



**AUDIT ST HELENA**  
External Auditors

# **Performance Audit: Jamestown Hospital Refurbishment Project**

**September 2019**

*Audit St Helena is the body that carries out financial and performance audits of St Helena Government on behalf of the Chief Auditor.*

*The Chief Auditor is a statutory position required by the Constitution of St Helena (Section 110). The Chief Auditor's responsibilities are set out in the Constitution and the Public Finance Ordinance. Section 29(2) of the Ordinance requires the conduct of performance audits on behalf of the Legislative Council to determine whether resources have been used with proper regard to economy, efficiency and effectiveness.*

*This report has been prepared in accordance with section 29(2) and published by the Chief Auditor, Phil Sharman. The audit team consisted of Damian Burns, Helena Loechen, Anesu Makamure, and David Brown with technical assistance from the UK National Audit Office through the UK Overseas Territories Project.*

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## EXECUTIVE SUMMARY

This report outlines findings for our performance audit of the Jamestown Hospital Refurbishment Project (The Project). The audit has focused on two distinct areas of enquiry:

- Determining the facts around the project's cost and schedule history, and whether the outputs were what was required by the St Helena Government (SHG); and,
- Whether the project is delivering the benefits envisaged by SHG. This includes examining whether SHG developed a detailed case for the project as well as investigating whether the expected benefits are being realised.

The key findings of this report are outlined below. Our detailed audit questions and evidence base is outlined in Appendix One.

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### SHG DID NOT DEVELOP A DETAILED CASE FOR THE PROJECT

1. **It was clear to SHG and other stakeholders for some time that something needed to be done to improve healthcare provision on the island, and SHG established the need for the project in various documents.** With the construction of the airport, planned transformation to a tourism-led economy, a drive to increase the population, along with an ageing population with more complex healthcare needs, it was clear the hospital was not fit for purpose. (paragraphs 2.1 to 2.6)
2. **SHG did not outline a reasonable value for money case for the project, undertake a rigorous options appraisal, nor have a plan for measuring change.** SHG (both the Health Directorate and Corporate Services) made efforts in early stages to align the hospital project with its various strategic plans, however our review found that the only quantified metrics for the outcomes of the project were in the project memorandum in 2011, which cited cost savings of £52,500 per year from reduced overseas referrals. No other measurable benefits were identified in the documents, other than improving medical standards generally. For a project of this nature, we would expect a range of costed options to be explored, to include new-build versus refurbishment with outline and full business cases drawn up for the preferred option prior to an investment decision. An options appraisal for the project was virtually non-existent with scoping decisions made on an ad-hoc basis by various committees. (paragraphs 2.7 to 2.11)

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## THE PROJECT WAS SUBJECT TO DELAYS AND COST ESCALATION

### PROJECT SCHEDULE

3. **It took 5 years from when SHG put the hospital refurbishment on the agenda until the project formally commenced after DFID support to the SHG Capital Programme enabled the project to get off the ground.** The Health strategic plan “Focusing on the future”, published in 2008, included funding for a hospital redevelopment. SHG and consultants prepared various studies and plans through the end of 2013. The procurement board did not give its approval to commence procurement until November 2013. The 2014 interim, and 2014/17 substantive capital programme, with its funding, support, and governance structures provided the necessary arrangements for project initiation that didn’t previously exist. This funding ensured the project progressed while SHG missed key deadlines. (paragraphs 2.12 to 2.15)
  
4. **The procurement and construction phases of the project both faced delays, and SHG tendered follow on works as a separate contract, delaying overall project completion even further.** SHG sought expressions of interest and sent out invitation to tenders with the aim of commencing construction before March 2014, and completing the project by March 2015. SHG entered into negotiations with the sole bidder, Basil Read (the contractor) in August 2014. Various changes in specifications by SHG, omissions from the bidder and a change of contract type resulted in the contract not being signed until March 2015, 16 months after the process started, and after the project should have been completed according to the original timelines. The 10 month contract was due to be completed by end of January 2016. After 15 contract variations were issued, and several project plan revisions were made, the contractor eventually left the site in July 2016. During the course of the project, SHG realised that additional refurbishment and infrastructure improvement needs, identified earlier by Hospital staff, were required. These were not included in the Basil Read contract and were completed by local contractors. The work included installing vinyl floors, external doors, internal fire doors and other fittings. The project did not come to a close until June 2017, 11 months after the contractor completed their works. (paragraphs 2.16 to 2.28)

## PROJECT COSTS

5. **Project cost estimates have evolved over time throughout its long history, and SHG did not develop costs or plans in a systematic way.** The various estimates were produced by individuals with different backgrounds and professions. The scale of variation in the documents suggests that SHG was unsure of the scope of the project at the early stages. It is best practice to develop a range of costs and options at the early stages of any major project, however SHG did not go about this in a systemic or organised way. (paragraphs 2.29 to 2.34)
6. **Total spend on the project is significantly higher than the contracted price.** While the contract itself was for a fixed sum of £2.7 million, our analysis has found that actual spend on the refurbishment was significantly higher. The value of the contract does not reflect resources used in early stages (including the use of consultants to draw up plans), contract variations and follow up work which was needed to complete the refurbishment to the required standards. Total actual spend on the project is hard to estimate owing to its long timescale, but our review of the project accounts and capital programme reports suggest it is between at least £3.28 million and £3.45 million. These figures include only direct costs, and exclude SHG management and staff time used in the 9 years since the Project's inception. (paragraphs 2.35 to 2.38)

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OFFICIALS HAVE RAISED CONCERNS ABOUT THE QUALITY OF THE BUILD, WHICH COULD BE LINKED TO POOR PROJECT MANAGEMENT

## SPECIFICATION

7. **The Environment and Natural Resources Directorate (ENRD) did not follow a recognised methodology in designing the building specifications.** In 2017/18 SHG informally adopted the Royal Institute of British Architects (RIBA) "plan of work" stages. The RIBA plan of work identifies various steps that should be followed to ensure the design, specification and construction of a building project follows best practice, linking each stage to specific tasks such as procurement, planning and information exchanges. There was no similar process followed for the hospital refurbishment project. Had a formal methodology been followed, there would have been greater understanding between stakeholders as to what was required of the contractor. (paragraphs 2.39 to 2.43)

## CONTRACT

8. **SHG changed their desired specifications numerous times after the Invitation to Tender (ITT) was published, leading to delays, and the form of contract used by ENRD is not typical for a build of this nature.** The specifications changed so frequently that the chair of the project board, the then Chief Secretary, intervened to prevent any further changes as the project was coming under increasing time pressure. By this stage, the project had been allocated funds from the interim capital budget and the fear was that this would be lost if not spent. The contractor submitted several tenders on the revised specification and equipment needs which increased the total cost of the project, and delayed the contract signing. In October 2014, SHG decided to change the contract from the Joint Contract Tribunal (JCT) standard to International Federation of Consulting Engineers (FIDIC) standard contract. FIDIC contracts are usually used for civil engineering rather than refurbishment or construction works. The decision to change the form of contract to FIDIC, at the Contractor's request, opened up SHG to commercial risk as the SHG contract administrator would have less experience managing that form of contract. (paragraphs 2.44 to 2.46)

## HANDOVER

9. **It is unclear how and when the building was certified by either the SHG planning office or the project manager.** The project was intended to be certified using self-certification, meaning that project engineer and contractor would document and certify the work done to appropriate standards. We've seen no documents that confirm the proper self-certification procedure was followed, however the then Locum Head of Planning issued a "nominal acceptance for completion for all purposes under Building Control" by way of email to the Project Manager, and in the same email detailed serious health and safety concerns in the building. (paragraphs 2.47 to 2.49)

## COMPLETION

10. **The contractor handed over a maintenance manual to the client upon completion, but SHG did not put contracts in place for maintenance.** Due to the nature of access to St Helena Island, Siemens would not offer a service contract or warranty for equipment supplied. However, we were informed that Siemens engineers come out annually to undertake maintenance. Similarly, the hospital lift receives an annual service by the engineers who come to perform maintenance on the airport lift, however no contract is in place with the hospital. Two local electricians provide maintenance on the oxygen plant and autoclaves, but this work is also not performed under a formal contract. (paragraphs 2.50 & 2.51)

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IT IS DIFFICULT TO ASSESS BENEFITS AGAINST BROADER OUTCOMES

**11. Our review of project documents identified three main aims of the refurbishment project:**

- to reduce overseas medical referrals;
- to improve the quality of care available on St Helena, and;
- to prepare for increasing demands. (paragraphs 3.1 & 3.2)

**12. Our analysis showed that SHG's spending on overseas medical referrals fell in financial year 2017/18 and again in 2018/19, but we have been unable to collect detailed data on overseas medical referrals beyond patient counts.** The number of patients sent overseas for treatment increased from 55 in 2012/13 to a peak of 170 in 2015/16, and numbers have fallen each financial year since. Likewise Health Directorate's expenditure on medical referrals and evacuations rose from £0.73 million in 2012/13 to a peak of £2.24 million in 2016/17, declining thereafter to £1.51 million in 2018/19, when only 54 patients were referred overseas. While these trends are encouraging, changes in the way patients are referred abroad – especially with the advent of air access replacing evacuation aboard the RMS St Helena – mean that it has not been possible to assess whether the recurrent savings being realised are directly attributable to the hospital refurbishment. (paragraphs 3.3 to 3.7)

**13. We have identified some evidence of the quality of care improving, but SHG has not performed or commissioned its own assessment or detailed examination of the project's benefits.** A review by the DFID St Helena representative of the project concluded that overall, the hospital refurbishment has led to a safer and more hygienic hospital, and the works had fulfilled their purpose. Hospital staff have also responded positively to the refurbishment. (paragraphs 3.8 to 3.13)

**14. Hospital use has been rising in recent years, but it is too early to measure the impacts of air access.** Figures from the hospital suggest a surge in activity since 2016, however Hospital staff do not believe this is resulting from air access. We have not had access to any granular data to perform an analysis on the reasons behind the increase in demand, however we are told that factors include the deterioration of the island's health, more doctors available to see patients, more specialist support and skills, and an increase in theatre days. (paragraphs 3.14 to 3.17)



## SHG IS NOT SYSTEMATICALLY MONITORING HOSPITAL PERFORMANCE CENTRALLY

15. **SHG has had longstanding problems with its collection and monitoring of health statistics due to difficulties using the previous patient administration system, and the Health Directorate need to improve their measurement of hospital performance.** With the previous system, the Health Directorate struggled to collect and monitor simple statistics on hospital activity. The implementation of a new patient administration system is a good opportunity for the Health Directorate to determine a robust set of care quality measures so that it can implement systems to regularly capture these measures. This will allow management to recognise which areas of the hospital need further improvement or aren't delivering what they should. A new patient management system is currently being implemented, but it is too early to tell whether the issues with the previous system have been solved. (paragraphs 3.18 to 3.23)

## CONCLUDING REMARKS AND RECOMMENDATIONS

16. The refurbishment project endured a history of scope change, delays and varied cost estimates. Once the project was formally established as part of the 2014/17 Capital Programme, delays continued to persist and costs, through extra works, pushed the project's total spend over the contracted price. While the refurbishment addressed many of the concerns raised by hospital staff regarding the hospital's former state, concerns remain about the quality and whether the building now meets the specifications required at the outset.
17. But measuring the success of projects is not just about observing the outputs. Although the refurbishment delivered vital new equipment and addressed significant health and safety concerns, SHG failed to establish a clear economic case for the investment, and did not carry out an options appraisal outlining the costs and benefits of various solutions which could have addressed the problems with the hospital. This means that it is difficult to know whether the intended benefits are being realised.
18. **However, early signs are encouraging and suggest the project is on track to deliver value for money, as the drop in the number of patients referred overseas and in referral-related expenditure provide evidence that one of the project's primary goals is being met. It also seems clear that the hospital is now better prepared for increasing demands than it was before the refurbishment.**
19. Still, SHG has work to do to develop a reasonable set of performance metrics for health, which can be used to measure the hospital's success in improving the quality of care, as well as the wider health benefits this and other health projects deliver.

**20. The following recommendations relate specifically to the hospital refurbishment:**

- a) SHG must urgently secure contracts for the maintenance of important, high value hospital equipment including the CT scanner, autoclaves and oxygen plant.
- b) SHG should commission analysis looking at the financial impacts of the refurbishment, and determine whether cost savings are being realised as a result of procedures being performed on-island.
- c) The hospital should commission analysis to model expected demands of the hospital given current trends in demand, to estimate when the hospital may need to be upgraded again, so that this can be built into forward financial and strategic planning.
- d) The Health Directorate should implement a set of monitorable Key Performance Indicators to measure hospital performance and the quality of care. It should use the implementation of the new patient management system to aid in this.

**21. The following recommendations aim to improve SHG's implementation of capital projects in the future:**

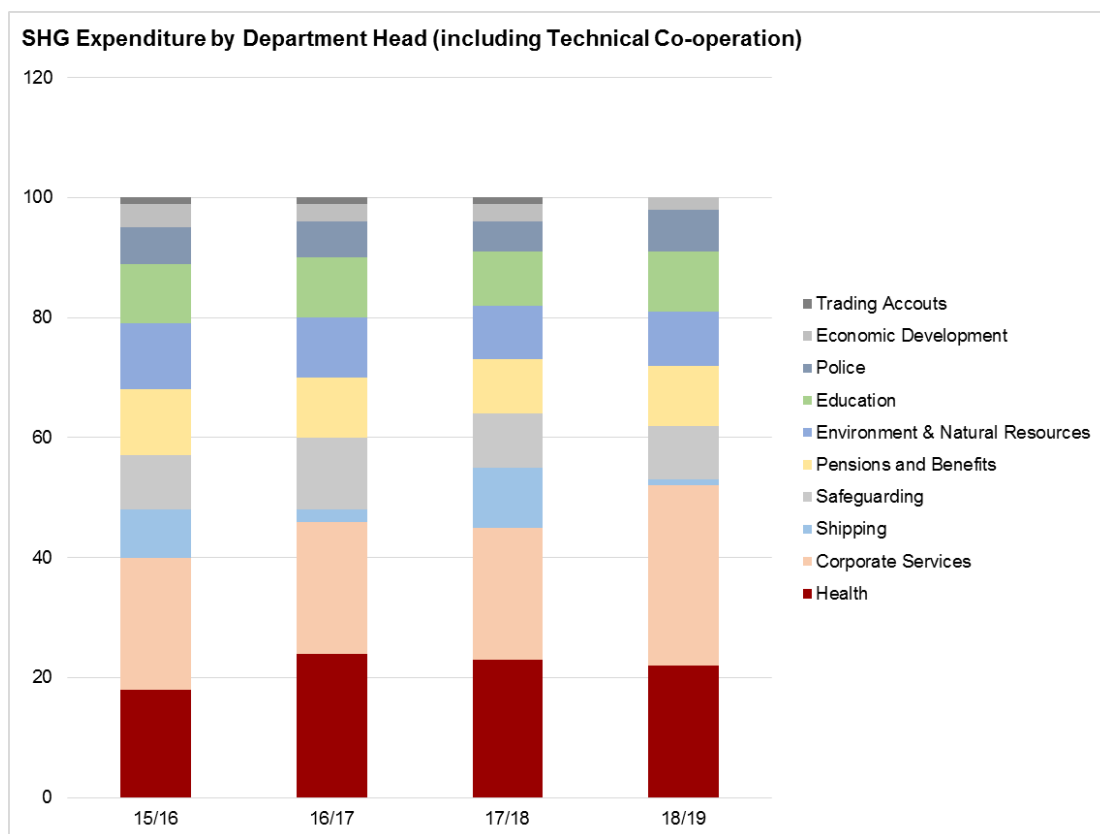
- e) SHG should continue to improve its alignment of capital projects, strategic objectives and available funding to ensure important projects are implemented in a timely manner. Lessons and experiences from the 2014/17 capital programme must be taken forward to ensure this happens.
- f) SHG should develop a methodology for incorporating optimism bias into its project planning for cost, schedule and project benefits. This will ensure appropriate contingency is built into project planning.
- g) SHG should improve its early costing and cost analysis for major projects. Early cost estimates are often used to inform important funding decisions, and without a systematic methodology for constructing and presenting costs to decision makers, poor value for money decisions can be made. Costs need to be, at a minimum: presented alongside the relevant assumptions; presented as a range indicating most and least probable figures; and calculated with input from the appropriate professionals.
- h) SHG should formally implement the RIBA "plan of work" stages or a similar recognised methodology for designing building specifications. This will provide a baseline against which performance can be measured in the future.
- i) SHG must improve its documentation of important project milestones. We struggled throughout the audit to locate key documents relating to project approvals and completions. SHG should set up a dedicated electronic filing system for project documents so that records are easily accessible.
- j) SHG should implement robust project initiation procedures, including obtaining capacity to write high quality business cases to HMT Green Book or equivalent standard, to be used for rigorous options appraisals, ensuring the option with greatest value for money is chosen.
- k) SHG should have cost and benefits monitoring plans for all capital projects.

# PART ONE: INTRODUCTION

## BACKGROUND

- 1.1 The St Helena Government (SHG) spends a significant proportion of its budget on health. In the last 4 years the proportion of SHG recurrent budget assigned to the Health Directorate has averaged 22% (**Figure 1**).

FIGURE 1: SHG EXPENDITURE BY DEPARTMENT



Source: SHG Budget Books, 2015/16 to 2018/19

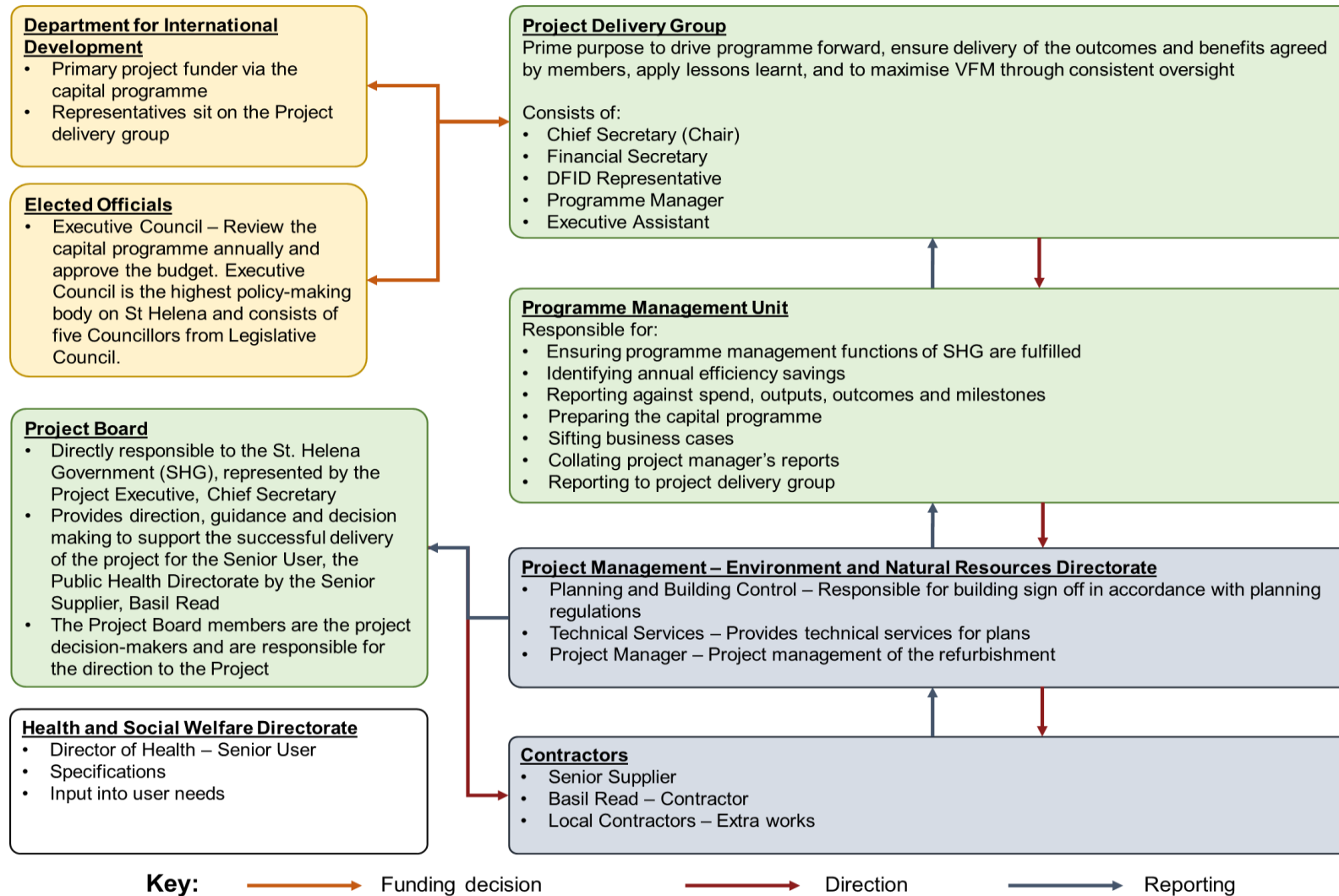
- 1.2 Despite the significant spend, health provision on the island has historically been limited, with many procedures taking place in South Africa. It has been a SHG priority for a number of years to improve the quality of care provided on island as well as increase the number of procedures the hospital is able to perform. Central to the efforts to improve healthcare is the refurbishment of the Jamestown Hospital. In its former state, the hospital was considered outdated, unsafe and not fit for purpose.

- 1.3 In 2014, the UK's Department for International Development (DFID), in an interim capital budget, granted funding to SHG to progress with the refurbishment. The Project was then included in the DFID supported 2014/17 3 year capital programme. In March 2015 a contract was signed with Basil Read Ltd (the Contractor) to carry out the works. The project was completed in June 2017.
- 1.4 The project has not been without its problems. The refurbishment of the hospital was first put on the agenda in 2008, and SHG spent years refining and redefining its plans before works were able to commence. Project cost estimates changed over time, and the project eventually spent more than its original budget. Some officials believe the finished product is not up to standard.
- 1.5 This report details our findings for our performance audit of the Jamestown Hospital Refurbishment Project (The Project). Part two determines the facts around the project's cost and schedule history, and whether the outputs were what was required by SHG, and Part three examines whether the project is delivering the benefits envisaged. This includes investigating whether SHG developed a detailed case for the project as well as examining whether the expected cost savings and improved healthcare benefits are being realised.
- 1.6 This report does not assess in detail the performance of the Contractor, nor investigate value for money of SHG's health strategy in the delivery of healthcare for the people of St Helena.

## ROLES AND RESPONSIBILITIES

- 1.7 There were a number of key stakeholders involved in the refurbishment project. The governance arrangements are set out in **Figure 2**. This report does not evaluate the performance of the Programme Management Unit (PMU) or the wider governance structures but sets them out to aid the reader's understanding of roles and responsibilities.

FIGURE 2: ROLES AND RESPONSIBILITIES



Source: Audit St Helena analysis of project documents

- 1.8 Responsibility for the management and delivery of SHG's capital programme rests with the PMU. The PMU was created in 2013 following advice from DFID to ensure previous poor performance in programme delivery was not repeated. While the PMU oversees portfolio management, it was not directly responsible for individual project delivery. According to its terms of reference, the PMU is responsible for:
- the effective management of SHG's Capital Programme;
  - ensuring the Capital Programme is delivered effectively against output, outcome and spend targets;
  - identifying and securing new external funding for SHG capital projects;
  - ensuring clear lines of responsibility, accountability and optimising value for money, and;
  - together with the Director of the Environment and Natural Resources Directorate (ENRD), providing strategic and operational advice to the Programme Board and leadership to the programme management process.
- 1.9 The terms of reference for the PMU were written in January 2013. Since then, the organisational position of the PMU has changed. It no longer sits within ENRD, instead in SHG Corporate Services. This change was implemented to allow it to have more independence from ENRD, which is responsible through Technical Services for the delivery of a number of projects.
- 1.10 We spoke to PMU staff to understand its role in the hospital project in further detail. We found that it played a minor role, with its main responsibility being the collation of Project Manager's reports in order to provide a summary for the Programme Delivery Group (PDG).
- 1.11 The PDG's prime purpose is to "drive the programme forward and ensure delivery of the outcomes and benefits agreed by members, to apply lessons learnt, and to maximise value for money through consistent oversight". Its core membership includes:
- The Chief Secretary (chair)
  - Financial Secretary
  - DFID representatives
  - Programme manager
- The PDG is supported by the executive assistant of the PMU and advised by an Executive Council member. The PMU reports its recommendations on the capital programme to Executive Council, where all priority recommendations must be ratified.
- 1.12 ENRD oversaw the project via its chief engineer, and were responsible for regular engagement with the contractor and the senior user, the Public Health Directorate. The project manager appointed under the ENRD project managers' framework, alongside the Contractor, reported progress to the Project Board.

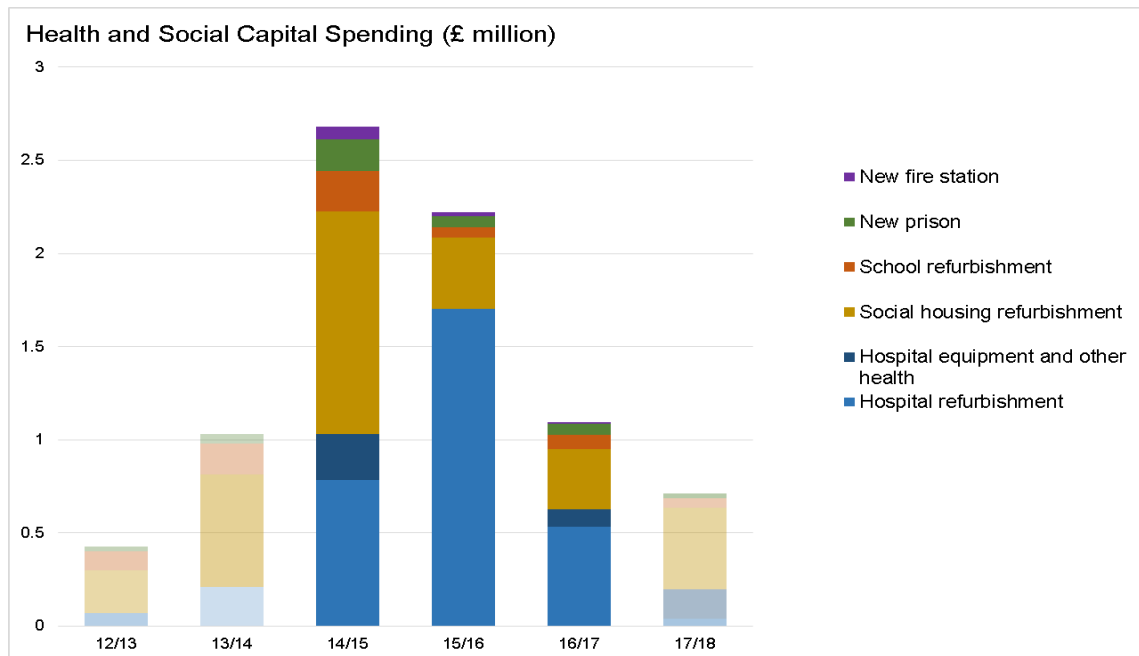
- 1.13 The Project Board is directly responsible to SHG, represented by the Chief Secretary. It provides direction, guidance and decision making to support the successful delivery of the project for the Senior User, the Public Health Directorate by the Senior Supplier, the Contractor. They are the project's decision makers and are responsible for overall direction for the project.

**Recommendation** *SHG must improve its documentation of important project milestones. We struggled throughout the audit to locate key documents relating to project approvals and completions. SHG should set up a dedicated electronic filing system for project documents so that records are easily accessible.*

#### SHG CAPITAL FUNDING AND THE CAPITAL PROGRAMME 2014/17

- 1.14 The Project was funded and managed through the SHG Capital Programme 2014/17. The capital programme was a portfolio of infrastructure projects in place to ensure the island is fit to enable private sector investment, raise living standards and reduce future running costs for SHG. This audit is not an assessment of the portfolio's performance, however an understanding of it is needed for some of our assessments.
- 1.15 The capital programme was funded principally by the Department for International Development (DFID) via a Memorandum of Understanding (MOU) for non-budget support. DFID provided up to £16.5 million, with SHG contributing up to £4.5 million, and the European Development Fund up to £9 million.
- 1.16 SHG did not produce a 3 year budget for the programme, outlining funds for each project or directorate over the period. Instead, SHG reviewed the project portfolio and allocated funding on an annual basis. DFID did however produce estimates in its internal business case for the funding. In this business case it estimated that health and social welfare allocation would spend a total of £5.7 million across housing, the hospital, schools, the fire station and the prison. Analysis of SHG documentation showed that between 2014/15 and 2016/17 health and social welfare capital spending was £6 million. Over half of this went towards hospital refurbishments.

FIGURE 3: HEALTH AND SOCIAL CAPITAL SPENDING 2012/2018



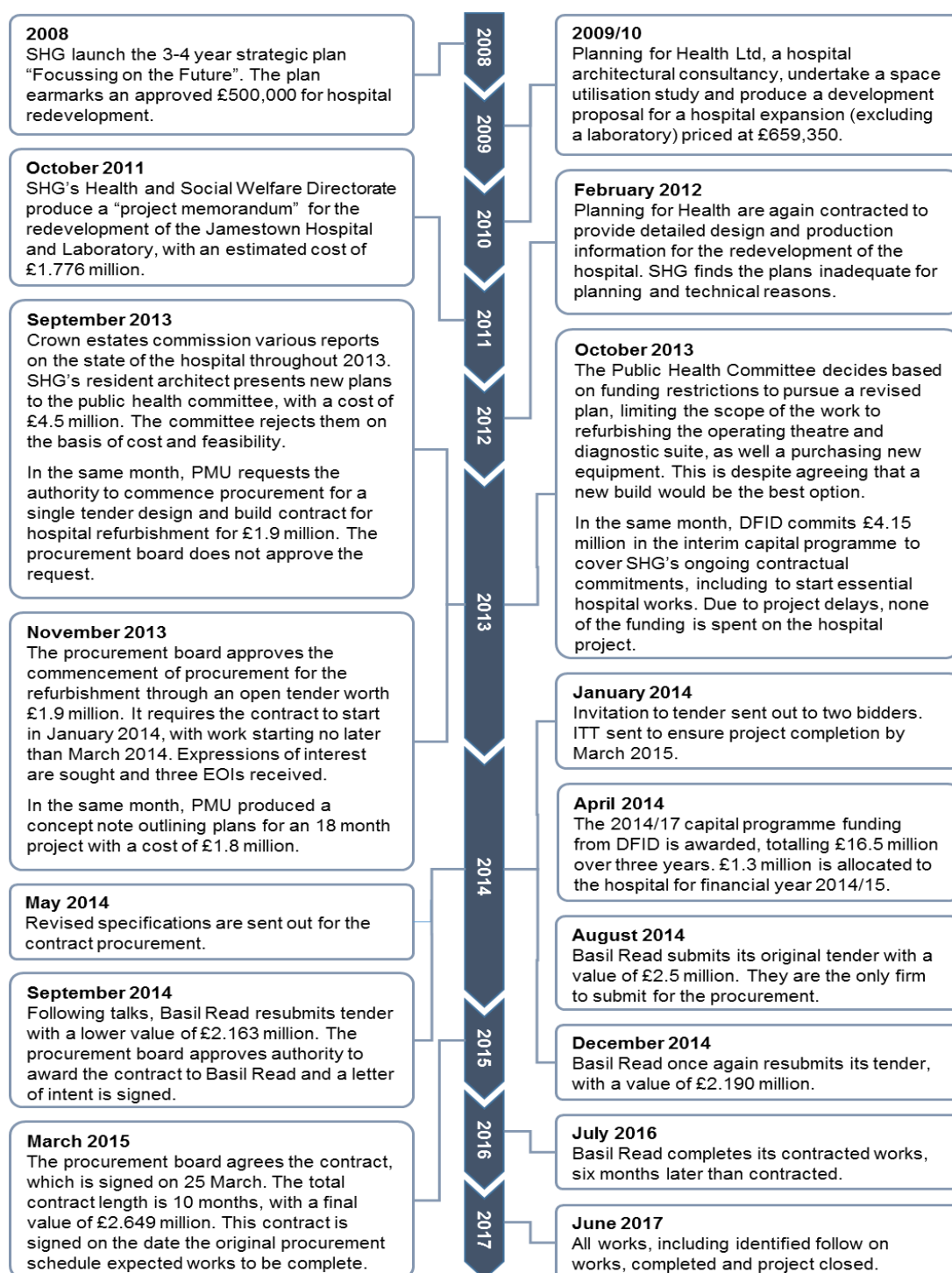
Source: Audit St Helena analysis of SHG financial information

**Recommendation** SHG should continue to improve its alignment of capital projects, strategic objectives and available funding to ensure important projects are implemented in a timely manner. Lessons and experiences from the 2014/17 capital programme must be taken forward to ensure this happens.



## PART TWO: DELIVERY OF THE REFURBISHMENT PROJECT

FIGURE 4: PROJECT TIMELINE



Source: Audit St Helena analysis of project documents

## THE CASE FOR THE PROJECT

- 2.1 It was clear to SHG and other stakeholders for some time that something needed to be done to improve healthcare provision on the island, and SHG established the need for the project in various documents. With the construction of the airport, planned transformation to a tourism-led economy, and a drive to increase the population, along with an ageing population with more complex healthcare needs, SHG determined the hospital was not fit for purpose.
- 2.2 While our audit discovered significant omissions and poor practice with regards to project initiation, it is important to highlight some of the serious issues raised by various professionals about the state of the hospital prior to refurbishment.
- 2.3 We identified reports written in January, February, March, and August 2013 that outline some serious issues with the building. We also surveyed and interviewed hospital staff, who were able to show us photos of the building in its former state. They explained to us that in its previous condition there were evident risks to patient safety, meaning that it was unsafe to perform certain routine procedures.
- 2.4 The reports in early 2013 highlight issues with lighting and water provision to the hospital, as well as fire safety concerns. Some specific examples include:
  - Inadequate illumination levels
  - Faulty water taps
  - Hot water unavailable in areas of the hospital
  - No automatic fire detection system, lack of escape routes and doors not fire rated
  - No fire proof locations to store medical gasses
- 2.5 SHG also carried out a checklist exercise, examining the hospital site against best practice for hospital facilities. It found the site was non-compliant with regards to site access, parking, ramps, external doors, reception facilities, internal doors, corridors, lifts, switches and outlets, sanitary facilities, accessible toilets and changing facilities.
- 2.6 In August 2013, the newly appointed Senior Medical officer and the newly appointed Director of Health conducted a risk assessment exercise to establish urgent equipment needs for the hospital. Of 18 risks identified, 15 were deemed to have both a very high impact (emergence of the risk threatens the existence of the organisation, or a financial impact greater than £5 million) and a very high probability (greater than 80%). The assessment concluded that expensive, vital equipment had not been managed properly, was well beyond the use by date and was not in a condition to be used on patients. A summary of the highest impact and most likely risks is shown in **Figure 5**.

*FIGURE 5: VERY HIGH IMPACT AND VERY HIGH PROBABILITY RISKS FOR THE HOSPITAL PRE-REFURBISHMENT*

<b>Risk</b>	<b>RAG Status</b>	<b>Estimated cost of mitigation (£000)</b>
Patient mortality due to no working ventilator	R	40
Patient mortality due to poor imaging and ultrasound	R	50
Patient mortality due to no positive airway pressure machine with variable oxygen flow rate	R	7
Patient mortality due to poor imaging of radiology machine	R	140.5
Patient mortality due to improperly configured anaesthetic machine and lack of backup	R	Unknown although 30 p/y for medical technical engineer
Patient mortality due to Video Laryngoscope	R	8
Patient mortality due to non-working autoclave and ultrasonic cleaners	R	60
Gas management	R	80
Patient mortality due to lack of properly functioning operating theatre	R	250-500
Patient mortality due to lack of properly functioning cardiac defibrillators	R	20
Patient mortality due to no external fixation set	R	10
Patient mortality and increased cost for overseas referrals due to lack of proper exercise test machine	R	10
Patient mortality due to lack of PD catheter and fluid	A	5
Patient mortality due to lack of invasive hemodynamic monitoring	A	20
Risk of morbidity of administering doctor and general public due to lack of proper facilities and training to provide IV chemotherapy as well as lack of proper chemo waste disposal	R	25

Source: St Helena Health & Social Services Risk Management Matrix

Note: RAG status indicates level of risk: Critical = Red (R); Serious = Amber (A); Minor = Yellow (Y); Satisfactory = Green (G)

## BUSINESS CASES AND PROJECT DECISION MAKING

- 2.7 Despite the issues highlighted in the 2013 documents, the years preceding the project included a mix of confused and incomprehensible decision points, backed up by weak documentation. We identified some documents produced by SHG, however the quality of the documents is poor, often incomplete, and sometimes written retrospectively. Our assessment of these documents is shown in **Figure 6**.

FIGURE 6: ASSESSMENT OF PROJECT DECISION MAKING DOCUMENTS

	Project Memorandum (2011)	Project Concept Paper (2013)	Project Initiation (2014)	DFID Business Case (2014)
<b>Strategic Objectives</b>	"Improved self-sustainability in health care and an increased ability to export processed food items, contributing to the social development and economic growth of the Island"	Goal 2 Strong Community and Family Life  Vision – Life expectancy is increased and healthy lifestyles are promoted  SO2.1 – Health care improved as a result of greater investment in primary and secondary health facilities"	"Current facilities at the hospital are dated and generally in a poor condition due to years of neglected building maintenance and do not comply with current medical standards and practices"	Aligned to DFID's responsibilities to St Helena. Business case supports VFM case to DFID rather than St Helena.
<b>Measurable Outcomes</b>	"Savings of approximately £52,500 per year, based on eliminating patients going overseas for diagnostic investigation, which costs £3,500 per patient"	"Significant health benefits as more medical procedures can be carried out on island. This could also have financial savings with fewer medical evacuations needed."	"improved standards will aid advances in the health service and increase medical standards"	None – DFID documents are output focussed:  "Refurbished hospital operating theatre and diagnostic suite."
<b>Audit St Helena Assessment</b>	Good	Poor	Very Poor	Not Assessed

Source: Audit St Helena analysis of project documentation

Note: Assessment made against Audit St Helena business case assessment tool, developed using the HM Treasury Green Book and National Audit Office framework to review programmes

- 2.8 Project initiation passed through a number of approval stages, however the related documents did not outline a reasonable case for the project. SHG (both the Health Directorate and Corporate Services) made efforts in these stages to align the hospital project with its various strategic plans, however our review found that the only quantified metrics for the outcomes of the project were in the project memorandum in 2011, which cited cost savings of £52,500 per year from reduced overseas referrals. No other measurable benefits were identified in the documents, other than improving medical standards generally.

- 2.9 There is no evidence that SHG undertook a rigorous options appraisal for the solution, suggesting there was an inadequate assessment of alternatives. DFID, in its 2014 business case for the capital programme, highlighted concerns that the work proposed does not go far enough by focussing on the operating theatre and diagnostic suite. An options appraisal for the project was virtually non-existent with scoping decisions made on an ad-hoc basis by various committees.
- 2.10 There was no business case produced for the project which demonstrated value for money. For what was produced, officials had completed template documents retrospectively, rather than using the documents to drive and inform decision making. Where SHG is committing large sums of money, we would expect to see a detailed business case which outlines the financial, economic and strategic case for the project as well as contains details of available funding and the possible management set up for the project. This is to ensure that SHG can be assured that it has chosen the best possible solution to the problem at hand.
- 2.11 None of the documents we reviewed showed a plan for measuring the impact the hospital would have on either the quality/standard of care provided or the savings it would produce. SHG should have designed a benefits monitoring and management plan for this and the other projects in its capital portfolio. Without this, and an accurate quantification of total project costs, it is very difficult for SHG to demonstrate it is getting value for money from its investment.

**Recommendation** *SHG should implement robust project initiation procedures, including obtaining capacity to write high quality business cases to HMT Green Book or equivalent standard, to be used for rigorous option appraisals, ensuring the option with greatest value for money is chosen.*

## COST AND SCHEDULE HISTORY

### PROJECT SCHEDULE

#### EARLY DELAYS

- 2.12 SHG first put the hospital project on the agenda in 2008, when it published its 3 year strategic plan “Focussing on the Future”. The strategy allocated funding for a redevelopment of Jamestown Hospital. Following this strategy, SHG employed various staff and consultants to begin drawing up plans for the redevelopment. Reports produced in 2010 by *Planning for Health Ltd.*, a hospital architect and planning firm based in the UK, identified some redevelopment proposals, however the first timetabled project plan was the “project memorandum” published in 2011. It proposed a six phased project with an assumed life of 33 months, starting in March 2012 and to be completed by December 2014.
- 2.13 Between October 2011 and September 2013, SHG made no progress on the delivery of the 2011 plan. During this time, Planning for Health Ltd. produced another development proposal in 2012, however these plans were rejected when under scrutiny by the new management of the Infrastructure and Utilities Directorate (I&UD), for planning and technical reasons. In January 2013, the Public Health Committee (the Committee) tasked the SHG Architect from the then named Infrastructure and Utilities Directorate to take the work forward, and plans were presented in September the same year. These plans were also rejected by the Committee, but for affordability reasons.
- 2.14 In October 2013, although agreeing that a new build would be the best option, the Committee decided that due to funding and planning issues the scope of the works should change, and a hospital redevelopment was too problematic. SHG decided to pursue a revised plan which limited the work to refurbishing the operating theatre and diagnostic suite, as well as purchasing some new diagnostic equipment. The Committee suggested the new hospital be included in the Capital Programme to “ensure it was followed through”. In the same month, DFID provided funding for an interim capital programme that included the hospital refurbishment. This finally allowed the project to get off the ground, although none of the interim funds were actually used for hospital works.
- 2.15 It took 5 years from when the hospital refurbishment was put on the agenda until the Procurement Board authorised a request from the Capital Programme Manager to formally commence in November 2013.

## DELAYS IN PROCUREMENT

- 2.16 After having rejected a request for a single tender, the Procurement Board gave approval to commence the procurement through open tendering in November 2013. SHG sought expressions of interest and sent out invitation to tenders with the aim of commencing construction before March 2014, and completing the project by March 2015. This timeline was based on available funding from DFID.
- 2.17 This was the first of a series of overambitious timelines set by SHG. The paragraphs below outline delays to the project at various stages, however at each of these SHG could have been more realistic in its scheduling. Given the uncertainties already experienced at the start of the project, SHG should have built more contingency into its planning stages to deal with issues as risks to delivery materialise.
- 2.18 Initially, three firms responded with expressions of interest. Of these, SHG invited two firms, Basil Read (the contractor) and Mace, to submit tenders in January 2014. Mace withdrew as it did not feel it could compete with the contractor's on-island presence, and the procurement was left with just one bidder. In May 2014, SHG sent revised specifications and more detailed X-ray and CT requirements to the contractor, as the received bid stated the contractor believed they could reduce the amount spent on medical equipment after consulting with hospital and end users.
- 2.19 The contractor responded to the updated specifications in August 2014. This led to the beginning of lengthy negotiations to finalise the contract. The negotiations involved reduction from bidder (partly due to funding limitations on SHG's part), various changes in specifications by SHG (omitting/readmitting equipment), omissions from the bidder in schedule of work rectified, and a change of contract type. As a result of the discussions, SHG and the contractor did not sign the contract until March 2015 after five different submissions of the tender.
- 2.20 Since the original proposals, the project had morphed from a redevelopment of the hospital site, to a refurbishment of some areas and the purchase of new essential equipment. Funding was maintained via DFID support to the capital programme, despite the overrun of deadlines of available funding first outlined to SHG.
- 2.21 All in all, the procurement process took 16 months to complete as opposed to the 3 months stipulated in the EO/ITT. At the date the contract was signed with the contractor, the refurbishment should already have been complete according to the initial timelines as presented in the tender.

**Recommendation** *SHG should develop a methodology for incorporating optimism bias into its project planning for cost, schedule and project benefits. This will ensure appropriate contingency is built into project planning.*



## DELAYS IN DELIVERY

- 2.22 The contract was signed as a 10 month contract, with 3 months required for Detail Design, Approval of Designs, Procurement and Site Establishment, a 6 month construction phase, and 1 month for snagging, finishing and final handover/Contract Completion. According to this timeline, the project would be completed by the end of January 2016. The construction was to take place in four phases: various areas; radiology, CT, rhesus etc.; new change room theatre; new delivery and recovery. This was an ambitious schedule, given the original plan was to complete the construction phase in 12 months.
- 2.23 Throughout the construction phase, 15 contract variations were issued (which is not unusual for a project of this size), and the project plan was revised several times. The seventh and final “project programme revision” eventually indicated finalisation in June 2016. At the time the project board expressed concern about the level of detail in the Contractor’s designs, making it difficult for them to assess whether the contract was being followed as the works progressed. SHG’s chief engineer at the time believed that the specifications were vague and open ended.
- 2.24 We have been informed the delays were not all on the part of the contractor; that some equipment was delayed, that SHG requested some changes affecting progress, and that because it was a working hospital, unforeseen issues would arise to cause delays even though detailed plans had been drawn up. These risks could have been sighted earlier, allowing some contingency to be built into the original plans.
- 2.25 Evidence suggests the contractor left the site in July 2016. They applied for a taking over certificate that the Project Manager granted on 18 July 2016, detailing that the listed agreed works were in terms of the contract (FIDIC Clause 10), completed on July 1 2016. The certificate however also included a list of outstanding works. We have not seen any completion date for the outstanding works being finalised.
- 2.26 Additional works were tendered during the project, including the installation of the Private Automatic Branch Exchange (PABX) telephone system, installed by Sure SA Ltd.; building a ramp for the ambulance, completed by local contractor Arnold Crowie; and fencing the oxygen plant and upgrading a Nissen hut structure, by local contractors Gareth Benjamin and Isaac’s Constructions. Some of these works were done in parallel with the contractor being on site, some were not completed until after the contractor had left the site.



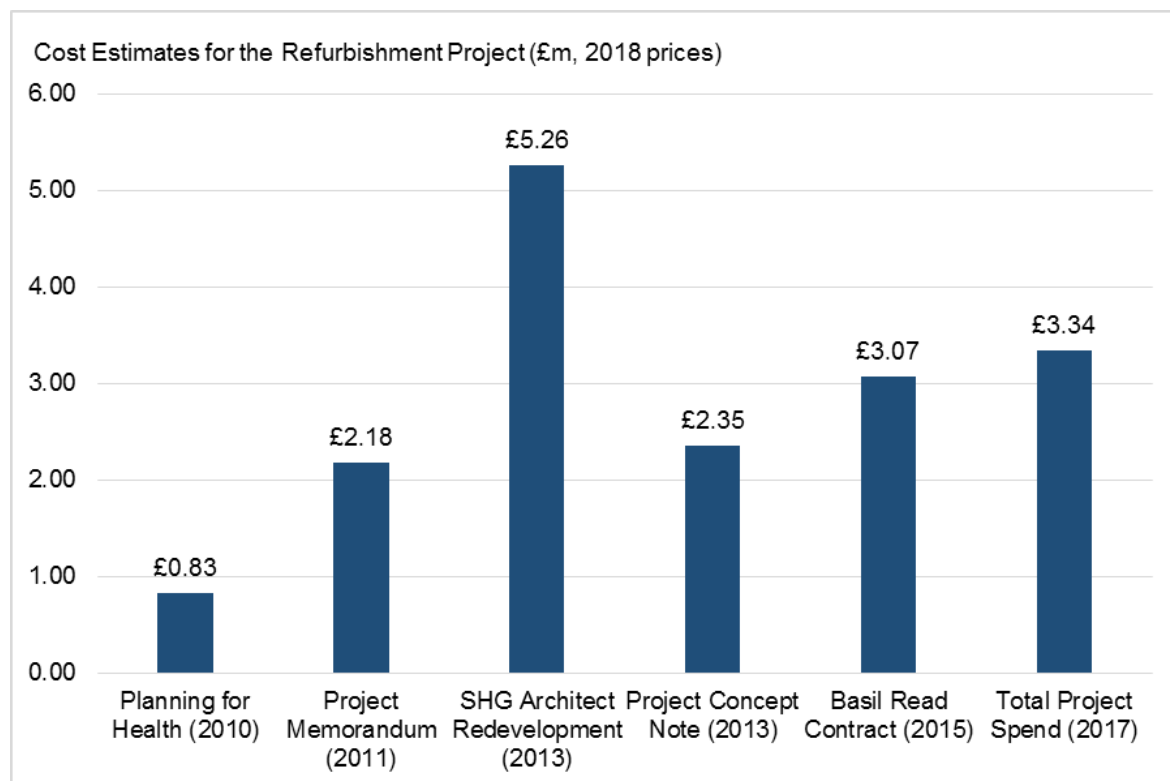
- 2.27 During the course of the project, SHG realised that additional refurbishment and infrastructure improvement needs, identified earlier by Hospital staff, were required. These were not included in the Basil Read contract. The Project Board agreed it would not form part of the main project, and “Follow on works” were tendered in August 2016 for local contractors to complete. The work included laying of vinyl sheet flooring, installing external doors and internal fire doors, painting and other fittings mainly to the hospital’s first floor. The contract was awarded to local contractor Ambledale, to be completed by 31 March 2017. It was later extended to include building the Nursing Officers office. A certificate of practical completion was issued 6 June 2017.
- 2.28 In November 2016, the Chief Secretary confirmed the hospital project was substantially complete and that Basil Read were in the retention phase. The project as a whole was reported closed by Project Delivery Group in their June 2017 report. This means the project did not come to a close until a further 11 months after Basil Read completed their works, and a total of 43 months after the procurement was approved by the procurement board.

## PROJECT COSTS

### EARLY COST ESTIMATES

- 2.29 Costs for the Project have evolved over time during its long history. At the early stages of the project a number of reports and consultations took place which put forward proposals, of varying detail, for a redevelopment of the Jamestown hospital (**Figure 7**).
- 2.30 In May 2010, Planning for Health Ltd. undertook a space utilization and development proposals study on the hospital site. The report outlined a three phased development including rationalisation and upgrading of the existing hospital and the adjacent public health building to improve operational efficiency and to address health and safety issues. The report proposed an expansion of the hospital. Total proposed costs for the work was £659,350 (2010 prices).
- 2.31 In October 2011, SHG’s Health and Social Welfare Directorate produced a “project memorandum” for the redevelopment of the Jamestown Hospital and Laboratory, with an estimated cost of £1.776 million (2011 prices). The memorandum proposed a six phased project, to be funded from the SHG programme budget. It is not clear the reasons for the difference in scope and estimates for the work, nor whether SHG’s cost estimates built on the work performed by Planning for Health Ltd.

FIGURE 7: COST ESTIMATES FOR THE JAMESTOWN HOSPITAL PROJECT



Source: Audit St Helena analysis of project documents

Note: Prices adjusted using the SHG Statistics department construction cost inflation index

2.32 Following the work by Planning for Health Ltd and SHG, little progress was made on the plans. The redevelopment project was held up due to funding restrictions and a lack of available project management skills. However in January 2013, the Public Health Committee attempted to reignite the project, and asked staff in the Environment and Natural Resources Directorate (ENRD) to take the work forward. ENRD's Chief Architect produced plans in September of that year which costed the redevelopment at £4.5 million (2013 prices).

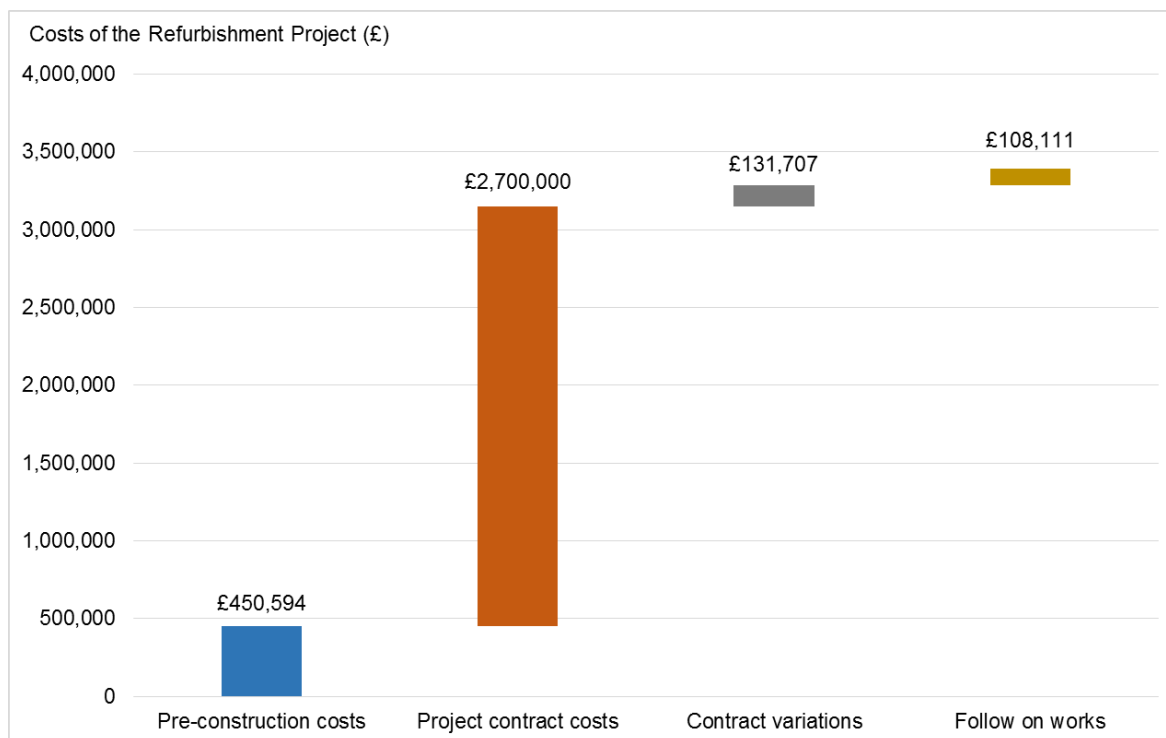
2.33 As described above, SHG narrowed the scope of the redevelopment project in October 2013 by focusing it on the operating theatre and diagnostic suite. During this period, new proposals were drafted, and SHG Corporate Services produced a concept note outlining plans for an 18 month project with a cost of £1.8 million (2013 prices). The concept note also provided an estimate for the construction of a new hospital at a cost of £8 million over 2-3 years, however noted that funding was not available for such a project with "significant financial cost".

- 2.34 The various estimates outlined above were produced by professionals of different backgrounds and expertise. It has been difficult for us to make an assessment of the quality of the cost estimates, as we have not had access to the underlying workings and data that support the reports. That said, the amount of variation in the documents suggests at least that SHG was unsure of what the scope of the project was at the early stages. It is best practice to develop a range of costs and options to be developed at the early stages of any major project, however SHG did not go about this in a systemic or organised way.

## PROJECT ACTUALS

- 2.35 Despite the early failures to get the Project off the ground, SHG eventually agreed a contract with the contractor in March 2015. This followed the inclusion of the project in the 2014/17 Capital Programme and an extended period of negotiation with the contractor regarding project specifications. The value of the contract was a fixed sum of £2.70 million, although during the negotiation the contract went through various costs. The original tender on 01 August 2014 was £2.50 million. By omitting some aspects of the contract, this was reduced to £2.16 million on 25 August 2014. In December, having re-included some of the omissions, the value was set at £2.19 million. Following further revisions to equipment, further additions and changes as well as omissions by the contractor in the schedule of works, in which errors were found, as well as currency fluctuations the contract price rose to £2.70 million.
- 2.36 While the contract itself was a fixed sum, our analysis has found that actual spend on the refurbishment was higher than £2.70 million. The value of the contract does not reflect resources used in early stages, including the use of consultants to draw up plans, contract variations and follow up work which was required to complete the refurbishment to the required standards (**Figure 8**). We extracted financial data from SHG's accounting system under the cost code used to account for the Project. We found that invoices had been charged to the project dating back as far as March 2012. These charges include up to £175,000 in professional fees paid to Planning for Health Ltd.
- 2.37 Total actual spend on the project is hard to pin down due to its long history, but our review of the project accounts and capital programme reports suggest it is between at least £3.275 million and £3.451 million. These figures include only direct costs, and exclude SHG management and staff time over the 9 years since the Project's inception. While it is not unreasonable for final costs to have been more than the contracted price, without being able to get a fix on the total cost it is difficult to assess whether the project was good value for money.

FIGURE 8: TOTAL REFURBISHMENT COSTS



Source: Audit St Helena analysis of project documentation and SHG financial information

- 2.38 We estimate direct pre-construction costs to total £451,000. This includes spending on consultants, hospital equipment and labour. During the construction, a total of 15 contract variations were issued with a value of £132,000. Follow on works were completed by another local contractor, with a value of £108,000.

## MANAGEMENT OF THE REFURBISHMENT PROJECT

- 2.39 SHG issued an Invitation to Tender (ITT) in January 2014, with a lengthy identification and negotiation process taking place until the contractor signed the contract with SHG in March 2015. As outlined below, we have found that issues in the process leading up to the production of the specification carried on through to the signed contract. We have also identified uncertainty around the process followed for handover.

**Recommendation** SHG should improve its early costing and cost analysis for major projects. Early cost estimates are often used to inform important funding decisions, and without a systematic methodology for constructing and presenting costs to decision makers, poor value for money decisions can be made. Costs need to be, at a minimum: presented alongside the relevant assumptions; presented as a range indicating most and least probable figures; and calculated with input from the appropriate professionals.

## THE SPECIFICATION

- 2.40 Our review found a number of problems at the project specification stage. We spoke to the Project Management Unit (PMU) who advised that in 2017/18 SHG informally adopted the Royal Institute of British Architects (RIBA) “plan of work” stages. The RIBA plan of work identifies various steps that should be followed to ensure the design, specification and construction of a building project follows best practice, linking each stage to specific tasks such as procurement, planning and information exchanges. There seem to have been no similar recognised methodology followed for the hospital refurbishment project ensuring the specifications were adequate to meet the needs of the hospital.
- 2.41 A project review by the DFID island representative points out that those taking part in the development of the specification did not have sufficient expertise in hospital design, and found it difficult to articulate requirements. This also became evident when more experienced hospital personnel were recruited during the project and had to request further changes to the specifications and drawings made upon arrival.
- 2.42 There were some attempts to ensure adequate specifications internally in SHG throughout the development process; a report on the specifications written by the Project Lead Officer in November 2013 stated the specifications were in need of additional detail to enable comprehensive tenders to be produced. This was subsequently done. A critical report by Head of Technical Section ENRD suggested where improvements could be made to the specification to make it easier for bidders, however it seems this was not taken into consideration.
- 2.43 DFID contracted *Evidence on Demand*, a unit specialising in the fields of climate, environment, infrastructure, and livelihoods, to do a technical review of the specifications that went out with the ITT. The review found that in general terms the documentation was considered to be “basically sound for the purpose of obtaining competitive tenders for the proposed works”. However, it suggested that clarifications of the requirements would provide SHG with greater confidence that tender returns would meet expectations, and recommended other modifications and improvements throughout the hospital building to rectify identified shortcomings. The report is dated after the time of the ITT being sent out, and it is unclear if the specifications were changed as a result.

**Recommendation** *SHG should formally implement the RIBA “plan of work” stages or a similar recognised methodology for designing building specifications. This will provide a baseline against which performance can be measured in the future.*

## THE CONTRACT

- 2.44 SHG changed their desired specifications numerous times after the ITT was published, leading to delays. The specifications changed so frequently that the Chief Secretary as Chair of the project board intervened to prevent any further changes as the project was coming under increasing time pressure, and the contract needed to be signed. By this stage, the project had been allocated funds from the interim capital budget and the fear was that this would be lost if the contract was not signed by December 2015.
- 2.45 A total of five different tenders were submitted by the contractor based on the changing specifications and equipment needs of SHG which increased the total cost of the project, and substantially delayed the contract signing.
- 2.46 The ITT sent out states under “1.4 Contract term” the intention of SHG to enter into a contract based on Joint Contract Tribunal (JCT) Design and Build 2011. In September 2014, a letter of intent was issued to the contractor stating the form of contract is to be the International Federation of Consulting Engineers (FIDIC) standard contract. We found no evidence to show the exact reasons for the change, but it is documented that the Procurement Board knew and discussed the reasons behind the change and how it would affect the contract. The standard contract used by SHG is the JCT minor works contract adapted to St Helena, and it is common practice for clients to use their own standard documents for these types of work. The decision to change the form of contract to FIDIC, at the Contractor’s request, opened up SHG to commercial risk as the SHG contract administrator would have less experience with that form of contract. Further, a FIDIC contract is usually used for civil engineering rather than refurbishment or construction works.

## THE HANDOVER

- 2.47 The refurbishment was from the onset intended to be designed and constructed in accordance with UK building standards as provided under the contract, and the Head of Planning agreed on a method of self-certification against the Building Control Ordinance 2013. Self-certification means that the project engineer and contractor document and certify the work done to appropriate standards, and the planning officer finalises it by certifying occupation after assuring due process has been followed and the correct documentation is in place.

- 2.48 In December 2015, the Head of Planning identified that a proper self-certification procedure was not followed and requested that a retrospective application for buildings regulations approval be submitted in January 2016. Although a series of drawings were submitted to planning in April 2016, we have seen no evidence of completion and approval of this process. In December 2016 the then Locum Head of Planning issued a “nominal acceptance for completion for all purposes under Building Control” by way of email to the Project Manager, and the matter was closed.
- 2.49 In the same email the locum Head of Planning detailed some of the poor standards of finish in the building, such as re-used joinery, the vinyl flooring, some of the plasterwork, and the standard of wall tiling. More serious health and safety concerns around rusting external handrails and defective manhole covers were also mentioned. Notably, the email highlighted incomplete and haphazard arrangements regarding training of personnel in relation to maintenance of the lift and of the oxygen plant.

#### THE SITUATION TODAY

- 2.50 SHG officials have raised concerns about the quality of the build. Issues include finishing being non-compliant with the British/NHS standards, and UK Department of Health Building Notes and Technical Memoranda referred to in the specification and contract. It is unclear what kind of inspections were undertaken prior to the release of the final contract retention to the contractor in July 2017 which was authorised for payment by the Chief Secretary.
- 2.51 The Contractor handed over a maintenance manual to the client upon completion, but contracts are not in place for maintenance. Due to the nature of access to St Helena Island, Siemens would not offer a service contract or warranty for equipment supplied. However, we were informed that Siemens engineers come out annually to undertake maintenance, at a cost of approximately £7,300 per week long visit. Similarly, the hospital lift receives an annual service by the engineers who come to perform maintenance on the airport lift, however no contract is in place with the hospital. Two local electricians were involved in the installation of the oxygen plant, given training and are currently providing maintenance to it when needed. They also provide maintenance on the autoclaves. This work is also not performed under a formal contract.

**Recommendation** *SHG must urgently secure contracts for the maintenance of important, high value hospital equipment, including the CT scanner, autoclaves and oxygen plant.*

## PART THREE: THE BENEFITS OF THE REFURBISHMENT PROJECT

### BENEFITS BEING DELIVERED

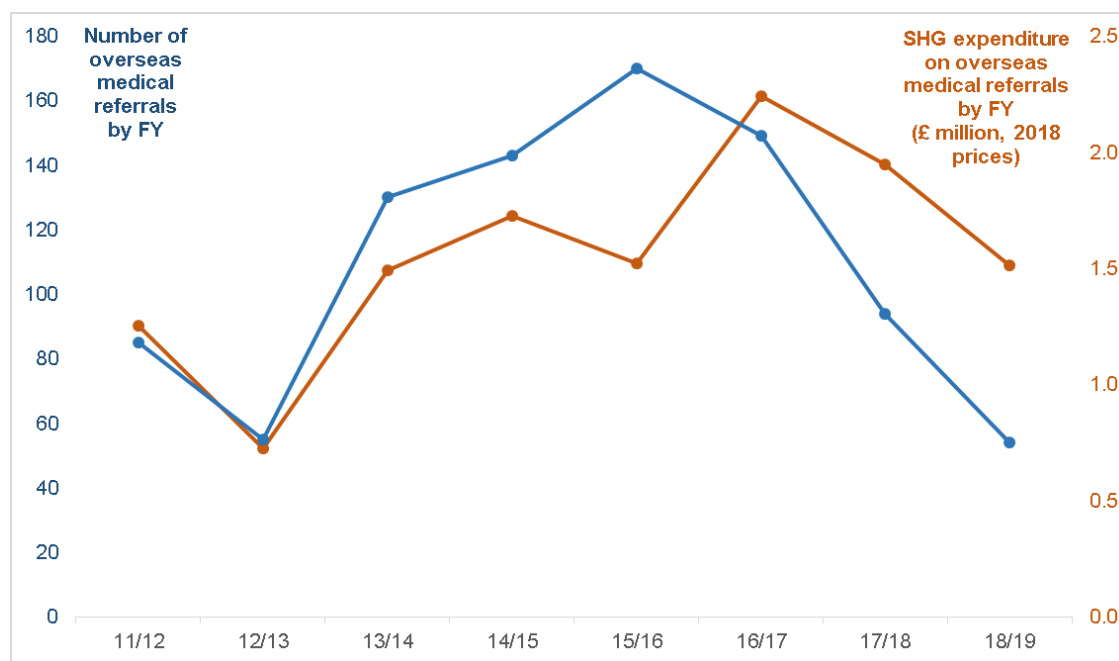
- 3.1 Despite the weaknesses identified in the documentation, our review of project initiation documents, decision point minutes and discussions with officials has identified that SHG aimed for three main outcomes for the refurbishment project:
- a) To reduce the number of medical referrals overseas, resulting in recurrent cash savings
  - b) To improve medical provision on the island and the quality of care available to residents
  - c) To ensure the hospital is equipped to handle increased demands from population growth, for both short term visitors (tourists and visiting saints) and longer term (returning saints) as well as an ageing population
- 3.2 The below addresses each of these in turn. Where possible, we have attempted to use primary data sources to ascertain the hospital's performance against each of these. Where that has not been possible we have used secondary data, interviews and reviewed reports.

### REDUCING MEDICAL REFERRALS OVERSEAS

- 3.3 SHG spending on overseas medical referrals is complex, making this assessment difficult to do. In addition to its complexity, there is only one reference to specific identified savings in SHG's decision making documents for which to compare against – most are merely statements that it wants to make savings.
- 3.4 We first requested data from the Health Directorate on the cost of overseas medical referrals and the types of procedures patients undergo. This could not be provided, so instead we aggregated cost data from the SHG accounting system in order to get an overall picture of expenditure by financial year on overseas referrals. The Hospital could, however, provide data on the numbers of overseas referrals by financial year. We found that referrals and expenditure moved together from 2012/13 to 2014/15. Referrals then peaked at 170 in 2015/16 before decreasing each financial year since, to a low of 54 in 2018/19. Meanwhile, expenditure peaked at £2.24 million in 2016/17 (2018 prices), then declined to £1.95 million in 2017/18 and £1.51 million in 2018/19 (**Figure 9**).



FIGURE 9: SHG EXPENDITURE ON OVERSEAS MEDICAL REFERRALS COMPARED TO NUMBER OF MEDICAL REFERRALS BY FINANCIAL YEAR



Source: Audit St Helena analysis of SHG financial and health data

Notes: Overseas medical referral expenditure adjusted using GDP deflator for South Africa

- 3.5 In the absence of more granular data, we spoke to the Health Directorate to understand the changes. We were told that cost savings are being realised owing to avoided costs from sending patients abroad. For example, the refurbishment of the operating theatre has allowed the hospital to employ a full time orthopaedic surgeon, and over 30 surgeries have been completed to date which otherwise would have occurred in South Africa. There have also been over 25 Intensive Care Unit (ICU) admissions since opening – some of those cases would have been referred to South Africa without an ICU in the hospital. A night in intensive care in South Africa costs SHG over £900 per night compared to £13.50 in St Helena, excluding the cost of medical evacuation. However this simple analysis does not take into account the associated cost of expanded medical services on Island including clinicians, nursing staff and professions allied to medicine.

- 3.6 We were also told that although the hospital is better equipped to perform some procedures, such as orthopaedic surgery, the two most common treatments patients are sent abroad for are cancers and heart disease. With the new CT scanner available and performing more diagnostics on-island, detection levels for cancers in particular are up. Resultantly, more people are being sent abroad for treatment for these complex cases than before despite a comparatively significant counter drop in the number of less complex cases. This could explain why costs have not fallen at the same rate as referrals, as while there are fewer referrals overseas for minor cases, there has been an increase in cost per case due to the more complex case mix.
- 3.7 Matters are further complicated by the fact that the way in which medical referrals are conducted has undergone a significant overhaul. Since the retirement of the RMS St Helena from service and the construction of the airport, patients are evacuated by air rather than ship. To add to the complexity, treatment provision has changed, with cases being managed by Medical Services Organisation under a new contract introduced in June 2016. The combination of these factors means that while there are procedures being performed on island that would previously have been referred abroad, it has not been possible to assess whether recurrent savings are being realised from changes in the referral patterns which are directly attributable to the hospital refurbishment.

#### IMPROVING MEDICAL PROVISION ON ISLAND

- 3.8 With the hospital being one of the main healthcare facilities on the island, it is expected that significant investment in the facility should improve the quality of care provided to patients.
- 3.9 We requested evidence from the hospital in order to determine the care quality measures used to measure hospital performance and the quality of care provided. We researched the type of information that the UK's Care Quality Commission would gather to assess hospital performance. Examples of data we expected to find include:
- Average waiting times for patients referred for further care
  - User survey or patient feedback data
  - Waiting times for A&E

Given the unique nature of the hospital, in particular the relatively low volume of patients, lack of available on-island specialists and the fact it does not operate a UK style A&E, means that CQC measures are not necessarily relevant for measuring its quality of care.

- 3.10 In the absence of this data, we discussed with the Health Directorate how they determine whether the quality of medical provision has improved. We also reviewed some post-project reports as well as conducted a survey for hospital staff. Finally, we considered whether the evidence suggests that the hospital project has delivered against the shortcomings identified in the 2013 inspections by ENRD and the CMO. SHG has not performed or commissioned its own assessment or detailed examination of the project's benefits. SHG should build on the work done during this audit to ascertain the hospital's contribution to improving healthcare.

**Recommendation** *SHG should commission analysis looking at the financial impacts of the refurbishment, and determine whether cost savings are being realised as a result of procedures being performed on-island.*

- 3.11 Through our inspection of the hospital, review of pictures from before the refurbishment and discussions with hospital staff it is clear that there have been improvements. Some of the issues and risks highlighted in earlier reports have been addressed, including:
- Installing piped oxygen, with safer storage of gas cylinders
  - Installing a new lift
  - Installing two new autoclaves
  - Installation of new radiology equipment that meets UK NHS Standards
  - Refurbishing the operating theatre
  - Providing an environment which can now support chemotherapy
- 3.12 In January 2017, the DFID St Helena representative carried out a review of the refurbishment project. The review found that anecdotal feedback on the completed project from the community and SHG Health Directorate staff has been positive, however the impact on the community is difficult to measure. It concluded that overall, the hospital refurbishment has led to a safer and more hygienic hospital that allows for a much wider spectrum of diagnostic and surgical procedures and so the building works had fulfilled its purpose. DFID also carried out its own review of the project as part of its annual review of the capital programme, however their evaluation focusses on project outputs rather than outcomes. The report concludes that all works at the hospital were completed in November 2016 (which is not accurate), and that the completion is a "major achievement" for SHG, significantly improving the health services on the island.

- 3.13 Hospital staff have also responded positively to the refurbishment. We surveyed doctors, nurses and other healthcare professionals to gather their views on the benefits of the hospital refurbishment. Results suggest that most hospital staff believe the hospital has allowed them to perform their role more effectively, and that it has improved the quality of care available to patients. 10 out of 15 respondents believed that the hospital in its current state allows an adequate provision of care to patients, however only one believes it enables them to provide the best care possible. The responses further suggests that the refurbishment impacted some professionals more than others. For example, the radiography team were very satisfied with the outputs, stating that the radiography suite is now level with UK NHS standards. Many respondents though highlighted that much of the finishing has been left wanting, particularly in relation to flooring, fixtures and fittings, and toilets.

#### HANDLING INCREASED DEMANDS

- 3.14 The Refurbishment Project is linked to St Helena's air access in a number of ways. The success of tourism, according to DFID's case for funding the airport, depended on some significant upgrading of the island's infrastructure, including the hospital. Almost all project documents since the airport project was launched cite it as a reason for the need to improve the facilities. What is less clear is whether the refurbishment needed to occur in order to provide more space or to improve overall facilities. Likewise, it is difficult to establish whether the airport project drove the need for the hospital, or rather cemented the case and guaranteed the funding.
- 3.15 Hospital use has been rising in recent years, but it is too early to tell what impact air access is having given the number of variables linked to hospital demands. A report by the Chief Medical Officer and Hospital Nursing Officer to the Public Health Committee outlines some of the recent changes to hospital demands. The report highlights that:
- There has been a 43% increase in patients attending the emergency department since 2016, with 791 attending in 2016 and 1128 attending in 2018.
  - An increase in patients seen by nursing staff has increased the number of total outpatient consultations. In December 2017, a total of 800 patients were seen, compared to 1,100 in December 2018.
  - The number of ambulance calls has increased by 25% since 2016.
  - The number of X rays, Ultrasounds and CT scans have all increased since 2016.
- 3.16 Despite these figures, many hospital staff stated in our survey that they have not noticed any material increases in demand resulting from air access. This suggests that other factors are at play. Hospital staff told us that the increases could be due to the island's general health getting worse, more doctors available to see patients, more specialist support and skills, and an increase in theatre days.

- 3.17 Despite the refurbishment, there remain concerns about the scalability of the hospital site. The refurbishment reduced the number of beds available, focusing instead on upgrading equipment and aesthetics. There is still, as ever, no room for further expansion on the current hospital site. Previous attempts to produce plans that allow the hospital to be expanded on its current site, should significant increases in demand be realised, were dismissed by planning officers. SHG must keep in mind that if forecast tourists and population increases occur in the coming years, a larger facility may be required, especially given the recent trends highlighted above.

**Recommendation** *The hospital should commission analysis to model expected demands of the hospital given current trends in demand, to estimate when the hospital may need to be upgraded again, so this can be built into forward financial and strategic planning.*

## MONITORING HOSPITAL PERFORMANCE

- 3.18 It is best practice for major projects, from the outset, to have a plan for monitoring benefits and measuring the change or impact the project has. The refurbishment project had no such plan in any of the project initiation documents, nor was any plan drawn up throughout the life or after the project. Project closure reviews by DFID and SHG declare the refurbishment a success due to its existence but place no emphasis on measuring outcomes.
- 3.19 Alongside the absence of a benefits monitoring plan, SHG does not collect data that can be used to measure hospital performance. This is, in part, owing to longstanding issues with the use of the hospital's patient management system. Staff struggled to use the old system to collect simple statistics on hospital activity, and were not able to rapidly produce reports for management on the activity. We requested a number of statistics from the hospital, however response time was slow for provision of basic statistics such as numbers and types of surgeries and other procedures performed at the hospital. Staff told us they have to go through manual records to compile this data.
- 3.20 The SHG Statistics Office provided us with data on patient admissions, average length of stay, bed occupancy rate, mortality rates and causes of death, however it expressed concerns over the accuracy and completeness of the data. The data also was only available up to 2015, so is not possible to use to assess hospital performance. We would expect data to be more readily available for day to day use, monitoring some of the hospital's key performance indicators.

- 3.21 Separate to the refurbishment project, the Health Directorate have recently procured and are implementing a new patient management system which it hopes will significantly improve its ability to collect and monitor data on the Hospital's performance. The system is still in the implementation stage, and so staff currently are using it alongside the old system to input new data and get used to the basic functionality. It is imperative that management ensure adequate training and resource is committed to ensuring the system is able to begin to be used to monitor hospital performance and produce accurate and timely reporting. IT change projects such as this commonly fail where implementation is not managed correctly.
- 3.22 Only since January 2018 has SHG been monitoring hospital statistics at a strategic level. The performance team began to include patient access at the hospital through its publicly reported Monthly Performance Report. The report monitors the Health Directorate's key performance indicators under SHG's strategic goal of making the island 'altogether healthier'. Until September 2017, the key performance indicators focussed on metrics which did not measure the quality of hospital services or its use. The indicators looked at diabetes levels, smoking cessation, mental health services, access to primary care, social housing and vaccination coverage. In September 2018 a KPI was added which measured the number of general admissions to the hospital and number of surgical admissions. SHG has not published these reports since February 2019.
- 3.23 The implementation of the new patient management system is a good opportunity for the Health Directorate to determine a robust set of care quality measures and KPIs so that it can implement systems to regularly capture these measures. This will allow management to recognise which areas of the hospital need further improvement or aren't delivering what they should. We have been told that the hospital is appointing a clinical governance manager to handle some of these issues, which is a positive step.

**Recommendation** *SHG should have cost and benefits monitoring plans for all capital projects.*

**Recommendation** *The Health Directorate should implement a set of monitorable KPIs to measure hospital performance and the quality of care. It should use the implementation of the new patient management system to aid in this.*

# APPENDIX ONE

## OUR AUDIT APPROACH AND EVIDENCE BASE

This performance audit was designed to establish the facts behind cost and schedule slippage during the project's delivery, and to establish whether the renovated hospital is delivering the benefits to St Helena that it should. This audit was supported through the UK Overseas Territories (UKOT) Project with technical assistance provided by the UK National Audit Office (NAO) with funding through the Conflict Security and Stability Fund (CSSF).

The performance audit methodology was developed by the NAO for application across the UK Overseas Territories. This aspect of the UKOT Project involved two separate training sessions for audit staff, one on scoping and planning the audit in Miami (April 2018) and another on fieldwork, evidence and reporting in London (December 2018). We used these training sessions with guidance from NAO to apply the performance audit methodology to the subject of the Jamestown Hospital Refurbishment in St Helena.

This is our first report on public health services in St Helena for a number of years, and also our first report looking at a project on the Capital Programme.

Our main audit question:	Has the Jamestown Hospital Refurbishment Project delivered value for money?					
Answered through two key lines of enquiry:	Was the project completed to specified standards and quality, to schedule and within budget?			Is the hospital delivering the intended benefits?		
Divided into our key sub questions:	Was there significant cost escalation during the project's life?	Did the project experience significant schedule slippage?	Was the hospital completed to the standards required by SHG at the outset?	Was a clear case for the refurbishment established?	Are the intended benefits now being realised?	Is SHG monitoring the project's benefits?
Our evidence:	We analysed data and project invoices from the SHG Accounting System and performed a document review on project documents	We reviewed project plans, health committee minutes and completion documents to determine project schedule slippage	We inspected project specification documents, project technical reviews, and spoke to key staff to assess whether standards had been achieved	We inspected project documents, and assessed them using HMT Green Book Guidance and the NAO Framework to Review Programmes	We requested data from the Health Directorate for cost savings, care quality and hospital use for analysis. Where data didn't exist, we used alternative methods for assessment including interviewing staff, inspecting the hospital itself and surveying staff	We made enquiries of management in the Health Directorate and in the SHG statistics office to determine monitoring in place
Our conclusion:	<p>The refurbishment project endured a history of scope change, delays and varied cost estimates. Once the project was formally established as part of the 2014/17 Capital Programme, delays continued to persist and costs, through extra works, pushed the project's total spend over the contracted price. While the refurbishment addressed many of the concerns raised by hospital staff regarding the hospital's former state, concerns remain about the quality and whether the building now meets the specifications required at the outset.</p> <p>But measuring the success of projects is not just about observing the outputs. Although the refurbishment delivered vital new equipment and addressed significant health and safety concerns, SHG failed to establish a clear economic case for the investment, and did not carry out an options appraisal outlining the costs and benefits of various solutions which could have addressed the problems with the hospital. This means that it is difficult to know whether the intended benefits are being realised.</p>					



	<p>However, early signs are encouraging and suggest the project is on track to deliver value for money, as the drop in the number of patients referred overseas and in referral-related expenditure provide evidence that one of the project's primary goals is being met. It also seems clear that the hospital is now better prepared for increasing demands than it was before the refurbishment.</p> <p>Still, SHG has work to do to develop a reasonable set of performance metrics for health, which can be used to measure the hospital's success in improving the quality of care, as well as the wider health benefits this and other health projects deliver.</p>
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## APPENDIX TWO

### LIST OF RECOMMENDATIONS

<b>The following recommendations relate specifically to the hospital refurbishment:</b>	
a)	SHG must urgently secure contracts for the maintenance of important, high value hospital equipment, including the CT scanner, autoclaves and oxygen plant.
b)	SHG should commission analysis looking at the financial impacts of the refurbishment, and determine whether cost savings are being realised as a result of procedures being performed on-island.
c)	The hospital should commission analysis to model expected demands of the hospital given current trends in demand, to estimate when the hospital may need to be upgraded again, so that this can be built into forward financial and strategic planning.
d)	The Health Directorate should implement a set of monitorable Key Performance Indicators to measure hospital performance and the quality of care. It should use the implementation of the new patient management system to aid in this.
<b>The following recommendations aim to improve SHG's implementation of capital projects in the future:</b>	
e)	SHG should continue to improve its alignment of capital projects, strategic objectives and available funding to ensure important projects are implemented in a timely manner. Lessons and experiences from the 2014/17 capital programme must be taken forward to ensure this happens.
f)	SHG should develop a methodology for incorporating optimism bias into its project planning for cost, schedule and project benefits. This will ensure appropriate contingency is built into project planning.
g)	SHG should improve its early costing and cost analysis for major projects. Early cost estimates are often used to inform important funding decisions, and without a systematic methodology for constructing and presenting costs to decision makers, poor value for money decisions can be made. Costs need to be, at a minimum: presented alongside the relevant assumptions; presented as a range indicating most and least probable figures; and calculated with input from the appropriate professionals.
h)	SHG should formally implement the RIBA "plan of work" stages or a similar recognised methodology for designing building specifications. This will provide a baseline against which performance can be measured in the future.
i)	SHG must improve its documentation of important project milestones. We struggled throughout the audit to locate key documents relating to project approvals and completions. SHG should set up a dedicated electronic filing system for project documents so that records are easily accessible.
j)	SHG should implement robust project initiation procedures, including obtaining capacity to write high quality business cases to HMT Green Book or equivalent standard, to be used for rigorous options appraisals, ensuring the option with greatest value for money is chosen.
k)	SHG should have cost and benefits monitoring plans for all capital projects.