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States of Jersey

The Case for the Future Hospital

1. Introduction

This statement describes the key considerations that drive the strategic need for the new Jersey Future Hospital. It summarises the evidence and decision making processes that have led to the conception of the Future Hospital project, the short and longer term changes in demand and capacity for clinical services that Jersey faces in the next 50 years, and the operational state of existing hospital building services, and their inability to meet future demand.

The conclusion of this evidence base is clear: that the Department for Infrastructure must plan for the delivery of a new hospital now in order to meet critical needs already arising that exceed the capacity and standards of the existing hospital.

This document has been prepared to support the planning application for the revised Jersey Future Hospital scheme. It draws upon the Proof of Evidence to the Public Inquiry into the previous set of proposals. At the Planning Inquiry into the previous proposals, the Planning Inspector agreed that the need for the hospital was well evidenced and its principle accepted.

2. The Strategic Context

The strategic context is related to population growth and demand, and the response to this demand.

The Island's population has grown steadily since 2006 and now stands at 104,2001[1]. Although net inward migration contributes to population growth, it plays a relatively minor part in the growth in demand for hospital services. It is the Island's ageing population that contributes most significantly to the growing demand for healthcare. Jersey's population is ageing rapidly: in the 30 years from 2010 to 2040, the numbers of residents aged over 65 is projected to rise by 95%. In the period to 2020 alone, the increase in over-65s is projected to be 35%[2].

This ageing population, as in many countries, is creating a disproportionate impact on the demand for hospital services. In summary currently:

- More than 70% of hospital bed days are occupied by emergency admissions
- 10% of patients admitted as emergencies stay for more than two weeks, but these patients account for 55 per cent of bed days
- 20% of patients consume almost 80% of hospital inpatient bed days
- 80% of emergency admissions who stay for more than two weeks are patients aged over 65
- People aged over 75 account for 40% of all spend
- 30% of admissions are for people aged over 75.

<u>The need for a General Hospital</u>

The fact that Jersey is an island means that facilities must have the capability to provide more substantial 'on-Island' acute and emergency care than would usually be required to support a similar population in European and UK health systems. This is not unusual in island jurisdictions.

[1] Appendix 1 – Jersey Population 2006 - 2016
[2] Appendix 2 – 2011 Census Population Profile 2010-2040

To deliver this type of care, the 'General Hospital' standard of care has become the norm in Jersey. A General Hospital needs to:

- Deliver acute care 24 hours, 7 days a week;
- Provide emergency care for adults and children;
- Provide emergency and elective surgery capabilities;
- Provide maternity and obstetrics services; and
- Provide outpatients, diagnostics and clinical support services.

Responding to population change and demand

The level of needs described above, combined with the ageing population, serve to create a demand for services that will, in the coming years, exceed the capacity of the current General Hospital. Increasing demand for emergency care, planned surgery and outpatient and ambulatory care is *already* beginning to challenge in-patient ward beds, operating theatre and outpatient clinic capacity.

Detailed modelling has been carried out to determine the critical point of failure for the demand and capacity of hospital beds and facilities[3]. This modelling indicates that there is already a deficit in adult medical and surgical ward beds at *current* levels of demand. Furthermore, the demand driven by the ageing population is forecast to exceed hospital bed capacity in 2018. This shortage of beds is currently being managed by using rehabilitation beds and, to a lesser extent, private beds for general medical and surgical admissions. However, the possibility of managing this shortage lessens each year, as the need increases.

3. The Operational Context

The Existing General Hospital Estate

It is not feasible to modernise the existing Jersey General Hospital instead of building a new hospital. The majority of current clinical facilities date from the 1960s, 1970s and 1980s, and exhibit serious levels of dilapidation. Significant elements of building structure and engineering services are now well beyond their useful economic life and need urgent replacement.

A Six Facet Survey undertaken in 2015 considered the extent of deficiency against current UK NHS premises standards. Using an industry standard methodology (Health Building Notes and Heath Technical Memoranda), the survey considered the use, condition and compliance of the General Hospital facilities against six key aspects:

- **Facet 1 – Physical Condition**: Building fabric and engineering services;
- **Facet 2 - Statutory Compliance Audit**: Fire, Health and Safety and other legislation;
- **Facet 3 - Space Utilisation Audit**: Intensity of use of the hospitals spaces and functional areas;
- **Facet 4 - Functional Suitability Review**: Internal space relationships, availability, and appropriateness of support facilities and their location;
- **Facet 5 - Quality Audit**: Spatial amenity, comfort and design appropriateness and quality; and
- **Facet 6 - Environmental Management review**: Overall efficiency of the property, including energy.

The survey conclusions were striking in their picture of dilapidation, with yellow categories describing buildings and functions being broadly acceptable, red categories indicating shortfalls against UK standards requiring remediation within 3 years and black categories indicating significant current shortfalls against UK NHS standards needing more urgent action.

[3] Appendix 3 – Bed forecast to 2065

Building Block	Year of Build	Physical Condition	Functional Suitability	Space	Quality	Fire, Health and Safety Requirements		Energy
						Overall Fire Assessment	Overall Health and Safety Assessment	
Blk A Parade Building	1987	C	D	F	C	C	C	C
Blk B 1960 Wing Building	1960	C	C	F	C	C	C	C
Blk C Granite Building & Gatehouse	1860	C	D	O	C	C	B	C
Blk D Peter Crill House Building	1950	C	B	F	C	B(C)	B(C)	C
Blk E Gwyneth Huelin Wing Building	1979	C	C	F	C	C	C	C
Blk F Pathology/Pharmacy/ Kitchen	1983	C	D	O	D	C	C	C
Blk G Engineering Building	1980	C	C	O	D	C	B(C)	D

The messages from the Six Facet Survey are clear. Much of the hospital's external fabric and engineering services are at, or have exceeded, their design life. Some aspects of statutory deficiency are difficult to address due the physical construction of the buildings. Many areas of the hospital exhibit poor functional suitability, and are classified as below that which would be considered as acceptable against UK NHS standards. Due to their age, many of the operational spaces do not meet current standards, restricting their effectiveness and safety, and they display poor positional relationships with other functions within the hospital. Finally, some areas are poor quality in terms of their effectiveness as working environments and as spaces for modern healthcare.

In response to the survey's findings, the hospital has adopted the following two-stage strategy to managing its risk:

- To commit capital to addressing those issues of greatest concern where this is practical to do so; and
- In anticipation of a decision to develop a new hospital to monitor the status of the building fabric and key infrastructure and to make selective and prioritised capital investment only when evidence suggests an imminent failure that would present an unacceptable safety or operational risk.

When applying this risk-management approach to such a wide-ranging set of hospital infrastructure assets, the challenge becomes considerable.

Appendix 4 includes a summary of the existing condition and shortcomings of the Hospital estate's systems, from fire alarm systems to utilities, drainage and asbestos.

In summary, the General Hospital is reaching the end of its operational life and must be replaced.

Providing modern standards of healthcare

Of broader concern, the condition and configuration of the existing hospital is not in keeping with modern healthcare standards, and is unlikely to meet the contemporary expectations of the Island's population.

Only 15% of public general ward beds are in single rooms, compared to the minimum NHS standard of 50%. This compromises the ability to prevent and control infection, and limits the standard of privacy and dignity that can be offered, and which is expected by modern healthcare standards particularly for end of life care.

As a strategic asset, the hospital's poor condition and spatial constraints is likely to form a disincentive to the Island's efforts to recruit and retain key individuals to work and live on the Island.

Finally, adopting a 'watch and wait' estates strategy can only be a very time-limited approach, as the likelihood of catastrophic failure or major statutory breach will only increase with time.

What are the alternatives?

With such a significant investment in the order of £466m, it is important to consider if there are alternatives to the current proposal.

1. A robust site selection process has been completed. The process has been subjected to rigorous examination by three Scrutiny Panels and their independent advisors. Alternative locations perform less well on a like for like basis than the preferred location.
2. The proposed location is accepted as being appropriate by an independent Planning Inspector and by the Environment Minister. The need for the hospital has been ratified by these same bodies.
3. Detailed demand and capacity modelling has been completed for 'Do Nothing' and 'Do Minimum' options. Both of these options result in Jersey not being able to provide the range of general hospital services needed for the islands and expected by Islanders. More services, at greater cost, would need to be provided off-island.

Therefore, the alternatives to the current proposal have been robustly investigated, and determined to be inferior in preference to the current proposal.

What are the risks of not building the new hospital?

A chain of consequences was set out in Health and Social Services – A New Way Forward (P82.2012) approved by the States Assembly in September 2012:

- As emergency or unplanned admissions increase and lengths of stay increase, hospital beds become full.
- As hospital beds become full, operations will be cancelled more often.
- Waiting times will increase, and people's health will suffer as their condition worsens whilst they are waiting for surgery.
- A model based predominantly on emergency and unplanned care will reduce the attractiveness of a career in health and social services in Jersey. Skilled and experienced staff will start to leave the Island, and it will be even more difficult to recruit replacements. Eventually, some services will become unsustainable because there will not be enough staff to run them
- The wrong balance of planned and unplanned services may force some services to close because volumes may fall below safe levels (staff focusing on unplanned care will not have the capacity to provide planned care). Jersey residents will then have to travel abroad to receive services.
- Emergencies may have to be stabilised and flown off island instead of being treated in our General Hospital.
- The hospital will cease to be a General Hospital and become a "stabilise and send off island" emergency centre with some simple day surgery, outpatients and diagnostics services only.

Such an outcome is not acceptable clinically, socially and politically.

4. Conclusion

States of Jersey Proposition P.82.2012 outlined the strategic direction for health and social care in the coming decades. It noted the need for system-wide reform in the way the delivery of health and social care is approached in future.

In acute hospital terms, this reform must be considered in the context of the pressures already described. In summary:

- The demand driven by the aging demographic population is forecast to exceed hospital bed capacity by 2018. In addition, other services will be under similar pressures. The physical

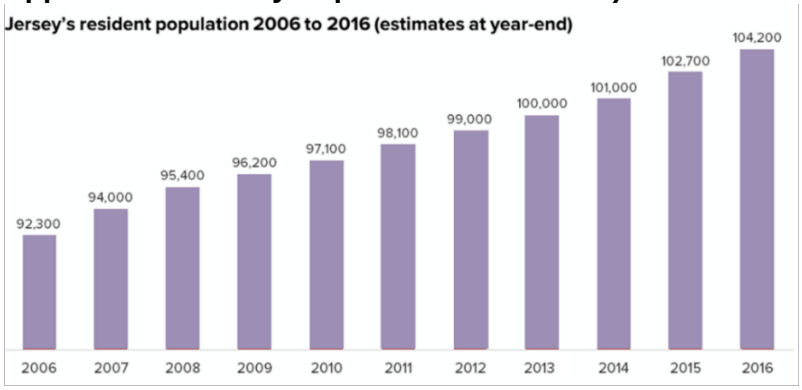
size and spatial planning limitations of the current hospital limit the extent to which this can be managed;

- There is a need to ease pressure by managing long term conditions among over-65s differently;
- The risk posed by the poor condition, dilapidation and statutory default in the current estate is high, and may not be tolerable;
- That both of the above are barriers to bringing about health and social care transformation either due to the inability of facilities to accommodate the service changes needed or, as a deterrent to staff recruitment;
- Continuing in the current manner over a long time-period increases the risk of growing attrition among registered and professional staff in favour of working in more appropriate facilities elsewhere;
- Opportunities to address some of the demand pressure through improved productivity and other forms of intervention are limited by the physical capability of the current hospital building.

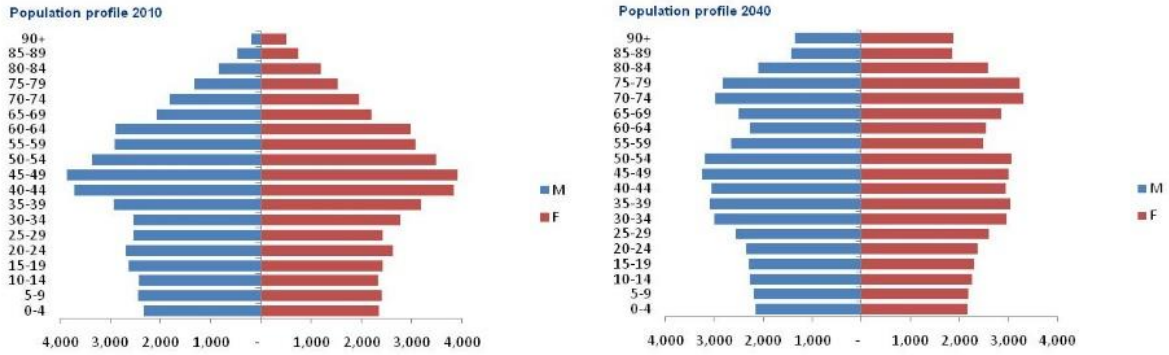
The Future Hospital project is a key enabler for the healthcare needs of the Island, supporting the transformation of health and social care. Without this transformation, Jersey will not be able to respond to the increasing demand for services.

Bernard Place
Future Hospital Project Director (Health Brief)
March 31 2018

Appendix 1 – Jersey Population 2006 - 2016)



Appendix 2 – 2011 Census Population Profile 2010-2040)



Appendix 3 – Bed forecast to 2065

		Forecast														
Bed type	**Type**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2036**	**2046**	**2056**	**2065**
Adult ward beds	Demand	165.2	168.7	172.4	176.0	179.8	183.0	186.3	190.5	195.3	199.5	205.5	262.2	316.1	346.3	367.1
	Capacity	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0	148.0
	Surplus/(deficit)	*(17.2)*	*(20.7)*	*(24.4)*	*(28.0)*	*(31.8)*	*(35.0)*	*(38.3)*	*(42.5)*	*(47.3)*	*(51.5)*	*(57.5)*	*(114.2)*	*(168.1)*	*(198.3)*	*(219.1)*
Rehab/reablement*	Capacity	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
	Variance	***5.8***	***2.3***	*(1.4)*	*(5.0)*	*(8.8)*	*(12.0)*	*(15.3)*	*(19.5)*	*(24.3)*	*(28.5)*	*(34.5)*	*(91.2)*	*(145.1)*	*(175.3)*	*(196.1)*
Private beds	Demand	10.5	10.7	10.8	11.0	11.2	11.3	11.5	11.6	11.8	12.0	12.2	14.1	15.7	16.8	17.7
	Capacity	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	Surplus/(deficit)	*13.5*	*13.3*	*13.2*	*13.0*	*12.8*	*12.7*	*12.5*	*12.4*	*12.2*	*12.0*	*11.8*	*9.9*	*8.3*	*7.2*	*6.3*
Other specialty beds	Demand	33.8	34.2	34.5	34.9	35.3	35.6	35.9	36.3	36.6	37.0	37.4	41.2	45.5	48.6	51.0
	Capacity	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
	Surplus/(deficit)	*7.2*	*6.8*	*6.5*	*6.1*	*5.7*	*5.4*	*5.1*	*4.7*	*4.4*	*4.0*	*3.6*	*(0.2)*	*(4.5)*	*(7.6)*	*(10.0)*

Appendix 4 – Estate systems

Estate Element	Condition
Fire Code Compliance	There is currently no means of horizontal evacuation for patients possible above the 3rd Floor level of the Parade Block. Investment in sprinkler systems, fire escape lifts and improved fire safety compartmentalisation would severely reduce the functionality of this block given that it was not initially designed to accommodate them. Correcting fire safety would therefore result in a net space reduction. Additional fire compartmentation works have been commissioned in ward locations that do not impair on the space or ward activity.
Fire Alarm Systems	The Fire Alarm and Detection System was obsolete and failing. A critical system this has now been replaced during 2016/17. Requiring full engagement of designers, users, contractors and Estates over a 2-year period, with fire detection coverage being maintained throughout, requiring excessive management resources and communication at all times.
Water System Compliance	The aged design of the current hot and cold-water systems provides a risk of contamination by Legionella and Pseudomonas aeruginosa. Insufficient water flow through pipework due to change of use/models of care within wards/departments, and temperature controlled water faucets mean that Legionella avoidance will become increasingly challenging. Intensive management controls and continuous investment in remedial works and ongoing system disinfection is completed to reduce risk. However, evidence in other hospitals of fatalities caused by Legionella indicates that system replacement is a high priority but again, could not be achieved without significant disruption to the operational hospital.
Electrical systems and emergency power	Significant elements of the hospitals electrical distribution system are dilapidated and fail to meet current hospital standards. Emergency generators date from the 1960's and switchgear, transformers and electrical infrastructure installed in the 1970's are well beyond their 30-year life expectancy. New generators have been installed within the existing grounds of the General Hospital connected to the existing electrical infrastructure. The electrical Infrastructure has been adapted to suit however it not possible without extensive electrical outages and decants to make it compliant.
Medical Gas Supply	The medical gases infrastructure, plant and manifold rooms do not all meet current NHS Health Technical (HTM 02-01) Standards. The provision of medical gases to some departments is also below current minimum standards with the Maternity Unit having no piped Entonox and the Renal Unit having no piped oxygen or vacuum. Site wide infrastructure is weak with missing elements plant and pipework needed to meet the level of supply security expected in a modern hospital. The use of cylinder based supplies is therefore high but poor site configuration and the lack of facilities results in inappropriate storage and poor manual handling practices.

Mains Drainage	The current foul drainage systems vary in age, material and design. In many cases they were not designed to meet their current loading and, combined with their poor internal condition, are leading to increased blockages and overflow within the hospital. Previous Incidents have required partial ward/department shut downs, requiring deep cleaning and decontamination to IP&C standards and/or the contaminated equipment/furnishings and flooring replacement.
Air Handling and Ventilation	Specialist healthcare air handling and extract units providing 24hour conditioned air for the hospital are corroded, failing mechanically, and obsolete. Failure of systems that filter air to Ultra clean standards or provide positive pressures will result in ward and department closure.
Energy Centre	The current Energy Centre requires major works to replace new boilers, chimney, primary heating system ancillary plant items, Building Management System and pipework hangers. As the primary heating and hot water source for the hospital, this centre presents a significant single point of failure risk.
Asbestos	There is significant asbestos within the current hospital following its historical use to thermally insulate steam, and other hot water pipework. Its presence makes building maintenance and refurbishment extremely difficult with its specialist removal having to be managed during any building change.