Northern Health and Social Care Trust

**DRAFT**

# OUTLINE BUSINESS CASE FOR THE REPROVISION OF MENTAL HEALTH INPATIENT SERVICES IN THE NHSCT

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## 1.0 EXECUTIVE SUMMARY

This document represents the Northern Health & Social Care Trust's (NHSCT) Strategic Context and Outline Business Case (OBC) for a proposed capital investment solution which will enable the centralisation of mental health inpatient care. The centralisation of services will establish a high quality integrated service, promote integrated team working and facilitate a single cohesive staff culture.

The Northern Health and Social Care Trust is one of five health Trusts in Northern Ireland which were established on 1 April 2007. The Trust provides an extensive range of health and social care services for people across the local council areas of Antrim, Ballymena, Ballymoney, Carrickfergus, Coleraine, Cookstown, Larne, Magherafelt, Moyle and Newtownabbey. Services are provided from nine different local, community and acute hospitals and a large number of community based settings including people's own homes.

The Trust has one of the biggest geographical areas within Northern Ireland HSC and the largest population of over 465,529 which is over 100,000 greater than the next largest Trust.

The Trust currently provides mental health inpatient care in both Holywell and Causeway Hospitals. Holywell was opened in 1898. The original main hospital building currently houses the Intensive care, Rehabilitation, Challenging Behaviour, Continuing Care and Addiction wards.

Also on the Holywell site are the 3 acute admission Tobernaveen wards which were constructed in 1952 (although refurbishments were carried out in 2003) and Tardree, the Dementia assessment ward, which opened in 1984.

At Causeway Hospital there is a 32 bedded acute psychiatric admission ward, known as the Ross Thompson Unit. Over the last 4-5 years the bed numbers in the unit have been gradually reduced to 23 as a result of the introduction of both home treatment and New Ways of Working (NWW) within the Mental Health Directorate. Although the hospital is only 14 years old this space was originally based on a general hospital configuration with limited thought given to ligature issues and observation so staff have to manage these potential risks on a daily basis. Reducing bed numbers has helped manage these risks. There are no single bedrooms or areas for private discussions and it is not conducive to developing a therapeutic environment for patients.

The inpatient provision is not fit for purpose on either site and the physical condition, security, function and suitability of the various inpatient wards is deemed to be below acceptable standards and therefore the Trust has identified this as its second capital investment priority in its "Review of Capital Priorities 2013". Consequently this project continues to be highlighted as a scheme of major strategic importance for the Trust.

The conditional approval and Commissioner support for the Strategic Outline Case (SOC) for the project was granted in June 2012. (Appendix 1 attached).

## 1.1 Strategic Context

This chapter looks at a number of policy documents demonstrating the need for the establishment for a new, fit for purpose, Mental Health Inpatient Facility within the Northern Health & Social Care Trust area. It provides details of the main strategic drivers which includes The Health and Social Care (Commissioning Plan) Direction (Northern Ireland) 2013/14, Transforming Your Care, Bamford Review, The Trust's Bed Requirement Review, The Trust's New Ways of Working Project and the Trust's Review of Capital Priorities.

## 1.2 Establish the Need for Expenditure

This section outlines the need for a new Mental Health Inpatient Service within the Northern Health & Social Care Trust. It highlights the difficulties with the existing accommodation. Holywell Hospital is a 162 bedded Trust owned psychiatric hospital located in Antrim. It is a Category C listed building which was opened in 1898. The physical condition, security and functional suitability of the various inpatient wards is deemed to be below statutory standard. There is a 32 bedded acute psychiatric admission ward, Ross Thompson, attached to Causeway Area Hospital. The bed numbers have recently been reduced to 23 as a result of health and safety recommendations. Although the hospital is less than 20 years old, the ward is based on a general hospital design and there are problems with the ward layout.

Ceri Davies condition surveys indicate that the inpatient unit at Holywell Hospital and the Ross Thomson Unit at Causeway Hospital do not meet current standards for accommodation. Whilst capital investments to improve patient environments have been made to both units in recent years, these are greatly limited by the constraints imposed by existing buildings, particularly Holywell Hospital given its age.

Overall the accommodation for patients within a large Victorian asylum building does not suitably support the provision of mental health care in a non-stigmatising and therapeutic environment, and is, by definition wholly unacceptable for 21st century service provision.

Within wards the current accommodation does not meet modern standards for care as patients do not have privacy or en-suite bedrooms. There are inadequate levels of clinical, occupational and recreational space. Staff and visitor accommodation is cramped and substandard. It is impossible, within the existing design and construction, to ensure best design practice in critical areas of patient safety including observation of access/egress from wards and elimination of potential points of ligature.

The Trust has undertaken a Mental Health Bed Requirements Review which shows the significant reduction in beds that has been undertaken since 2001 (Appendix 2). From March 2001 to March 2014 there has been a reduction of 222 beds following Bamford recommendations and delivered by developing new ways of working.

Table 1: Current and proposed inpatient bed numbers for the NHSCT

| Inpatient service bed complement | | Base Case | Proposed Beds @ 2015 | Ratio per 100,000 pop** |
|---|---|---|---|---|
| Non-Acute beds | Low Secure | 0 | 12 | 2.6 |
| | Addictions | 10 | 10 | 2.2 |
| | Intensive Challenging Behaviour | 16 | 0 | |
| **NON-ACUTE TOTAL** | | **26** | **22** | **4.8** |
| Acute beds | Acute | 95 | 80 | 17.5 |
| | Intensive Care (PICU) | 17 | 12 | 2.6 |
| **ACUTE TOTAL** | | **112** | **92** | **20.1** |
| Beds for Older People | Dementia Assessment | 24 | 20 | 4.4 |
| **BEDS FOR OLDER PEOPLE TOTAL** | | 24 | **20** | **4.4** |
| **OVERALL TOTAL** | | **162** | **134** | **29.3** |

** (NISRA 2015 figures http://www.nisra.gov.uk/demography/default.asp47.htm)

Table 1 sets out the specialty related bed complement based on the current assessment of need. The design of wards in each category has specific requirements suited to the patient condition and this restricts the overall bed configuration. The accommodation design is being developed in conjunction with the Health Estates Investment Group (HEIG) and in line with identified "Best Practice" guidelines, Health Building Note (HBN's) and Health Technical Notes (HTM's) e.g. single room and male/female segregation. The ward design will be flexible enough to allow for redesign to meet changing needs in future.

**Service Models**

The Trust has completed new service models, (Appendix 3 attached) based upon new ways of working initiatives, following the patient journey from admission to discharge in each of the following specialities:-

- Acute Mental Health Inpatient Beds (including PICU).
- Inpatient Addiction Unit
- EMI/Dementia Unit.

Whilst developing these Service Models, service users were involved in every stage of the process and their comments were discussed and, where possible, reflected in the final documents. The draft service models were tabled at the Trust's Project Team meetings during 2012/13 and when completed were approved and signed off by the Mental Health Management Team Meeting in October 2013.

In summary the future service provision of mental health services will deliver 134 beds for the following mental health services:-

- Day Treatment Services - delivered on an outreach basis;
- Inpatient services on one site; delivering the following specialties:-
- PICU Beds;
- Addictions Beds;
- Acute Beds;
- Dementia Assessment Beds and
- Low Secure Beds.

### 1.3 Project Objectives & Constraints

Eight specific objectives were identified for the development of a new Mental Health Inpatient facility within the Trust's area. They are set out in the table below:

Table 2

| Objective | Measure |
|---|---|
| 1. To provide services that are both clinically effective and safe, and allow for the provision of individualised therapeutic care | 1. The achievement of clinical standards as follows:-<br>• Provision of 100% single rooms.<br>• Anti-ligature risks fully addressed in design<br>• Improved observation of patients by staff<br>• Access to safe outside and indoor space<br>• Provision of dedicated Interview space for patients, carers and families<br>• Provision of a safe and therapeutic environment<br>2. Projected numbers of patients per annum treated in the new unit:-<br>- 1182 (MH Acute; 80 beds at 21 days LOS at 85% occupancy rate)<br>- 177 (Acute PICU; 12 beds at 21 days LOS at 85% occupancy rate)<br>- 69 (Dementia; 20 beds at 90 days LOS at 85% occupancy rate)<br>- 222 (Addictions - 10 beds (3 beds for regional use) at 14 days LOS at 85% occupancy rate)<br>- 11 (Low Secure - 12 beds at 365 days LOS at 95% occupancy rate)<br>**Total = 134 beds**<br>3. Achieve a reduction in Length of Stay for |

| | |
|---|---|
| | Acute Admission specialities from 40 days to 21 days based on 85% bed occupancy.<br>4. Reduction in serious self-harm - with improvements in design and full anti ligature construction.<br>5. Reduction in clinical risk at the standalone Ross Thompson Unit at Causeway Hospital.<br>6. Meets applicable RQIA standards.<br>7. The achievement of relevant DHSSPS Commissioning Targets. 2014/2015 targets include -<br>• By March 2014, 23 of the remaining long-stay patients in psychiatric hospitals are resettled to appropriate places in the community, with completion of the resettlement programme by March 2015.<br>• From March 2014, no patient waits longer than 9 weeks for adult mental health services and 13 weeks for psychological therapies.<br>8. Provision of 134 acute inpatient beds and subsequent monitoring of usage.<br>9. Appropriate levels of staffing to provide care and treatment in single room accommodation.<br>10. New build to be delivered within 4 years of OBC approval. |
| 2.To provide services which meet the Strategic Direction of the DHSSPS, HSCB and the Trust's Corporate and Service Delivery Plans | • Provide the number of Mental Health Inpatient beds as per the Bamford Review (2006). See the Mental Health Bed Requirements paper (Appendix 2) for breakdown of beds by speciality. Total projected bed requirement is 134.<br>• Provide one acute inpatient site per Local Health Economy (Year 3 - 14/15) - HSC Commissioner Specification for Mental Health.<br>• Deliver on the target that there should be no long stay patient's living in hospital by 2015.<br>• Manage each period of admission to the required level to achieve average length of stay of 21 days for the acute specialty.<br>• Receive support from Commissioner and DHSSPS for this project. |
| 3. To ensure compliance with the requirements for gender separation within inpatient | • Implement the recommendation within Bamford Review (2006) for 100% single room provision. |

| | |
|---|---|
| facilities and ensure patient dignity, privacy and safety is maintained at all times | |
| 4. To provide appropriate space - the solution should meet national guidance for best practice in the delivery of acute mental health inpatient facilities. | • Meet all required current HBN and HTM standards.<br>• Provide functional internal and external surroundings that maximise therapeutic benefits for users.<br>• Resolution of any defective work identified by the Architect and Contractor to be completed prior to handover. |
| 5. Deliver the flexibility to respond to future need - the solution should be designed to respond to any changes in service delivery that may be required as a result of regional strategic review of services. | • Ensure agreed design can be adapted to meet changing needs of the service.<br>• Accommodation is designed flexibly allowing it to be adapted to meet changing approaches to care e.g. Number of rooms that can swing between male or female rooms depending on requirement.<br>• Space on preferred site for expansion. |
| 6. To Provide a Centre of Excellence in Patient Care | • Accreditation for Acute Inpatient Mental Health Services (AIMS) - awarded by Royal College of Psychiatrists.<br>• The ECT Accreditation Service (ECTAS) standards for the administration of ECT, Electroconvulsive Therapy.<br>• Meet the Building Research Establishment Environmental Assessment Method (BREEAM) and environmental standards of excellence whilst ensuring value for money. The new build should obtain an "Excellent Rating" from this accreditation to ensure it is built to a high quality standard and design.<br>• Meet the National Association of Psychiatric Intensive Care Units (NAPICU) standards. The aims of NAPICU are to improve service user experience and outcome and to promote staff support and development with Psychiatric Intensive Care Units/Low Secure Units. |
| 7. To Improve accessibility to Mental Health services for NHSCT population | • Centralising of MH Inpatient Services as recommended under TYC and the Bamford Review.<br>• Work towards providing a single acute Inpatient Mental Health facility for the Northern Trust on an acute hospital site as |

| | |
|---|---|
| | stated in the regional Transforming your Care "Vision to Action" Post Consultation Report of March 2013.<br>• Reduction in stigma through provision of a new facility. |
| 8. To support/facilitate appropriate adjacencies / integration with other services through the building design | • Access to community Mental Health teams and supporting services.<br>• The proposed facility is to be in proximity to an acute hospital site. (TYC Vision to Action)<br>• Improvement in support from and use of social, recreational and employment facilities. |

**Constraints**

The following are the constraints identified for this project:-

- This project is dependent upon capital funding being made available by the DHSSPSNI.
- Any additional revenue costs of this project to be funded by the HSCB.
- Delivery of the preferred option should not adversely affect or create unnecessary delay in the delivery of Mental Health Inpatient Services.
- The new Unit must be provided from a single site in line with the HSCB Commissioner Specification and TYC Vision to Action (subject to public consultation).
- The development of the required community services, through continued investment, in order to facilitate a reduction in inpatient beds.
- Reassurance to all internal and external stakeholders of an equitable and accessible Mental Health Inpatient Service for the entire population of NHSCT.
- This project has to be achieved with 4 years of Business Case approval.
- Delivery of this project cannot impede any future capital development on any of the Trust's hospital sites.

## 1.4 Identification of the Options/Option Appraisal

A long list of options for capital development were identified and sifted. The short-listed options were identified as follows:-

**Option 2 Do Minimum**

This option requires significant capital investment to improve the standards of both existing Mental Health Inpatient facilities. Whilst this would not be the Trust's preferred solution it provides a baseline against which to compare other "do-something" options.

**Option 4a Build a Standalone Mental Health Inpatient Facility on the Antrim Area Hospital site**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility on the Antrim Area Hospital site providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds.

**Option 4b Build a Standalone Permanent Mental Health Inpatient facility on a Site to be identified within a One Mile Radius of Causeway Hospital**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility on a site to be identified and purchased by the Trust. This site must be within a one mile radius of Causeway Hospital. It will provide 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds.

**Option 4c Build a Standalone Mental Health Inpatient Facility on the Holywell Hospital site**

As with option 4a and 4b this option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility, this time on the Holywell Hospital site, providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds.

## 1.5 Financial analysis of the shortlisted option

**Table 3 - Capital costs for all options including pre and post optimism bias**

| Option | Pre-Opt Bias Capital Cost £'000 | Optimism Bias % | Optimism Bias Adjusted Capital Cost £'000 |
|---|---|---|---|
| Option 2 | 19,135 | 20.12% | 22,985 |
| Option 4a | 39,257 | 11.21% | 43,657 |
| Option 4b | 39,327 | 11.38% | 43,801 |
| Option 4c | 38,647 | 11.06% | 42,923 |

**Table 4 - Revenue costs for all options**

| | Base Case Costs £ | | Do Something Costs £ | Movement in Costs £ |
|---|---|---|---|---|
| **S&W Nursing Costs** | 8,932,913 | | 8,926,528 | **(6,385)** |
| **Other S&W Costs** | 4,200,494 | | 4,089,481 | **(111,013)** |
| **Staff Non-Pay Costs** | 1,085,799 | | 1,078,876 | **(6,923)** |
| **Income** | -192,276 | | -115,371 | **76,905** |
| **Utilities Costs** | 1,750,836 | | 2,048,289 | **297,453** |
| **Total** | 15,777,765 | | 16,027,802 | **250,037** |

## 1.6 Risks and Adjustment for Optimism Bias

Detailed schedules showing the calculated values and rationale are included in Appendix 11. A summary of the Optimism Bias factors are shown in table below.

**Table 5**

| Option | Opt Bias % |
|---|---|
| Option 2 – Do Minimum | 20.12 % |
| Option 4a – NB @ AAH | 11.21 % |
| Option 4b – NB @ CW | 11.38% |
| Option 4c – NB @ Holywell Hospital | 11.06% |

## 1.7 Non Monetary Cost and Benefits

**Table 6**

| Option | Option Description | Weighted Benefits Score | Rank |
|---|---|---|---|
| 2 | Do Minimum<br>This option requires significant capital investment to improve the standards of the current Mental Health Inpatient facilities. Whilst this would not be the Trusts preferred solution it provides a baseline against which to compare other do-something options. | 485 | 4 |
| 4a | This option will deliver a standalone permanent Mental Health In-Patient (MHIP) facility on the Antrim Area Hospital site providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. | 880 | 1 |
| 4b | This option will deliver a standalone permanent Mental Health In-Patient (MHIP) facility on a site to be identified and purchased by the Trust. This site must be a one mile radius from Causeway Hospital. It will provide 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. | 740 | 3 |
| 4c | As with option 4a and 4b this option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility, this time on the Holywell Hospital site, providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. | 835 | 2 |

## 1.8 Calculate Net Present Values (NPVs) and Assess Uncertainties

**Table 7**

| Option | Original NPC £'000 | Optimism Bias % | Optimism Bias Adjusted NPC £'000 | Financial Ranking | Non-Financial Benefit Score | NPC per Benefit Score £'000 | Overall Rank |
|---|---|---|---|---|---|---|---|
| 2 | 306,559 | 20.12% | 310,017 | 3 | 485 | 639 | 4 |
| 4a | 305,304 | 11.21% | 308,146 | 2 | 880 | 350 | 1 |
| 4b | 309,907 | 11.38% | 312,947 | 4 | 740 | 423 | 3 |
| 4c | 304,862 | 11.06% | 307,773 | 1 | 835 | 368 | 2 |

## 1.9 Affordability

The affordability is set out in the table on the next page. There is a current under-resource in the Baseline Budgets of £1,331k. The majority of this under-resource is made up of a historical under-resource in the ward's Nursing Budgets of £685k, which is recognised in the commissioners report (HSCB).

This resource shortfall is also impacted by the retention of estate related utilities resources which, in the absence of firm plans around the future utilisation of the vacated areas, must remain to meet on-going costs of £596k. This will result in a current available budget against current actuals shortfall of £1,331k.

As discussed earlier in section, 11.0 Lifecycle Maintenance Costs for Option 2 have been removed from the affordability section, as they are notional costs only and have not been incurred.

**Table 8**

| Cost Element | Current Baseline Budget<br><br>Column A £'000 | Current Costs Option 2<br><br>Column B £'000 | Current Under-Resource<br><br>Column C £'000 B-A | Costs – Preferred Option 4A<br><br>Column D £'000 | Additional Costs<br><br>Column E £'000 D-B | Total Shortfall<br><br>Column F £'000 E+C |
|---|---|---|---|---|---|---|
| Capital Costs (including OB)[1] | 0 | 22,985 | 22,985 | **43,657** | **20,672** | **43,657** |
| S&W Nursing Ward Costs | 8,248 | 8,933 | 685 | **8,926** | **-7** | **678** |
| Other S&W Costs | 3,985 | 4,200 | 215 | **4,089** | **-111** | **104** |
| Non-Pay Costs (exc Utilities) | 1,352 | 1,086 | -266 | **1,079** | **-7** | **-273** |
| Income | -182 | -192 | -10 | **-115** | **77** | **67** |
| Utilities Costs | 1,043 | 1,751 | 708 | **2,048** | **297** | **1,005** |
| **TOTAL EXC CAPITAL** | **14,446** | **15,778** | **1,332** | **16,027** | **249** | **1,581** |
| **TOTAL INC CAPITAL** | **14,446** | **38,763** | **24,317** | **59,684** | **20,921** | **45,238** |

## 1.10 Project Management, Monitoring and Evaluation

The project management monitoring and evaluation arrangements for the proposed development have been described in the Project Execution Plan (Appendix 15). The plan defines the organisational structure for the implementation of the capital development and the roles and responsibilities of the individuals involved.

## 1.11 Conclusion

This Outline Business Case reflects both the Trusts desire and need to provide a new, purpose built Mental Health Inpatient Unit to urgently replace the existing inpatient facility which is over 100 years old and totally unfit for purpose. The physical condition, function and suitability of the various inpatient wards within Holywell are simply unacceptable for a modern 21st century service and fall significantly below standards deemed acceptable in current health provision. The proposed new service model will promote the centralisation of mental health services as patients from both the Ross Thompson Unit at Causeway Hospital and Holywell Hospital will transfer into this new facility to be relocated on the Antrim Area Hospital site.

Given this position, the Trust requests that the HSCB and the DHSSPS approve this OBC and authorise the Trust to commence the capital development of the preferred option.

## 2.0 INTRODUCTION

2.1 This document is the NHSCT's Outline Business Case for a proposed capital investment solution which will enable the centralisation of mental health inpatient care. This centralisation will establish a high quality integrated service, promote integrated team working and facilitate a single cohesive staff culture. The Trust will also be able to introduce new service models which contain new ways of working within the inpatient specialities (see the Patients' Journeys Appendix 3) which will enhance the patient's experience particularly in the areas of external and internal spaces and an improved therapeutic environment, ensuring the provision of a safe and effective service for patients.

2.2 The Northern Health and Social Care Trust is one of five health Trusts in Northern Ireland which were established on 1 April 2007. The Trust provides an extensive range of health and social care services for people across the local council areas of Antrim, Ballymena, Ballymoney, Carrickfergus, Coleraine, Cookstown, Larne, Magherafelt, Moyle and Newtownabbey. Services are provided from nine different local, community and acute hospitals and a large number of community based settings including people's own homes.

2.3 The Trust has one of the biggest geographical areas within the Northern Ireland HSC and the largest population of over 465,529 (current NISRA statistics).

Holywell Hospital was opened in 1898. The main hospital building currently houses the Intensive care, Rehabilitation, Challenging Behaviour, Continuing Care and Addiction wards.

The 3 acute admissions wards, known as the Tobernaveens, were constructed in 1952 (although significant refurbishments were carried out in 2003) and Tardree, the Dementia assessment ward opened in 1984.

There is a 32 bedded acute psychiatric admission ward, Ross Thompson, attached to Causeway Area Hospital. The bed numbers have recently been reduced to 23 as a result of risk assessment, introduction of home treatment and New Ways of Working. Although the hospital is less than 20 years old, the ward is based on a general hospital design and there are problems with the ward layout. The ward lacks good observation, single bedrooms, and clear sight level. It is not conducive to developing a therapeutic environment and has few areas for private discussions.

The inpatient provision is not fit for purpose on either site and the physical condition, security, and functional suitability of the various inpatient wards are deemed to be below acceptable standards.

2.4 The NHSCT and former Homefirst & Causeway legacy Trusts have undertaken substantial service modernisation programmes for mental

health services across both hospital and community settings. This has been driven by the Bamford Review, Commissioner and Trust strategies; the Finnamore Outline Business Case (January 2002); legacy Homefirst Trust Business Case for the Reprovision of Mental Health Services (December 2002) and Trust strategy developed through local consultation "Adding life to Years" (April 2007).

The changes made reflect a key Bamford principle to reduce reliance on inpatient and institutional services and provide more treatment and care in the community. A series of initiatives have been implemented to extend capacity to provide appropriate services within community settings and to enhance pathways for patients across community and hospital services including the:

- strengthening of Community Mental Health Teams (CMHT)
- development of a Home Treatment Service
- restructuring following the amalgamation of Trusts
- development of a Recovery ethos within mental health services
- introduction of "New Ways of Working" and
- further development of supported living services to facilitate the resettlement of long stay patients

This approach has resulted in a significant reduction across the range of inpatient beds, reducing from 384 beds in 2001 to 162 beds by 2014. This was facilitated by the development of innovative community based services, by improved efficiency through restructuring and by the application of best practice models.

## 3.0 STRATEGIC CONTEXT

In detailing the context for development the Trust has considered a wide range of issues and policy documents which are significant in influencing the way mental health services are delivered both now and into the future and the main documents are summarised below.

### 3.1 Transforming Your Care – Vision to Action Post Consultation Report March 2013

This consultation document sets about the strategic way to take forward the TYC proposals over the next 3-5 years. With regard to Mental Health Services this required

- A more joined up approach in how we deliver services, in particular how mental health services work with GP's, other primary providers and hospitals;
- Reduce the number of people living in institutional case and inpatient beds by investment in the community through intensive home support;
- Enhance support for carers in the community; and
- Promote the uptake of self-directed support which would increase choice for people

### 3.2 The Bamford Review

In 2002, the DHSSPS initiated an independent review of mental health and learning disability law, policy and service provision, now referred to as the Bamford Review. The report, published in June 2005 contained a number of recommendations aimed at improving mental health services across Northern Ireland.

Key recommendations from Bamford, which have informed the proposals for service modernisation and focus of reform within the Northern Health & Social Care Trust, are:

- to ensure an appropriate range of health and social care services to support patients and their families to allow them to live as full a life as possible; and
- to promote a recovery ethos as integral to their treatment.

The "centre of gravity" for services continues to shift towards community based services and away from an over reliance on hospital services. Providing care and support to people in such a way as to allow them to remain in their own home should be regarded as the norm**.** The Minister for Health, Social Services and Public Safety has confirmed that the NI

Executive is fully committed to delivering the Bamford Vision which is recognised will take time and effort and additional resources to achieve (over some 10-15 years).

### 3.3 The NHSCT Mental Health Bed Requirements Review

The Trust has been undertaking a substantive modernisation programme for mental health services across hospital and community settings. These changes have resulted in the closure of 222 beds since March 2001 to 31 March 2014 as the Trust took forward the Commissioner strategy outlined in the Finnamore Outline Business Case (January 2002), Trust Business Case (December 2002) and Trust strategy developed through local consultation "Adding Life to Years" (April 2007).

These changes reflect Key Bamford principles and have reduced reliance on inpatient services and developed greater levels of treatment in the community. A series of initiatives have been implemented to extend capacity to provide appropriate services within community settings and to enhance pathways for patients across community and hospital services. These include the:-

- strengthening of the community health teams;
- establishing a Crisis Response Team;
- introduction and expansion of the Home Treatment Service;
- restructuring following the amalgamation of Trusts;
- development of a recovery ethos within mental health services;
- introduction of New Ways of Working; and
- further development of supported living to facilitate resettlement for long stay patients.

This approach has involved significant reduction across the range of inpatient beds, reducing from 384 beds in 2001 to 162 beds (including dementia) in 2014. This was facilitated by the development of innovative community based services and by better efficiency through restructuring and the application of best practice models. The detail of this progression and how it will continue is outlined in Appendix 2.

### 3.4 The Health and Social Care (Commissioning Plan) Direction (Northern Ireland) 2014.

The Commissioning Plan was prepared and published by the Regional Board and provides details of the health and social care services which it will commission for the period from 1st April 2014 to 31st March 2015. The services commissioned align with and support the Executive's Programme for Government (PFG) commitments, its Economic and Investment Strategies; the Ministers vision and priorities for health and social care, the standards, policies and strategies set by the Department, the agreed transformation of health and social care services including TYC; and Departmental guidance and guidelines.

It details how services being commissioned represent an equitable use of the resources made available for health and social care to the Northern Ireland population, based on relative need.

The targets and standards set out in the Commissioning Plan Direction reflect the Minister's priorities for Health and Social Care services to:

- improve and protect health and well–being and reduce inequalities, through a focus on prevention, health promotion, anticipation and earlier intervention;
- improve the quality of services and outcomes for patients, clients and carers through the provision of safe, resilient and sustainable services;
- improve the management of long term conditions in the community, with a view to improving the quality of care provided and reducing the incidence of acute hospital admissions for patients with one or more long term conditions.
- Promote social inclusion, choice, control, support and independence for people living in the community, especially older people and those individuals and their families living with disability
- improve the design, the delivery and evaluation of health and social care services through the involvement of individuals, communities and the independent sector;
- improve productivity, by ensuring effective and efficient allocation and utilisation of all available resources in line with priorities; and
- ensure the most vulnerable in our society, including children and adults at risk of harm, are looked after effectively across our services.

### 3.5 The NHSCT New Ways of Working Project

The Trust had established a "New Ways of Working" Project which has produced the report entitled: "A Proposal for the Implementation of New Ways of Working in Acute General Adult Psychiatric Services" (September 2010). The group suggested the following: -

- the reorganisation of the existing Community Mental Health Teams (CMHT's) from 8 teams to 9.
- the categorisation of the CMHT caseloads into 3 broad groups - primary care facing, secondary care acute and recovery; and
- the creation of inpatient acute care teams based in acute wards with dedicated inpatient consultants acting as joint clinical leads along with ward managers and administrative support.

The next phase of improvement and efficiency is to consolidate these improvements within a modernised estate providing a tightly focused inpatient service fully integrated with community services which can respond to the rising levels of acuity across inpatients. A consistent medical presence on the ward (with dedicated ward based consultants) will improve quality and management of the patient pathway. It is envisaged

that a further reduction of inpatient beds will occur over the next 2 to 3 years facilitated by the continued implementation of the "New Ways of Working" project.

Further changes to bed numbers will be achieved through resettlement of the remaining long stay patients and regionally driven initiative for cross-Trust service provision with future plans for beds within the NHSCT incorporating proposals for regional or cross Trust service provision. Additional investment in community services along with improved quality of inpatient care will also lead to further bed reductions.

A detailed list of all the strategic drivers associated with this project can be seen as per Appendix 5. Those listed here are a small summarised sample of the main strategic drivers that are influencing the changes required in the Trust's current services. They have endorsed the increased level of community home based treatment and care along with a reduced reliance on acute mental health inpatient beds.

### 3.6 Review of Capital Priorities June 2013

The Trust submitted the first Review of Capital Priorities to Health Estates Investment Group (HEIG) in 2008 and then in 2010 at the request of the then Minister of Health. In 2013 the Trust updated its Capital Priorities and this scheme continues to be a high priority (2nd out of 11 top priorities).

## 4.0 ESTABLISH THE NEED FOR EXPENDITURE

### 4.1 Condition of Estate

Holywell Hospital is a Trust owned psychiatric hospital located in Antrim. It was built as a Victoria asylum in 1898. It currently provides 162 beds although at one point had more than 1000 within its walls. It is a Category C listed building which was opened in 1898, over one hundred years ago. The physical condition, security and functional suitability of the various inpatient wards are deemed to be significantly below statutory standard. See Appendix 4 for a more detailed history of Holywell and a description of how the facility has suffered from periods of underinvestment. The entire Hospital Complex is a Grade B1 Listed Building on the DOE Planning – Historical & Monuments Register. (Registration Ref: HB/20/09/004.)

The Ross Thomson Unit at Causeway Hospital, built in 2001, appears to score favourably against the property appraisal survey criteria but it should be noted that it provides little or no privacy for in-patients, is configured in such a way that lines of sight and observation are difficult to ensure and has numerous ligature issues as its original design was not done on the basis of mental health inpatient provision.

The age profile of the Trust buildings currently providing inpatient mental health beds is as follows:

**Table 9 Building by locality and year of construction**

| Location | Date Built | Total Bed Numbers |
|---|---|---|
| Tobernaveens | 1952 | 72 |
| Tardree | 1984 | 24 |
| Holywell Main Block | 1898 | 43 |
| Ross Thompson | 2001 | 23 |

In Holywell the majority of inpatients (72) are located in the Tobernaveen blocks which were constructed in 1952, initially refurbished in 1986 and again in 2003 where capital expenditure of £2.3m was invested in the infrastructure. Only 43 inpatients are located in the main hospital block with the remainder located in the Tardree and Ross Thompson Units.

Property Appraisal Surveys were completed in 2013 for all Trust facilities. The results for the various categories are detailed in the tables below:

**Table 10 Property Appraisal Survey Holywell Main Block**

| Holywell Hospital Property Appraisal Survey – Main Block | |
|---|---|
| Category | Condition |
| Physical Condition | DX |
| Building | DX |
| Engineering | DX |
| Function | B |
| Space | 3 |
| Statutory Standards | C |

The 2013 survey shows Physical Condition, Building and Engineering as a Category D. Advice has been taken from Trust Estates and their opinion is that each would be appended with "X" as it would be impossible to improve without replacement.

In terms of statutory standards significant investment has been completed in relation to Firecode, control of Legionella and Asbestos management but full compliance could only be achieved with a new building.

**Table 11 Property Appraisal Survey Holywell Tobernaveen Upper, Centre and Lower**

| Holywell Hospital Property Appraisal Survey – Acute Admission Wards Tobernaveen Lower, Centre & Upper * | |
|---|---|
| Category | Condition |
| Physical Condition | C |
| Building | C |
| Engineering | C |
| Function | B |
| Space | 3 |
| Statutory Standards | B |

*NB These wards were most recently refurbished in 2003

Whilst significant investment has been made over 10 years ago in the Tobernaveens the buildings are over still over 60 years old and the internal configuration does not support a modern inpatient service. The scores of C for physical condition, building and engineering are reasonable but the statutory standards may require minor expenditure to conform to current statutory legislation.

Functional suitability and space utilisation for any facility are best assessed by the care professionals using the facility. It is their opinion that the B's noted in the Estate surveys are not reflective of the environment required for the provision of a modern, safe, inpatient admission service. Indeed the poor functional suitability of the Tobernaveens has the potential to result in inefficient working practices and poor clinical outcomes. Although there are some positive clinical adjacencies e.g. in the admissions area of the ward, patient accommodation is open plan and spread out over the entire building

footprint. This results in significant staff time being required to schedule the individual moving of patients from open areas to more secluded spaces to achieve the privacy required to see patients on a one to one basis for therapeutic interventions. This time required to achieve privacy is time that would be better used offering direct patient care.

**Table 12 Property Appraisal Survey Causeway – Ross Thompson Unit**

| **Causeway Hospital Property Appraisal Survey – Ross Thompson Unit** | |
|---|---|
| Category | Condition |
| Physical Condition | B |
| Building | B |
| Engineering | B |
| Function | B |
| Space | 3 |
| Statutory Standards | B |

As with the Tobernaveens, the internal configuration of the Ross Thompson Unit does not support a modern inpatient mental health service. Lines of sight and observation are difficult to ensure and there are numerous ligature issues as its original design was not designed for mental health inpatient provision.

The categories used in these surveys are defined as follows

**Physical Condition:**

A: As new and can be expected to perform adequately for its full normal life.
B: Sound – some elements could be unacceptable.
C: Operational, but the need for significant repairs has been identified – some elements could be in unacceptable state.
D: Unacceptable.
X: Appended to “C” or “D” to indicate that it is impossible to improve without replacements.

**Statutory Standards:**

A: Conforms to statutory legislation and is a new building.
B: Conforms to statutory legislation.
C: Does not conform to statutory legislation but is capable of being upgraded to that level with minor expenditure.
D: Does not conform to statutory legislation but is capable of being upgraded to that level with major expenditure.
DX: Does not conform to statutory legislation and improvements are with impractical or too expensive to be tenable.

**Functional Suitability:**

A: Either in full compliance with or exceeds the appropriate nationally published guidance and has a "full life" expectation. No expenditure, except for routine maintenance, is required.

B: Reasonable and adequate even though it does not have a "full life" expectation or does not fully comply with national guidance. In most costs, this marking will be perfectly acceptable for the provision of health care. No capital expenditure would be required to improve the building. Repair and normal maintenance would be adequate to sustain at "B" rating.

C: Below "B" standard and would require capital expenditure to upgrade to "B".

D: Below "C" standard and major capital expenditure required to achieve "B".

X: Appended to "C" or "D" to indicate that this department is impossible or impractical to improve.

**Space Utilisation:**

1: Empty or grossly underused
2: Underused
3: Adequate in both provision and use
4: Overcrowded

## 4.2 Changes in Bed Provision

During the last decade the Northern Heath and Social Care Trust (and before it the legacy Homefirst and Causeway Trusts) have been undertaking a substantial modernisation programme for mental health services across hospital and community settings. These changes have resulted in the closure of 222 beds since March 2001 to present.

**Table 13 Current and proposed inpatient bed numbers for the NHSCT**

| Inpatient service bed complement | | Base Case | Proposed Beds @ 2015 | Ratio per 100,000 pop** |
|---|---|---|---|---|
| Non - Acute beds | Low Secure | 0 | 12 | 2.6 |
| | Addictions | 10 | 10 | 2.2 |
| | Intensive Challenging Behaviour | 16 | 0 | |
| **NON-ACUTE TOTAL** | | **26** | **22** | **4.8** |
| Acute beds | Acute | 95 | 80 | 17.5 |
| | Intensive Care (PICU) | 17 | 12 | 2.6 |
| **ACUTE TOTAL** | | **112** | **92** | **20.1** |
| Beds for Older People | Dementia Assessment | 24 | 20 | 4.4 |
| **BEDS FOR OLDER PEOPLE TOTAL** | | | **20** | **4.4** |
| **OVERALL TOTAL** | | **162** | **134** | **29.3** |

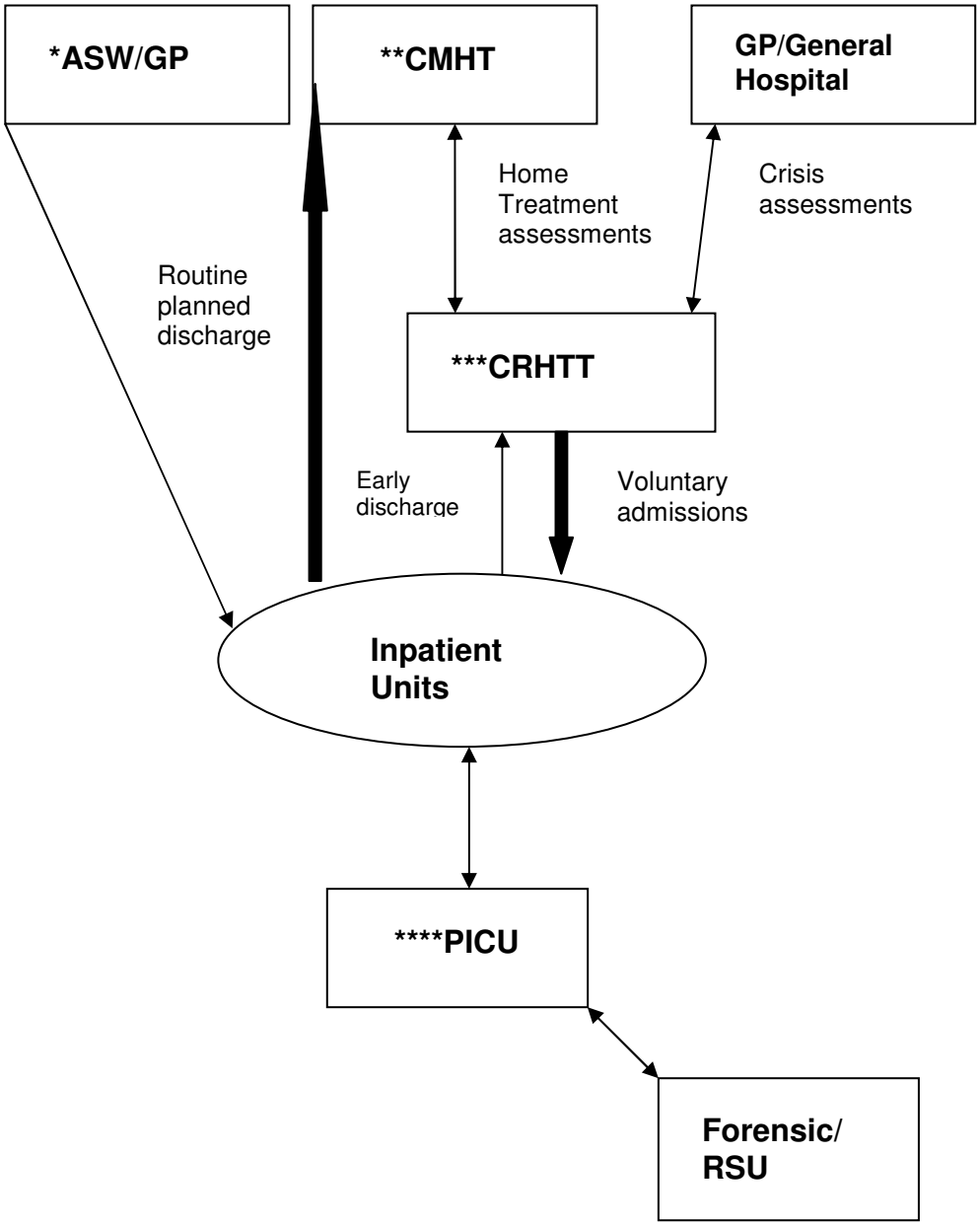
**(NISRA 2015 figures http://www.nisra.gov.uk/demography/default.asp47.htm)
Table 6 sets out the specialty related bed complement based on the current assessment of need. The design of wards in each category has specific requirements suited to the patient condition and this restricts the overall bed configuration. The accommodation design is being developed in conjunction with the Health Estates Investment Group (HEIG) and in line with identified "Best Practice" guidelines e.g. single room and male/female segregation. The ward design will be flexible enough to allow for redesign to meet changing needs in future.

These changes reflect key Bamford principles and have reduced reliance on inpatient services and developed greater levels of treatment in the community. A series of initiatives have been implemented to extend capacity to provide appropriate services within community settings and to enhance pathways for patients across community and hospital services:

- the strengthening of the Community health teams,
- establishing a Crisis Response Team,
- introduction and expansion of the Home Treatment Service
- restructuring following the amalgamation of Trusts
- the development of a Recovery ethos within mental health services
- the introduction of New Ways of Working.
- the further development of supported living to facilitate resettlement for long stay patients.

The detail of this progression and how it will continue is illustrated below on the flow diagram that shows the pathways to inpatient provision.

**Pathways to Inpatient Provision**




Key:
* Approved Social Worker
** Community Mental Health Teams
*** Crisis Response Home Treatment Team
**** Psychiatric Intensive Care Unit

## 4.3 Current Services

Mental Health services within the Northern Health and Social Care Trust have undergone significant transformation over the last 10 years involving a net reduction of 222 beds accompanied by the development and enhancement of community based services alongside improved efficiency achieved through the implementation of new service models.

These service developments, been effective in reducing the need for inpatient treatment and, have reduced lengths of stay for those patients who still require a period of acute care.

They have included;

- *Crisis Response services* which work with patients to support them to continue living in their own home whilst experiencing periods of crisis and difficulty and in need of treatment and support;

- *Home treatment* which enables patients to return home from hospital more quickly than they would have been able to do previously. Their period of intense treatment and support continues outside of hospital;

- *Dementia home support services* which enable people with dementia to continue to be cared for in their own home or a care home setting during periods where their behaviour presents as challenging to care givers through an education and support programme for carers and families;

- Specialist services including eating disorder, personality disorder and forensic services, all working to maintain people in their own home or to reduce hospital lengths of stay; and

- *New Ways of Working* and releasing time to care has been rolled out across both community and inpatient services increasing patient contact time and maximising capacity to further develop coping strategies.

As a result of these service developments the current bed numbers and their location are set out in the following table:

**Table 14**

| Inpatient Service | Current Bed numbers | Holywell | Ross Thompson |
|---|---|---|---|
| Addictions | 10 | 10 | |
| Intensive Challenging Behaviour | 16 | 16 | |
| Acute | 95 | 72 | 23 |
| Intensive Care (PICU) | 17 | 17 | |
| Dementia Assessment | 24 | 24 | |
| **Total** | | **139** | **23** |

### 4.3.1 Acute Provision

Within the mental health context, acute beds cater for a wide range of clients who present with a wide range of conditions and require admission to hospital. It also includes provision for children with conditions such as eating disorders. Care is delivered through a focused approach to use of medical and nursing time as the allocation of an acute care consultant to each inpatient ward has been proven to increase efficiency by reducing the number of ward rounds and team meetings. A constant medical presence on the wards has improved quality and speed of decision making. It has allowed for the development of a consistent approach to the management of inpatients and has delivered improved clinical and therapeutic standards in wards. By developing a team culture there has been the opportunity to improve clinical standards and foster innovative practice.

The Trust recognises the need to change the model of service delivery in the acute inpatient units to take into account the following factors:

- the reduction in the number of admissions reliant upon the further development of community-based treatment services, for example, close links will be developed with the CRHTT who will assist these patients in gaining access to this service for all voluntary admissions and to facilitate early discharge.

- the probability that the patient's overall level of severity of illness will increase;

- the changing expectations of patients and their carers to have care delivered that is based on best evidence by staff who are trained to deliver that care; and

- the need to optimise the use of fewer but expensive inpatient beds

The current sector based service, with consultants working across inpatient and outpatient settings, is not the model that is best placed to deliver a service taking into account those factors for the following reasons:

- multiple consultant team meetings for smaller numbers of patients is an inefficient use of both medical and nursing time
- it does not support the development of an acute inpatient care tea culture
- it can lead to inconsistencies of practice in the same ward
- consultants working across both inpatient and outpatient sectors may have difficulty in managing competing demands on their time

### 4.3.2 Psychiatric Intensive Care Provision

The Trust currently has 17 PICU beds in Lissan and Inver wards on the Holywell Hospital site, providing services for the Northern Trust. The primary function of a Psychiatric Intensive Care Unit (PICU) is the rapid assessment and intensive management of acute mental illness and behavioural disturbance within an integrated pathway. Patients will present with increased vulnerability and pose a level of risk that means that they are unable to be safely managed in an acute ward setting. The treatment provided in PICU will have a direct impact on reducing risk. The multi-disciplinary team takes an active, treatment focused approach aimed at rapid stabilisation, crisis resolution, risk reduction and prevention of relapse and promotion of recovery. With the development of home treatment, the acuity of patients being admitted to hospital has increased and this is reflected in the nature of patients being transferred to PICU. This experience has been reflected elsewhere; in Scotland there is a planned increase in the number of PICU beds due to the changing levels of acuity of patients admitted to psychiatric units.

A review was undertaken of patients admitted to PICU between October 2011 and February 2012. There were 41 admissions during this period, 28 male and 13 female. Four patients were directly admitted following detention under the Mental Health Order. Three patients had a second admission during this period. Eighteen patients had a forensic history. None of the patients would have been considered suitable to remain on an acute ward. The average length of stay for the male patients was 37.4 days and 59 days for female patients (28 days if an outlier is excluded).

The Trust held a PICU workshop in January 2012 at which the nature and function of psychiatric intensive care was explored. It was agreed that the service provided by the Trust was appropriate and proportionate, however a purpose built unit would allow for more flexible use of beds through 'swing' beds for males and females. This would create greater flexibility in the use of beds and consequently the number of beds required could be reduced. The development of specialist Low Secure facilities in Northern Ireland could also impact on PICU usage, so it was agreed that the bed numbers should be further reviewed once the regional Low Secure provision is in place.

### 4.3.3 Inpatient Addictions Service

The Trusts addiction service is provided for people who suffer from a drug or alcohol addiction. It is currently provided within Holywell Hospital and serves the entire Trust population. Considerable work has already been done within the NHSCT, in line with the Bamford sub group recommendations to review and refocus addictions services across community and hospital settings. To maintain operational viability the current level of 10 beds will be maintained by providing three beds for use by other Trusts. The nature and number of beds may change following the outcome of the regional commissioning review of addiction services.

### 4.3.4 Dementia Services

The modernisation of dementia services in recent years including the development of specialist mental health services for older people teams and dementia behavioural support services has enabled the reduction of inpatient dementia assessment beds from 48 to 24 beds in line with the Trust's Adding Life to Years Strategy (2007). This bed reduction is in line with the recommended assessment bed levels outlined in the Adding Life to Years Strategy and provides for remaining inpatient provision as part of the overall spectrum of care. Inpatient provision will focus on provision in line with NICE-SCIE guidelines.

This remaining requirement for inpatient provision is to meet the particular circumstances where inpatient admission is required including the assessment and treatment of significant co-morbid mental health disorders or for the management of severe behaviours that challenge. The Trust has built on the successful work of the Behavioural Sciences Team and is applying this model within the Intermediate Care setting.

It would be hoped that at some stage in the future this type of service could be provided in a specialist community setting.

Both the NICE-SCIE Guidelines (Department of Health 2006) and The Northern Ireland Regional Dementia Strategy 2011 comment that psychiatric inpatient admission for people with dementia may be necessary on occasion. The NICE-SCIE Guidelines outline the circumstances where this may occur (1.9.1.1, page 42)

"As far as possible, dementia care services should be community-based, but psychiatric inpatient admission may be considered in certain circumstances, including if:

- the person with dementia is severely disturbed and needs to be contained for his or her own health and safety and/or the safety of others (in some cases, this might include those liable to be detained under the Mental Health Act 1983)

- assessment in a community setting is not possible, for example if a person with dementia has complex physical and psychiatric problems"

This approach is also is in keeping with "Everybody's Business" (Department of Health 2005) which details the need for inpatient services to "form part of a spectrum of services that can be tailored to the needs of individuals."

### 4.3.5 Functionally Mentally Ill (FMI) provision for Older People

Functionally mentally ill people are those with a mental health diagnosis which is not organic (degeneration of the brain e.g. Dementia or acquired brain/head injury. FMI beds have reduced from 24 to 22. The Trust's strategy, Adding Life to Years (2007) recommended the reduction of the 22 bedded usage to 18 beds. The need for 18 beds was based on a shift from hospital to community based treatment including day hospital and home treatment provision. While home treatment has been implemented there was no available investment to develop a day hospital service and demographic pressure continues. Despite this the projected need has been revised down to 14 beds due to the success of home treatment services in ensuring greater numbers are being treated in the community.

### 4.3.6 Low Secure Provision

Low Secure Provision is a service the Trust does not currently provide but required. It is provided from a secure ward where patients are of higher risk than PICU patients and need to be treated under the Mental Health Order in a secure environment. They are likely to have a prolonged length of stay between 2-5 years. The Trust has identified the need for 12 low secure beds for the Northern Area population with future provision for low secure services being taken forward by a regional group. Carrick 2 in Holywell Hospital has been recently been refurbished to provide for existing low secure needs in the interim.

## 4.4 Next Stage of Furtherance of Strategic Reform

The next phase of improvement and efficiency is to consolidate these improvements within a modernised estate providing a condition specialised inpatient service fully integrated with community services which can respond to the rising levels of acuity across inpatients. It is envisaged that further reduction of inpatient beds will occur over the next 2 to 3 years facilitated by the working through of the most recent developments in community services, particularly. Further changes to bed stock will primarily be achieved through regionally driven initiatives for cross-Trust service provision and future plans for beds within the NHSCT incorporate proposals for regional or cross-Trust service provision. Additional investment in the Community sector will also lead to further bed reductions.

## 4.5 New and Emerging Pressures

Mental Health services have undergone significant transformation involving a net reduction of 222 beds over the last ten years accompanied by the development and enhancement of community based services and improved efficiency through application of new service models.

Further progression over the next few years is outlined with planned reduction of a further 28 beds to be achieved through further effective and efficient working. This will be achieved in the context of a range of new and emerging pressures over which the Trust has limited control:-

- Continued demographic growth, particularly impacting on dementia services.
- Adoption of policy of no children being admitted to adult wards
- The reduction of Extra Contractual Referrals treated outside the Trust area will result in increased pressure on available beds
- The impact of visitors from outside the Trust area being admitted for hospital admission as Extra Contractual referrals; particularly in an area with a major port, university, regional PSNI holding centre.

## 4.6 Future services

### Introduction

The Trust is guided in its approach to modernising Mental Health Services by a number of general principles:

- Services are person-centred;
- Services will be delivered at the right time, in the right place, by the right person, for the right length of time based on assessed needs;
- Everyone has the right to community living;
- Everyone has the right to experience the same level of service regardless of location;
- Services will be planned, implemented and evaluated in partnership with users and carers;
- All mental health services will be provided on a Northern Trust wide basis;
- Services will be planned, implemented and evaluated in partnership with users and carers.
- Service improvement and modernisation will be based on best practice;
- Staff will be supported in their professional and personal development; and
- Services will be delivered in an efficient and effective manner within available resources.

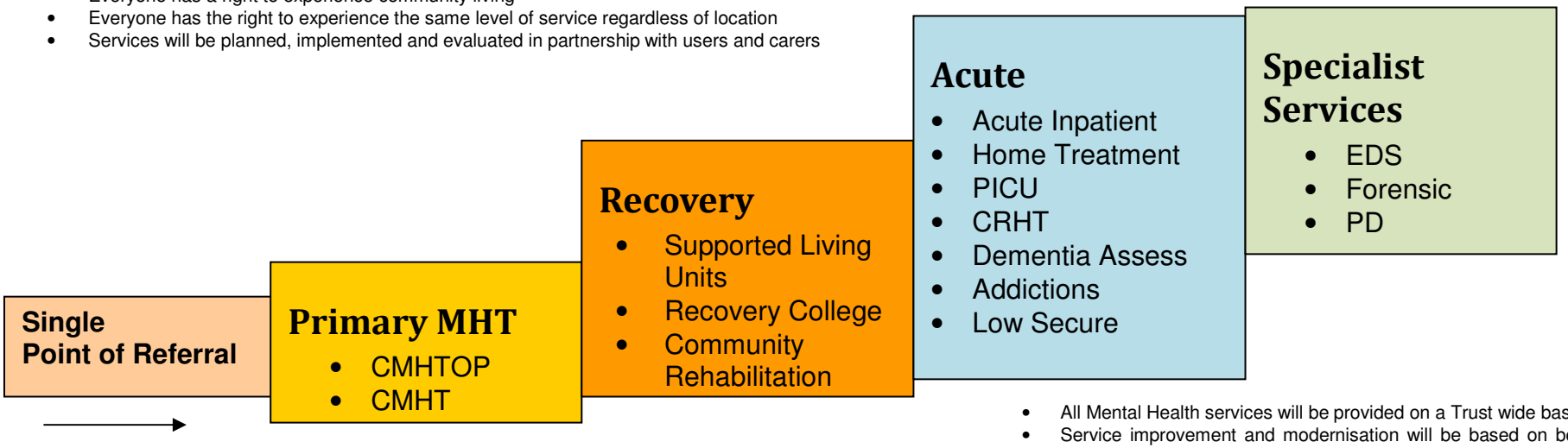
The Trust proposals to reduce the number of acute inpatient beds are underpinned by the development of a recovery focused model of care with more care delivered in a community setting. Recovery services will integrate and interface with acute care services in order to ensure that each service user:

- Can access services more easily;
- Has choice about where and how services are delivered; and
- Receives seamless and person centred care.

The integrated service model is already in place and is being developed on an on-going basis. The model is illustrated in the following table:

## *Northern Trust Model of Care for Adult Mental Health Services*

- Services will be person-centred
- Services will be delivered at the right time, in the right place, by the right person, for the right length of time based on assessed needs
- Everyone has a right to experience community living
- Everyone has the right to experience the same level of service regardless of location
- Services will be planned, implemented and evaluated in partnership with users and carers




- All Mental Health services will be provided on a Trust wide basis
- Service improvement and modernisation will be based on best practice
- Staff will be supported in their professional and personal development
- Services will be delivered in an efficient and effective manner within available resources
- Psychological services will be available to all who need them

***Voluntary and Community Sector***

| | | |
|---|---|---|
| ***Counselling, support, family services, befriending, self help etc*** | ***Day support, Supported accommodation, specialist counselling*** | ***Alcohol/Drug rehabilitation beds*** |

More people are already receiving home treatment and being supported and treated within their community. The figures in the above table showed that referrals to home treatment are increasing and as a result admissions to acute units are falling. The Trust expects to see more people availing of its community and home treatment, thus avoiding unnecessary hospital admission. The Trust is also modernising the way day treatment services are delivered and s moving a Recovery College model.

As a result of developments in acute care and recovery services the Trust is already experiencing fewer admissions to hospital. As part of the new model of care the Trust will also want to see an enhancement of therapeutic interventions, including psychological therapies, for those requiring admission to an acute inpatient bed.

The benefits of the new model of care are many. More people will be able to have support and treatment provided to them in their own homes as opposed to a hospital admission. Those people who require admission to inpatient acute care will benefit from an increase in therapeutic care. People admitted to an inpatient unit will also know how long they can expect to receive inpatient treatment and when and what the follow up will be. As a result patients can expect to spend less time in hospital.

### 4.7 Supporting Changes in the Model of Care

The Department of Health has recognised that additional resources are required for Mental Health to deliver the modernisation of services set out in the Bamford Review. Initially an extra £44 million was secured by the Minister to begin this process within Northern Ireland over the period 2008 - 2011.

The challenge for the Trust over the next few years is to ensure that services are modernised in an effective way that delivers the efficiency targets and enables resources to be invested to support the delivery of the new recovery focused model described in this paper.

### 4.8 Crisis Response Home Treatment

The development of the Trust CRHT service will continue. This will mean that fewer people are admitted to hospital for acute treatment as more and more people receive the help they need either at home or through home treatment services.

### 4.9 Acute Hospital Mental Health Hospital Services - Bed Numbers

As a result of improvements in patient flow, reduction in delayed discharges and a reduction in the need to admit patients from outside the Trust, the Northern Trust has reduced its reliance on beds and will need fewer acute hospital beds in the years ahead. In addition, the development of acute care has resulted in users being able to receive care in the setting most appropriate for them:

- Acute inpatient setting: acute admissions, PICU, addictions, dementia assessment, ECT, rehabilitation/low secure.

- While the need for acute beds will decrease there will still be demand for inpatient

beds. The Bamford report acknowledges that information on incidence and prevalence of mental illness in Northern Ireland is limited. The report does highlight the following:

- The Mental Health Action plan indicates that in any one year in Northern Ireland, over 400,000 people will experience distressing psychological symptoms. It is also indicated that 300,000 people will consult a GP and 160,000 will develop a mental illness.

A particular problem is also the substantial increase in suicide over the past 20 years among younger people. It is now the number one cause of death among 18-24 year olds in Northern Ireland.

### 4.10 Summary of Future Bed Justification Requirements

In summary the future bed configuration of beds for the Trust is planned to be:-

- Acute Mental Health Services - 92 including PICU
- Non-acute Mental Health Services - 10 addictions and 12 low secure (of which 3 are regional)
- Beds for Older People - 20 dementia care beds

**Table 15 Future Bed Numbers**

| Planned Future Inpatient Service Bed Complement @ 2015 | | Beds | Ratio per 100,000 pop |
|---|---|---|---|
| Non-Acute beds | Low Secure | 12 | 2.6 |
| | Addictions | 10 | 2.2 |
| **NON-ACUTE TOTAL** | | **22** | **4.8** |
| Acute beds | Acute | 80 | 17.5 |
| | Intensive Care (PICU) | 12 | 2.6 |
| **ACUTE TOTAL** | | **92** | **20.1** |
| Beds for Older People | Dementia Assessment | 20 | 4.4 |
| **BEDS FOR OLDER PEOPLE TOTAL** | | **20** | **4.4** |
| **OVERALL TOTAL** | | **134** | **29.3** |

The bed compliment for the Trust will be 134 beds of which 92 are acute, 22 non-acute and 20 for people with dementia. With a population of around 457,000 (NISRA, 2009 levels) this will give the NHSCT a ratio of 29 beds per 100,000 people based on the Trusts assessment of need. Taking account of the projected population increase to 474,605 by 2015 the ratio would reduce to 28 beds per 100,000 population. ** (see Table 7)

Work has been undertaken in order to establish the number of beds required for the Northern Trust. This work was centred around guidelines on bed configuration from Bamford and has been agreed within the HSCB. Appendix 2 - Mental Health Bed Requirements provides detail on the projected numbers of patient beds that for the basis of the new service model and capital development options.

## 4.11 Schedule of Accommodation

The assessment of need has identified that there is a requirement to provide a 134 mental health inpatient beds for the Northern Health and Social Care Trust. The Schedule of Accommodation in Appendix 6 identifies the total area for the proposed facility as 14,072m$^2$. A minimum of a 15 acre site will be required allowing sufficient space for car parking and out-door therapeutic space. This facility will be designed in accordance with relevant HBN/HTM guidance as issued by Health Estates Investment Group (HEIG) and best practice.

Generally, planning for the 134 beds will occur around a 22 bed ward with 85% occupancy to provide sufficient capacity over weekend periods where numbers of patients tend to increase. Design of inpatient services around a ward structure, the governance need of operating condition consistent wards and the economies of scale for revenue requirements around ward structures will all impact on the ultimate best fit for ward provision for mental health inpatient services. Best practice recommendation by the Royal College of Psychiatrists is for a maximum of 15 beds per ward. Cost effectiveness on revenue expenditure across wards suggests 22 bed wards. The design of wards in each category has specific requirements suited to the patient condition and restricts the overall ward configuration. The accommodation design is being developed in conjunction with Health Estates and in line with identified Best practice in newly designed Inpatient Mental health Units. The ward design will be flexible enough to allow for redesign to meet changing needs in future.

The patient journeys from admission to discharge are outlined in Appendix 3. These patient journeys on a typical day highlight the focus on assessment and care planning and the on-going requirement for physical, psychological and social assessment. These interventions all require space to be available in order for patients to be assessed and treated.

## 4.12 Service Models

The Trust developed and completed new service models, (Appendix 3) based upon new ways of working initiatives, following the patient journey from admission to discharge in each of the following specialities:-

- Acute Mental Health Inpatient Beds to include PICU and FMI
- Inpatient Addiction Unit
- EMI/Dementia Unit.

While developing the Service Models, Service Users were involved in every stage of the process and their comments were highlighted and discussed. These draft Service Models were tabled at the Trust's Project Team meeting during 2012/13. The final versions were approved and signed off by the Mental Health Management Team in October 2013.

## 4.13 Summary

In summary the future service provision of mental health services will require 134 beds

for the following mental health services:-

- Enhanced home treatment services;
- Day Treatment Services - delivered on an outreach basis;
- Acute inpatient services;
- PICU services;
- Addictions Beds;
- Dementia Assessment;
- Low Secure.

The next section of the OBC develops capital investment options to deliver the service model described above.

## 5.0 PROJECT OBJECTIVES AND CONSTRAINTS

The following section describes the objectives and constraints associated with the re-provision of Mental Health inpatient services across the NHSCT.

### 5.1 Objectives

The project objectives are underpinned by the Trust's commitment to the delivery of a seamless mental health service, which is in line with the DHSSPS strategy specifically the Bamford Review (2006) - A Strategic Framework for Adult Mental Health Services and the TYC Vision to Action document. The project objectives have as far as possible been SMART i.e. Specific, Measurable, Agreed/Achievable, Realistic and Time-bound.

Each objective has an associated measure that will be used to assess the success of each objective. The aim of this project is to provide modern, fit for purpose Mental Health inpatient facility that:

**Table 16**

| Objective | Measure |
|---|---|
| 1. To provide services that are both clinically effective and safe, and allow for the provision of individualised therapeutic care | 1. The achievement of clinical standards as follows:-<br>• Provision of 100% single rooms.<br>• Anti-ligature risks fully addressed in design.<br>• Improved observation of patients by staff.<br>• Access to safe outside and indoor space.<br>• Provision of dedicated Interview space for patients, carers and families.<br>• Provision of a safe and therapeutic environment.<br>2. Projected numbers of patients per annum treated in the new unit:-<br>- 1182 (MH Acute; 80 beds at 21 days LOS at 85% occupancy rate)<br>- 177 (Acute PICU; 12 beds at 21 days LOS at 85% occupancy rate)<br>- 69 (Dementia; 20 beds at 90 days LOS at 85% occupancy rate)<br>- 222 (Addictions - 10 beds (3 beds for regional use) at 14 days LOS at 85% occupancy rate)<br>- 11 (Low Secure - 12 beds at 365 days LOS at 95% occupancy rate)<br>**Total = 134 beds**<br>3. Achieve a reduction in Length of Stay for Acute Admission specialities from 40 days to 21 days based on 85% bed occupancy. |

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| | 4. Reduction in serious self-harm - with improvements in design and full anti ligature construction<br>5. Reduction in clinical risk at the standalone Ross Thompson Unit at Causeway Hospital.<br>6. Meets applicable RQIA standards.<br>7. The achievement of relevant DHSSPS Commissioning Targets. 2014/2015 targets include -<br>• By March 2014, 23 of the remaining long-stay patients in psychiatric hospitals are resettled to appropriate places in the community, with completion of the resettlement programme by March 2015.<br>• From March 2014, no patient waits longer than 9 weeks for adult mental health services and 13 weeks for psychological therapies.<br>8. Provision of 134 acute inpatient beds and subsequently monitoring of usage.<br>9. Appropriate levels of staffing to provide care and treatment in single room accommodation.<br>10. New build to be delivered within 4 years of OBC approval. |
| 2. To provide services which meet the Strategic Direction of the DHSSPS, HSCB and the Trust's Corporate and Service Delivery Plans | • Provide the number of Mental Health Inpatient beds as per the Bamford Review (2006). See the Mental Health Bed Requirements paper (Appendix 2) for breakdown of beds by speciality. Total projected bed requirement is 134.<br>• Provide one acute inpatient site per Local Health Economy (Year 3 – 14/15) – HSC Commissioner Specification for Mental Health.<br>• Deliver on the target that there should be no long stay patient's living in hospital by 2015.<br>• Manage each period of admission to the required level to achieve average length of stay of 21 days for the acute specialty.<br>• Receive support from Commissioner and DHSSPS for this project. |
| 3. To ensure compliance with the requirements for gender separation within inpatient facilities and ensures patient dignity, privacy and safety is maintained at all times. | • Implement the recommendation within Bamford Review (2006) for 100% single room provision. |
| 4. To provide appropriate space - the solution should meet | • Meet requirements of current HBN and HTM |

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| national guidance for best practice in the delivery of acute mental health inpatient facilities. | standards.<br>• Provision of functional internal and external surroundings that maximise therapeutic benefits for users.<br>• Resolution of any defective work identified by the Architect and Contractor to be completed prior to handover. |
| 5. To ensure flexibility to respond to future need. The solution should be designed to respond to any changes in service delivery that may be required as a result of regional strategic review of services. | • Ensure agreed design can be adapted to meet changing needs of the service.<br>• Accommodation is designed flexibly allowing it to be adapted to meet changing approaches to care e.g. Number of rooms that can swing between male or female rooms depending on requirement.<br>• Space on preferred site for expansion |
| 6. To provides a Centre of Excellence in Patient Care | • Accreditation for Acute Inpatient Mental Health Services (AIMS) - awarded by Royal College of Psychiatrists.<br>• The ECT Accreditation Service (ECTAS) standards for the administration of ECT, Electroconvulsive Therapy.<br>• Meet the Building Research Establishment Environmental Assessment Method (BREEAM) and environmental standards of excellence whilst ensuring value for money. The new build should obtain an "Excellent Rating" from this accreditation to ensure it is built to a high quality standard and design.<br>• Meet the National Association of Psychiatric Intensive Care Units (NAPICU) standards. The aims of NAPICU are to improve service user experience and outcome and to promote staff support and development with Psychiatric Intensive Care Units/Low Secure Units. |
| 7. To Improve accessibility to Mental Health services for NHSCT population | • Centralising of MH Inpatient Services as recommended under TYC and the Bamford Review.<br>• Work towards providing a single acute Inpatient Mental Health facility for the Northern Trust on an acute hospital site as stated in the regional Transforming your Care "Vision to Action" Post Consultation Report of March 2013.<br>• Reduction in stigma through provision of a new facility. |
| 8. To support/facilitate | • Access to community Mental Health teams |

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| appropriate adjacencies / integration with other services through the building design. | and supporting services<br>• The proposed facility is to be in proximity to an acute hospital site. (TYC Vision to Action)<br>• Improvement in support from and use of social, recreational and employment facilities. |

### 5.2 Constraints

- This project is dependent upon capital funding being made available by the DHSSPSNI.
- Any additional revenue costs of this project to be funded by the HSCB.
- Delivery of the preferred option should not adversely affect or create unnecessary delay in the delivery of Mental Health Inpatient Services.
- The new Unit must be provided from a single site in line with the HSCB. Commissioner Specification and TYC Vision to Action (subject to public consultation).
- The development of the required community services, through continue investment, in order to facilitate a reduction in inpatient beds.
- Reassurance to all internal and external stakeholders of an equitable and accessible
  Mental Health Inpatient Service for the entire population of the NHSCT.
- This project has to be achieved with 4 years of Business Case approval.
- Delivery of this project cannot impede any future capital development on the Antrim Area Hospital site.

## 6.0 IDENTIFICATION OF THE OPTIONS/OPTION APPRASIAL

The project team met to consider possible options including a range of construction solutions e.g. refurbishment and new build. The project team consisted of relevant Trust professions and membership is as follows:-

| | |
|---|---|
| Alison Renfrew | Assistant Director Capital Development (Chair) |
| Judith Macfarlane | Senior Project Manager Capital Development |
| Trevor Fleming | Head of Mental Health Nursing |
| Phil Hughes | Assistant Director Mental Health |
| Deirdre Lewis | Nursing Services Manager |
| Anne Watson | Project Manager Capital Development |
| Hugh Nelson | Planning & Modernisation Manager |
| Susan Murphy | Planning & Modernisation Department |
| Dr Gerry Lynch | Clinical Director |
| Diane McDowell | Deputy Management Accountant |
| Judy Nelson | General Manager Support Services |
| Elsa Witherspoon | Community Catering Services Manager |
| Margaret Mulholland | Head of Corporate Communications |
| Deirdre Lewis | Nursing Services Manager |
| Joy Hammond | Head of Occupational Therapy |
| Pauline Beach | Occupational Therapy Representative |
| Elaine Kelly | Senior Practitioner, Social Work |
| Frances Dundee | Service Improvement Manager |
| Ian Lyons | Project Manager, HEIG |
| Karen Love | Nursing Adviser, HEIG |
| Frank O'Loughlin | Project Manager ESD |
| Pat Black | ICT & Network Security Manager |
| Dr Maura Young | Consultant Psychiatrist |
| Dr Mairin Walsh | Consultant Psychiatrist |
| Dr Michelle Francis-Naylor | Speciality Registrar |
| Dr Andrew Collins | Medical Representative (PICU only) |
| Mr J McDermott | PALS |
| Chris Tay | Patient Advocacy Rep |
| Mrs Diane Spence | Business Manager |
| Eileen Bell | Service Representative |
| Richard Murphy | Service User |
| Lucille O'Hagan | NIPSA |
| Paul McCormick | UNISON |

The Table 17 on the following page details the long list of possible options.

| Option Number | Option description |
|---|---|
| 1 | **Do Nothing -** minimal capital investment is provided for existing mental health inpatient services across the NHSCT, undertaking basic maintenance and repairs to fabric of the buildings to ensure that they remain water tight and serviceable e.g. patching roof repairing damage to doors, windows, flooring and services. |
| 2 | **Do Minimum -** This option requires considerable capital investment to bring the current Mental Health Inpatient facilities up to statutory standard. Key aspects of the work to be undertaken include the following: re-roofing and pointing; Asbestos and Legionella works, mechanical services upgrade, heating upgrade, electrical services upgrade, window replacement, fire compartmentation, and where required, a structural upgrade. The Inpatient wards to be upgraded include: Lissan 1 and Inver 1 (PICU Wards); Carrick 1 (Addictions Ward); Carrick 4 (Low Secure Ward) the three Tobernaveen Wards and Tardree (Dementia Ward) on the Holywell site as well as the Ross Thompson Unit at Causeway Hospital. |
| 3A | Total refurbishment and extension of Holywell Hospital and Ross Thompson to deliver new service models as outlined in the assessment of need in Section 4. This would require the removal and reconfiguration of an extensive number of existing internal walls, floors and ceilings to provide an element of single room provision accommodated within existing space constraints. |
| 3B | Total refurbishment and extension of Holywell Hospital to deliver new service models (including transfer of Ross Thompson to vacant ward accommodation in Tardree and Lissan 2 wards) as outlined in the assessment of need in Section 4. This would require the removal and reconfiguration of an extensive number of existing internal walls, floors, ceilings to provide an element of single room provision accommodated within existing space constraints. |
| 4A | Build a standalone Mental Health Inpatient facility on the Antrim Area Hospital site. There is undeveloped land on the south boundary of the existing hospital site. (See drawing at Appendix 7). This option will require an upgrade of site infrastructure which would include roads, drainage, parking, electrical and ICT. It will provide new accommodation to meet all HTM and HBN's and which will support the new service models. |
| 4B | Build a standalone permanent Mental Health Inpatient facility in the Coleraine area on a site to be identified and purchased by the Trust. This site must be a one mile radius from Causeway Hospital. |
| 4C | Build a standalone permanent Mental Health Inpatient facility at Holywell Hospital site. There is undeveloped land on the southern side of the existing hospital site, see drawing at Appendix 7. This will require an upgrade site infrastructure which would include roads, drainage, parking, electrical and ICT. It will provide new accommodation to meet all HTM and HBN's which will support the new service models. |
| 4D | Ballymena Option: Develop a new build in the Ballymena area on a site to be identified and purchased by the Trust. This will provide new accommodation to meet all HBN's and HTM's which will support the new service models |
| 4E | Build a standalone permanent Mental Health Inpatient facility on the Bush House site at Antrim Area Hospital. This would require demolishing Bush House and the surrounding buildings and accommodating the staff in alternative accommodation. It will provide new accommodation to meet all |

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| | HBN's and HTM's which will support the new service models. |
| **4F** | Build a standalone permanent Mental Health Inpatient facility at Causeway Hospital site. There is undeveloped land on the North East corner of the hospital site. See drawing at Appendix 7. This will require an upgrade site infrastructure which would include roads, drainage, parking, electrical and ICT. |
| **5A** | Develop a 2 site new build at Antrim Area Hospital/Holywell Hospital to re-provide Acute Assessment Beds; PICU and Dementia Assessment on Antrim Area Hospital site and Low Secure Beds and Addiction Service on Holywell Hospital site. This will require an upgrade to site infrastructure required e.g. roads, drainage, parking, electrical and ICT. It will provide new accommodation to meet all HTM and HBN's which will support the new service models. |
| **5B** | Develop a 2 site new build at Antrim Area Hospital/Causeway Hospital site to re-provide acute assessment beds; PICU and Dementia Assessment on Antrim Area Hospital site and Low Secure Beds and Addiction Services on the Causeway Hospital site. This will require an upgrade to site infrastructure required e.g. roads, drainage, parking, electrical and ICT. It will provide new accommodation to meet all HTM and HBN's which will support the new service models. |
| **5C** | Develop a 2 site new build at Holywell Hospital/Causeway Hospital site to re-provide acute assessment beds; PICU and Dementia Assessment on the Causeway Hospital site and Low Secure Beds and Addiction Services on Holywell Hospital site. This will require an upgrade to site infrastructure required e.g. roads, drainage, parking, electrical and ICT work. It will provide new accommodation to meet all HTM and HBN's which will support the new service models. |
| **6** | To cease the Inpatient Mental Health service within Holywell Hospital & Ross Thompson and transfer to the community/other Trusts. |

## 6.1 Shortlisting of Options

The following section describes the shortlisting of the options in detail, including the advantages and disadvantages of each.

### Option 1 Do Nothing

This option requires minimal capital investment being provided for existing mental health inpatient services across the NHSCT. Daily basic maintenance and repairs to fabric of the buildings are undertaken to ensure that it remains water tight and serviceable e.g. patching roof repairing damage to doors, windows, flooring and services.

This option has not been short-listed as it does not allow the implementation of the new service model as outlined in section 4. It does not address any of the deficiencies in the current mental health inpatient accommodation on Holywell and Causeway Hospital and remains unsustainable in the long term.

**Option 2 Do Minimum**

This option requires considerable capital investment to bring the current Mental Health Inpatient facilities up to statutory standard. The most significant work needs undertaken at Holywell, given it was built between 1894 and 1897 and is in need of significant investment. Key aspects of the work to be undertaken include the following: re-roofing and brickwork repointing of all the inpatient blocks and associated communication corridors and support accommodation e.g. central kitchen; Asbestos and Legionella works, mechanical services upgrade, heating upgrade, electrical services upgrade, extensive window replacement, fire compartmentation throughout all inpatient blocks, and where required, a structural upgrade. The Inpatient wards to be upgraded include: Lissan 1 and Inver 1 (PICU wards); Carrick 1 (Addictions Ward); Carrick 4 (Low Secure Ward); the three Tobernaveen Wards and Tardree (Dementia Ward) on the Holywell site as well as the Ross Thompson Unit at Causeway Hospital.

**Advantages**

- This option will ensure compliance with the minimum statutory standards required for inpatient mental health facilities including Fire code, DDA, Asbestos and legionella standards.

**Disadvantages**

- The inpatient service within Holywell Hospital site and Ross Thompson, Causeway Hospital are not fit for purpose and the physical condition, security, function and suitability of the various inpatient wards (including the inability to provide separate wards by gender) are deemed to be below acceptable standards that this option will not address
- Patients will be required to be decanted to alternative accommodation whilst this work is being completed.
- This option will not be compliant with current HBN standards.
- This option will only partly facilitate the implementation of the proposed new Service Models.
- This option cannot be fully compliant with the requirement for an anti-ligature design.
- This option will take longer to deliver compared to a complete refurbishment or new build.
- The stigma associated with Holywell Hospital over the last century would continue to exist.

Whilst the Do Minimum option is not an adequate or acceptable solution it provides a baseline against which to compare other do-something options and this option has therefore been short-listed.

**Option 3a Total Refurbishment and Extension of Holywell Hospital and Ross Thompson, Causeway Hospital**

This option involves the total refurbishment of the Inpatient wards at Holywell Hospital and the Ross Thompson facility at Causeway Hospital from which to deliver new service models and new ways of working. It requires the removal and reconfiguration of an extensive number of existing internal walls, floors, ceilings to provide an element of single room provision accommodated within existing space constraints.

**Advantages**

- These wards will now be compliant with all statutory standards.
- The refurbishment will partially facilitate the implementation of the new service model including the creation of limited single room provision.

**Disadvantages**

- Refurbishing these hospital sites will not provide the same space standards as a new build because of the limitation of existing external and support walls.
- The construction time for a refurbishment may be longer than a new build.
- There will be significant disruption to patients and staff and decant will be required.
- There will be only partial implementation of the new service model e.g. 100% single room accommodation will not be provided and there will be limited therapeutic space.
- This option will not be compliant with current HBN standards.
- The main block of Holywell Hospital is a listed building which may limit the extent of the refurbishment work permitted by the Environment and Heritage Department.
- The stigma associated with Holywell Hospital over the last century would continue to exist.

This option has not been short-listed partly due to the requirement to decant patients. It would also mean the Inpatient mental health service would be delivered on a split site across Holywell and Causeway Hospitals and this will only partially support the delivery of the new service model.

**Option 3b Total Refurbishment and Extension of Holywell Hospital**

This option involves the total refurbishment of Holywell Hospital to deliver the proposed new service models (including transfer of Ross Thompson to vacant ward accommodation in Tardree and Lissan 2 wards) as outlined in the Assessment of Need in Section 4. This would require the removal and replacement of an extensive number of existing internal walls, floors, ceilings to provide an element of single room provision accommodated within existing space constraints.

**Advantages**

- These wards will now be compliant with all statutory standards.
- The refurbishment will partially facilitate the implementation of the new service model including the creation of limited single room provision.

**Disadvantages**

- Refurbishing Holywell Hospital is unlikely to provide the same space standards as a new build because of the limitation of existing external and support walls.
- The construction time for a refurbishment may be longer than a new Build.
- Patients that currently attend Ross Thompson Unit will have further to travel to obtain Mental Health Inpatient Services.
- There will be significant disruption to patients and staff and decant will be required.
- This option will not be compliant with current HBN standards.
- The main block of Holywell Hospital is a listed building which may limit the extent of the refurbishment work.

- The stigma associated with Holywell Hospital over the last century would continue to exist.

This option has not been short-listed. Although the inpatient provision will be totally refurbished, the design will be compromised by the existing structure and there will be only partial implementation of the new service model meaning it will be difficult to deliver high quality clinical and therapeutic care in these settings.

**Option 4a Build a Standalone Mental Health Inpatient Facility on the Antrim Area Hospital site**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility on the Antrim Area Hospital site 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. This site identified is to the south boundary of the site, beyond Fern House is accessed through the main hospital site and is approximately 15 acres.

**Advantages**

- The new build will be to current Health Building Note (HBN) standards
- It would provide high quality purpose built accommodation
- The proposed site is already in Trust ownership
- Dedicated car parking will be available on site
- It will facilitate the implementation of the new service model.
- Disruption to patients and staff will be minimised as the construction work will take place on a contained greenfield site
- The site has good access to the main road network
- The site is adjacent to the Antrim Area Hospital to allow the sharing of acute hospital clinical/general services where possible.
- The location of the new build will lessen the stigma associated with a mental health facility as the entrance will be via the main hospital site associated mainly within acute hospital services.

**Disadvantages**

- There is a requirement to upgrade site infrastructure which would include roads, drainage, parking, electrical work and ICT.
- The MH IP Service is co-dependent with other mental health services located on the Holywell Hospital site and a geographical separation of these services will result in a significant reduction of interface between acute and community mental health teams from the current level.
- Inpatients (and their relatives/carers) that currently attend Ross Thompson Unit will have further to travel to obtain Mental Health Inpatient Services.

This option will be short-listed as it meets the objectives as set out above and will be subject to further detailed analysis.

**Option 4b Develop a New Build in the Coleraine Area on a Site to be Identified and Purchased by the Trust**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility in the Causeway locality providing 80 acute beds, 12 PICU, 20 dementia, 12 low

secure and 10 addiction beds. The Trust will be required to purchase a site within 1 mile radius of Causeway Hospital.

**Advantages**

- The new build will be to current Health Building Note (HBN) standards.
- It would provide high quality purpose build accommodation.
- A new build will facilitate the implementation of the service model outlined in Section 4.
- There will be no disruption to patients and staff as the construction work will take place on a Greenfield / Brownfield site.
- The location of the new build may lessen the stigma associated with a mental health facility as it will be a new facility on an independent site.

**Disadvantages**

- This option does not provide a central location for Mental Health Inpatient services. Due to the geographical location there would be a significant amount of travel for patients from the Antrim and East Antrim areas who currently attend Holywell Hospital to access the Mental Health Inpatient Services and would now have to travel to the Causeway area.
- Any proposed site will not be in Trust ownership and will need to be purchased.
- The facility will **not** be located on site with the current Mental Health Community Services and close working relationships will not be maintained. These teams are Psychological Therapy Service (PTS), Home Treatment Crisis Response (HTCR), Community MH Teams (CMHT), Cognitive Behavioural Therapy (CBT), Forensic, Eating Disorder and Personality Disorders. This option will not be able to access adjacent acute hospital clinical/general services.

This option will be short-listed as it meets the objectives as set out above and will be subject to further analysis.

**Option 4c Build a Standalone Mental Health Inpatient Facility on the Holywell Hospital site**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility, this time on the Holywell Hospital site, 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. There is undeveloped land on the southern side of the existing hospital site of approximately 27 acres.

**Advantages**

- The new build will be to current Health Building Note (HBN) standards
- It will provide high quality purpose built accommodation
- The proposed site is already in Trust ownership
- Dedicated car parking will be available on site
- It will facilitate the implementation of the service model.
- There will be minimal disruption to patients and staff as the construction work will take place on a contained greenfield site.
- The site has good access to the main road network
- There is future provision of expansion on this site.

**Disadvantages**

- This option will not be able to share acute hospital clinical/general services available on an acute hospital site.
- The location of the new build will not lessen the inherent stigma associated with the current mental health facility which dates back to 1900.
- There is a requirement to upgrade site infrastructure which would include roads, drainage, parking and electrical work.
- Inpatients (and their relatives /carers) that currently attend Ross Thompson Unit will have further to travel to Antrim to obtain Mental Health Inpatient Services.

This option will be short-listed as it meets the objectives as set out above and will be subject to further analysis.

**Option 4d Ballymena Site: Develop a new build in Ballymena area on a site to be identified and purchased by the Trust.**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility on the Ballymena area site providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. This option will require the Trust purchasing a suitable site of 25 acres.

**Advantages**

- The new build will be to current Health Building Note (HBN) standards
- It will provide high quality purpose built accommodation
- Dedicated car parking will be available on site
- It will facilitate the implementation of the service model.
- The location of the new build will remove the inherent stigma associated with the current mental health facility on Holywell Hospital site.
- The new build will be a central location to the population of the Trust.

**Disadvantages**

- The proposed site will not be in Trust ownership
- The facility will **not** be located on site with the current Mental Health Community Services and close working relationships will not be maintained. These teams are PTS, HT Crisis Response, Community MH Teams, CBT, Forensic, Eating Disorder and Personality Disorders.
- Acute hospital clinical/general services will not be locally available to the unit.
- Inpatients (and their relatives/ carers) that currently attend Ross Thompson Unit and Holywell may have further to travel to Ballymena to obtain Mental Health Inpatient Services.

This option will not be short-listed as it does not meet the project objectives or provide the service model required.

**Option 4e Bush House: Build a Standalone Permanent Mental Health Inpatient facility on the Bush House site.**

This option would require demolishing Bush House and the surrounding buildings and accommodating the staff in alternative accommodation. This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility on the Antrim site providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds.

**Advantages**

- The new build will be to current Health Building Note (HBN) standards
- It would provide high quality purpose built accommodation
- The proposed site is already in Trust ownership
- Dedicated car parking will be available on site
- It will facilitate the implementation of the service model.
- The site has good access to the main road network
- The facility will be located in close proximity to the current Mental Health Community Services ensuring close working relationships are maintained. These teams are PTS, HT Crisis Response, Community MH Teams, CBT, Forensic, Eating Disorder and Personality Disorders.
- The location of the new build will lessen the inherent stigma associated with the current mental health facility on Holywell Hospital site.
- There will be minimal disruption to staff or patients in the current Mental Health Inpatient facility.
- This option will be able to share acute hospital clinical/general services available on AAH site.

**Disadvantages**

- Bush House is a listed building and the Trust may not obtain permission to demolish the building.
- There will be significant disruptions to administrative staff presently based in Bush House as they will require alternative accommodation before construction can start.
- There is a requirement to upgrade site infrastructure which would include roads, drainage, parking and electrical work.
- Patients that currently attend Ross Thompson Unit will have further to travel to Antrim to obtain Mental Health Inpatient Services.
- There is limited restricted opportunity for expansion on this site.

This option will not be short listed as Bush House is a listed building and the planning restrictions would make it extremely difficult to create a new unit whilst maintaining the current facility. Alternatively the process of delisting the facility if at all possible would increase the timescale. If delisting was possible this option requires an additional phase of work to provide accommodation for staff currently in Bush House as it would need to be vacated prior to being demolished. This adds both time and cost to the project.

**Option 4f Build a standalone permanent Mental Health Inpatient facility at Causeway Hospital site**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility on the Causeway Hospital site providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. There is undeveloped land on the North East corner of the hospital site. It is approximately 14 acres.

**Advantages**

- The new build will be to current Health Building Note (HBN) standards.
- It would provide high quality purpose build accommodation
- The proposed site is already in Trust ownership
- Separate car parking will be available on site
- It will facilitate the implementation of the service model.
- There will be minimal disruptions to patients and staff as the construction work will take place on a Greenfield site
- The facility is on the Causeway Hospital site, allowing the sharing of acute hospital clinical/general services where possible.
- The location of the new build will lessen the stigma associated with a mental health facility as the entrance will be via the main hospital site associated with mainly acute hospital services

**Disadvantages**

- This option does not provide a central location for Mental Health Inpatient Services and due to the geographical location there would be a significant amount of travel for patients who currently attend Holywell Hospital to access the Mental Health Inpatient Services at Causeway Hospital.
- There is limited space on the Causeway Hospital site therefore a single level facility is ruled out. This would have to be a multi storey building. The perimeter of the Causeway Hospital site is classified as a flood plain designated wet land area and this may impact on the planning of this option.
- There is a requirement to upgrade site infrastructure which would include roads, drainage, parking, electrical work and ICT.

This option will not be short-listed as it does not meet the objectives as set out above and will therefore not be subject to further analysis.

**Option 5a Build a new Mental Health Inpatient Facility across two sites with provision split between the Antrim Area Hospital and Holywell Hospital sites**

This option involves developing a 2 site Mental Health Inpatient new build to re-provide 80 acute, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. The Antrim Area Hospital site identified is to the south boundary of the site, beyond Fern House and is accessed through the main hospital site. The Holywell site is undeveloped on the southern side of the site.

**Advantages**

- Both new builds will be to current Health Building Note (HBN) standards.
- It will provide high quality purpose built accommodation
- The proposed sites are already in Trust ownership
- Dedicated car parking will be available on both sites
- It will facilitate the implementation of the service model
- There will be minimal disruptions to patients and staff as the construction work will take place on Greenfield sites.
- Both sites have good access to the main road network

- The Acute specialties will be adjacent to the Antrim Area Hospital to allow the sharing / access to clinical/general services where possible.
- The location of the AAH build will lessen the stigma associated with a mental health facility as the entrance will be via the main hospital site associated with mainly acute hospital services.
- There is future provision for expansion on the Holywell Hospital site for Regional Low Secure service, Addictions and Early Intervention Services for younger (17+ years) patients.

**Disadvantages**

- A split site will impact on the integration of these services.
- The location of the Holywell Hospital build will not lessen the inherent stigma associated with this mental health facility.
- There will be loss of economies of scale for staffing and support services.
- Those patients attending Ross Thompson will have further to travel to Antrim to obtain Mental Health Inpatient Services.
- Each Mental Health specialty is provided at only one location within the Trust, Meaning that patients may have to travel further to access appropriate services.
- There will be disruption to patients and staff.

This option has not been short-listed due to the Inpatient Mental Health Service being delivered on a split site and not meeting the service model requirements and is counter strategic to the TYC Single Site Model.

**Option 5b Build Mental Health Inpatient Facilities on two sites with provision split across Antrim Area Hospital site and Causeway Hospital site**

This option involves developing a 2 site Mental Health Inpatient new build to re-provide 80 acute, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. The Antrim Area Hospital site identified is to the south boundary of the site, beyond Fern House and is accessed through the main hospital site. The Causeway site has undeveloped land on the North East corner.

**Advantages**

- The new build will be to current Health Building Note (HBN) standards
- It will provide high quality purpose built accommodation
- The proposed sites are already in Trust ownership
- Dedicated car parking will be available on site
- It will facilitate the implementation of the service model.
- Both sites have good access to the main road network
- Both of the sites are adjacent to Acute Hospitals allowing the sharing of acute hospital clinical/general services where possible.
- The location of the AAH/Causeway Hospital build will lessen the stigma associated with a mental health facility as the entrance will be via the main hospital site associated with mainly acute hospital services.

**Disadvantages**

- A split site will impact on the integration of the delivery of these Services and only partially deliver the new service model.
- There will be disruption to patients and staff
- There will be loss of economies of scale for staffing and support services.
- There may be minimal room for future expansion on both of these sites.
- Each Mental Health specialty is provided at only one location within the Trust, meaning that patients may have to travel further to access appropriate services.

This option has not been short-listed due to the Inpatient Mental Health Service being delivered on a split site and the potential increase of travel for patients needing access to services. In addition it is counter strategic to TYC Single Site Model.

**Option 5c Build Mental Health Inpatient Facilities on two sites with Provision split across Holywell Hospital site and Causeway Hospital site**

This option involves developing a 2 site Mental Health Inpatient new build to re-provide 80 acute, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. There is undeveloped land on the southern side of the existing Holywell Hospital site and undeveloped land on the North East corner of the Causeway Hospital site.

**Advantages**

- The new builds will be to current Health Building Note (HBN) standards
- It will provide high quality purpose built accommodation
- The proposed sites are already in Trust ownership
- Dedicated car parking will be available on site
- It will facilitate the implementation of the service model
- Both sites have good access to the main road network
- One of the sites is adjacent to an Acute Hospital to allow the sharing of acute hospital clinical/general services where possible.
- The location of the Causeway Hospital build will lessen the stigma associated with a mental health facility
- There is future provision of expansion on the Holywell Hospital site.

**Disadvantages**

- A split site service will impact on the integration of the delivery of these services.
- The location of the Holywell Hospital build will not lessen the inherent stigma associated with this mental health facility
- There will be loss of economies of scale for staffing and support services
- There will be no room for expansion on the Causeway Hospital site
- Each Mental Health specialty is provided at only one location within the Trust, meaning that patients may have to travel further to access appropriate services.
- There will be disruption to patients and staff.

This option has not been short-listed due to the Inpatient Mental Health Service being delivered on a split site and the potential increase of travel for patients needing access to these services. In addition it is counter strategic to TYC Single Site Model.

**Option 6: Cease to Provide Psychiatric services within Holywell Hospital and Transfer to the community / other Trusts**

This option involves the ceasing of the Trust's Mental Health In Patient Services and would be transferred to the Trust's community services or other Trust's mental health services.

**Advantages**

- The Trust will have to contract the provision of MH IP services to other Providers and may obtain efficiency savings from this service.
- The Trust will not have to provide maintenance to the existing buildings.

**Disadvantages**

- The people residing within the NHSCT area will have to access mental health inpatient services outside of the Trust area.
- The Trust has one of the biggest geographical locations to cover within NI with a population of over 457,000. It would provide an inequity in travel times as patients would have to travel to another Trust to obtain Mental Health Inpatient Services.
- There may not be capacity at other Mental Health Inpatient hospital sites.
- Numerous contracts to manage with other MH IP Trusts/Providers would be required.
- The Community MH Teams will not have any fall-back position to access beds. This poses a high risk situation for both staff and service users.

This option has not been short-listed as it states within TYC and the Commissioner's Specification for Mental Health that the Trust is required to provide one In Patient acute site per Local Health Economy by 2014/15.

## 6.2 Short-List Options

Based on the above analysis the following options have been short-listed:-

**Option 2 Do Minimum**

This option requires significant capital investment to improve the standards of both existing Mental Health Inpatient facilities. Whilst this would not be the Trusts preferred solution it provides a baseline against which to compare other "do-something" options.

**Option 4a Build a Standalone Mental Health Inpatient Facility on the Antrim Area Hospital site**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility on the Antrim Area Hospital site providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds.

**Option 4b Build a Standalone Permanent Mental Health Inpatient facility on a Site to be identified within a One Mile Radius of Causeway Hospital**

This option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility on a site to be identified and purchased by the Trust. This site must be within a one

mile radius of Causeway Hospital. It will provide 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds.

**Option 4c Build a Standalone Mental Health Inpatient Facility on the Holywell Hospital site**

As with option 4a and 4b this option will deliver a standalone permanent Mental Health Inpatient (MHIP) facility, this time on the Holywell Hospital site, providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds.

## 7.0 NON MONETARY COST & BENEFITS (INCLUDING SUSTAINABILITY, EQUALITY & LIFE TIME OPPORTUNITIES)

The following Table sets out the Benefit Criteria and the Weighting applied to each. This will form the basis of the non-financial assessment of the short-listed options.

**Table 18: Benefit Criteria**

| Criteria | Weighting | Description of Criteria |
|---|---|---|
| **Improvement in quality and effectiveness of service** | 25 | This criterion was ranked as number 1 as there is a continuing emphasis for providers of services to show evidence of best practice in clinical, patient/client responsiveness and efficiency terms.<br><br>Improvement in quality and effectiveness of service will be delivered through<br>• ensuring the delivery of the correct number of beds;<br>• new, more therapeutic service models;<br>• the right level of staffing and skill mix to deliver the required service model;<br>• greater flexibility with single rooms that can support male or female patients without the need to reorganise bedrooms or wards;<br>• a reduction in aggression through well designed and appropriate therapeutic space without overcrowding;<br>• improved privacy and dignity for patients and their families;<br>• 7 day working for AHP staff ensuring activities for patients after 5pm and at weekends hence reducing boredom and as a consequence less agitated patients<br>• better overall work flows within the total inpatient service model.<br><br>This key criterion is a measure of the clinical effectiveness and quality afforded by each option. It takes into account the following:<br>• Consideration of issues relating to the quality of service provided.<br>• Ability to meet Purchaser's commissioning requirements.<br>• Ability to meet standards of best practice for patients requiring mental health services.<br>• The ability to deliver multi-disciplinary continuity of care. |

| | | |
|---|---|---|
| **Accessibility** | 20 | This criterion was ranked as equal second. Accessibility for patients to the Trust's Mental Health Inpatient Service is paramount in terms of location, travel times and transportation. The preferred location for the new Mental Health Inpatient Unit must be based on providing appropriate accessibility and acceptability in the equity of service provision to the Northern Trust area. Patients with a physical disability can gain access to the building and will not be therefore disadvantaged. This criterion takes into account the following:-<br>• The facility should be in a separate and distinct building from the present historic link to address perceptions of stigma associated with mental health services.<br>• The impact on staff in terms of location of new facility.<br>• Transport network linkages should be no less than the current infrastructure providing easy access to all services including regional services e.g. Belfast City Hospital, the Shannon Forensic facility or the regional eating disorder service. |
| **Provision of Appropriate Physical Environment** | 20 | This criterion was ranked as equal second The development of a new facility is an opportunity to ensure that it is designed and built to deliver the Trust's Service Model and relevant standards in terms of living, sleeping and social space both internal and external.<br><br>The current buildings are not fit for purpose and cannot provide appropriate quality of care delivery to patients. The proposed new facility will ensure:-<br>• The provision of 100% single rooms<br>• Full anti-ligature compliant design<br>• Fully compliant DDA Act design ensuring full access for wheelchair and semi ambulant<br>• Gender compliance<br>• Excellent access to a wide range of internal and external spaces<br>• Sufficient provision of interview space for patients, carers and families.<br>• The provision a safe and therapeutic environment<br>• The provision of landscaped, safe external space, imaginative lighting, good sound proofing and thoughtful grading of public and private spaces powerfully influencing the atmosphere in a ward (Ref from: Not Just Bricks and Mortar, Working Party of |

| | | |
|---|---|---|
| | | New Acute Adult Psychiatric In Patient Unit, by Tom Burns).<br>• The ability to improve the environment in which the service is delivered in order to meet the expectations of service users, carers and staff as current building is unable to deliver the quality of services as outlined within the Trust's Mental Health Inpatient Service Model.<br><br>Ultimately the proposed facility will provide an appropriate environment from which to provide high quality care and meet the following requirements:<br><br>• The ability to meet appropriate HBN/HTN standards including the current HBN: (HBN 03-01 Adult Acute Mental Health Units – Planning and design, and any other current best practice recommendations for Mental Health Inpatient Facilities.<br>• The ability to provide 100% single rooms. In March 2008 the DHSSPS implemented PEL(08)07 "Standards for the Provision of 100% Single Bed Rooms in Acute and Local Hospitals", this recommended that all new build ward accommodation should be planned on the basis of 100% single rooms.<br>• The ability to provide appropriate external space. The Centre for Health Design has produced reports entitled "Creating Safe and Health Spaces" and "Gardens in Healthcare Facilities" which highlights the importance of requiring external space in the MH Inpatient facility. The need for outdoor spaces is also referenced in the Trust's Mental Health Inpatient Service Model report.<br>• The ability to delivery inpatient services on ground floor level to facilitate access to appropriate outside space. |
| **Flexibility to respond to Strategic fit** | 15 | This criterion was ranked as equal 4th. The degree of strategic fit refers to the extent to which the proposed development of a Mental Health Inpatient Unit 'fits' with the strategic and policy aims and objectives of DHSSPS, the NHSCT and the Commissioner. For example, how each option would address the regional direction of centralising low secure services into 3 units (one of which may be within the NHSCT) – ensuring that there is sufficient capacity to address this change if so desired. It also takes into account the critical need to make best use of the available Trust estate, and looks at the appropriateness of the site chosen for each option in terms of the long term capital development of Trust owned sites and space to expand if required. |

| | | |
|---|---|---|
| **Availability of service linkages/integration** | 15 | This criterion was ranked as equal 4th. The criterion takes into account the following:<br><br>• Requires close proximity to an Acute Hospital site to access, for example ED, Outpatients, ECT Anaesthetics, and access to ambulances. (Transforming Your Care, 2011)<br>• Good links to regional services including e.g. Shannon Clinic<br>• The Mental Health Services Commissioner's Specification has stated that there should be a single mental health acute facility in each Trust by 2015. |
| **Ease and speed of implementation** | 5 | This criterion was ranked as number 6.<br>Options that deliver benefits earlier are preferable to those which can only deliver benefits after a longer period of time. In addition, the timescale for implementing any change in the delivery of this service must take into consideration the need for continuity of service delivery. This criterion takes into account the following:<br><br>➢ Effect on other services and departments.<br>➢ Effect on car parking, roadways and physical access to existing services and buildings.<br>➢ Phasing of the construction project e.g. site constraints, planning constraints.<br>➢ Proximity of building operations (safety, noise, dust etc.).<br>➢ Inconvenience to staff, patients and visitors.<br>➢ Disruption to and continuity of services |
| **TOTAL** | **100** | |

## 7.1 Weighting and Scoring of Short-Listed Options

The Project Team scored each of the short-listed Options out of 10. **Table 19 below details the scor**

| Criteria | Weight | Option 2 Do Minimum | | Option 4a A Standalone Permanent MH IP Facility at AAH site | | Option 4b A Standalo Permanent Greenfield Coleraine A mile radius Causeway |
|---|---|---|---|---|---|---|
| | | S | WS | S | WS | S |
| **Improvement in quality and effectiveness of service** | 25 | 4 | 100 | 10 | 250 | 10 |
| **Flexibility to respond to strategic fit** | 15 | 2 | 30 | 10 | 150 | 7 |
| **Accessibility** | 20 | 7 | 140 | 6 | 120 | 4 |
| **Provision of Appropriate Physical Environment** | 20 | 5 | 100 | 9 | 180 | 7 |
| **Availability of Other Service Linkages** | 15 | 6 | 90 | 10 | 150 | 8 |
| **Ease and speed of implementation** | 5 | 5 | 25 | 6 | 30 | 5 |
| | 100 | | 485 | | 880 | |

The following Scoring Sheets detail the score and justification for each option

**Option 2: Do minimum**

| Criteria | Score | Score justification |
|---|---|---|
| **Improvement in quality and effectiveness of service** | **4** | This option scored 4 as it does not facilitate the delivery of the new service model from purpose designed accommodation. The current facilities, even with limited investment, are not fit for purpose, do not facilitate the required service model, do not provide the appropriate therapeutic environment nor provide an environment that provides the required patient flows. |
| **Flexibility to respond to Strategic fit** | **2** | This option scores 2 as it does not offer any opportunity to respond to change in the strategic direction of the Mental Health Inpatient Service as the constraints of the existing building would significantly limit the ability to be flexible to changes in strategic direction. |
| **Accessibility** | **7** | This option scores the highest at 7. It provides an acute Mental Health Inpatient Service in two areas of the Trust providing good access for the majority of the Trust's population that require access to acute Inpatient Mental Health Services. However the stigma associated with the current Holywell site is not addressed. |
| **Provision of Appropriate Physical Environment** | **5** | This option scores 5 as it would not be able to comply with the new service model and there is not enough internal and external space to meet current standards in terms of single room provision and access to therapeutic space. This option does not :-<br>➢ Address the requirement of 100% single rooms and gender separation<br>➢ Address the anti-ligature risks.<br>➢ Comply with DDA Act e.g. cannot accommodate wheel chair access in the current facility.<br>➢ Provide access to internal and external space that is required to maximise therapeutic benefit for users<br>➢ Provide appropriate interview space for patients, carers and families.<br>➢ Provide appropriate safe therapeutic and diagnostic environment.<br>➢ Comply with gender segregation and should be not be providing mixed gender accommodation.<br>➢ Provide Inpatient accommodation at ground floor level which is an HBN building standard requirement. |
| **Availability of service linkages /integration** | **6** | This option scores 6 as Holywell Hospital is situated in close proximity to an Acute Hospital site. However it still provides services from 2 sites within the Trust and therefore does not meet the Commissioner's service specifications for Mental Health. |
| **Ease and speed of implementation** | **5** | This option scores 5 as it requires a significant amount of decant to allow wards to be vacated prior to being refurbished and could cause major disruption for both patients and staff working on the site. Completing the work one ward at a time may take up to 4 years to complete the scheme. |

**Option 4a: A Standalone Permanent MH IP Facility at AAH site**

| Criteria | Score | Score justification |
|---|---|---|
| **Improvement in quality and effectiveness of service** | **10** | This option scores full marks as a new building will be carefully designed to facilitate the delivery of 134 beds to provide the new service model. The environment from which the service is delivered will support the new service model and meet the expectations of service users, carers and staff. There will be provision of functional internal and external surroundings that will maximise therapeutic benefits for users. The agreed design can be adapted to meet the changing needs of the service, and reduce clinical risk at the standalone Ross Thompson Unit at Causeway Hospital. There will appropriate level of staffing and skill mix to deliver the required level of service. |
| **Flexibility to respond to Strategic fit** | **10** | This option scores 10 as the site can accommodate both the required footprint for the 134 beds plus support accommodation, whilst also allowing space for expansion should there be any future change in Trust and/or regional services. Utilising a greenfield site on the Antrim Hospital makes efficient use of an existing asset which complies with DHSSPSNI policy. |
| **Accessibility** | **6** | This option scores 6 and would provide good access to Regional Services due to its location having significantly better road links between Antrim and Belfast and sufficient Translink services for patient's visitors. This option provides a one site model on Antrim Area Hospital meaning that patients from the Northern part of the Trust have a longer distance to travel to access services. The unit is being built beside an acute hospital and therefore this lessens the stigma towards Mental Health IP Services. This is also endorsed in a recommendation of the "Not Just Bricks and Mortar" Report of the Working Group on a new acute psychiatric inpatient unit, (April 1998) by Tom Burns that "a new MHIP Unit with its own entrance and grounds should be on a district general hospital site". |
| **Provision of Appropriate Physical Environment** | **9** | This option scores 9 as all HBN and HTM standards will be met through the design and quality of the building and all inpatient accommodation will be at ground floor level. It is anticipated there will be an improvement in patient safety and a reduction in the occurrence of serious incidents of self-harm with improvements in design and anti-ligature standards. There will be 100% single room provision (allowing for gender separation) and the building will be DDA compliant. In addition any site identified will have adequate space for developing appropriate external gardens and safe recreational external spaces. The requirement for such external areas is a recommendation from the "Not Just Bricks and Mortar" report of the Working Group on a new acute psychiatric in patient unit, (April 1998) by Tom Burns, in which he sets out the requirement to provide landscaped, safe external space in a new MHIP facility. |
| **Availability of service linkages /integration** | **10** | This option scored full marks as it will be on a single acute site. There is good access to clinical links such as ED, OP, ECT, Anaesthetics and ambulances. There is an advantage being on an acute hospital site, if there is a medical emergency that requires the need of a medical practitioner. The MH IP team would have the opportunity to develop relationships with medical colleagues on the acute hospital site, including training, mentorship, supervision and post graduate facilities. |
| **Ease and speed of implementation** | **6** | It should be recognised that the Antrim Area Hospital site is a very busy site with large volumes of traffic using its two access routes. Developments on site in recent years have increased site traffic considerably and constrained the land yet to be developed therefore there may be logistics issues on site during construction of the new building which will take approximately three years. No decant is required to deliver this option. |

**Option 4b: A Standalone Permanent MH IP Facility within Causeway Area**

| Criteria | Score | Score justification |
|---|---|---|
| **Improvement in quality and effectiveness of service** | **10** | This option scores full marks as a new building will be carefully designed to facilitate the delivery of 134 beds to provide the new service model. The environment from which the service is delivered will support the new service model and meet the expectations of service users, carers and staff. There will be provision of functional internal and external surroundings that will maximise therapeutic benefits for users. The agreed design can be adapted to meet the changing needs of the service, and reduce clinical risk at the standalone Ross Thompson Unit at Causeway Hospital. There will appropriate level of staffing and skill mix to deliver the required level of service |
| **Flexibility to respond to Strategic fit** | **7** | This option scores 7 as it allows for expansion to meet any future changes in inpatient mental health services (as with the Holywell Hospital Site option (4c) ) but by having to purchase land the Trust are not using the current Trust estate in the most appropriate and efficient way as required by the DHSSPSNI. |
| **Accessibility** | **4** | This option scores 4 as it was felt that if the access to Regional Services was to be from the Belfast Trust hospitals this would prove very difficult where patients are transferring between units from the northern sector of the Trust, as the public transport arrangements are poor and the travel distance would be significantly higher from the Causeway area. This also applies to the greater concentration of population in the Southern half of Trust accessing all MHIP services in the Causeway area. This option is being built one mile away from an acute hospital on a new site and therefore this lessens the stigma associated with Mental Health services in Holywell Hospital. There is a difficulty of current nursing staff moving to a permanent base in Coleraine as a large number of nurses live in the Carrickfergus and Newtownabbey area. |
| **Provision of Appropriate Physical Environment** | **7** | This option scores 7 as all HBN and HTM standards will be met through the design and quality of the building and all inpatient accommodation will be at ground floor level. It is anticipated there will be an improvement in patient safety and a reduction in the occurrence of serious incidents of self-harm with improvements in design and anti-ligature standards. There will be 100% single room provision (allowing for gender separation) and the building will be DDA compliant. LPS have identified two possible sites within a one mile radius from Causeway Hospital. Any site identified for purchase will need to have adequate space for developing appropriate external gardens and safe external environments. The requirement for such external areas is a recommendation from the “Not Just Bricks and Mortar” report of the Working Group on a new acute psychiatric in patient unit, (April 1998) by Tom Burns, in which he sets out the requirement to provide landscaped, safe external space in a new MHIP facility. |
| **Availability of service linkages /integration** | **8** | This option scores 8 due to it being located one mile away from the Causeway Hospital site, and the acute services that the Mental Health facility can access there. However direct links are reduced compared to co-location on an acute site, e.g. medical emergencies, medical training, mentorship, postgraduate facilities and supervision. |
| **Ease and speed of implementation** | **5** | This option scores 5 as it has limited site constraints but would take longer to deliver as the Trust is first required to identify and procure a new site within one mile away from Causeway Hospital. As with the previous option, no decant is required. |

**Option 4c: A Standalone Permanent MH IP Facility at Holywell Hospital site**

| Criteria | Score | Score justification |
|---|---|---|
| **Improvement in quality and effectiveness of service** | **10** | This option scores full marks as a new building will be carefully designed to facilitate the delivery of 134 beds to provide the new service model. The environment from which the service is delivered will support the new service model and meet the expectations of service users, carers and staff. There will be provision of functional internal and external surroundings that will maximise therapeutic benefits for users. The agreed design can be adapted to meet the changing needs of the service, and reduce clinical risk at the standalone Ross Thompson Unit at Causeway Hospital. There will appropriate level of staffing and skill mix to deliver the required level of service |
| **Flexibility to respond to Strategic fit** | **10** | As with the Antrim option, this also scores 10 as the site can accommodate expansion for any future change in Trust and/or regional services. In addition the Trust is using its current estate in an efficient manner as required by the DHSSPSNI. |
| **Accessibility** | **5** | This option scores 5 and would provide good access to Regional Services (if based in Belfast), due to its location and having significantly better road links between Antrim and Belfast and good Translink services for patients /visitors. However this option has a historic link with being the "Antrim Asylum" and therefore strong perceptions of stigma remain, hence the score is reduced to 5. |
| **Provision of Appropriate Physical Environment** | **9** | This option scores 9 as all HBN and HTM standards will be met through the design and quality of the building and all inpatient accommodation will be at ground floor level. It is anticipated there will be an improvement in patient safety and a reduction in the occurrence of serious incidents of self-harm with improvements in design and anti-ligature standards. There will be 100% single room provision (providing gender separation) and the building will be DDA compliant. This site identified for the new inpatient provision at Holywell will have adequate space available for developing the external gardens and safe external environments necessary to support the Trusts proposed service model (NB what happens to the remainder of the Holywell site and the existing hospital are outside the scope of this business case). The requirement for such external areas is a recommendation from the "Not Just Bricks and Mortar" report of the Working Group on a new acute psychiatric in patient unit, (April 1998) by Tom Burns, in which he sets out the requirement to provide landscaped, safe external space in a new MHIP facility. |
| **Availability of service linkages/integration** | **8** | This option scores 8 due to it being located one mile away from the Antrim Area Hospital site, and the acute services that the Mental Health facility can access there. However direct links are reduced compared to co-location on an acute site, e.g. medical training, mentorship, postgraduate facilities and supervision. |
| **Ease and speed of implementation** | **7** | This option scores 7 which is the best of the three shortlisted ones. The site has less constraints than the other two options and is easily accessed from either of the two existing entrances. However, in line with the other options, construction will take 3 years to complete. As with other options, no decant is required. |

## 7.2 Conclusion

From a Non-monetary financial appraisal **Option 4a** is the preferred option. It supports the commissioner's requirements, under TYC, for any new mental health inpatient facility to be co-located on an acute hospital site. This has been their preference for the new Belfast and Southern acute mental health inpatient beds. The site is in Trust ownership and there is adequate room for expansion if the service model required it. The environment provided will be able to meet the expectations of service users, carers and staff. All HBN and HTM standards will be met in the design and quality of the building and all inpatient accommodation will be at ground floor level. It is anticipated there will be a reduction in incidents of serious self-harm through careful design and the provision of anti-ligature fittings. Bedrooms will be 100% single rooms, fully DDA compliant, with the provision of functional internal and external surroundings that maximise therapeutic benefits for users. The agreed design will be able to be adapted to meet the changing needs of the service and reduce clinical risk at the standalone Ross Thompson Unit at Causeway Hospital through the centralisation of MH Inpatient Services as recommended by TYC and Bamford Review. An Antrim location will provide better access to Belfast based Regional Services, that it would in Causeway, due to its central location adjacent to the M2 motorway which provides excellent road links between Antrim and Belfast.

The shortlisted options are subject to a financial analysis as detailed in the next chapter.

## 8.0 FINANCIAL ANALYSIS

This section outlines and appraises the financial implications of each of the shortlisted options of the Mental Health In-Patient project, including capital costs and the associated revenue implications of each of these options. The detailed finance schedules are included at Appendix 9.

### 8.1 Options

8.1.1 The business case has retained the following options to be carried forward for financial evaluation.

- Option 2 – Do Minimum – Upgrade of existing Holywell Hospital to meet minimum standards.
- Option 4a – Build a new stand-alone Mental Health Inpatient Facility on the Antrim Area Hospital Site.
- Option 4b – Build a new stand-alone Mental Health Inpatient Facility on the Causeway Hospital Site.
- Option 4c – Build a new stand-alone Mental Health Inpatient Facility on the existing Holywell site – to the rear of the existing building.

Do Minimum does not comply with the objectives but has only been included to provide a base case against which to assess the other short listed options

### 8.2 Capital Costs

8.2.1 The capital costs for the proposed new hospital have been prepared by the architects/concept design team appointed by Health Estates. All the capital costs have been validated by Health Estates and are based on building sizes of:

- Option 2 – Total Floor Area of the existing Holywell Hospital of 24,021 sq m including relevant service areas of 11,001 sq m. Relevant Service Areas of 1,460 for the Ross Thompson unit have also been included. Capital Costs within this option include repairs to the existing roof of £10 m, phased over a period of 5 years. Refurbishment Costs in relation to the existing wards have also been included within this option. These have been based a cost of £600 per sq m. Two wards per annum will be refurbished over a period of 4 years. No decant costs are included within this option, as a decant ward is already in existence.
- Option 4a, 4b & 4c – The capital costs for these options are based on a stand-alone new build of 14,072 sq m.

The methodology for determining the capital cost has been as follows:

- Costs reflect the schedule of accommodation.
- Fees are calculated as a percentage of construction costs as determined by Health Estates. Included within Fees are costs relating

to Trust Project Management. This has been calculated as 1 % of Works Costs within Option 4A.

- Equipment costs included are group 1 & 2. Group 1 category encompasses items which are supplied within the terms of the building contract e.g. blinds, built-in cupboards. Group 2 are those items which are fixed within the terms of the building contract, but not supplied within building contract arrangements. Equipment costs are calculated as a percentage of departmental costs as per OB2, (refer to appendix 8.10 for OB forms).
- A planning contingency/optimism bias of 20.12 % has been included in the OB forms from Health Estates for Option 2. Option 4a has an optimism bias calculation of 11.21 %, Option 4b has an optimism bias calculation of 11.38% and Option 4c has an optimism bias of 11.06 %.

The capital costings for the "Do Something" options have been prepared by Health Estates. Table 20 illustrates the projected capital costs for each option, analysed by construction cost and fee elements. Health Estates have provided OB 1 Forms for all of the options and these are included in Appendix 10 (Any difference between the figures in Table 20 and the OB Forms is due to rounding)

**Table 20 - Capital Costs (Pre Optimism Bias Adjusted)**

| Cost Element | Option 2 £'000 | Option 4a £'000 | Option 4b £'000 | Option 4c £'000 |
|---|---|---|---|---|
| Purchase of Land | | | 975 | |
| Construction Cost | 14,776 | 30,662 | 30,721 | 30,147 |
| Professional Fees | 2,512 | 4,906 | 4,915 | 4,824 |
| Non Works Costs | 369 | 797 | 799 | 784 |
| Equipment | 1,478 | 2,892 | 2,892 | 2,892 |
| **TOTAL** | **19,135** | **39,257** | **40,302** | **38,647** |

## 8.3 Residual Value

8.3.1 The residual value of each option has been calculated for inclusion in the Net Present Cost calculation using the following assumptions;

- Using DHSSPS guidance, existing buildings have been depreciated on a straight line basis over their remaining useful economic life. Any additions to buildings in the form of new build have been depreciated on a straight line basis over 60 years. Any refurbishment to existing buildings has been depreciated on a straight line basis over 25 years and equipment has been depreciated on a straight line basis over 10 years.
- Depreciation charges commence in the year of the capital spend.
- Equipment will be replaced every 10 years.

## 8.4 Opportunity Costs

Where possible, Opportunity Costs have been based on Market Values. In the absence of an up-to-date market valuation, net book values have been utilised instead.

## 8.5 Revenue

### 8.5.1 ***Bed Numbers***

As can be seen from table 21 below, the number of beds included in the Base Case is 162 and in all of the "Do Something" Options is 134. Three of the existing wards in Holywell, are being closed for resettlement and therefore have been excluded from this Business Case. That is Inver 3, Inver 4 and Carrick 3. This has been agreed by the HSCB as part of TYC/Shift left plans for 14/15.

**Table 21**

| Wards | Existing Bed Numbers – March 2013 | New Bed Numbers – Do Something Options | Variance in Bed Numbers – over and above Base Case |
|---|---|---|---|
| Acute Admissions | 95 | 66 | -29 |
| PICU | 17 | 12 | -5 |
| Dementia | 24 | 20 | -4 |
| Addictions | 10 | 10 | 0 |
| Low Secure (Carrick 4) | 16 | 12 | -4 |
| FMI over 65 | | 14 | 14 |
| Total | 162 | 134 | -28 |

### 8.5.2. ***Revenue Costs***

A summary of the recurring revenue costs for the Base Case and for each of the "Do Something" Options can be seen in table 22 below.

**Table 22**

| | Base Case Costs £ | | Do Something Costs £ | Movement in Costs £ |
|---|---|---|---|---|
| S&W Nursing Costs | 8,932,913 | | 8,926,528 | (6,385) |
| Other S&W Costs | 4,200,494 | | 4,089,481 | (111,013) |
| Staff Non-Pay Costs | 1,085,799 | | 1,078,876 | (6,923) |
| Income | -192,276 | | -115,371 | 76,905 |
| Utilities Costs | 1,750,836 | | 2,048,289 | 297,453 |
| **Total** | **15,777,765** | | **16,027,802** | **250,037** |

As can be seen from the above table, each of the "Do Something" Options, results in an increase in running costs of £250,037 per annum. The majority of this increase relates to an increase in utility costs, due to an increase in the footprint of the build . An analysis of each of the above cost categories may be seen below.

### 8.5.3 ***S&W Nursing Costs***

These are the direct costs of employing nursing staff on the Wards. Base Case costs have been based on current WTEs paid, as at 31st March 2013. The costs relating to the Do Something Options have been based on estimated nursing establishment levels as provided by Professional Staff. A summary analysis of the Nursing Costs, split by speciality may be seen in the table 23 and 24 below. A detailed analysis of the nursing costs may also be seen in the Finance Appendices.

**Existing Nursing Ward Costs – Table 23**

| Ward | Nursing Cost £ | No of Beds | Paid WTE with Bank Converted | WTE per Bed | Nursing Cost per Bed £ |
|---|---|---|---|---|---|
| Acute | 4,793,562 | 95 | 152.75 | 1.61 | 50,459 |
| PICU | 1,490,771 | 17 | 51.19 | 3.01 | 87,692 |
| Dementia | 1,228,102 | 24 | 37.29 | 1.55 | 51,171 |
| Addictions | 582,831 | 10 | 17.33 | 1.73 | 58,283 |
| ECT Suite | 52,588 | | | | |
| Challenging Behaviour | 785,059 | 16 | 20.64 | 1.29 | 49,066 |
| **Total** | **8,932,913** | **162** | **279.20** | | **55,141** |

As can be seen from the above table, PICU generates the highest cost per bed, followed by Addictions. This is due to the fact that these wards have the highest paid WTE per bed ratio.

**Do Something – Nursing Ward Costs – Table 24**

| Ward | Nursing Cost £ | No of Beds | Proposed WTE | WTE per Bed | Nursing Cost per Bed £ |
|---|---|---|---|---|---|
| Acute | 4,317,906 | 80 | 129.48 | 1.61 | 53,974 |
| Additional Specials | 677,291 | 80 | 25.20 | | 8,466 |
| PICU | 1,284,384 | 12 | 34.30 | 2.86 | 107,032 |
| Dementia | 1,195,793 | 20 | 36.25 | 1.81 | 59,790 |
| Addictions | 564,317 | 10 | 16.00 | 1.60 | 56,432 |
| ECT Suite | 80,836 | | 2.07 | | |
| Low Secure | 806,001 | 12 | 22.63 | 1.83 | 67,167 |
| **Total** | **8,926,528** | **134** | **265.93** | | **66,616** |

The previous table summarises the costs of Nursing for each of the specialities for the new hospital. These costs have been calculated, based on the Nursing establishment levels required as provided by professional staff. A full financial analysis of the nursing costs, staffing levels and WTE per bed, may be seen in the Finance Appendices.

*Comparison of Base Case Nursing Costs to "Do Something" Nursing Costs*

- Acute – As can be seen from the above two tables, the acute nursing costs are increasing by £3,515 per bed. The increase in nursing costs is due to a change in the skill mix. In addition to this, estimated costs in relation to the use of Special Nurses have been calculated and have been shown separately under Acute.
- PICU – Nursing Costs per bed within PICU are increasing by £19,340. The increase in nursing costs is due to a change in the skill mix of staffing. A full analysis of this may be seen in the Finance Appendices.
- Dementia – Nursing Costs per bed within Dementia are increasing by £8,619 per bed. The increase in nursing costs for Dementia, is due to an increase in the Staff/Bed Ratio.
- Addictions – Nursing Costs per bed within Addictions have dropped by £1,851. This is due to a decrease in the Staff/Bed Ratio in the new hospital.
- Low Secure – In the new hospital, Low Secure will be replacing the current Challenging Behaviour unit. This ward will incur an increase in nursing costs per bed of £18,101. This is essentially due to an increase in the Staff/Bed Ratio, as can be seen in the above tables.

### 8.5.4 ***Other S&W Costs***

These pay costs relate to the following categories of staff:

- Occupational Therapists
- Consultant Psychiatrists
- Middle Grade Psychiatrists
- Training Grade Doctors
- Medical Admin
- Hospital Reception
- Mental Health Management
- Hospital Chaplin's
- Holywell Nursing Support
- MDT Library
- Admin Managers
- Ward Clerks
- Dietetics
- Porters
- Catering Staff
- Supervision Domestic Staff

- Admin Domestic Staff

A summary of these costs by staff category can be seen in the table 16 below.

**Table 25**

| Staff Category | Base Case Costs £ | Do Something Costs £ | Variance £ |
|---|---|---|---|
| RTU OT | 93,159 | 93,159 | 0 |
| Middle Grade Psychiatrist | 271,733 | 271,733 | 0 |
| Consultant Psychiatrists | 1,785,640 | 1,737,380 | (48,260) |
| Medical Admin | 216,740 | 216,740 | 0 |
| Hospital Reception | 24,668 | 24,668 | 0 |
| Service Improvement | 57,147 | 57,147 | 0 |
| Chaplin's | 24,537 | 24,537 | 0 |
| Nursing Support | 310,536 | 258,780 | (51,756) |
| Nurse Mgt | 87,393 | 87,393 | 0 |
| MDT Library | 21,266 | 21,266 | 0 |
| SW Challenging Behaviour | 91,852 | 91,852 | 0 |
| Catering Staff | 459,076 | 475,490 | 16,414 |
| Ward Clerks | 118,917 | 118,917 | 0 |
| Admin Mgrs. | 99,983 | 99,983 | 0 |
| Dietetics | 36,860 | 36,860 | 0 |
| OT | 291,637 | 291,637 | 0 |
| Portering | 81,305 | 73,282 | (8,023) |
| Domestics Supervision | 108,289 | 88,902 | (19,387) |
| Domestics Admin | 19,755 | 19,755 | 0 |
| **Total** | **4,200,494** | **4,089,481** | **(111,013)** |

As can be seen from the above table – costs in relation to other staff categories have reduced by £111,013. This is due to the following reasons:

- A reduction of 0.5 wte of a Consultant Psychiatrist post due to a reduction in bed numbers - £48,260.
- A reduction of £51,756 representing a reduction of 1 WTE Nursing Manager, as a result of a reduction in bed numbers.
- An increase in catering costs of £16,414 per annum. This is due to a skill mix variance. Catering will be analysed in more detail, further on in the Finance Chapter in section 10.5.8.
- A reduction of £8,023 in Portering Costs, as a result of a reduction in bed numbers.
- A reduction of £19,387 in Domestic Supervision Costs, as a result of a reduction in bed numbers.

A summary of the same costs by speciality may also be seen in the tables below. Medical Costs have been apportioned across Speciality, on guidance received from medical staff. All other staffing costs have been apportioned across specialities on bed numbers alone. A summary of these costs, by category of staff, is also available in the Finance Appendices.

**Base Case - Other Staff Costs – Table 26**

| Ward | Cost £ | No of Beds | Cost per Bed £ |
|---|---|---|---|
| Acute | 2,468,867 | 95 | 25,988 |
| PICU | 451,846 | 17 | 26,579 |
| Dementia | 544,450 | 24 | 22,685 |
| Addictions | 296,712 | 10 | 29,671 |
| Challenging Behaviour | 438,617 | 16 | 27,414 |
| **Total** | **4,200,492** | **162** | **25,929** |

**Do Something – Other Staff Costs – Table 27**

| Ward | Cost £ | No of Beds | Cost per Bed £ |
|---|---|---|---|
| Acute | 2,400,131 | 80 | 30,002 |
| PICU | 415,159 | 12 | 34,597 |
| Dementia | 539,360 | 20 | 26,968 |
| Addictions | 319,672 | 10 | 31,967 |
| Low Secure | 415,159 | 12 | 34,597 |
| **Total** | **4,089,481** | **134** | **30,519** |

### 8.5.5 *Staff Non-Pay Costs*

Costs within this heading relate to the following areas of expenditure:

- Ward related other Non-Pay Costs – for example, administration, travel, advertising, bedding and linen, training costs
- Pharmacy Costs
- Catering Non Pay Costs

A summary of this expenditure can be seen in the table below. As can be seen, expenditure in this area has decreased by £6,923. This is due to the following reasons:

- An increase in IT Revenue costs of £27,220 per annum. £15,000 of this relates to the revenue costs of new technologies being introduced into the wards in the new hospital. Other costs relate to increased costs attached to the leasing of new MFD Printers for example.
- A decrease in Catering Consumable Costs of £10,691 due to a reduction in bed numbers.
- A decrease in Pharmacy costs of £23,452 per annum.

A full breakdown of these costs can be seen in the Appendix 9.

**Table 27**

| Description – Cost Category | Base Case Costs £ | Do Something Costs £ | Increase in Costs £ |
|---|---|---|---|
| Cost Centre Non – Pay Related Costs | 423,361 | 450,581 | 27,220 |
| Pharmacy Costs | 366,732 | 343,280 | (23,452) |
| Catering Consumable Costs | 295,706 | 285,015 | (10,691) |
| **Total** | **1,085,799** | **1,078,876** | **(6,923)** |

The above costs have also been analysed by speciality. These can be seen below. These costs have been apportioned over the specialities on bed numbers.

**Existing – Staff Non Pay Costs – Table 28**

| Ward | Cost £ | No of Beds | Cost per Bed £ |
|---|---|---|---|
| Acute | 645,090 | 95 | 6,790 |
| PICU | 121,103 | 17 | 7,124 |
| Dementia | 171,640 | 24 | 7,152 |
| Addictions | 56,790 | 10 | 5,679 |
| ECT Suite | 9,056 | | |
| Challenging Behaviour | 82,120 | 16 | 5,133 |
| **Total** | **1,085,799** | **162** | **6,702** |

**Do Something – Staff Non Pay Costs – Table 29**

| Ward | Cost £ | No of Beds | Cost per Bed £ |
|---|---|---|---|
| Acute | 645,778 | 80 | 8,072 |
| PICU | 113,482 | 12 | 9,457 |
| Dementia | 171,110 | 20 | 8,556 |
| Addictions | 62,142 | 10 | 6,214 |
| ECT Suite | 9,056 | | |
| Low Secure | 77,307 | 12 | 6,442 |
| **Total** | **1,078,876** | **134** | **8,051** |

### 8.5.6 ***Income***

Income within the new hospital has dropped by £76,905 per annum. This is due to the following reasons:

- A drop in Catering Income of £81,405 per annum. This is due to the fact that the client base of the staff restaurant will be changing within the new hospital and a large drop in income is anticipated. Catering will be analysed in more detail, later in the Finance Section in section 8.5.8
- An increase in Rental Income from the lease of a shop. Estimated rental income is £4,500 per annum.

Income also has been analysed on a Speciality Basis. A summary of this can be seen in the tables below. Income has been apportioned over the specialities on bed numbers.

**Existing – Income – Table 30**

| Ward | Income £ | No of Beds | Income per Bed £ |
|---|---|---|---|
| Acute | (109,857) | 95 | (1,156) |
| PICU | (28,235) | 17 | (1,661) |
| Dementia | (27,188) | 24 | (1,133) |
| Addictions | (10,383) | 10 | (1,038) |
| Low Secure | (16,613) | 16 | (1,038) |
| **Total** | **(192,276)** | **162** | **(1,187)** |

**Do Something – Income – Table 31**

| Ward | Income £ | No of Beds | Income per Bed £ |
|---|---|---|---|
| Acute | (65,726) | 80 | (822) |
| PICU | (18,759) | 12 | (1,563) |
| Dementia | (15,895) | 20 | (795) |
| Addictions | (6,815) | 10 | (681) |
| Low Secure | (8,176) | 12 | (681) |
| **Total** | **(115,371)** | **134** | **(861)** |

A Summary of the Total Net Cost per Bed position – will be presented further in the Finance Chapter at section 8.6.

### 8.5.7 ***Utilities Costs***

Utilities Costs include the following categories of expenditure:

- Building and Engineering
- Heat, Light & Power
- Insurance
- Telephones
- Rates
- Waste
- Water
- Cleaning

As can be seen from the table below, Utilities costs have increased by £297,453 from the Base Case to the "Do Something" Options. This is due to the following reasons:

**Table 32**

| Cost Category | Base Case £ | Do Something Options £ | Variance £ |
|---|---|---|---|
| B&E (Holywell) | 309,471 | 565,554 | 256,083 |
| B&E (RTU) | 64,728 | 0 | (64,728) |
| H,L,P (Holywell – clinical areas only) | 263,248 | 282,334 | 19,086 |
| H,L,P, (Holywell, Non-Op Areas) | 7,425 | 0 | (7,425) |
| H,L,P (RTU) | 47,372 | 0 | (47,372) |
| Insurance (Holywell) | 438 | 438 | 0 |
| Insurance (RTU) | 0 | 0 | 0 |
| Phones (Holywell) | 52,398 | 59,093 | 6,695 |
| Phones (RTU) | 6,695 | 0 | (6,695) |
| Rates (Holywell – clinical areas only) | 105,490 | 296,778 | 191,288 |
| Rates (Holywell, Non-Op Areas) | 10,201 | | (10,201) |
| Rates (RTU) | 32,510 | 0 | (32,510) |
| Waste (Holywelll) | 24,621 | 24,621 | 0 |
| Waste (RTU) | 0 | 0 | 0 |
| Water (Holywell) | 19,911 | 44,608 | 24,697 |
| Water (RTU) | 6,007 | 0 | (6,007) |
| Cleaning (Holywell ) | 506,423 | 729,297 | 222,874 |
| Domestic – Kitchen Duties | 167,513 | 0 | (167,513) |
| Domestic – Laundry Duties | 45,566 | 45,566 | 0 |
| Domestic – Non Op Areas | 7,111 | 0 | (7,111) |
| Cleaning (RTU) | 73,709 | 0 | (73,709) |
| **Total Cost** | **1,750,836** | **2,048,289** | **297,453** |

*Building and Engineering*

As can be seen from the above table, Building and Engineering Expenditure has increased by £256,083 – which netted off, from the closure of RTU, leaves a net increase of £191,355 per annum for each of the "Do Something" Options. The gross increase of £256,083 is comprised of two elements:

- An increase in clinical Sq Metres of 4,041 above the Base Case resulting in an increase in costs of £162,408 per annum.
- An increase in the Cost per Sq m of £9.34, resulting in an increase in costs of £93,675 per annum. The current cost, per Sq M of B&E within Holywell is presently £30.85 per Sq M. Historically, Holywell has not been maintained to the required standard, hence the reason for the low expenditure in the Base Case. The new rate of B&E applied within each of the "Do Something" options has been costed at £40.19 per Sq M. This rate has been supplied by Health Estates and is broken down as follows :
  General Maintenance - £30.36 per sq m
  M&E Plant Maintenance - £7.15 per sq m
  Other Group 2 Maintenance - £2.68 per sq m

*Heat, Light and Power*

As can be seen from the above table, HLP costs have increased within Holywell by £19,086 – which netted off, from the closure of RTU, and non-operational areas in Holywell leaves a net decrease in costs of £35,711 per annum. The gross increase of £19,086 is comprised of a number of elements:

- An increase in clinical Sq M of 4,041 – resulting in an increase in costs of £81,077 per annum (4,041 * £20.0635)
- A decrease in the rate per Sq M of £6.18 – resulting in a decrease in costs of £61,991 (£6.18 * 10,031 sq m). This new rate of £20.06 per sq m has been supplied by the Trust's Estate Dept, which estimates that the cost of heating the new hospital will be £6.18 per sq m cheaper than the cost of heating the existing Holywell Hospital ward areas.

The net result of this, is an increase in costs, in relation to the current Holywell Hospital Wards of £19,086. However, the closure of the RTU in Causeway, and the non-operational areas in Holywell will result in savings of £54,797 which overall, will result in a net reduction in H, L, P costs in the new hospital of £35,711.

*Insurance*

No change in insurance expenditure is anticipated.

*Telephones*

No change in telephone expenditure is anticipated.

*Rates*

As can be seen from the above table, the gross rates cost has increased by £191,288 per annum for the clinical areas of the existing Holywell Hospital. This has been netted off against the saving in rates cost of the RTU of £32,510 assuming closure of RTU and the non-operational areas of Holywell of £10,201. The Gross increase in rates costs of £191,288 has been generated, as a result of the following:

- Increase in the clinical Sq Metres of 4,041 at a cost of £21.09 per Sq M equating to £85,225 per annum.
- An increase in the rates cost per sq m of £10.57 equating to an increase in cost of £106,064 per annum (£10.5736 * 10,031 sq m). The current cost of Holywell Rates is £10.52 per sq m. As the new Hospital will have a revised rates evaluation applied – the most recent rates evaluation for the Antrim Site has been used, which is £21.09 per Sq M.

*Waste*

No anticipated change in waste expenditure is anticipated.

*Water*

As can be seen from the above table, Water costs within the new hospital, as compared to the existing Holywell Hospital have increased by £24,697 per annum. This has been netted off against the savings in the Water cost of the RTU of £6,007, assuming closure of RTU. The gross increase in the Water charges have been calculated as follows:

- Increase in Sq M of 4,041* £3.17 per Sq M giving £12,810 per annum of an increase in costs.
- Increase in the rate of Water Charges of £1.1851 per sq m over and above the Base Case, resulting in an increase in charges of £11,887 per annum. This increase is due to the fact the current Holywell Reservoir will no longer be used.

*Cleaning*

As can be seen from the above tables, gross domestic costs have increased overall by £222,874 per annum. This has been netted off by the saving in cleaning costs from the anticipated closure of the RTU unit of £73,709, a saving in Domestic Kitchen duties transferring to catering staff of £167,513 and a saving of Non-Operational areas of £7,111 – resulting in a net decrease in total domestic costs of £25,459.

Looking however, only, at the actual cleaning of the clinical areas of the existing Holywell Hospital – we have an increase in costs of £222,874. This increase in cleaning costs has been created by two factors:

- Increase in clinical Sq M of 4041 sq m. The current Holywell Holywell Hospital Clinical Areas Sq M totals 10,031. If we then compare this to the new unit of 14,072, we have an increase in clinical Sq M of 4,041. Multiplied up by the Sq

M cost of £51.8261, this results in an increase in cleaning costs alone of £209,429 per annum.

- Increase in the cost per Sq M of £1.3403. The current actual cost of cleaning the clinical areas within Holywell is £50.49 per Sq M. The projected cost of cleaning the New Holywell Hospital, within each of the "Do Something" Options is £51.83 per Sq M. This new cost has been calculated on numbers of staff required to clean the new hospital, along with the associated consumable costs. The increase in costs that relates to a change in the unit rate therefore, is £13,445 per annum. This new cost of £51.83 has also been benchmarked by Janice Clarke of the Professional Domestic Cleaners Association, who has stated that this cost would be reasonable for a new mental health facility. A full breakdown of the current Domestic Costs and the New Domestic Costs, may be seen in the finance appendices.

An analysis of movement of these costs – split down, by cost increase, due to a change in the square metres & also a change in the unit cost per sq metre, as described above, can be seen in the Table presented below.

**Table 35**

| Utility Cost | Increase in Sq M (Note 1) | Cost Increase due to increase in Sq M £ | Cost unit increase/ decrease in Sq M £ | Total Cost increase/decrease due to change in Unit Rate per Sq M £ | Total Cost Increase (Exc RTU) £ | Savings (Note 2) £ | Net Total Variance £ |
|---|---|---|---|---|---|---|---|
| B&E | 4,041 | 162,408 | 9.34 | 93,675 | 256,083 | (64,728) | 191,355 |
| H,L,P | 4,041 | 81,077 | (6.18) | (61,991) | 19,086 | (54,797) | (35,711) |
| Insurance | | 0 | | 0 | | | 0 |
| Phones | | 0 | | 0 | | | 0 |
| Rates | 4,041 | 85,225 | 10.57 | 106,064 | 191,289 | (42,711) | 148,578 |
| Waste | | 0 | | 0 | | | 0 |
| Water | 4,041 | 12,810 | 1.19 | 11,887 | 24,697 | (6,007) | 18,690 |
| Cleaning | 4,041 | 209,429 | 1.34 | 13,445 | 222,874 | (248,333) | (25,459) |
| **Total** | **4,041** | **550,948** | | **163,080** | **714,029** | **(416,576)** | **297,453** |

Note 1 – The increase in Sq Metres detailed – relates to the increase in Sq M from the existing wards in Holywell, to the new Inpatient Unit.

Note 2 – Savings relate to closure of RTU and non-operational areas within the existing Holywell Hospital.

The above costs have also been presented, apportioned across specialities, as detailed in the tables below. These costs have been apportioned on the basis of Sq Metres.

**Existing – Utilities Costs – Apportioned across specialities – Table 36**

| Ward | Cost £ | No of Beds | Cost per Bed £ |
|---|---|---|---|
| Acute | 808,309 | 95 | 8,509 |
| PICU | 228,735 | 17 | 13,455 |
| Dementia | 345,858 | 24 | 14,411 |
| Addictions | 115,560 | 10 | 11,556 |
| ECT Suite | 65,775 | | |
| Challenging Behaviour | 186,599 | 16 | 11,662 |
| **Total** | **1,750,836** | **162** | **10,808** |

**Do Something – Utilities Costs – Apportioned across specialities – Table 37**

| Ward | Cost £ | No of Beds | Cost per Bed £ |
|---|---|---|---|
| Acute | 1,073,321 | 80 | 13,417 |
| PICU | 229,753 | 12 | 19,146 |
| Dementia | 292,880 | 20 | 14,644 |
| Addictions | 192,836 | 10 | 19,284 |
| ECT Suite | 29,033 | | |
| Low Secure | 230,464 | 12 | 19,205 |
| **Total** | **2,048,289** | **134** | **15,286** |

### 8.5.8 ***Summary – Net Catering Position***

In order to understand the overall catering position – it is necessary to review catering as an entirety, rather than as separate elements such as pay, non-pay and income. This overall position is presented below.

***Table 38 - Base Case Position***

| Cost Category | £ |
|---|---|
| Salaries & Wages Expenditure | 459,076 |
| Non Pay Expenditure | 295,706 |
| Income | (91,405) |
| **Total Net Position @ March 13** | **663,377** |

***Table 39 - Do Something Options***

| Cost Category | £ |
|---|---|
| Salaries & Wages Expenditure | 475,490 |
| Non Pay Expenditure | 285,015 |
| Income | (10,000) |
| **New Hospital** | **750,505** |

Increase in Catering Costs - £87,128 per annum.

As can be seen from the above table, catering costs will increase by £87 k with the move to the new hospital. This is due to the following reasons:

- Increase in Gross Costs. As can be seen from the above tables, gross catering costs have increased by £5,725 per annum. This is made up of two elements.
    1. The first element is that Salaries and Wages Expenditure has increased by £16,414. This is primarily due to a change in the skill mix, reflecting the fact that many of the Band 1s in existence at March 2013, have now been regarded to Band 2s. The increase in S&W expenditure is also reflective of the fact, that meals in the new hospital will now be served by Catering Staff and not by the current Domestic Staff. At present, all meals in Holywell are currently served by Domestic Staff, not Catering Staff. At the moment, 6.36 wte Domestic Staff are currently aligned to kitchen duties. Within the new catering model, in the new hospital, this role will be carried out by catering

staff. The staffing levels detailed above for the new hospital, reflect this change in role. In addition to this, savings of £167,513 per annum, have been offset against Domestic Services to reflect this change. The catering service in the new hospital will also offer an individual service per ward – with food being re-generated at each ward level as opposed to the present situation of being cooked in a central kitchen.

2. Catering Consumable costs have reduced by £10,691 as a result of lower bed numbers.

- In addition to the change in Gross Costs – Catering Income is also projected to drop by £81,405. This is due to the fact that the customer base of the restaurant will be changing. The bulk of the existing income for the current restaurant, relates to food purchased by non-nursing staff and direct credits for meetings. This income will be lost, as these staff will not be moving to the new hospital. The replacement of the current canteen on the existing Holywell site, will be the subject of a separate Business Case.

## 8.6 Cost Per Bed Analysis

The above revenue costs, as detailed in the various sections, have also been apportioned across the various specialities within the existing Holywell Hospital and within the new Mental Health In-Patient Unit. This information is now presented in summary form, within the tables below. As discussed previously, nursing & medical costs have been established on a ward by ward basis, as advised by Professional Nursing & Medical Management. Admin, Pharmacy, OT costs, Non-Pay Cost centre costs have been apportioned on bed numbers and Utilities Costs been apportioned on the basis of Sq Metres. A further breakdown of these costs, may be seen in the Finance Appendices.

**Base Case – Cost per Bed – Table 40**

| Ward | Cost £ | No of Beds | Cost per Bed £ |
|---|---|---|---|
| Acute | 8,605,971 | 95 | 90,589 |
| PICU | 2,264,220 | 17 | 133,189 |
| Dementia | 2,262,863 | 24 | 94,286 |
| Addictions | 1,041,510 | 10 | 104,151 |
| ECT Suite | 127,420 | | |
| Low Secure | 1,475,782 | 16 | 92,236 |
| **Total** | **15,777,765** | **162** | **97,394** |

**Do Something – Total Net Costs – Table 41**

| Ward | Cost £ | No of Beds | Cost per Bed £ |
|---|---|---|---|
| Acute | 9,048,701 | 80 | 113,109 |
| PICU | 2,024,018 | 12 | 168,668 |
| Dementia | 2,183,248 | 20 | 109,162 |
| Addictions | 1,132,154 | 10 | 113,215 |
| ECT Suite | 118,926 | | |
| Low Secure | 1,520,755 | 12 | 126,730 |
| **Total** | **16,027,802** | **134** | **119,610** |

The variances between the existing cost per bed and the new cost per bed, can be seen in the table below.

**Table 42**

| Ward | Cost per Bed – Existing £ | Cost per Bed – New £ | Variance £ |
|---|---|---|---|
| Acute Wards | 90,589 | 113,109 | 22,520 |
| PICU | 133,189 | 168,668 | 35,479 |
| Dementia | 94,286 | 109,162 | 14,876 |
| Addictions | 104,151 | 113,215 | 9,064 |
| ECT | 127,420 per annum | 118,926 per annum | (8,494) |
| Challenging Behaviour/Low Secure | 92,236 | 126,730 | 34,494 |
| Average over Wards | 97,394 | 119,610 | 22,216 |

Within each of the Ward areas detailed above, costs relating to Utilities have increased, as explained earlier in the Finance Section. These costs have been apportioned into the above ward areas on a Sq Metre basis for both the Do Minimum and Do Something Options.

As explained earlier, Non-Pay costs have decreased due to a drop in Pharmacy and Catering Consumable costs, which have been offset by additional IT costs. These have been apportioned on bed numbers.

Income, as explained earlier in the Finance section has also reduced between the Do Minimum and the Do Something Options – primarily due to the change in the catering client base. Income also has been apportioned over the Wards in both scenarios based on the numbers of patients.

S&W Pay Nursing Costs, have been apportioned over the Wards, in the base case on current expenditure and in the "Do Something" options on staffing levels provided by Nursing Professionals.

Other Non Staff Pay Costs, as explained earlier in the Finance section have reduced overall, as a result of a reduction in a Consultant Psychiatrist Post and also a reduction in Domestic Supervision Costs & Portering costs and nurse management costs, due to lower bed numbers.

A summary explanation of all the variances in relation to each of the specialities, is provided in the following paragraphs.

### 8.6.1 Acute Wards

As can be seen from the above table, the cost per bed for the acute wards has increased by £22,520 per bed. This variance is made up of the following:

- Increase in Utilities Cost per bed of £4,908
- Increase in Non-Pay Cost per bed of £1,283
- Drop in Income per bed of £334
- Increase in Pay Cost per bed of £15,995

The costs relating to the first 3 points have been explained earlier in the Finance Section – as a result, the focus here will be on the increase in Pay Costs. The increase in Pay Costs is made up of two elements – (a) an increase in Nursing Costs of £11,981 per bed (inclusive of special nurses) and(b) diseconomies of scales relating to other pay costs, whereby the cost of the salaries are remaining the same, but the numbers of beds are reducing from 95 to 80. This will affect the medical cost per bed, social work cost per bed for example.

### 8.6.2 PICU Wards

As can be seen from the above table, the cost per bed for the PICU wards has increased by £35,479 per bed. This variance is made up of the following:

- Increase in Utilities Cost per bed of £5,691
- Increase in Non-Pay Costs per bed of £2,333
- Drop in Income per bed of £98
- Increase in Pay Costs per bed of £27,357

The costs relating to the first 3 points have been explained earlier in the Finance Section – as a result, the focus here will be on the increase in Pay Costs. The increase in Pay Costs is made up of two elements – (a) an increase in Nursing Costs of £19,340 per bed and(b) diseconomies of scales £8,017 relating to other pay costs, whereby the cost of the salaries are remaining the same, but the numbers of beds are reducing from 17 to 12. This will affect the medical cost per bed, social work cost per bed for example. The increase in nursing costs is due to a change in the skill mix of staff within the ward.

### 8.6.3 Dementia

As can be seen from the above table, the cost per bed for the Dementia ward has increased by £14,876 per bed. This variance is made up of the following:

- Increase in Utilities Cost per bed of £233
- Increase in Non-Pay Cost per bed of £1,404
- Drop in Income per bed of £338
- Increase in Pay Cost per bed of £12,902

The costs relating to the first 3 points have been explained earlier in the Finance Section – as a result, the focus here will be on the increase in Pay Costs. The increase in Pay Costs is made up of two elements – (a) an increase in Nursing Costs of £8,619 per bed and(b) diseconomies of scales £4,283 relating to other pay costs, whereby the cost of the salaries are remaining the same, but the numbers of beds are reducing from 24 to 20. This will affect the medical cost per bed, social work cost per bed for example.

The increase in nursing costs is due to an increase in the Staff/Bed Ratio as seen below.

Staff : Bed Ratio – Base Case (including Bank converted) – 1.55 : 1

Staff : Bed Ratio – New Hospital – 1.81 : 1

### 8.6.4 Addictions

As can be seen from the above table, the cost per bed for the addiction ward has increased by £9,064 per bed. This variance is made up of the following:

- Increase in Utilities Cost per bed of £7,728
- Increase in Non-Pay Cost per bed of £535
- Drop in Income per bed of £357
- Increase in Pay Cost per bed of £445

The costs relating to the first 3 points have been explained earlier in the Finance Section – as a result, the focus here will be on the increase in Pay Costs. The increase in Pay Costs is made up of two elements – (a) a drop in Nursing Costs of £1,851 per bed and(b) diseconomies of scales £2,296 relating to other pay costs, whereby the cost of the salaries are remaining the same, but the total numbers of beds are reducing from the Base Case to the Do Something option, which has resulted in a higher per unit medical cost, social work cost apportioned, even though the numbers of beds in addictions, is remaining at 10. This will affect the medical cost per bed, social work cost per bed for example.

The decrease in nursing costs is due to a decrease in the Staff/Bed Ratio as seen below

Staff : Bed Ratio – Base Case (including Bank converted) – 1.73 : 1

Staff : Bed Ratio – New Hospital – 1.60 : 1

### 8.6.5 Low Secure

As can be seen from the above table, the cost per bed for the Low Secure ward has increased by £34,494 per bed. This variance is made up of the following:

- Increase in Utilities Cost of £7,543
- Increase in Non-Pay Costs of £1,310
- Drop in Income of £357
- Increase in Pay Costs of £25,283

The costs relating to the first 3 points have been explained earlier in the Finance Section – as a result, the focus here will be on the increase in Pay Costs. The increase in Pay Costs is made up of two elements – (a) an increase in Nursing Costs of £18,101 per bed and(b) diseconomies of scales £7,182 relating to other pay costs, whereby the cost of the salaries are remaining the same, but the total numbers of beds are reducing from 16 to 12 from the Base Case to the Do Something option, which has resulted in a higher per unit cost for salaries such as medical costs, social work costs, admin costs per bed for example.

The increase in nursing costs is due to an increase in the Staff/Bed Ratio as seen below .

Staff : Bed Ratio – Base Case (including Bank converted) – 1.29 : 1

Staff : Bed Ratio – New Hospital – 1.83 : 1

### 8.6.6 Non-Recurring Revenue Costs

In addition to the above affordability position there are non- recurring revenue costs as a result of Option 4a – New Build on the Antrim Site.
This will require transfer of staff, resources and records to the new location and whilst some of these are one off costs in the first year, any staff who are displaced will receive under Agenda For Change terms and conditions excess travel if applicable depending on their individual circumstances.
Therefore the estimation of the non-recurring revenue costs are set out in table below;

**Table 51**

| Non-Recurrent Costs | Year 3 £'000 | Year 4 £'000 | Year 5 £'000 | Year 6 £'000 | Year 7 £'000 | Year 8 £'000 | Year 9 £'000 | Total £'000 |
|---|---|---|---|---|---|---|---|---|
| Gateway Costs | 12 | 12 | 12 | 12 | 12 | 12 | - | 72 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Medical Records | - | - | - | 3 | - | - | - | 3 |
| Cleaning | - | - | - | 7 | - | - | - | 7 |
| Catering Costs | - | - | - | 4 | - | - | - | 4 |
| Bedding & Linen | - | - | - | 8 | - | - | - | 8 |
| Signage | - | - | - | 6 | - | - | - | 6 |
| Excess travel | - | - | - | 196 | 196 | 196 | 196 | 784 |
| Commissioning Costs | - | - | - | 200 | - | - | - | 200 |
| **TOTAL** | **12** | **12** | **12** | **436** | **208** | **208** | **196** | **1,084** |

**Total Non-Recurring Revenue Costs - £1.084m**

As can be seen from the above table, the majority of the Non-Recurring Revenue costs relate to the cost of excess travel, transferring staff from the current RTU in Coleraine to Antrim.

Significant costs are also incurred in relation to the Commissioning of the New Holywell Hospital. Within this £200 k are costs for a deep clean, in preparation for opening and Rates and HLP costs for 3 months, prior to the new facility opening.

## 8.7 Economic Appraisal and Net Present Value Calculations

### 8.7.1 Economic Appraisal

Cash flow projections covering capital and revenue expenditure over a 25-year period have been prepared for the short listed options. A discount rate of 3.5% has been used to determine the net present values for each of the options, which are summarized in Table U below: The option with the lowest NPC which meets the project's objectives is Option 4c. Details of DCF calculations are included in Appendix 9.

**Table 43 - Net Present Costs (Pre Optimism Bias Adjustment)**

| Cost Element | Option 2 £'000 | Option 4a £'000 | Option 4b £'000 | Option 4c £'000 |
|---|---|---|---|---|
| Net Present Cost (excluding optimism bias) | 306,559 | 305,304 | 309,907 | 304,862 |
| Financial Ranking | 3 | 2 | 4 | 1 |

As can be seen from the above table, the Option which has the highest NPC is Option 4b – New Build Option in the Causeway Area. This is primarily due to two reasons. The first reason being, that of the "Do Something" Options, Option 4b has the highest capital costs. In addition to this, Option 4b also has very high excess mileage costs of £6,145,460 over a 4 year period, which contributes greatly to it's ranking as the most expensive option.

As can be seen from the above table, the second most expensive Option is Option 2. This is due to the fact that this Option 2 has included within its NPC, Lifecycle Construction and Maintenance costs of £1 m per annum. These are notional costs, derived from a report which the Trust commissioned from Sammon Chartered Surveyors, to establish, what projected expenditure would be incurred, if the existing Holywell Hospital, was to remain in existence as an Inpatient Mental Health Unit. Sammons believed that the annual construction and maintenance spend on Holywell would increase year on year, as the building further deteriorates due to the 'spot repair' nature of the works being undertaken – therefore from Year 3, these construction and maintenance costs for Option 2 rise to £1 m per annum and remain at this, for the remaining 22 years. Although these costs are included in the economic analysis above, they are not real costs, they are notional costs, so for the purposes of the affordability section in Section 12, they have been removed.

Option 4a – New Build on the Antrim Site is the 3rd most expensive option, followed closely by Option 4c, New Build on the existing Holywell Site. The reason for this, is that the New Build on the Antrim Site (Option 4a) has higher capital costs, than the New Build Option on the existing Holywell site (Option 4c)

## 8.8 Risk and Uncertainty

All large capital developments carry significant risk. In this section, the risks associated with project, in relation to capital costs are evaluated.

### 8.8.1 Optimism Bias Adjustment

There is a demonstrated, systematic tendency for project appraisers to be overly optimistic. To redress this tendency appraisers should make explicit, empirically based adjustments to the estimates of a project's costs, benefits, and duration.

The Green Book and the HM Treasury Supplementary Green Book Guidance on Optimism Bias recommends that these adjustments be based on data from past projects or similar projects elsewhere, and adjusted for the unique characteristics of the project in hand. The Guidance also identifies adjustment ranges for generic project categories including standard and non-standard building projects.

In compliance with the Green Book, the business case has been reviewed to ensure that it allows for optimism bias with respect to the following short-listed options:

Option 2: Do Minimum – Upgrade of existing Holywell Hospital to meet minimum standards.

Option 4a: Build a new Stand Alone Mental Health Inpatient Facility on the Antrim Area Hospital Site.

Option 4b: Build a new Stand Alone Mental Health Inpatient Facility on the Causeway Hospital Site.

Option 4c: Build a new Stand Alone Mental Health Inpatient Facility on the existing Holywell site – to the rear of the existing building.

The first stage of optimism bias adjustment is to give careful consideration to the characteristics of the project in order to determine the project type. A "non-standard" building project is one that involves the construction of buildings requiring special design considerations due to space constraints, complicated site characteristics, specialist innovative buildings or unusual output specifications. It has been agreed by the Project Team and Health Estates that Option 2 is "Non-Standard" and Options 4a, 4b and 4c are "Standard".

**Capital Works Expenditure: Option 2**

- *Project Type*

The Do Minimum option involves upgrading works to existing buildings by way of improvements to ensure that standards are met in relation to the Disability Discrimination Act (1998), security, health and safety and building regulations. Within the acute medical and surgical sectors, the Trust would consider this to be 'routine'. However, given that the service under discussion is associated with acute mental health additional risks in terms of time and costs must be considered.

- *Capital Expenditure Optimism Bias Adjustment Factor*

As can be seen from Appendix 11, the Capital Expenditure Optimism Bias Adjustment figure is 20.12 %.

**Capital Works Expenditure: Option 4a – Build a Standalone Mental Health Inpatient Facility on the Antrim Hospital site; Option 4b – Build a Standalone Mental Health Inpatient Facility at Coleraine; Option 4c – Build a Standalone Mental Health Inpatient Facility at Holywell**

- *Project Type*

The development would be considered to be a standard building project as described in Clause 3.10 of the Green Book supplementary guidance.

- *Capital Expenditure Optimism Bias Adjustment Factor*

As can be seen from Appendix 11, the Capital Expenditure Optimism Bias Adjustment figure is 11.21 % for Option 4a, 11.38% for Option 4b and 11.06% for Option 4c.

Detailed schedules showing the calculated values and rationale are included in Appendix 11. A summary of the Optimism Bias factors are shown in table 44.

**Table 44**

| Option | Opt Bias % |
|---|---|
| Option 2 – Do Minimum | 20.12 % |
| Option 4a – NB @ AAH | 11.21 % |
| Option 4b – NB @ CW | 11.38% |
| Option 4c – NB @ Holywell Hospital | 11.06% |

### 8.8.2 Optimism Bias Adjusted Capital Expenditure

The above optimism bias adjustments have been applied to the capital costs.

The results are as follows (detailed NPV schedules are included at Appendix 9)

**Table 45 - Optimism Bias Adjusted Net Present Costs**

| Option | Original NPC £'000 | Optimism Bias % | Optimism Bias Adjusted NPC £'000 | Financial Ranking |
|---|---|---|---|---|
| Option 2 | 306,559 | 20.12% | 310,017 | 3 |
| Option 4a | 305,304 | 11.21% | 308,146 | 2 |
| Option 4b | 309,907 | 11.38% | 312,947 | 4 |
| Option 4c | 304,862 | 11.06% | 307,773 | 1 |

The ranking of the options remains unchanged.

The risk adjusted capital cost for each option is as follows:

**Table 46**

| Option | Pre-Opt Bias Capital Cost £'000 | Optimism Bias % | Optimism Bias Adjusted Capital Cost £'000 |
|---|---|---|---|
| Option 2 | 19,135 | 20.12% | 22,985 |
| Option 4a | 39,257 | 11.21% | 43,657 |
| Option 4b | 39,327 | 11.38% | 43,801 |
| Option 4c | 38,647 | 11.06% | 42,923 |

**Optimism Bias Adjusted Net Present Costs**

**Table 47**

| Option | Original NPC £'000 | Optimism Bias % | Optimism Bias Adjusted NPC £'000 | Financial Ranking | Non-Financial Benefit Score | NPC per Benefit Score £'000 | Overall Rank |
|---|---|---|---|---|---|---|---|
| Option 2 | 306,559 | 20.12% | 310,017 | 3 | 485 | 639 | 4 |
| Option 4a | 305,304 | 11.21% | 308,146 | 2 | 880 | 350 | 1 |
| Option 4b | 309,907 | 11.38% | 312,947 | 4 | 740 | 423 | 3 |
| Option 4c | 304,862 | 11.06% | 307,773 | 1 | 835 | 368 | 2 |

### 8.8.3 Assessment of Risk & Uncertainty

As can be seen from the above table, the financially preferred option is Option 4c as it has the lowest NPC from a financial only perspective.

However when the benefit scoring is applied to the financial assessment then Option 4a has the highest Non-Financial Benefit Score and therefore, overall ranks as Number 1. A detailed rationale for Option 4a being the Preferred Option is discussed in Section 13.

## 8.9 Affordability

### 8.9.1 Capital Charges

In line with Departmental Guidance Capital Charges have been calculated on the following basis:

- the capital cost for existing buildings have been depreciated on a straight line basis over the remaining useful economic life of the buildings;
- the capital cost for new buildings have been depreciated on a straight line basis over 60 years
- the capital cost for reconfiguration or refurbishment of existing buildings have been depreciated on a straight line basis over 25 years
- equipment has been depreciated on a straight line basis over 10 years;
- depreciation charges commence in the year of the capital spend;
- equipment will be replaced every 10 years, and
- Capital charges are calculated on the optimism bias adjusted cost.

The capital charges associated with the preferred option are presented in the finance schedules in Appendix 9.

A summary of the average charge per year taken over 10 years from the opening of the building in 2019/2020 is shown in Table 33 below.

**Average Capital Charges for the preferred option over 10 years**

**Table 48**

| **Capital Charges** | **£'000** |
|---|---|
| Depreciation | 895 |
| **Total average capital charges** | **895** |

### 8.9.2 Affordability of Capital & Revenue

The table below presents the affordability of the preferred option. As detailed earlier, the preferred Option is Option 4A – New Build on the Antrim Site. A more detailed analysis of the figures included in this table, may be seen in the Finance Appendices – Appendix 9.

### 8.9.3 Affordability of Capital

The capital costs for Option 4a are £43.657m.

### 8.9.4 Affordability of Revenue

The affordability is set out in the table 49 below. There is a current under-resource in the Baseline Budgets of £1,331k. The majority of this under-resource is made up of a historical under-Resource in the Ward's Nursing Budgets of £685k, which is recognised by the commissioners (HSCB).

This resource shortfall is also impacted by the retention of estate related utilities resources which, in the absence of firm plans around the future utilisation of the vacated areas, must remain to meet on-going costs of £596k. This will result in a current available budget against current actuals shortfall of £1,331k.

As discussed earlier in section, 11.0 Lifecycle Maintenance Costs for Option 2 have been removed from the affordability section, as they are notional costs only and have not been incurred.

**Table 49**

| Cost Element | Current Baseline Budget<br>Column A<br>£'000 | Current Costs Option 2<br>Column B<br>£'000 | Current Under-Resource<br>Column C<br>£'000<br>B-A | Costs – Preferred Option 4A<br>Column D<br>£'000 | Additional Costs<br>Column E<br>£'000<br>D-B | Total Shortfall<br>Column F<br>£'000<br>E+C |
|---|---|---|---|---|---|---|
| Capital Costs (including OB)[1] | 0 | 22,985 | 22,985 | **43,657** | **20,672** | **43,657** |
| S&W Nursing Ward Costs | 8,248 | 8,933 | 685 | **8,926** | **-7** | **678** |
| Other S&W Costs | 3,985 | 4,200 | 215 | **4,089** | **-111** | **104** |
| Non-Pay Costs (exc Utilities) | 1,352 | 1,086 | -266 | **1,079** | **-7** | **-273** |
| Income | -182 | -192 | -10 | **-115** | **77** | **67** |
| Utilities Costs | 1,043 | 1,751 | 708 | **2,048** | **297** | **1,005** |
| **TOTAL EXC CAPITAL** | **14,446** | **15,778** | **1,332** | **16,027** | **249** | **1,581** |
| **TOTAL INC CAPITAL** | **14,446** | **38,763** | **24,317** | **59,684** | **20,921** | **45,238** |

As can be seen from the above table, Capital costs of £22,985k have been included within Option 2. However, a capital allocation has not been received for these funds, so the full capital cost of Option 4a £43,657k will be required.

### 8.9.4 Summary of Revenue Affordability

As can be seen from the above affordability table, a current under-resource of £1,331 k which exists against the current actual costs will increase to £1,581k with the development of the new models within the preferred option.

A large part of the existing under-resource relates to nursing of £685k. A significant element of this under-resource relates to bank expenditure on nurse specialising, which is only partly resourced within the existing hospital budget. It is anticipated that this level of expenditure will continue within the new hospital and a result, nursing costs are dropping only by £6k between the Base Case and the Do Something Options.

There is also however a net increase in revenue costs between the Base Case and the Do Something Options of £ 256k per annum, mainly relating to an increase in Utilities Costs of £297k per annum, offset by other small reductions in other costs, as detailed in the affordability table on the previous page.

As a result, as shown in table 50 below, there is an affordability gap in this business case of £1,581. It should be noted however that £596k of this affordability gap is resultant of identified resources having to remain with Holywell and the Ross Thomson Unit until they are either re-resourced or decommissioned from NHSCT estate.

**Table 50**

| **Resource Elements** | **£'000** |
|---|---|
| Current under Resource Position | 735 |
| Add: Non Releasable Utilities Costs | 596 |
| **Subtotal of current resources shortfall** | **1,331** |
| Less: Reduction in other areas | (41) |
| Less: Reduction in Nursing (including specials) | (6) |
| Add: Additionality to Utilities costs due to floor areas | 297 |
| **TOTAL** | **1,581** |

***Cash Flow Statement – Capital and Revenue – for all options***

The table 51 following presents a summary of the cash flow of the preferred option in terms of capital and revenue only for all options. As discussed above, the capital costs for Option 2 have been removed from this table, as the Trust is not currently in receipt of these capital funds – therefore, the table below, shows the total capital and revenue costs between the "Do Minimum" Option and the Preferred Option.

**Table 51**

| Cost Element | Option 4b £'000 | Option 4c £'000 | Option 2 £'000 | Option 4a Preferred £'000 | Difference between Option 2 and 4a £'000 |
|---|---|---|---|---|---|
| Capital | 43,801 | 42,923 | 0 | 43,657 | 43,657 |
| Recurring Revenue Pay | 13,016 | 13,016 | 13,133 | 13,016 | (117) |
| Recurring Revenue Non-Pay | 3,127 | 3,127 | 2,837 | 3,127 | 290 |
| Income | (115) | (115) | (192) | (115) | 77 |
| **TOTAL** | **59,829** | **58,951** | **15,778** | **59,685** | **43,907** |

**Budget Statement – Capital and Revenue and Capital Charges – for all options**

The budget statement considers the affordability of the capital charges of the project, as well as capital and revenue. The capital charges relate specifically to depreciation charges.

The capital charges are included using the following assumptions:

- New capital costs for new builds have been depreciated on a straight line basis over 60 years
- Capital costs in relation to refurbishment work has been depreciated on a straight line basis over 25 years
- Capital charges are calculated on the optimism bias adjusted cost
- Capital charges in relation to Do Minimum for existing buildings are based on NBV's as at 31st March 2013 and depreciated over the remaining economic useful life of the building – pro- rated for clinical areas.

A full breakdown may be seen in the Finance Appendices. A summary budget statement is presented in table 53 on the next page.

**Table 52**

| Cost Element | Option 4b £'000 | Option 4c £'000 | Option 2 £'000 | Option 4a Preferred £'000 | Difference between Option 2 and 4a £'000 |
|---|---|---|---|---|---|
| Capital | 43,801 | 42,923 | 0 | 43,657 | 43,657 |
| Recurring Revenue Pay | 13,016 | 13,016 | 13,133 | 13,016 | (117) |
| Recurring Revenue Non-Pay | 3,127 | 3,127 | 2,837 | 3,127 | 290 |
| Income | (115) | (115) | (192) | (115) | 77 |
| Capital Charges | 896 | 885 | 971 | 895 | (76) |
| **TOTAL** | **60,725** | **59,836** | **16,749** | **60,580** | **43,831** |

## 9.0 RISKS & UNCERTAINTIES

This section examines the financial, programme and operational risks associated with the provision of a single facility for acute mental health inpatient beds. Each risk has been analysed to identify the probability of occurrence and its likely significance and countermeasures have been identified to minimise/contain the risk. All of these risks apply equally to the do something options.

| No | Description | Author | Risk Type | Date Identified | Expected Date of Completion | Priority Within Programme | Status | Countermeasures | Date of last update |
|---|---|---|---|---|---|---|---|---|---|
| R1 | Affordability of the Project within current HPSS capital financial constraints for Northern Ireland | Asst Director CDT Project Manager HEIG | Financial | January 2013 | February 2015 | Likelihood:<br><br>Medium/High | On-going | Controlled and managed through the MH IP Project Board and close liaison with HEIG / IID within DHSSPS. | 14 November 2013 |
| R2 | Financial risk that the project may occur an overspend as this would adversely impact on the overall cost effectiveness of the project and could potentially threaten overall affordability. | Asst Director CDT Project Manager HEIG | Financial | January 2013 | 2016/17 | Likelihood:<br><br>Low/Medium | On-going | Strong budgetary control and project management. Use of optimism bias. | 14 November 2013 |
| R3 | Financial risk of insufficient revenue funding as this will not be a revenue neutral project | Asst Finance | Financial | January 2013 | 2015/16 | Likelihood:<br><br>High | On-going | Managed through the MH IP Project Board & the Commissioner.<br><br>Detailed analysis of the revenue implications and obtaining commissioner support. | 14 November 2013 |
| R4 | The Contractor goes into administration | Asst Director CDT Project Manager HEIG | Financial / Programme | January 2013 | 2015/16 | Likelihood:<br><br>Low/Medium | On-going | Appointment of contract through the HEIG Procurement process | 14 November 2013 |
| R5 | Receiving Timely OBC approval from the DHSSPS | Asst Director CDT Project Manager HEIG | Financial / Programme | January 2013 | 2015 | Likelihood:<br><br>Medium/High | On-going | Engagement with the DHSSPS and address queries in a timely manner. | 14 November 2013 |

| No | Description | Author | Risk Type | Date Identified | Expected Date of Completion | Priority Within Programme | Status | Countermeasures | Date of last update |
|---|---|---|---|---|---|---|---|---|---|
| R6 | During the consultation process there may be a risk of opposition to the preferred option. | Asst Director CDT Project Manager HEIG | Financial / Programme | January 2013 | 2015/16 | Likelihood:<br><br>Medium/High | On-going | May be potential barriers eg judicial review, meaningful engagement with public representatives is required. MH IP Project Board to agree consultation process. | 14 November 2013 |
| R7 | Delay in obtaining a decision regarding the preferred option in the OBC may delay the time table of this scheme | Asst Director CDT Project Manager HEIG | Operational | January 2013 | September 2013 | Likelihood:<br><br>Medium/High | Closed | The Trust had a meeting with the Commissioner on 12 September 2013 and the preferred option was confirmed. | September 2013 |
| R8 | Delay in obtaining OBC approval from SMT and Trust Board | Asst Director CDT Project Manager HEIG | Operational | January 2013 | February 2014 | Likelihood:<br><br>Low/Medium | On-going | | 14 November 2013 |
| R9 | There may be potential delay in planning approval, interference with preferred footprint; site, time/cost risks | Asst Director CDT Project Manager HEIG | Programme | January 2013 | 2015/16 | Likelihood:<br><br>Medium | On-going | Managed through the MH IP Project Board, team and HEIG direct link with planning service required | 14 November 2013 |
| R10 | There may be potential delay/cost implication on suitability of site arising from issues eg ground conditions access. | Asst Director CDT Project Manager HEIG | Programme/ Financial | January 2013 | 2015/16 | Likelihood:<br><br>Low/Medium | On-going | Managed through the MH IP Project Board, team and HEIG direct link with planning service required | 14 November 2013 |

| No | Description | Author | Risk Type | Date Identified | Expected Date of Completion | Priority Within Programme | Status | Countermeasures | Date of last update |
|---|---|---|---|---|---|---|---|---|---|
| R 11 | Development of appropriate design in line with HBN, current guidance and Best Practice. | Asst Director CDT Project Manager HEIG | Programme | January 2013 | 2015/16 | Likelihood:<br><br>Low/Medium | On-going | The Project Team to benchmark against and implement learning from other related schemes. Monitoring of design team, design reviews and on-going interaction with service managers. | 14 November 2013 |
| R 12 | Slippage in project timescales may lead to a potential negative impact on costs and services. | Asst Director CDT Project Manager HEIG | Programme/ Operational | January 2013 | 2016/17 | Likelihood:<br><br>Low/Medium | On-going | Staff and user groups are in place and regular meetings will continue to ensure their involvement at appropriate stages. Strong PM structure. | 14 November 2013 |
| R 13 | Delay in Programme may result in loss of public confidence and staff disillusionment | Asst Director CDT Project Manager HEIG | Programme/ Operational | January 2013 | 2015/16 | Likelihood:<br><br>Low/Medium | On-going | This risk will be mitigated through the continuous review of the communication and engagement programme. | 14 November 2013 |
| R 14 | There is a risk that the required strengthening of the MH Community infrastructure to support the centralisation of Inpatient Services is not progressed | Asst Director CDT Project Manager HEIG | Programme/ Operational | January 2013 | 2015/16 | Likelihood:<br><br>Medium/High | On-going | Mental Health Management Team and MH IP Project Board to address the retention of the MH Service on the Causeway Hospital site. | 14 November 2013 |

## 10.0 PROCUREMENT

### 10.1 Introduction

This section of the business case will provide an overview of the procurement approach and strategy being adopted for the project. The primary consideration in procurement is the requirement to procure the project with the most appropriate contractual approach and that best value for money is obtained on a whole life cost basis.

The procurement procedures for this project are subject to and must comply with the procedures undertaken by Construction Procurement Policy Branch, Estates Directorate, Health Estates Investment Group.

### 10.2 Consideration of Private Finance 2 (PF2)

PF2 has been developed to address the problems of past PFI projects and to respond to the recent changes in the economic environment, while retaining the benefit of private sector investment. Under the new approach the private sector will continue to be responsible for designing, building, financing and maintaining an infrastructure asset over a defined period, typically between 20-30 years.

HM Treasury, a new approach to public partnerships, December 2012, outlines a number of project characteristics for which PF2 may be suitable. These characteristics will be assessed in relation to this Business Case to determine if this route is appropriate for this project.

Table 54 - PF2 Project Characteristics

| | |
|---|---|
| There is a major capital investment need, requiring effective management of risks associated with construction and delivery | This project will require major capital investment of approximately £43m. Given the scale of the project, management of construction and delivery risks will be paramount.<br><br>Construction will need to be carried out with full knowledge of the difficult ground conditions on the site and changing levels across the site. |
| A stable policy environment and long term planning horizons exist, so there is a high degree of confidence the infrastructure and services will be required throughout the life of the contract | This scheme will be developed within a policy environment that is dynamic and changing. Policy on inpatient mental health service can change and may impact on supporting infrastructure. The infrastructure will need to be designed and developed in order to facilitate changes in regional direction (e.g. numbers of facilities for low secure patients).<br><br>While the infrastructure and services will |

| | |
|---|---|
| | be required on a long term basis it is anticipated that changes will need to take place to service delivery. |
| The nature of the requirement allows the public sector to define its needs as service outputs that can be adequately contracted for in a way that ensures effective and accountable delivery of public services over the long term, thus ensuring risk allocation between the public and private sectors can be clearly defined and enforced | Definition of service outputs can take place within this project however it cannot be defined solely in terms of clinical or service outputs. There are other aspects of the project that are critical to service delivery, for example, power supply, access and security, IT infrastructure which are integrated across the existing Antrim Area Hospital (AAH) site with other buildings and services. Risk allocation between public and private sector would not be clearly defined and would be difficult to enforce. |
| The nature of the assets and services identified as part of the scheme, as well as the associated risks, are capable of being costed on a whole life, long term basis | The assets and services within this project could be identified and costed on a whole life long term basis. However given the integration of these assets and services with other buildings and linkages to other clinical services on the AAH site the associated risks could not be identified in isolation nor clearly defined in contractual terms. |
| A slow rate of technological change – as projects involving a high IT content are unlikely to provide the stability in demand required for PF2 approach | Clinical practice, medical equipment and support IT equipment change significantly over relatively short periods of time to meet clinical need and therefore would not be stability in demand required for PF2. |
| A capital investment in excess of £50 million – as less capital intensive projects seldom justify the procurement and management costs involved | The capital investment for this project will be less than £50m on a complex and busy site. |
| A project is not so large or complex that the private sector is unable to bear the risks being transferred | This project is relatively large and as such the private sector may not be able to bear the risks being transferred for the following reasons:<br>• Complex and constrained site with uncertain ground conditions.<br>• Infrastructure links are required via underground service ducts, for example, power supply from AAH to enhance resilience of building. The building has to be connected to site drainage systems.<br>• Mental Health Inpatient Unit needs to be linked to the site wide infrastructure for IT to provide |

| | |
|---|---|
| | resilience in the event of an emergency.<br>• The construction of the Mental Health Inpatient Unit will overlap with the construction of Phase 2 at AAH. A PF2 arrangement would result in complex site management issues where different contractors and design teams and delay progress<br>• This project cannot be delayed at any stage in the process due to the condition of the existing Holywell Hospital. |
| **Outcome** | **Given the complexity of this project PF2 is ruled out as a procurement route.** |

## 10.3 Potential Procurement Routes

**Traditional Route**
This approach is also referred to as conventional procurement. Using this traditional approach, the client contracts with an architect or engineer to carry out the design; the client also enters into a separate contract with a contractor who carries out the building works.

Advantages

- Client control of quality via detailed design and specification by directly employed design team.
- Relatively low bid-cost for works contractor

Disadvantages

- Client employs the design team and consequently cannot hold the contractor responsible for design risk.
- One-off project provides lesser incentive for contractor to adopt a co-operative partnering ethos (than PRP repeat framework project(s)).
- More adversarial and claims based than framework/partnering.
- Greater likelihood of contractual claims.
- Less cost certainty as there are more opportunities to claim “extras”.
- One-off project procurement time and cost greater than multiple framework projects.
- Does not adhere to government policy regarding Achieving Excellence principles and objectives.
- Design teams more likely to claim for additional work as there is not the incentive of further work.

**Design and Build**

This approach is used where the contractor is to be responsible for undertaking both the design and the construction of the required work in return for a lump sum price. To ensure that the client obtains what he/she is seeking in respect of a finished building it is essential that the client specifies exactly what he/she requires and checks that this is matched by way of what the contractor offers to provide.

Advantages

- Design risk transfer – but client still exposed to disruption impact of design/quality defects when building occupied, which can be serious in an acute hospital environment.
- Potentially shortened overall design period but this advantage is usually lost due to the need for extensive clarification of design and contractual issues.

Disadvantages

- Less control over quality, although contractor can be held to delivery *fit-for-purpose* standards.
- Relatively high bid costs acknowledged in CIFNI Procurement Task Group Report 30 April 2013. Para 5(b) notes avoidance of single stage design and build contracts from feasibility stage and Para 5(c) recommends design take to stage C, D or E should design and build be adopted.
- Client has less leverage on value engineering and this aspect is less transparent.
- Changes and resultant cost-impact more difficult to control.
- Reduced control over whole life costs.
- Less resilience in finished produce as m&e installations are close to the minimum which will comply with the performance specification.
- Design teams are paid minimal fees and therefore do not commit adequate hours to detailed design and site supervision.

**PRP**

Partnering is a concept that can be applied to many other procurement routes. It is co-operative relationship between partners formed in order to improve performance in the delivery of projects. Under this approach parties are contractually bound to work co-operatively.

Note: PRP was developed some years ago – by HEIG, the CoPE for the DHSSPS – to reflect the ethos of Achieving Excellence which called for a move away from a lowest price/adversarial procurement/contracting approach to one that embraces whole life value and a collaborative approach.

Advantages

- Earlier contractor involvement. Potential to incorporate contractor innovations, particularly in regard to construction methodology, before contract (signing).
- Complies with government policy in regard to Achieving Excellence and the ethos of non-adversarial contracting.

- Client control of quality via detailed design and specification by directly employed design team.
- Relatively low bid-cost for works contractor.
- Cost certainty as contract signed on the basis of Guaranteed Maximum Price.
- Significantly reduced likelihood of contractual claims.
- Contractor incentivised if likelihood of further framework project. Subsequent framework project of similar nature/construction – or as part of the same construction/project team – can deliver operational efficiencies and value improvements.
- Subsequent scheme procurement time (much) shortened. Overall procurement/bid costs reduced for bundled/multiple projects. Greater incentive for contractors to complete ahead of or on programme as there is less opportunity to recover preliminaries costs arising due to delay.
- Incentive for design teams to perform as there is potential for further work.
- The possibility of further work within a timeframe enables contractors to plan and develop their workforce in a way that give continuity skills and experience.
- Facilitates better input of project management skills and experience.
- Greater development of knowledge, experience and skills in particular areas, sectors and sites.

Disadvantages

- Client employs the design team and consequently cannot hold the contractor responsible for design risk (however, mitigation includes: rigorous design team procurement commensurate with the complexity of the project and experience required, regular design and peer reviews, Professional Indemnity Insurance – all as HEIG standard policy and processes).

## 10.4 Conclusion

With PF2 discounted for the reasons as previously noted, the established PRP approach offers the greatest benefit (of the non-PFI routes) towards achieving best (whole life) value. This approach is supported by the both design team and contractor sides of the industry. However, the CoPE for the DHSSPS regularly monitors challenges to procurement processes and awards in other sectors and may revert to lowest cost tendering should the risk to challenge dictate. If the latter transpires, then any disadvantages of this procurement method will be factored into risk management – with input from the whole project team (i.e. CoPE, client and design team).

The CoPE's preferred and standard procurement route is PRP reflecting the Achieving Excellence agenda and the partnering ethos, rather than the old style adversarial contracting associated with traditional lowest price tendering.

It is the professional opinion of the CoPE that this procurement route is appropriate for this project.

## 11.0 PROJECT MANAGEMENT, MONITORING & EVALUATION

### 11.1 Project Management

The project management arrangements devised by NHSCT are outlined within the Project Execution Plan, Appendix 15. These project management arrangements will be put in place following financial approval of the business case. There is a need for a clearly defined project management structure comprising groups and individuals who are aware of their roles and responsibilities to ensure that the implementation process is:

- Well defined and that there is an agreed understanding of intended outcomes;
- Actively managed in relation to risks, timely decision-making;
- Supported by clear and short lines of reporting;
- Supported by senior management and that there is on-going commitment;
- Led by a senior individual with personal accountability and overall responsibility for the successful outcome of the project; and
- Supported by an appropriately trained and experienced project team and in particular project managers whose capabilities match the complexity of the project.

Experience has shown that where these conditions are not met, the likelihood of conflicting, poorly informed or delayed decisions puts the project at unnecessarily high risk.

### 11.2 Project Monitoring & Evaluation

#### Introduction

This section of the report outlines the Trust approach to project evaluation. In accordance with the NI Practical Guide to the Green Book it would be the intention of the Trust to evaluate the project one year following project closure. The evaluation will be undertaken using the pro-forma for standardised capital revenue projects issued by DHSSPS.

The evaluation will be undertaken as follows:

### 11.3 Post Project Evaluation (PPE)

| | |
|---|---|
| Responsibility: | Senior Trust Manager uninvolved with Project Management / Implementation |
| Purpose: | Review of the Benefits achieved and examination of out turn costs and activity |
| Outputs: | Post Project Review Report |

| | |
|---|---|
| Timing: | Project Closure + 12 months post project closure + 4 months to conclude report |

Effort will be concentrated within this report on evaluation of the extent to which objectives have been achieved, whether assumptions have proven accurate and what lessons have been learned.

The results obtained from the PPE report will lead to recommendations for the future. These recommendations may include, for example, improvements to methods for estimating costs or benefits, changes to management procedures or changes in procurement practice.

Recommendations will in turn feed into future decision making, thereby allowing for continuous improvement. Results will be shared with as wide an audience as possible within the organisation and externally, where appropriate.

## 12.0 BENEFIT REALISATION PLAN

12.1 Benefits Realisation Management (BRM) is "the process of organising and managing, so that potential benefits, arising from investment in change, are actually achieved", it is a "continuous management process running throughout" the life of the project.

12.2 BRM encompasses the identification, planning, measurement, tracking and reporting of potential project benefits. It includes the assignment of roles and responsibilities from project initiation through to benefit realisation.

12.3 **The BRM process has five main stages:**

- identifying and modelling the benefits;
- planning the benefits;
- executing the Benefits Realisation Plan;
- evaluating the benefits achieved; and
- feedback for adjustment, correction and refinement of the process implementation.

A list of benefits has been identified, as shown in the table 55 below:

| Benefit | Expected Benefit Outcome | Benefit Type | Where will the benefit occur? | Who will be affected? |
|---|---|---|---|---|
| Provides services that are both clinically effective and safe and allow for the provision of individualised therapeutic care | • Centralisation of Mental Health In Patient Services<br>• Ability to manage a full range of adult in patient services and patient needs on one site.<br>• Fit for purpose facility<br>• Increased environmental safety<br>• Improved patient privacy and dignity<br>• Adjacent to Acute Hospital services<br>• Funded and staffed appropriately | Satisfaction / Time / cost | Within NHSCT Area | - patients<br>- carers and Families<br>- Commissioner<br>- staff/clinicians |
| Provides Services which meet the Strategic direction of the DHSSPS, HSCB and the Trust's Corporate and Service Delivery Plan | • Focussed on working towards requiring 80 acute beds for adult and the elderly by 2019.<br>• Focussed on reducing PICU beds from the current 18 – 12 in a planned stage prior to moving to the new MH IP facility.<br>• Develop one PICU building to facilitate male and female but maintain segregation with flexibility.<br>• Deliver a therapeutic environment for promoting recovery and reducing length of stay<br>• Centralised in patient service to one site adjacent to an acute hospital service.<br>• All long stay provision removed from hospital and provided in a community setting.<br>• Reduced self harm in relation to ligature issues<br>• Reduce risk of infection rates due to single room accommodation. Reduction in hospital acquired infection. | Satisfaction / Time | Within NHSCT Area | - patients<br>- carers and Families<br>- Commissioner<br>- staff/clinicians |

| Benefit | Expected Benefit Outcome | Benefit Type | Where will the benefit occur? | Who will be affected? |
|---|---|---|---|---|
| To develop a provision of a high quality environment within the new Mental Health Inpatient Unit. This will have the potential to become in a flexible way to secure provision changes | • To implement 100% single room provision.<br>• Wards of appropriate size (bed numbers) with appropriate support space and outside access – HBN advice regarding room size to be adhered too.<br>• HBN to be followed regarding design and build, to incorporate external safe space.<br>• The design team to provide standalone admission units which link to PICU.<br>• PICU to be designed for flexible use for both male/female patients<br>• Addiction, EMI and Low Secure will be all on ground floor accommodation to permit change of use. There will be standardised room size and support space and outside in all areas. This will ensure ability to adapt environment if change of use is identified. | Satisfaction / Time | Within NHSCT Area | - patients<br>- carers and Families<br>- Commissioner<br>- staff/clinicians |
| Provides a Centre of Excellence in Patient Care | • To develop a centre of excellence and develop further accreditation for the following:-<br>o ECTAS<br>o AIMS<br>o BREEAM<br>o NAPICU | Satisfaction/Time | Within NHSCT Area | - patients<br>- carers and Families<br>- Commissioner<br>- staff/clinicians |
| Improves accessibility for Mental Health Services For NHSCT population | • To centralise MH Inpatient services as recommended under TYC and the Bamford Review by 2014/15.<br>• Good network of roads<br>• Access to public transport<br>• To comply with the Bamford review and have the Trust's MH IP Unit built by 2019. | Satisfaction/Time | Within NHSCT Area | - patients<br>- carers and Families<br>- Commissioner<br>- staff/clinicians |
| Availability of appropriate Agencies / integration with other services | • Adjacent to acute hospital services<br>• Access to CMHTS with good social network access. | Satisfaction/Time | Within NHSCT Area | - patients<br>- carers and Families<br>- Commissioner<br>- staff/clinicians |

12.4 A potential dis-benefit of this scheme would be the limited future expansion of the Antrim Hospital site as the construction of the Mental Health Inpatient Facility on the site uses one of the last areas of the site available to build on.

12.5 A potential dis-benefit of this scheme would be the travel incurred for patients, staff and relatives residing from the Causeway obtaining their nearest Acute Inpatient Mental Health services in Antrim.

12.5 From this list, key benefits have been selected for profiling, base line reference and measurement going forward. These are the benefits which have been identified as significant in measuring the success of the delivery of the main objectives of the project. The profiling of the selected benefits will form the basis of the Benefits Realisation Plan (BRP) which in turn will identify when and how the benefits should be measured and who is responsible for measuring them.

12.6 The main purpose of the Benefits Realisation Plan (BRP) is to facilitate the realisation of the agreed benefits of the Business Case to deliver a new Mental Health Inpatient Unit. It is created by the project team, taken on by the Director, Mental Health & Disability Services, to enable those involved/responsible to measure benefits progress and ultimately demonstrate benefit realisation.

12.7 The BRP illustrates how and when the agreed benefits are expected to be realised. The BRP can be seen as per Appendix 8 attached and identifies the following:-

- The personnel responsible for tasks or activities (WHO);
- The timing of activity, tasks and actual benefit realisation (WHEN);
- The activities required to realise the identified benefits (WHAT); and
- The measurement/value (Baseline, Target and Actual)

12.8 Table 56 below provides a summary benefits realisation plan (BRP) for the selected benefits and should be read in conjunction with the detail in Appendix 8.

| No | Benefit | Type | Overall Ranking | Overall Risk Rating |
|---|---|---|---|---|
| A | Provides services that are both clinically effective and safe and allow for the provision of individualised therapeutic care families | Satisfaction/Time/ Cost | **1** | **4** |
| B | Provides services which meet the strategic direction of the DHSSPS, HSCB and the Trust's Corporate and Service Delivery Plan | Satisfaction/Time | **2** | **15** |
| C | To develop a provision of a high quality environment within the new Mental Health In Patient Unit. This will have the potential to become in a flexible way to secure provision changes. | Satisfaction/Time | **3** | **4** |
| D | Provides a Centre of Excellence in Patient Care | Satisfaction/Time | **6** | **3** |
| E | Improves accessibility to Mental Health Services for NHSCT population | Satisfaction/Time | **4** | **9** |
| F | Availability of appropriate agencies/integration with other services | Satisfaction/Time | **5** | **6** |

## 13.0 EQUALITY IMPLICATIONS

Section 75 of the Northern Ireland Act 1998 requires the Trust, when carrying out its work, to have due regard to the need to promote equality of opportunity between nine categories of persons, namely:

- between persons of different religious belief, political opinion, racial group, age, marital status or sexual orientation;
- between men and women generally;
- between persons with a disability and persons without; and
- between persons with dependants and persons without.

The Trust must also have regard to the desirability of promoting good relations between persons of different religious belief, political opinion or racial group.

The Equality Commission for Northern Ireland (ECNI) approved the Trust's Equality Scheme in June 2001. The Scheme outlines how the Trust proposes to fulfil its statutory duties under Section 75. Following approval of the Scheme, existing policies were screened to assess impact on the promotion of equality of opportunity or the duty to promote good relations using the following criteria:

- What is the likely impact on equality of opportunity for those affected by this policy, for each of the Section 75 equality categories? (minor/major/none)

- Are there opportunities to better promote equality of opportunity for people within the Section 75 equality categories?

- To what extent is the policy likely to impact on good relations between people of a different religious belief, political opinion or racial group? (minor/major/none)

- Are there opportunities to better promote good relations between people of a different religious belief, political opinion or racial group?

Further, the Trust gave a commitment to apply the above screening methodology to all new and revised proposals as an integral part of the decision making process and where necessary and appropriate to subject new proposals to further equality impact assessment.

In addition, the Trust is committed to the promotion of human rights in all aspects of its work. The Human Rights Act gives effect in UK law to the European Convention on Human Rights and requires legislation to be interpreted so far as is possible in a way which is compatible with the Convention Rights. It is unlawful for a public authority to act incompatibly with the Convention Rights. The Trust will make sure that respect for human rights is at the core of its day to day work and is reflected in its decision making process.

It is important to note that this Outline Business Case is being presented to Trust Board as a first stage in the process and no final decisions have been made. Prior to any final decision being made about the location of Mental Health In Patient Facility the Trust will carry out a full 12 week public consultation to gather feedback from all those affected and all interested parties. In keeping with the legislative requirements, the Trust will complete and consult on an Equality Impact Assessment (EQIA) and before making any final decision the Trust will take into account this equality impact assessment and the feedback received from the consultation process.

## 14.0 THE BALANCE OF ADVANTAGE BETWEEN THE OPTIONS, RESULTS AND CONCLUSIONS

**Table 56**

| Option | Option Description | Weighted Benefits Score | Discounted Cash Flow (£'000) | Net Present Cost per benefit score (£'000) | Rank |
|---|---|---|---|---|---|
| 2 | Do Minimum<br>This option requires significant capital investment to improve the standards of the current Mental Health Inpatient facilities. Whilst this would not be the Trusts preferred solution it provides a baseline against which to compare other do-something options. | 485 | 310,017 | 639 | 4 |
| 4a | This option will deliver a standalone permanent Mental Health In-Patient (MHIP) facility on the Antrim Area Hospital site providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. | 880 | **308,146** | **350** | 1 |
| 4b | This option will deliver a standalone permanent Mental Health In-Patient (MHIP) facility on a site to be identified and purchased by the Trust. This site must be a one mile radius from Causeway Hospital. It will provide 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. | 740 | **312,947** | **423** | 3 |
| 4c | As with option 4a and 4b this option will deliver a standalone permanent Mental Health In-Patient (MHIP) facility, this time on the Holywell Hospital site, providing 80 acute beds, 12 PICU, 20 dementia, 12 low secure and 10 addiction beds. | 835 | **307,773** | **368** | 2 |

This financial analysis has considered the capital and revenue flows associated with the 4 options. Option 4a has the lowest cost per benefit score taking into account the project objectives. It is the preferred option because:-

- It meets the future inpatient service model provision for 134 beds.
- This option provides a safe and secure environment, being built on the Antrim Area Hospital site with access to acute services such as A&E, diagnostics, anaesthetics and ECT.
- The new service model will promote the centralisation of mental health services and patients from the Ross Thompson Unit at Causeway Hospital who will transfer into this new facility.
- It promotes enhanced integrated team working across the acute inpatient mental health services.
- It minimises potential of risk and harm to patients and staff, by providing fit for purpose accommodation which is appropriate to the needs of all patients with a mental illness.
- This option can be implemented within the timeframe for achieving the strategic vision.
- It causes minimal disruption to current services, staff and users.

Given this position, the Trust requests that the DHSSPS approve this OBC and authorise the Trust to commence the procurement process.