidder selected by the board then formed an NPD company to deliver the project.



NHS Lothian appointed Integrated Health Services Lothian Limited (IHSL) as its preferred bidder. IHSL's team comprised Macquarie Capital along with the following contractors: Brookfield Multiplex, Bouygues Energies and Services and HCP Management Services Limited.



NHS Lothian entered into a project agreement with IHSL for the design, build, finance and maintenance of the project:

- IHSL were required to comply with guidance and other statutory requirements from Health Facilities Scotland in respect of the project design, installation and operation
- designs for the hospital had not yet been fully developed
- planned scheduled opening date for the hospital was 5 July 2017.



NHS Lothian, IHSL and IHSL's funders appointed Arcadis NV as independent tester. Their role was to act as an advisor to provide certain services independently, fairly and impartially in connection with the project and to certify that the project had been built in accordance with what had been agreed between NHS Lothian and IHSL.



The full business case and addendum was approved by the board and Scottish Government. This outlined a total cost of £230 million which included construction costs of £150 million, plus enabling and equipment works of £80 million outwith the agreement with IHSL.



It became clear that the hospital would not open in July 2017 as originally planned. Three specific issues were identified at that stage:

- design of high-voltage power resilience mechanism
- ventilation issues (pressure regime) in relation to four-bedded rooms
- an issue with the provision of a Magnetic Resonance Imaging (MRI) room.



A paper was submitted to the NHS Lothian Board seeking approval to pursue the Dispute Resolution Process. This represented the culmination of a series of technical and contractual disputes throughout 2017 – over and above what would generally be expected on such a project – which could not be resolved through the established relationship management arrangements. There was a prolonged period of negotiation, involving professional advisors, obtaining technical opinions, formal discussions with IHSL, and a meeting mediated by the SFT.



NHS Lothian agreed the principle of a settlement agreement with IHSL.

A range of professional advice (including legal, contractual and technical construction advice) was sought before proceeding and extensive analysis and resources committed at senior levels.

NHS Lothian has consistently maintained its position that the issues experienced were materially non-compliant with the original specifications and raised concerns over the facilities for patients, visitors and staff (relating to aspects such as function, safety, adequacy and

future capacity). However, legal and contractual expert opinion did not give the board enough confidence in the likely benefits of pursuing resolution through legal redress in the courts.

The board was formally briefed on the progress of negotiations and the settlement agreement by the Finance and Resources Committee. The Scottish Government was consulted and ultimately supported the supplemental business case for the settlement agreement.

On several occasions, where significant construction lessons had been learnt from other buildings, the project team engaged with IHSL to seek formal assurances over these key issues. For example, given recent issues experienced at QEUH in Glasgow, NHS Lothian requested assurances regarding the cladding on the new hospital.



NHS Lothian signed the settlement agreement with IHSL, with Scottish Government approval. An £11.6 million payment was agreed from NHS Lothian to IHSL to facilitate resolution of several issues but primarily 'Three Key Outstanding Technical Matters'. Broadly, these three matters relate to a drainage solution, heater batteries, and void fire detectors.



Arcadis NV, the independent tester issued a Certificate of Practical Completion excluding key items to be addressed through the settlement agreement – this meant the construction phase came to an end and the hospital was handed over to NHS Lothian.

NHS Lothian began payment of the annual services payment to IHSL – unitary payments of £1.35 million per month. The annual service payments had been due to start in July 2017 but due to the ongoing issues did not begin until February 2019.

A timeframe was set for moving to the hospital.

It was known that significant work was still required, including several critical areas required to be completed before the building could be considered habitable. These works continued into July 2019, including a significant amount of post-completion works. This meant that the time available for rectification of any identified problems was challenging and left little margin for error.



As outlined in the tender documentation, the project was required to adhere to the Scottish Health Technical Memoranda (SHTM), including specifically SHTM 03-01 relating to ventilation systems. The NHS Lothian project team appointed the Institute of Occupational Medicine (IOM) who have experience in hospital ventilation to conduct a third-party validation of the ventilation systems to fulfil the reporting requirements under SHTM 03-01.



The IOM identified that some areas within theatres, isolation areas and critical care were not achieving the required air change rates. SHTM 03-01 provides guidance that an air change rate of 10 air changes per hour (ac/hr) is required in Critical Care areas. The IOM found that some areas within Critical Care were not achieving 10ac/hr.



The IOM verbally informed the programme team of the ventilation issues.



The IOM provided a written report incorporating an issues log, which was circulated to the programme board.

IHSL assured NHS Lothian that all the issues identified could be resolved.



A joint steering group (NHS Lothian, Multiplex Construction Europe (formerly Brookfield Multiplex), IHSL) meeting was held to discuss the emerging issues and the detail of IOM's report in relation to operating theatres.

The IOM informally provided more detail to the programme board regarding critical care air change rates.



The IOM provided more detail of the Critical Care ventilation issues which indicated that the equipment was not capable of delivering 10 ac/hr.

IHSL and Multiplex Construction Europe (formerly Brookfield Multiplex) responded verbally that 10 ac/hr could not be achieved.

The programme board informed a representative of the NHS Lothian Board of the issues with air change rates in the critical areas; this was the first time that the issue was escalated to a member of the board.



An urgent internal meeting was called at 9am; attendees were tasked with investigating potential courses of action, given that the new hospital was due to open one week later, on 9 July 2019.

NHS Lothian Board briefed the Director General of Health and Social Care at Scottish Government and the Chief Performance Officer at NHS Scotland on the situation and options.



A conference call between NHS Lothian, Health Facilities Scotland and Health Protection Scotland concluded that there was not enough information available to give assurance that the planned move should go ahead on 9 July.

The NHS Lothian Board met the Chief Performance Officer at NHS Scotland to discuss the options available.

NHS Lothian created a communications plan.



The Cabinet Secretary for Health and Sport made the decision to halt the move to the new site.

The Scottish Government decided that all announcements would be routed through the Cabinet Secretary for Health and Sport.



The Cabinet Secretary for Health and Sport commissions two independent reviews from KPMG and NHS National Services Scotland (NSS) to determine how the hospital got to this advanced stage before it was discovered that the ventilation system did not comply with current guidance.



The review by KPMG and phase 1 of the NHS NSS review were published.

The Cabinet Secretary for Health and Sport made a statement to Parliament about the delay to the opening of the Royal Hospital for Children and Young People. The Department of Clinical Neurosciences is now expected to move to the new site in spring 2020 with the rest of the Children's hospital moving to the new site in autumn 2020.

Additional costs for rectification work estimated at c. £16 million.



Phase 2 of the NSS review was published.

Source: NHS Lothian and [Royal Hospital for Children and Young People: independent assessment of governance arrangements](#), KPMG, September 2019

## Budget

17. The Scottish Government announced as part of its budget for 2011/12 that the re-provision of the Royal Hospital for Children and Young People and Department of Clinical Neurosciences would be delivered using a Non-Profit Distributing (NPD) Model, with support from the Scottish Futures Trust. The full business case, approved in April 2015, outlined total costs of £230 million. This was made up of

construction costs of £150 million, plus enabling and equipment works of £80 million outwith the agreement with IHSL and to cover:

- the cost of the work required to prepare the site for the new building, such as the diversion of sewer pipes and the provision of flood defences
- changes within the Royal Infirmary of Edinburgh, such as adaptations required for the pharmacy to serve the Royal Hospital for Children and Young People and Department of Clinical Neurosciences
- medical equipment and furniture for the new hospital (these have been procured as part of normal NHS processes).

**18.** It is currently estimated that the additional work required to ensure the new hospital complies with the relevant specifications and guidance and keeping the current site open whilst this is done will cost an additional £28 million ([Exhibit 4](#)).

## Exhibit 4

### Estimated additional costs

Additional cost	Amount
Payment to IHSL agreed in 2017 to facilitate resolution of 'key outstanding technical matters'	£11.6 million
<b>Estimated costs resulting from 2019 delay including:</b>	
£ the rectification of ventilation issues for critical care and haematology/oncology	£4 million
£ contingency for further remedial action	£2 million
£ dual running of the two sites	£1.5 million
£ additional maintenance at the current sites	£2 million
£ additional investment in current facilities and equipment	£3.7 million
£ project team costs	£1.5 million
£ additional project support	£550,000
£ legal, technical and financial fees	£300,000
£ the KPMG and NSS reviews commissioned to establish the extent of the problems at the new site	£500,000
<b>Total</b>	<b>£16.05 million</b>

Source: NHS Lothian and Scottish Government

## Findings of independent reviews

### KPMG review <sup>5</sup>

19. KPMG LLP was commissioned by the Cabinet Secretary via NSS to independently establish the facts surrounding the decision to delay the move to the new hospital. The focus of the review was to establish what decisions were made by NHS Lothian in relation to the air ventilation issues and any other material issues that led to the delay. The report concluded that:

- The issue which led to the delay was non-compliance with the SHTM 03-01 for air change rates in some of the critical care areas in the hospital.
- Throughout all stages of the project there were references to the requirements of the project to adhere to the SHTM, including specifically SHTM 03-01 relating to ventilation systems.
- Notwithstanding contractual obligations, there had been confusion between the parties as to the application of the current guidance. This appears to have stemmed from an error in a document, the Environmental Matrix (EM), produced by NHS Lothian at tender stage in 2012. The EM included details on the environmental specifications for the hospital. Elements of the EM were inconsistent with SHTM 03-01, in particular reference to both the single-bed cubicles and four-bed rooms in critical care requiring four ac/hr. This was the wrong specification for this ventilation system and should have been 10 ac/hr.
- The guidance note at the front of the EM document provided at the tender did, however, suggest that all critical care areas should be in accordance with SHTM 03-01 and have 10 ac/hr.
- In a later version of the EM (26 November 2015) this inconsistency between the guidance note and the EM appears to have been removed by the insertion of the words 'for isolation cubicles', suggesting that only 'isolation cubicles' in critical care should have an air change rate of 10 ac/hr. This addition was never flagged as a change to the NHS Lothian project team, and it is not known who was responsible.
- NHS Lothian told KPMG they had not reviewed the EM in detail from a technical perspective and they reviewed it for 'operational functionality', as detailed in the project agreement. It was assumed by NHS Lothian that any changes to the EM would be highlighted by IHSL for discussion with them, and that they would be in compliance with SHTM 03-01. In January 2019, the board asked IHSL for specific assurance that all critical ventilation systems were to be 'inspected and maintained in line with SHTM 03-01: Ventilation for healthcare premises'. IHSL confirmed in their response that all ventilation systems had been designed, installed and commissioned in line with SHTM 03-01.
- The role of the independent tester was to certify that the design had been built in accordance with what had been agreed between the parties. The EM was used as the basis for this agreement between the parties and the Independent Tester did not consider that it was responsible for reviewing its accuracy. The Independent Tester expected both parties to the project to have undertaken a detailed review of the EM.

20. KPMG found that the governance structure surrounding the construction and commissioning of the hospital was operating as planned and issues were being escalated through the appropriate channels. There was regular dialogue between NHS Lothian and Scottish Government throughout the project, with evidence of the

<sup>5</sup> [Royal Hospital for Children and Young People: independent assessment of governance arrangements](#), KPMG, September 2019.

escalation of issues where required albeit more focused on financial than technical matters.

**21.** Once the issue which led to the delay had been identified, steps were taken by NHS Lothian to notify Scottish Government of the issue which led to the decision by the Cabinet Secretary to delay the opening of the hospital.

**22.** Overall, KPMG found the issue was due to human error and confusion over interpretation of the current guidance and that several opportunities to spot and rectify the error were missed on numerous occasions. There is no evidence that professional or technical advisers identified the issue before June 2019.

### **NHS National Services Scotland review** <sup>6 7</sup>

**23.** NSS was commissioned by the Scottish Government to undertake an external series of checks, led by Health Facilities Scotland (HFS) and Health Protection Scotland (HPS), to ensure that the relevant technical specifications and guidance applicable to the new hospital had been followed and are being implemented.

**24.** Phase 1 of this review, published 9 September 2019, identified a range of issues:

- ventilation systems – in addition to the ventilation issues in critical care, remedial action required on the quality of work in several other areas, with specific issues identified in haematology/oncology
- water systems – independent testing identified no widespread contamination of the water systems, but NSS has recommended some remedial and precautionary actions, as well as system-wide disinfection prior to occupation
- drainage and plumbing systems – NSS recommend active monitoring, but both areas are considered low risk.

**25.** Phase 2 of NSS's review, published 30 October 2019, assessed fire, medical gases and electrical safety and again identified some issues:

- fire systems – NSS recommended action to include remotely resettable fire and smoke dampers within the ventilation system serving all sleeping accommodation areas where ducting leads to a corridor serving as an evacuation route and that identified fire doors should be upgraded
- electrical systems – NSS recommended that remedial action is required within both the high voltage and low voltage installations
- medical gases – the review of the medical gas installations confirmed that they have been designed installed and commissioned in accordance with the relevant standards.

**26.** NHS Lothian accepted all the recommendations from phase 1 of the NSS review and produced an action plan. The plan outlines each recommendation identified in the phase 1 of the review and what action NHS Lothian is taking to address them.<sup>8</sup> In response to phase 2 of the review NHS Lothian published a response setting out a programme of activity to address the findings following an assessment of the work to be completed.<sup>9</sup> A wider action plan bringing together both reports will follow in due course.

<sup>6</sup> [Royal Hospital for Children and Young People and Department of Clinical Neurosciences: review of water, ventilation, drainage and plumbing systems](#), NHS National Services, September 2019.

<sup>7</sup> [Royal Hospital for Children and Young People and Department of Clinical Neurosciences: review of water, ventilation, drainage and plumbing systems - supplementary report](#), NHS National Services, October 2019.

<sup>8</sup> [Royal Hospital for Children and Young People and Department of Clinical Neurosciences: response to the review of water, ventilation, drainage and plumbing systems](#), NHS Lothian, September 2019.

<sup>9</sup> [NHS Lothian response to actions identified in the NSS National Services Scotland Review of Fire Systems, Electrical Systems & Medical Gas Installations](#), NHS Lothian, October 2019.



### Scottish Government response

**27.** The Scottish Government escalated NHS Lothian to level 4 in the NHS Board Performance Framework in relation to the new hospital. Health boards are considered at Level 4 where there are 'significant risks to delivery, quality, financial performance or safety' and where senior level executive support is required.

**28.** A Royal Hospital for Children and Young People Oversight Board has been put in place and has overall responsibility for ensuring the completion of the works and the hospital opening, reporting directly to the Cabinet Secretary. The Oversight Board is chaired by the Scottish Government's Chief Nursing Officer and includes senior figures from Scottish Government Health and Social Care Directorates, NHS National Services Scotland, Scottish Futures Trust and NHS Lothian.

**29.** The Scottish Government has put in place a Senior Programme Director, to strengthen the management and assurance arrangements for completing all of the outstanding works necessary to open the new facility. The appointment formally commenced on 16 September 2019 and will be reviewed on a rolling quarterly basis. Her substantive role is Director of Strategy, Performance and Service Transformation at NSS. She will report directly to the Scottish Government, overseeing the actions to ensure the Royal Hospital for Children and Young People and the Department of Clinical Neurosciences are fit for occupation.

**30.** The Programme for Government 2019-20 outlines plans to create a new national body to ensure patient safety by strengthening infection prevention and control, including in the built environment. The body will have oversight of the design, construction and maintenance of major infrastructure developments within the NHS. The new body will provide advice and challenge to all capital investment projects currently in development, including the Elective Centre Programme, the Monklands Replacement Project, the Baird and Anchor in Aberdeen and various primary health and social care centres across the country.

**31.** On 17 September 2019, the Cabinet Secretary for Health and Sport announced that a public inquiry will be held to examine issues at the new Royal Hospital for Children and Young People in Edinburgh and the Queen Elizabeth University Hospital in Glasgow. The inquiry will determine how issues relating to ventilation and other key building systems occurred, and what steps can be taken to prevent this being repeated in future projects. At the time of writing, further details on the inquiry have not been published.

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# Next steps

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**32.** At this stage key questions remain unanswered. The KPMG review was unable to answer three key questions:

- Why the original EM was inconsistent with SHTM 03-01?
- Who changed the EM dated 26 November 2015?
- Why opportunities to spot the error were missed?

**33.** In her statement to Parliament on 11 September 2019, the Cabinet Secretary said there were clear issues of accountability in the board to be considered, which must be done carefully and with due process. She plans to advise Parliament of the outcome of that work in due course.

**34.** NHS Lothian have asked their internal auditors to review what happened. Phase 1 of the internal audit plans to produce a timeline of the key events and decisions over the project lifecycle; consider the scope and remit for all advisors (internal and external) to the project over the timeline and explore the root cause of the underlying issues (focused on why). This will help understand any gaps in NHS Lothian's governance or internal control arrangements. Phase 2 is dependent on the outcome from phase 1. If the internal auditors identify any matters which indicate that either individuals and/or advisors did not act in accordance with the agreed role and remit a further review will be undertaken to determine any potential failings and the actions NHS Lothian could consider taking.

**35.** There are several other issues which need to be considered in order to understand what went wrong and ensure lessons are learned for future projects of this nature. The public inquiry may wish to consider:

- The clarity and application of the appropriate specifications and guidance: There is a disclaimer on page 5 of the SHTM 03-01 that states: 'The contents of this document are provided by way of general guidance...Any party making any use thereof or placing any reliance thereon shall do so only upon exercise of that party's own judgement as to the adequacy of the contents in the particular circumstances of its use and application.' There are several areas that need to be better understood including:
  - the status, clarity and currency of the relevant specifications and guidance
  - their interaction with local clinical practices
  - their incorporation as a contractual requirement and the management of this requirement through the specification, tendering, design, delivery and testing phase of the project by all parties involved.
- The contractual implications: Brookfield Multiplex (now known as Multiplex Construction Europe Ltd) is a Canadian owned company whose headquarters are in Australia. The Queen Elizabeth University Hospital in Glasgow was also built by Brookfield Multiplex, and an independent review is investigating whether the design, build, commissioning and maintenance has had an adverse impact on infection risk. The review will look at areas including the overall design, with particular reference to the safety of water,

drainage and ventilation systems. What role did IHSL play in the current situation in Edinburgh and what are the contractual implications?

- The role and accountability of all parties and the effectiveness of oversight and scrutiny: Some of the issues resonate with the findings from the independent inquiry by Professor Cole into the Construction of Edinburgh Schools, published in 2017.<sup>10</sup> The report recommended the need for a clear understanding among all parties of their roles and responsibilities; clear protocols regarding the escalation of significant issues; effective and independent scrutiny and inspection; sufficient oversight and quality assurance of construction works and the need for truly independent certification. It would be beneficial to better understand the support offered and the role played by the Scottish Government, the SFT, the professional advisors and the independent tester, and whether the issues that were emerging at the Queen Elizabeth hospital should have prompted greater scrutiny in Edinburgh.

**36.** I will monitor the progress of the various inquiries that are taking place and may, in due course, report again under section 23 of the Public Finance and Accountability Act 2000.

<sup>10</sup> [Report of the Independent Inquiry into the Construction of Edinburgh Schools](#), Professor John Cole, February 2017.

# The 2018/19 audit of NHS Lothian

## Delay to the opening of the Royal Hospital for Children and Young People

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