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1. Introduction

Nelson Marlborough District Health Board (NMDHB) in the development of an Indicative Business Case (IBC) for the redevelopment of Nelson Hospital, applying the New Zealand Treasury’s Better Business Case guidance. The IBC will be informed by a Clinical Services Plan (CSP) and masterplan for the Nelson hospital site, all of which will inform each other and are being developed in tandem.

The purpose of this report is to provide an update to the Ministry of Health on the approach, progress and programme for the IBC for Nelson Hospital Redevelopment. The progress aspects of this update are presented around the three key workstreams comprising the IBC programme, being:

► Clinical Services Planning
► Pre-design and site masterplanning
► Indicative Business Case outputs.

2. Scope and approach

2.1 Scope of services being considered

All services currently provided from the Nelson hospital site are considered in scope for the IBC, including the Braemar campus¹ and mental health services² (see Appendix A for Nelson hospital site analysis). Further to this, consideration will be given to:

► Psycho-geriatric care (Alexandra Hospital)
► Intra-district flows, most notably the respective clinical service roles of Nelson and Wairau hospitals
► Inter-district flows, with particular interest in flows to Christchurch, Wellington and Hutt Valley hospitals
► Demand and capacity expectations, and workforce implications
► The future direction of models of care, including technology enablers
► Other opportunities for improvement / change
► Learning and development requirements.

In doing so, the IBC and related CSP will consider whole of health system implications, including: community health centres, primary care and aged residential care.

¹ Located adjacent to the main hospital campus
² Acute mental health inpatient unit and other mental health services currently collocated on the main Nelson hospital campus
2.2 IBC approach

The IBC for Nelson hospital redevelopment is being prepared in accordance with the Treasury’s guidance for *Better Business Cases for Capital Proposals: Indicative Business Case*. The IBC builds on the considerable work carried out by NMDHB to date, including but not limited to:

- The Models of Care (MOC) programme of work
- Health for Tomorrow strategy (2017)
- Health Services Plan (2016-18)
- Primary and Community Health Strategy (2017)
- Nelson Hospital Strategic Assessment (2017)
- Facilities Implications Report (November 2015)

NMDHB has engaged Ernst Young to assist us in the development of the IBC and in conjunction with specialist consultants in the architecture/health planning and engineering fields form the IBC team with DHB staff.

The IBC team is working closely with the already established NMDHB MOC programme team and Clinical Working Group to ensure both programmes are informed by each other and remain aligned. Below we summarise the approach for delivering the IBC, illustrating the three key workstreams comprising the IBC programme.
2.3 Governance and engagement framework

An engagement framework has been established to advance the IBC and related CSP, meanwhile a new governance framework has been established to sit across the MOC and IBC programmes – ensuring alignment and providing direction and accountability. The governance and engagement structure is outlined below.

The Clinical Engagement Group (CEG) for the IBC programme provides advice and guidance on a range of issues that are required to inform the three key workstreams within the IBC programme. It links closely with the MOC programme (including having overlap in membership with the Clinical Working Group established under that programme).

The Clinical Engagement Group plays a key role in framing the assumptions for the CSP, site masterplan and IBC including:

- Agreeing appropriate responses to a range of identified “meso-level” Strategic Configuration Issues
- Approving the CSP framework, including the demand and capacity assumptions
- Challenging and reconciling findings from the departmental surveys
- Developing and endorsing design principles
- Long and short term options development, analysis and recommendations.

2.4 Programme

The IBC programme seeks to deliver the draft IBC, CSP and masterplan by 31 March 2019, with NMDHB, governance, Regional Capital Committee and CIC review and approvals to follow.
3. Clinical Services Planning

The NMDHB Clinical Service Plan (CSP) is currently being developed to inform planning for future facilities configuration and capacity requirements, and in particular the IBC for capital investment in Nelson hospital. Capacity planning for hospital services and facilities requires a ‘whole system’ context for future demand, models of care and delivery settings.

EY and Klein Architects are working with NMDHB in developing the CSP, which is comprised of the following key inputs:

- Health Needs Assessment (HNA) refresh:
  - Demand, capacity and workforce projections, including primary and aged residential care
  - Analysis of current utilisation of services, outcomes and performance against benchmarks
- Planning Framework
- Departmental Survey (clinical and non-clinical)
- Strategic configuration issues and options

Steady progress has been made in advancing the CSP workstream. There has been intensive engagement with the Oversight Group, CEG, supplementary clinicians and the MOC Clinical Working Group through a series of workshops and meetings over the past two months. Attendance and engagement at the workshops has been high.

3.1 Health Needs Assessment refresh

This workstream is well advanced. Of note:

- Health Needs Assessment refresh is substantially complete.
- 20-year inpatient, outpatient, primary care, aged residential care and workforce baseline projections have been completed and discussed with the CEG and MOC Clinical Working Group.
- Projection scenarios are being developed.

3.1.1 Summary of HNA refresh

The Nelson Marlborough (NM) population is relatively stable in size, with low future growth forecast compared New Zealand average. The largest growth will be in the elderly, with the 75+ age group increasing at 4.5% pa, similar to the New Zealand average. The NM population has lower proportions of Māori, Pacific and Asian people than the New Zealand average, and is relatively less deprived.
The residents of NM have good health compared with the rest of New Zealand, with high life expectancy (NM has a life expectancy than the New Zealand by around 1 year) and a relatively good risk factor profile. NM health services generally perform well against benchmarks, with relatively low hospital admission rates and a low length of stay in hospital.

Areas to note:

- Most population health risk factors are better that the NZ average, but not smoking. With 14.3% of adults smoking daily, that is 17,000 smokers in the population. Likewise, hazardous alcohol use is high, involving more than 25,000 adults
- While obesity rates are lower than the NZ average, there are still estimated to be over 6,000 morbidly obese people in NM
- Rates of diabetes are also lower than the NZ average, but this still means ~6,000 people with diabetes in NM
- NM has relatively high ED attendance rates, but somewhat similar to other smaller areas. Wairau Hospital in particular has a very high rate, a likely characteristic of the population using ED as part of the afterhours/urgent primary care services
- Overall hospital acute inpatient usage rates are low despite the higher use of ED. This holds for admission rates as well as the bed days shown
- Around 30% of survey respondents in NM noted unmet need for primary care services over the past 12 months (NZ 28%), with the most common issues being: a) being unable to get an appointment in the next 24 hours; and b) cost
- Nelson Marlborough has among the lowest aged residential care utilisation rates based on its 65+ population compared to its peers, and is lower than the national average
- Hospital use by tourists, migrant workers and refugee and asylum seekers is increasing, but off a low base. Tourist figures are mainly over summer numbers are unlikely to affect the bed modelling.

3.1.2 Current demography and deprivation

In 2018 there are an estimated 150,000 people in Nelson Marlborough (NM), 18% are children aged 0-14, 22% are aged 65+, 10.5% Māori and 1.7% Pacific. Overall 5.2% of the NM population live in deprivation deciles 9 and 10, compared with the average for NZ of 20%.
3.1.3 Population growth

The total New Zealand population is projected to grow at ~0.9% p.a. from 2017 to 2037, while the NM population is projected to grow at only ~0.4% p.a. over the same period (based on the 2017 estimate).

Numbers of people at older ages (65+) are increasing rapidly – 71% over the next 20 years, which will have a significant impact on hospital workloads.

Growth for the Māori population is projected at ~2.9% p.a. over the next 20 years. By TA, the populations are growing by ~0.5% p.a., ~0.4% p.a. and ~0.2% p.a. for Nelson City, Tasman District and Marlborough District, respectively, over the next 20 years (~0.3% average for NM).

3.2 Demand and capacity modelling

Baseline inpatient bed projections for Nelson, Wairau and Alexandra hospitals are outlined in the tables below. Baseline projections account for demographic growth expected if the utilisation that occurred in 2017 was to continue in the future. The projections make no attempt to “right-size” the current state, nor do they account for other demand drivers and future changes in models of care. Identification and quantification of these aspects is currently being advanced.

Demand in the catchments of all hospitals are projected to grow, primarily as a result of population ageing. The projected growth in the Nelson hospital catchment is higher in rate and absolute numbers than in Wairau (100 beds vs 37 between 2017 and 2037). How NMDHB will respond to the growth in hospital demand has not yet been determined, but is being advanced through the wider CSP workstream (as detailed below).
3.3 CSP Framework

The CSP framework is substantially complete. It provides planning framework for the development of the CSP and IBC. More specifically, this planning framework includes:

- A description of the national, regional, district and local planning context in which the CSP and IBC are being developed
- A description of the current challenges facing NMDHB. This is informed by the revised Health Needs and Services Profile (2018)
- A section of recent trends in models of care delivery. This informs workshops on the Strategic Configuration Issues, such as outpatient services.
3.4 Strategic Configuration Issues

A set of Strategic Configuration Issues have been identified that are of high significance for future Nelson hospital configuration and capacity planning, and represent critical assumptions to underpin IBC options development and analysis. These issues generally transcend the specific service analysis that is informed by the Department Survey.³

‘Clarifying’ the issues involves a three-step process of:

► Description of the issue and options for address those issues
► Assessment of the options
► Description of the planning assumption, or of the preferred solution where this is readily identifiable, or when it has been assessed through the IBC options analysis process.

The aim is to fast track a set of foundational clinical planning assumptions that can then inform future work.

Five Strategic Configuration Issues have been identified, options for each issue identified and SWOT analysis undertaken with the CEG, MOC Clinical Working Group and supplementary mental health clinicians. Workshop outputs have been summarised, circulated amongst participants for feedback and revised in light of participant feedback and departmental survey findings. The five issues are outlined below:

1. What will be the respective clinical service roles of Nelson and Wairau hospitals? Where will facility capacity growth occur?
2. Will the clinical capability of Nelson Hospital be increased through repatriation of any upper secondary or tertiary services that are currently managed as outward IDFs?
3. What will be the future configuration of outpatient services?
4. What will be the future configuration of mental health & addiction services in Nelson?
5. What contribution will primary and community services make to control of growth in acute hospital attendances and admissions? What DHB specialist and community services should be located in the hubs or other community settings vs on the hospital campus?

A number of these issues are interconnected

Over the next week, options for each Strategic Configuration Issues will be assessed against a MOC design framework and preferred options recommended for Oversight Group and Governance approvals.

³ The exception is mental health & addictions services, which is listed here because of the scale and scope of the configuration issues, and because these services were not adequately considered at the time of 2015 Health Services Plan (HSP) or Facilities Implications Report (FIR) development.
3.5  Departmental survey

A survey of all clinical and non-clinical departments across Nelson and Wairau hospitals was deployed in October 2018 to provide service-level feedback on current and future state issues and opportunities that should be considered for future facility planning.

The information gathered from each department has been analysed by the EY and Klein team, any issues clarified with the respective department, and findings presented to and tested with the CEG and MOC Clinical Working Group on 21 November. The workshop sought to:

► Identify key themes and facilities implications, with comparison to the 2015 survey results
► Identify any areas of conflict or misalignment with the current direction for MOC
► Identify opportunities for further advancement by the MOC programme
► Identify insights from the survey into the five Strategic Configuration Issues
► Identify any other issues to be resolved, further information to be obtained/analysed and assumptions to be set in future CSP workshops.

A consolidated report is being prepared for consideration by the CEG and Oversight Group. Further information may be sought from the services at that time.

4.  Pre-design and masterplanning

The pre-design and masterplanning phase of the programme is being led by health planners and masterplanning specialists, Klein Limited, and will be informed by seismic and building condition assessments prepared by Beca Ltd (Beca).

Significant progress has been made in advancing this phase of the programme. Of note:

► Key seismic and building conditions assessments for the Nelson hospital campus have been completed by Beca
► Existing site and facilities information have been reviewed by Klein, including recent Beca assessments and CAD drawings
► Extensive engagement with NMH facilities teams, including site visits of Nelson and Wairau Hospitals
► Site information has been converted into stacking models
► Development of long list options and outline Schedules of Accommodation has commenced.
4.1 Site analysis

See Appendix A for details of existing site plans for Nelson hospital campus.

4.2 Seismic and building condition assessments

In September 2017 Beca was commissioned by NMDHB to undertake a Detailed Seismic Assessment (DSA) and building condition assessment of the existing Nelson hospital campus to get a better understanding of the condition and resilience of the current building stock and associated services infrastructure that serve the existing Nelson hospital campus.

4.2.1 Seismic assessments

The DSA establishes the seismic rating of Nelson hospital campus buildings as a percent of New Building Standard (%NBS). The assessment focuses on the life safety of those occupying and those immediately outside the building and the impact of seismic performance on business continuity. Options to improve the seismic performance of seismically susceptible buildings are also being developed.

Main campus

The DSA reveals an assessment of 35%NBS (IL4) for Percy Burnette and 40%NBS (IL4) for George Manson, which means the buildings are considered as “earthquake risk buildings”. The recent assessment means the buildings can be removed from the earthquake prone buildings register and 2028 is no longer the due date for remediation work.

While theatre buildings are independently rated 75%NBS (IL4), their connectivity to George Manson brings their assessment down to 40%NBS (IL4). Meanwhile the Ambulatory Care Unit (ACU) relies on George Manson building for lateral stability and therefore rated at 40%NBS (IL4).

The figure below summarises the recent seismic assessments carried out by Beca - noting the remaining elements of the Nelson hospital site, including mental health facilities, are in the process of being assessed.
Other important seismic considerations are outlined below:

► **Ground conditions**: An important aspect that may not be clearly communicated by the assessment of the buildings as a %NBS concerns the performance of the ground below the building. The ground conditions across the campus are highly variable and in the softer areas some permanent settlement of the buildings is expected during an earthquake. The George Manson building is most likely to be affected by this, with the building potentially being left on a lean following an earthquake. This will probably result in the George Manson building and the buildings that surround it (i.e. theatres, ICU, ACU, ED and radiology) to be un-occupiable following a moderate earthquake.

► **Continued occupation of the site following a significant seismic event**: Should the Percy Brunette and George Manson buildings become structurally compromised following an earthquake (damaged or on a lean) they would have a significant impact on the overall hospital campus, possibly governing whether the surrounding buildings could continue to be occupied.

► **Stairs**: The stairs to the buildings are unlikely to collapse during an earthquake, however they will likely sustain damage; and egress from the buildings could be impaired by failure of non-structural elements such as suspended ceilings, services/infrastructure, plant/equipment, glazing and the interface with other buildings.
Service tunnel

Beca have also carried out a detailed seismic assessment for the service tunnel located at the Nelson hospital site. The tunnel runs from the Main Campus, under Waimea Road and into the Boiler House on the Braemar Campus.

Following the site visit on 15th September 2017, the following items were noted in regard to the tunnel condition:

► Widespread hairline cracking
► A small number of larger cracks, up to approximately 3-5mm
► White effervescence and paint flaking, which is evidence of water ingress.

The tunnel was assessed as likely to achieve approximately 55%NBS (IL 4) as it relates to the strength of the structure, indicating a medium risk exposure and an Earthquake Risk Structure.

Regardless of the results presented, Beca consider that the tunnel should be considered ‘vulnerable’ during an earthquake because:

► It is likely that damage will be exacerbated at the tunnel bends, joints and ends where it links with other structures.
► It carries critical infrastructure services required for the hospital to function following a disaster. These services are unlikely to have been detailed to withstand the necessary earthquake forces and movements.

4.2.2 Seismic design requirements

There are two different types of assessment:

► ULS - Life Safety: the building won’t collapse/have large pieces fall from it, people can escape may need demolition afterwards.
► SLS - Operational Continuity: limited or no damage so the building can stay open post event.

ULS increases with each importance level. Meanwhile, SLS is same for IL2 + IL3 then jumps up for IL4.

Seismic assessments completed for Nelson hospital consider ULS (life safety) only. However, buildings rated 100%NBS (new building standard) may not meet the requirements for 100% SLS.

NMDHB should be considering resilience as a whole, including: cost to repair, downtime after a significant event, business continuity and damage to non-structural elements.
4.2.3 Building condition assessments

The building condition assessment covers the general age, condition, compliance with building code, and suitability for continued use under current format.

The above Figure summarises the overall building condition from our condition assessment, carried out in July 2018. The colours represent the condition grade, red indicates poor to very poor, amber moderate to poor and yellow moderate to good.

Buildings constructed in the early 2000’s were assessed to range between a moderate and good condition, with areas of general wear and tear, components are operable and an increased maintenance inspection expected. Some of the services components are approaching the maintained life expectancy and NMDHB should consider funding for asset renewal in the next 5-10 years.

The Boiler House, Operating Theatre Building and Paediatrics Outpatients are moderate to poor condition, with some fabric damage present, occasional outages and there will be increased maintenance required. Some services failure are expected.

Percy Brunette and George Manson buildings were overall in a poor condition.

It is noted that any refurbishment or replacement in the buildings may incur an increase in cost due to possible asbestos contamination.

4.3 ‘Make safe’ options for George Manson and Percy Brunette

‘Make safe’ options are currently being investigated for George Manson, Percy Brunette and the services tunnel. Early findings are presented below and have informed the long list options development. The options presented below require further assessment and design to confirm their appropriateness and influence on the seismic performance of each building.
These options and assumptions will continue to be tested and updated information reflected in the development of the short list and ‘do minimum’ options.

**Percy Brunette**

The Percy Brunette building was constructed in approximately 1970. It is a six storey, circa 6,300m² building with one basement level and a single storey area projecting to the west of the building. Recent Beca assessments reveal:

- Low ULS but high SLS score – higher than is required for an IL3 building
- Could be strengthened with the addition of shear walls and new fitout with appropriate restraints, but would require decanting
- Sits on a silt stone foundation, so has much more stable ground condition than George Manson
- Lifts need replacing in 2-5 years
- Limited interface with other buildings and ability to work around building makes strengthening and upgrade or demolition viable.

**George Manson**

The George Manson building was constructed in approximately 1955. It is a six storey, circa 5,000m² building, and has a services tunnel running along the length of the building under the ground floor. Recent Beca assessments reveal:

- Low ULS and very low SLS score – only just meets requirements for an IL2/3 building
- Would require significant strengthening with additional sheer walls but could potentially be brought up to IL3
- Ground conditions are poor and would need to consider new piles or improved ground. Very expensive to remedy and high risk to do so given the current configuration of the sight (with theatres, ICU and ED immediately below)
- Seismic mass (weight) could be removed from the building by reducing one or more storeys, thus improving seismic performance. However, access for remediation works would require full decant of George Manson and relocation (or significant modification) of adjacent theatre suite (at a minimum). Again this is a high risk and costly option
- Demolition would require a full decant of George Manson (at a minimum). Construction may be able to work around the existing ICU and mortuary building – however it would leave the ICU building isolated on the site, with no internal connections to the remaining aspects of the site and would therefore need to be repurposed.
- Existing day stay/ACU could be strengthened prior to demolition of George Manson and retained for future use.
4.4 Long list options development

A long list of six options, each with multiple variants. These options were subsequently validated by the CEG in a workshop facilitated by EY and Klein on 7 November 2018. The long-list considered a range of potentially feasible scope, scale, configuration and location options.

The demographic projections coming through the HNA and CSP workstream show the main population growth occurring in the Nelson and Tasman regions vis-à-vis the Marlborough region. Consequently these projections drive a future development of Nelson hospital, including additional capacity, rather than a lower level of investment into a Nelson facility with a significant expansion of the Wairau hospital. Therefore, an option for significant expansion of the Wairau hospital has not been explored.

We note that outsourcing service delivery models are considered within the CSP workstream and conclusions will inform the IBC short list options development. A “do nothing” case was not considered as it has been demonstrated that the seismic risk of the Percy Brunette, George Manson and services tunnel necessitates a level of investment.

<table>
<thead>
<tr>
<th>Long list option</th>
<th>Option variant</th>
</tr>
</thead>
</table>
| **Option 1: Full greenfield (new site)** | A - Richmond  
B - Stoke  
C - Annesbrook |
| **Option 2: Greenfield (Broads fields)** | A – Full greenfield  
B - Partial greenfield (new acute services block) |
| **Option 3: Brownfield (existing site)** |  |
| **Option 4: Staged redevelopment Strengthen and Retain George Manson** | A – new ASB, retain existing radiology and ED (“do minimum”)  
B – new ASB, including radiology and ED |
| **Option 5: Staged Redevelopment Strengthen and Retain Percy Brunette** | A – new ASB, retain existing radiology and ED  
B - new ASB, including radiology and ED |
| **Option 6: Staged Redevelopment Demolish Percy Brunette** | A – new ASB, retain existing radiology and ED  
B - new ASB, including radiology and ED |

In addition to the foregoing long list options, a further four mental health sub-options have been developed. These options will be explored within the short list options once the short list has been confirmed and will be informed by the seismic and building condition assessments that are currently being advanced by Beca.
Sub-options Mental Health

<table>
<thead>
<tr>
<th>MH Option 1:</th>
<th>Retain Wahi Oranga (currently collocated on the main Nelson hospital site) and reconfigure/extend</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH Option 2:</td>
<td>New inpatient unit on the Braemar site i.e. consolidate mental health on Braemar campus</td>
</tr>
<tr>
<td>MH Option 3:</td>
<td>New build on alternate site, maintaining colocation with the main hospital (e.g. Option 1 new site or Option 2 Broads Fields)</td>
</tr>
<tr>
<td>MH Option 4:</td>
<td>New build Alexandra or alternate site as a long term mental health campus, separate from the main Nelson hospital site</td>
</tr>
</tbody>
</table>

4.5 Other masterplanning and options development considerations

A range of other masterplanning and options development considerations have been identified and will continue to be explored through the CSP, site masterplanning and development of the short list options.

- Mental health: location and connection to the hospital campus and services
- Ambulatory care: trends, location and connection to other hospital services
- Psychogeriatric care: primary relationship / co-adjacency with AT&R and mental health
- Paediatric services: philosophy around location and staffing (inpatient and outpatient)
- Learning and development centre requirements and connections with virtual care and staff support areas
- Non clinical support options: e.g. energy centre, hotel services
- Radiology: acute services, ED and outpatient needs and colocation trade-offs
- Urgent care centre: future colocation with hospital, optimal colocation with ED or radiology
- Radiation oncology: requirements and location
- Renal dialysis: requirements and location
- Virtual care
- Outpatients configuration
- Whanau and staff accommodation requirements
- Car parking
5. Indicative Business Case

Extensive progress has been made in advancing the IBC. The Investment Logic Map (ILM) has been developed, a wide range of feasible options for addressing the defined problems have been considered and the do minimum scenario is being further refined and developed. Key outputs are summarised below.

5.1 Investment Logic Map

A workshop was held on 2 October 2018 to revisit the case for change. The workshop was attended by the IBC/MOC Oversight Group, which is comprised of representatives from the NMDHB, including clinical and non-clinical staff.

Three distinct problems, the potential benefits of addressing each problem, strategic response and possible solutions were established. The Investment Logic Map, is detailed in the figure below and continues to be refined through the IBC process.
5.2 Investment Objectives

A workshop was held on 2 November 2018 to agree the investment objectives and Critical Success Factors (CSF) for the Nelson hospital redevelopment project. The workshop was attended by the IBC/MOC Oversight Group, which is comprised of representatives from the NMDHB, including clinical and non-clinical staff.

The investment objectives for this project are driven by the strategic intent of NMDHB and relevant health guidelines. They are informed by the limitations of the current built environment and seek to directly address the problem definitions set out above. Measures of success will continue to be explored for each of them.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Investment Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical hospital buildings are subject to unacceptable seismic risk, jeopardising ongoing service delivery in the event of significant seismic events</td>
<td>IO1: Critical health services can continue to be provided in the event of a severe seismic or other catastrophic event</td>
</tr>
<tr>
<td>Configuration and design of current facilities constrains innovations to improve quality of care and operational efficiency</td>
<td>IO2: Facilities are responsive to changing health needs and contemporary models of care, now and in the future</td>
</tr>
<tr>
<td>Changing population health needs cannot be met by current facilities, compromising both quality of care and operational efficiency</td>
<td>IO3: Health services are delivered using staffing and resources appropriate to the level and setting of care</td>
</tr>
<tr>
<td></td>
<td>IO4: Prioritised health needs can be met sustainably</td>
</tr>
</tbody>
</table>

5.3 Critical Success Factors

As noted above, CSF were identified through workshops NMDHB clinical and non-clinical participants, and were viewed as the attributes that a new facility must deliver in order to achieve the intended investment objectives. The Critical Success Factors include:

- **Patient and population outcomes:** How well does the option facilitate the delivery of health services in terms of access, equity, quality and experience?

- **Sustainable workforce:** How well does the option support interdisciplinary functioning, provide appropriate clinical support and L&D opportunities leading to higher levels of employee attraction, engagement and retention, and in turn improved service delivery?
► **Adaptability:** How efficiently is the option able to respond flexibly to changing health needs and contemporary models of care?

► **Viability:** How well the option is able to be delivered given:
  - The organisation’s ability to respond to the changes required
  - The level of available skills and resources required for successful delivery
  - Socioeconomic impact and community acceptability
  - Likely available funding, and matches other funding constraints.

► **Potential value for money:** How well the option achieves:
  - Economy (minimizing use of resources)
  - Effectiveness (delivering the right thing)
  - Efficiency (allocating resources well to deliver best system wide outcomes i.e. including making best use of available workforce).

Weightings (expressed in % terms, totalling to 100%) will be applied to the CSFs to reflect the relative importance of each factor in driving successful delivery of the investment objectives. Decision makers may have alternative views on weightings which will be addressed by testing the sensitivities of long list options assessment conclusions to relative CSF weightings.

### 5.4 Long list options confirmation

Please see Section 4.4 for further details of the long list options identified and confirmed by the CEG. At the time of writing this report the long list option are in the process of being assessed, with the view to confirming the short list options to advance to further analysis.

### 5.5 Commercial viability

The Ministry of Health and the Treasury have requested the IBC include an analysis of the market capacity and capability to deliver the preferred option, including the capacity of the local sub-contract market. This work will be advanced the new year.