Paper 8

2015/16

Property and Asset Management Strategy (PAMS)

Image 1 - Artist Impression of NACH Scheme (Source: Balfour Beatty)

Working together to achieve the healthiest life possible for everyone in Ayrshire and Arran

Our values

Caring Safe Respectful

NHS Ayrshire & Arran

DRAFT 9

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Appendices

1. Executive Summary

Since the publication of CEL 35 (2010) it has been mandatory for all Health Boards in Scotland to have a Property and Asset Management Strategy (PAMS). There is a requirement for this to be updated annually and submitted to Scottish Government Health & Social Care Directorate each year.

All boards are required to work towards the Scottish Government's 2020 Vision to ensure that "Everyone is able to live longer healthier lives". In response to the Scottish Governments 2020 Vision NHS Ayrshire and Arran has developed a health and wellbeing framework, Our Health 2020, which sets out at a strategic level, how the Vision will be delivered by the NHS Board. In order to facilitate this, the Board must ensure that its assets are effectively managed and developed to support and enable the delivery of safe and effective clinical services of the highest possible quality for the people of Ayrshire & Arran. This PAMS report aims to set out the direction of the Board's strategy in relation to; Property, eHealth, Medical Equipment and Transport which will underpin the Board's clinical service developments, including those of the Health & Social Care Partnerships.. The overall structure of the PAMS document is predicated by three key questions in relation to the Board's assets: Where are we now? Where do we want to be? and How do we get there?

The Board continues to seek to balance the need to reduce backlog maintenance expenditure whilst ensuring that the estate and other key assets operate to an acceptable standard. The current level of backlog for the Board's estate is £77.8M which is an increase of £4M from last year. This reflects in part, the Board's decision to reduce the investment in backlog maintenance in 2014/15 by some £0.6M. This will be further impacted by a recurring reduction in revenue funded backlog investment of £0.8M to £3M in 2015/16 and future years.

In addition, the Board's Capital Investment Plan totalling some £81M, includes a number of projects over the next 5 years that will significantly impact on the quality of the estate and other assets. Estate investments in line with the Board's strategic vision for service change and clinical service improvement includes; the new Woodland View Hospital at Ayrshire Central Hospital at a cost of £47M (Non Profit Distribution); and the Building for Better Care projects at University Hospitals Ayr and Crosshouse, totalling some £41M which make up the bulk of the investment in the estate.

The disposal of older properties which are no longer fit for purpose and have been declared surplus to requirements will also have a significant impact, both in terms of delivering capital receipts, of which £5.9M is anticipated over the next 5 years, and the Board's ability to reinvest in the estate. The combination of

investment and disposal over the 5 year period covered by Capital Investment Plan period will reduce the Board's backlog maintenance liability from £77.8M to just over £60.4M, assuming the existing level of investment is maintained.

Our investment plan for the next 5 to 10 years will primarily be driven by the 2020 Vision; the national Capital & Facilities 2020 Change Management Plan; Our Health 2020; Smarter Offices; Health and Social Care Partnership (HSCPs) requirements and the resulting Estates Masterplan. This process will require the NHS Board to address a number of key issues including:

1. Replacement of University Hospital Crosshouse
2. Impact of "Shifting the Balance of Care" on the Community estate
3. Better utilisation of both clinical and non clinical accommodation
4. Requirements of the Health and Social Care Partnerships
5. Rationalisation of office accommodation.

The potential to consolidate office accommodation and to increasingly, share accommodation with our partners, will be fully explored as part of the ongoing "Smarter Offices" programme. Technology and Medical Equipment will play a key role in enabling new ways of working for staff both within NHS facilities and as part of the wider community.

Over the coming year NHS Ayrshire and Arran will begin to address these strategic issues through a rigorous process of data gathering, scenario planning and stakeholder engagement. This will shape the development of a comprehensive Estates Masterplan.

The NHS Board has a strong track record and a commitment to the sustainability agenda. Throughout 2014/15 many energy saving projects have been implemented in order to meet the national HEAT targets for energy. These identified savings of some £487k which the Board will be able to invest in patient care. The NHS Board has also continued to invest in medical equipment ensure the safe and effective provision of clinical services. As a result of increasing demand for services to be provided in local communities and developments such as telehealth and telecare, a procurement plan covering planned investments in medical equipment (capital and revenue) will require to be developed.

eHealth and Transport will have a key role to play in shifting the balance of care and delivering patient centred care in the home or community. This will require assets to be available 24/7 and the adoption of agile working.

2. Introduction

In January 2009, NHS Scotland received a report entitled *"Asset Management in the NHS in Scotland"* from the Auditor General for Scotland. The findings of this report have reinforced the need for a systematic approach to total assets management and not just property. The report confirms effective asset management can:

- improve care for people who utilise NHS services in Scotland;
- provide safe, secure and appropriate assets that support service requirements and contribute to achieving Scottish Government policies on health and sustainability; and
- ensure that the NHS achieves value for money from its management of assets.

NHS Scotland's Quality Strategy sets out very clearly and simply why we're all here – *to build an organisation fit to provide safe, effective, person-centred care.* To achieve that, we need to consider the bigger picture, looking ahead to where we want the NHS to be in 2020.

In NHS Ayrshire and Arran we have agreed Our purpose, Our commitments and Our values, and have taken steps to implement these across the organisation. However, in order to continue to progress in challenging and difficult times it is essential that we continue to work together to ensure we maximise our skills and expertise.

Working together is of central importance to achieve our purpose. In a complex organisation such as the NHS none of us can achieve the delivery of high quality services in isolation. It is important to recognise that building and maintaining relationships requires us to express our needs and understanding of our colleagues and partners and work together proactively and effectively in order to achieve the best outcome for all.

Our service users and communities *We will work with you and your family to:*

- *Promote and improve your health*
- *Improve your safety outcomes and quality of experience while in our care*
- *Live up to our customer care commitments.*

Our workforce *We will work together to create an open, fair and just culture where:*

- *We are all valued, respected and developed to be our best*
- *We are all informed involved, listened to and treated fairly and consistently*
- *We are all safe and are supported to improve our health and wellbeing*

Our partners *We will work together with Partners to*

- *Improve health, prevent disease and reduce inequalities*
- *Join up our service delivery to improve outcomes*
- *Make best use of our resources*

By creating an organisation that has a strong sense of purpose and clear commitments and values we are confident we can both retain our committed workforce and attract new, high quality, talented people to NHS Ayrshire and Arran.

Scottish Government Health Finance Directorate issued a Chief Executive Letter CEL35 (2010) in September 2010, stating the Scottish Government's policy on property and asset management in NHS Scotland entitled "*A policy for Property and Asset Management in NHS Scotland*". This policy requires that all NHS Scotland bodies must have a current Property and Asset Management Strategy (PAMS) which reflects the following policy aims:

- To ensure that NHS Scotland assets are used efficiently, coherently and strategically to support Scottish Government's plans and priorities and identified clinical strategies and models of care;
- To provide, maintain and develop a high quality, sustainable asset base that supports and facilitates the provision of high quality health care and better health outcomes ;
- To ensure that the operational performance of assets is appropriately recorded, monitored, reported and reviewed and, where appropriate improved; and
- To ensure an effective asset planning and management with other public sector organisations.

Investment decisions relating to the Board's Property and Assets are vitally important to the NHS as they can be far reaching and set the pattern of care and service delivery for future decades.

The NHS Ayrshire and Arran Property and Asset Management Strategy 2015, sets out how the Board intends to meet the requirements of CEL35 (2010).

3. Where are we now?

3.1. NHS Ayrshire and Arran

NHS Ayrshire and Arran covers an area of 2,500 square miles and serves a population of some 400,000, which is 7.3% of the population of Scotland. The majority of the population live in urban areas, of which Ayr, Kilmarnock and Irvine are the largest in the region.

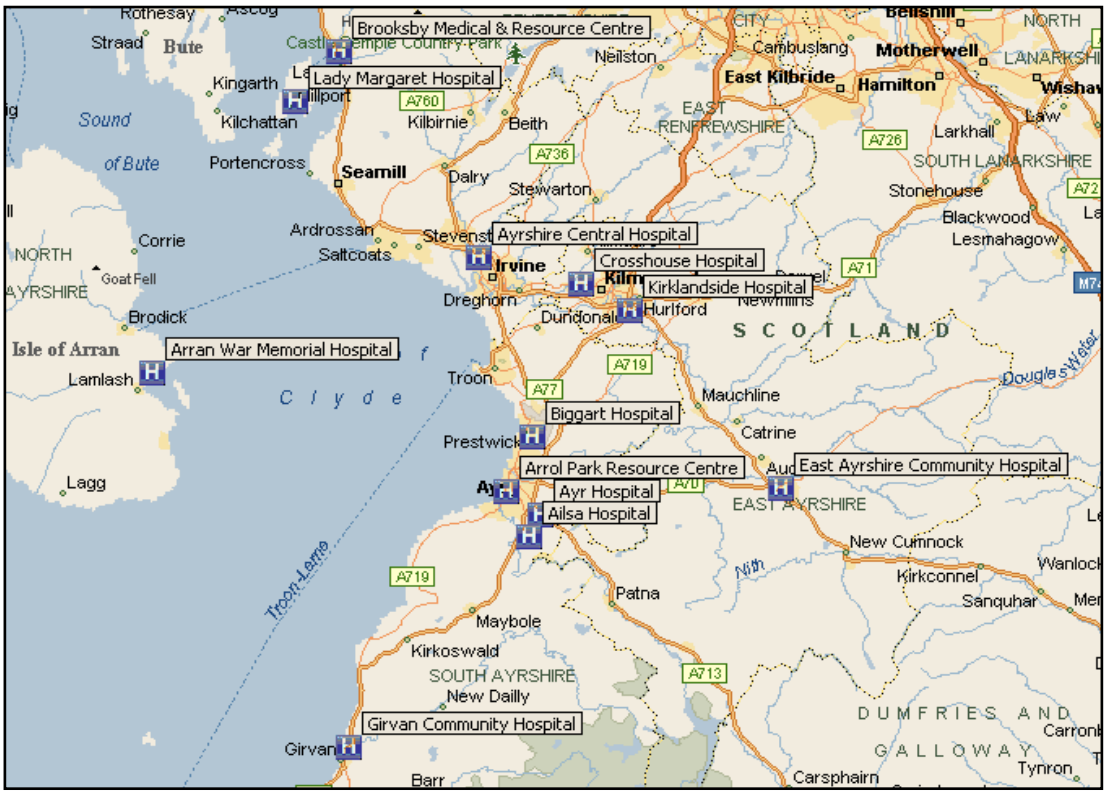
The population varies from rural in the south, coal mining areas in the east and industrial towns in the north. There are considerable health inequalities throughout Ayrshire and Arran – particularly in East and North Ayrshire, with a number of areas of high deprivation.

The spread of hospital sites for NHS Ayrshire and Arran is highlighted in the Image 2 – Hospital Locations within Ayrshire and Arran, on page 12, a further map of the properties within the Board is included in Appendix 1 – NHS Ayrshire and Arran Map.

NHS Ayrshire and Arran are part of the National One Scotland Mapping Agreement (OSMA) set up by Scottish Government. This has allowed the Board to collaborate with other public sector organisations within the PAN Ayrshire Group in developing Geographic Information System (GIS) tools showing basic property information across Ayrshire and Arran.

It is hoped that with future resourcing, the Board will be in a position to develop a GIS, this will allow demographic and statistical information to be analysed and viewed diagrammatically using mapping software to develop information to support future proposed developments in-house.

Image 2 - Hospital Locations within Ayrshire and Arran (Source: Estates Strategy, Capita)



Despite the static position predicted for the overall population over the next 12 years there are notable changes projected to the age profile, which will exert pressure on both the healthcare services NHS Ayrshire and Arran provides as well as the social care provided by Local Authority partners. The effect of the changing demographic is twofold, not only in relation to a demand on services but also on the workforce.

3.1.1. Health and Social Care Partnerships

Ayrshire Health and Social Care Partnership are commencing a period of substantial change and service delivery transformation, following the transition of status from shadow integration board to a fully functional board with effect from April 2015.

The partnership's Strategic Plan and the identified five strategic priorities for 2015-18 will provide a framework to improve services and outline how the partnership will achieve its vision that all people who live in Ayrshire are able to have a safe, healthy and active life.

These will be achieved by:

- Tackling Inequalities;
- Engaging Communities ;
- Integrating Services;
- Prevention and Early Intervention; and
- Improved Mental Health and Well-being.

The transformation of service delivery will be one which will be outcome focused, driven by the change programme, a locality neighbourhood approach, and major changes to frontline services through new models of care resulting from integration and modernisation.

A Change Programme Plan has been established to aid delivery of these outcomes and a range of service plans formulated. These can be categorised under three core service areas of the partnership:

- Health and Community Care;
- Children Families and Criminal Justice; and
- Mental Health.

The Programme Plan will support the 2020 Scottish Government Vision for Health and Social Care ambition to be Safe, Effective and Person Centred which supports people to live as long as possible at home or in a homely setting. Through an outcome based focussed approach the projects will address the National Health and Well Being Outcomes.

The outcomes have been developed through a range of stakeholder engagement, not least through the new Strategic Planning Groups which contain a broad range of stakeholders from Clinical, Social Care, Service Users and Carers, Partner Organisations and Independent Contractors, etc. Similar Programme Plans are under development in the East and South Partnerships.

NHS Ayrshire and Arran have implemented the “Out of Hospital Care Action Plan” which is key to shifting care away from an acute hospital setting, where appropriate, by strengthening local integrated based health and social care services for patients in their own communities.

3.2. Current Developments

NHS Ayrshire and Arran has implemented an extensive review and update procedure, including on-site condition inspections of the sites and monthly meetings with estate staff to update appraisal data. This results in the relevant staff continually assessing backlog and highlighting any completed items on a regular basis.

The completed backlog items for the year totals £1.74M, however the actual cost of these works totals £3.48M. There is a National requirement to survey the entire estate every five years, which has been fulfilled this year.

Despite this information, the total backlog figure for NHS Ayrshire and Arran has increased by around £4.54M to £77.8M in 2014. This is primarily due to the resurvey of University Hospital Crosshouse as part of the on onsite inspections.

3.2.1. Building for Better Care

The Building for Better Care (BfBC) project is the planning programme for the future delivery of urgent and critical care services across NHS Ayrshire and Arran. The Initial Agreement for the two phases of this programme was approved by the Scottish Government Health and Social Care Directorates (SGHSCD) Capital Investment Group (CIG) in June 2009.

The Outline Business Case (OBC) for Phase 1 of BfBC Programme, covering the redevelopment of the Emergency Department (E.D.) at University Hospital Ayr and the development of the Combined Assessment Unit (CAU) at University Hospital Crosshouse, was approved by the SGHSCD in February 2013. Subsequently, an addendum to this OBC, comprising Phase 2 of the BfBC programme, put forward proposals for further investment into the development of a CAU at University Hospital Ayr; which was approved by the SGHSCD in August 2013.

Image 3 - BfBC University Hospital Crosshouse

Over the next three years, £27.5M will be invested to provide new fit-for-purpose facilities at the 'front doors' of University Hospital Ayr and University Hospital Crosshouse. This major development will ensure safe, effective and person-centred urgent and emergency care for patients who come to hospital for anything other than a scheduled appointment.

University Hospital Crosshouse

Enabling work for the new Combined Assessment Unit (CAU) at University Hospital Crosshouse started on 30 June 2014.

The CAU will be built alongside the existing Emergency Department and will include 35 en-suite bedrooms, as well as new patient assessment and ambulatory care areas. The unit will provide the physical environment needed to allow patients to be rapidly assessed and either discharged safely or admitted to a specialty ward for further care and treatment.

Site investigations carried out in May 2014 indicated that the ground was suitable for the proposed development. However, the mining report indicated that a disused mineshaft could be in close proximity to the proposed development, in an area adjacent to the existing Day Surgery Unit. Site investigations to locate the mineshaft and to determine its condition were carried out in August 2014. The ongoing investigations to establish required remedial work have slowed progress of the construction works. This remedial work will also have an impact on the current backlog for the site, when final costing has been established this will be reflected within Estate Asset Management System (EAMS).

University Hospital Ayr

Image 4 - BfBC - University Hospital Ayr

Preparatory work for the new Emergency Department at University Hospital Ayr began in May 2014. The new Emergency Department will have resuscitation bays, high care areas and cubicles, and will be fully integrated with the minor injury unit and NHS Ayrshire Doctors on Call (ADOC).

Case for change

While the work carried out at both University Hospitals Ayr and Crosshouse will have minimal impact on reducing the current backlog figures for each, it will improve the functional suitability for service delivery. As noted within the existing assessment areas where functions are fragmented and do not provide sufficient space and appropriate accommodation to carry out initial assessment and treatment resulting in patients being admitted regardless of condition. This leads to an "admit to decide" approach. Provision of new assessment rooms and chairs will allow the Board to alter this approach to one of "decide to admit".

The case for change is based on the following key drivers:

- Managing demand for unscheduled care – including adoption of new models of care and best practice assessment methods;
- Responding to and managing future demographic change and epidemiology – providing facilities that will meet growing demand within NHS Ayrshire and Arran;
- Provision of person centred, safe and effective care – respect individual's needs and values and receive healthcare in an appropriate, clean and safe environment;
- Lack of appropriate workforce to support early decision making; and
- Current configuration and nature of front door services – in particular poor integration with ED and other services, disparate locations resulting in long transit times and capacity constraints.

3.2.2. Woodland View (Formerly Adult Acute Mental Health Community Hospital, NACH)

Following the Mind your Health strategic review of mental health services in Ayrshire and Arran, approved by the Board in November 2008, the need for a new development was identified in the Mind your Health implementation strategy. The review and the subsequent implementation strategy involved extensive stakeholder engagement with patients, staff and the public. The community hospital was included in this development and further develops the hub and spoke model, complementing the structure in other parts of the Board's area by providing health care delivery in the heart of the community. The proposed development is a key strand of the Board's Estates Strategy.

The Outline Business Case was approved on 31 May 2012. NHS Ayrshire and Arran received approval to proceed with the £47M development on 21 May 2014.

Image 5 - Woodland View (NACH)

The current arrangements in place for acute mental health and older people's services present significant barriers to patient care. This impacts adversely on the patient experience, causes delays in treatment and makes ineffective use of resources. This new development will remove such barriers and thus contribute to an improved patient experience.

Procurement of the new facilities is being conducted using the Scottish Government's non-profit distributing or "NPD" Funding Model. Final Tenders were submitted by three bidders, and Balfour Beatty were selected as Preferred Bidder, who will take the project through to Financial Close, construction and operation.

The new development is a 206 ensuite bedrooms integrating a mental health and community hospital which will bring together a full range of outpatient and inpatient facilities.

Balfour Beatty began construction in the summer of 2014. Despite a spell of poor weather, they remain on schedule to open in the spring of 2016. More than 100 Balfour Beatty personnel are now working on the site. Construction of the timber frame is progressing well and construction of the steelwork to the central entrance area has started. The fine details of the design, including interior design, are being finalised and agreed.

As part of the contract this major building project offers 'Community Benefits' initiatives. So far, these have included:

- three work placements to 16 to 24-year-olds;
- one new graduate apprentice has started;
- six apprentice opportunities;
- four apprenticeships completed; and
- a guaranteed interview scheme for all North Ayrshire residents who meet the skills requirements for all new vacancies.

The case for change

Within the Ayrshire Central Hospital site, there has been an improvement in estate performance, due to the demolition of poorly performing buildings (over the past two years) which were not functionally suitable. With the relocation of patients from Ailsa Hospital to the new facility this will result in increased estate performance in function, space and quality due to the new building being designed to provide appropriate accommodation for the service requirements.

The case for change is explicit. The requirement for new build and refurbished premises will not only remove the many constraints on the quality of care due to environmental limitations, such as lack of functionality and space constraints, but will also act as a catalyst in the quality improvement of services and service user outcomes and is based on the following key drivers:

- Respond to and managing future demographic change and epidemiology – providing facilities that will meet changing population rates within NHS Ayrshire and Arran;
- Provision of person centred, safe and effective care as well as care which is equitable, efficient and timely. This respects individuals' needs and values and ensures receipt of healthcare in an appropriate, clean and safe environment;
- Workforce, ensuring the right staff in the right place at the right time; and
- Enable the improvement of service models and ensure that NHS Ayrshire and Arran realise our clinical and investment objectives.

3.2.3. Focus for Investment – Property

The Board is committed to a continued programme of investment in the estate as part of its capital planning and development process.

As part of the Board's Local Delivery Plan (LDP), a Capital Investment Plan has been developed covering the period 2014/15 to 2018/19. The Board has invested £79M using capital funds over the five year period 2009 to 2013 (inclusive), with plans to invest a further £81M using capital funds and £47M through the Scottish Government's NPD procurement route over the five year period 2014/15 to 2018/19. This includes a number of key projects which will make a significant impact on the Board's estate. These include:

- Improvements to front door services at both University Hospitals Ayr and Crosshouse under *Building for Better Care* - total capital value £41M (£27M phase 1 and 2 with a further £14M on phase 3);
- The re-provision of mental health services and a new community hospital for North Ayrshire to be provided as part of the redevelopment of the Ayrshire Central site - total value circa £47M;
- Reconfiguration of Outpatient, Primary Care and Community Services in Ayr - total capital value £5.0M; and
- Ward Remedial Works annual financial allocation of £750k with effect from financial year 2014/15.

3.2.4. Disinvestment and Sales

There are currently 69 sites within the estate.

As part of its on-going review of existing estate the Board has identified a range of properties which offer potential for disposal as they have either been declared surplus, are identified as being non-essential or their continued use is under review as part of planned changes in clinical service provision.

Over the last 12 months (March 2014 to March 2015) the Board has sold eight properties, with a further six properties currently on the market. Two properties have been identified as non-essential and may become surplus and five properties are under review as shown in Appendix 6 – Disposal Information.

This year has seen a number of challenging properties sold including;

- Seafield House, Ayr; a former Children's Hospital which had played a significant role in the history of the local community. The building was originally designed by Sir William Arrol which attracted local and national interest. The Board worked closely with Scottish Futures Trust, South Ayrshire Council, Historic Scotland, Scottish Government's Scottish Procurement and Commercial Directorate (SPCD) and a Local Conservation Group in order to secure a sale; and
- Holmhead Hospital, Cumnock; the site was partially cleared with outline planning consent granted when put on the market in 2008. At this time Cumnock had a number of housing developments on going along with the dip in the property market which resulted in little interest from developers. The expected capital receipt was adjusted to reflect market conditions, with the sale going through this year for £151,000.

In addition to owned estate, the Board has also identified four leased properties which it believes could become surplus and are currently under review.

Over the past year there has been a Capital receipt of £1.6M for the eight properties sold. The remaining gross proceeds arising from disposals are estimated to have a receipt of £5.9M and represents £2.9M of backlog costs, which is 4% of the total backlog of the estate.

The Board has a current net book value of circa £301M, which is an increase of £6M on last year. This is due to the completion of the new University Hospital Ayr Outpatients Department, annual estate revaluation and associated market influences.

Circa £1M saving has been made on Non Domestic Rates across the estate for 2014/15. The Board's Rates Services Group has achieved this saving with the proactive rates management of empty properties and qualifying Disabled Persons' Rates Relief (DPRR). DPRR is applicable to a number of sites within the estate including Biggart Hospital, which after appeal was granted 92% DPRR equating to £211,000 rates relief for 2014/15.

3.2.5. Greening the Estate

Image 6 - Evergreen Way Woodland Walk, Ailsa Hospital

NHS Ayrshire and Arran has been working with the Green Exercise Partnership (GEP) since 2011 to develop and improve the quality of our outdoor estate so that patients, staff and visitors might better use it for exercise, recovery and rehabilitation, relaxation and recreation. Tree-planting and creating sustainable outdoor environments can also help the NHS contribute towards carbon reduction targets and promote biodiversity.

It is anticipated that the second phase of these works at University Hospital Ayr and Ailsa Hospital will be complete by July 2015 which would include:

- Further access improvements including installation of a looped path through Alton woods (underway);
- Extensive woodland management works which includes removal of windblown trees, thinning and enrichment planting, re-spacing dense areas of regeneration and new woodland creation (complete-2,350 new woodland trees and 50 fruit trees planted,);
- Individual tree management involving remedial tree safety work and planting new specimen trees (complete-84 new specimen trees planted);
- Installation of outdoor covered teaching areas;
- Wildflower meadow creation
- Installation of seating and entrance features to paths; and
- Creation and installation of way finding, signage and interpretation/information to encourage use of Ayr/Ailsa grounds via graded varied walks (developed – ready for installation).

A bid has also been submitted to SUSTRANS for funding to upgrade the farm tracking leading onto the A77 with a view to improving active travel link into the site and a bid for Scottish Rural Development Programme (SRDP) is being considered which will enable further woodland planting in one of the field areas on the UHA site.

3.2.6. Greencode

An Environmental Management System (EMS) is a framework that drives environmental improvement, and provides assurance that an organisation meets its legal and other requirements.

The EMS should help an organisation to develop and implement their environmental policy, and manage the elements of its activities that can interact with the environment. These elements are usually referred to as 'aspects' and include issues such as the consumption of energy and water, the use of products and services, the use of transport, and the production of waste.

Corporate GREENCODE® is a suite of software, templates and support materials developed by the NHS for the NHS. It is maintained by Health Facilities Scotland (HFS) to:

- guide users through the development and implementation of an effective corporate Environmental Management System (EMS); and
- provide tools to help users run and maintain their corporate EMS.

The Board are currently reviewing plans for the roll out of the Corporate Greencode along with identifying resources required.

3.2.7. Sustainability and Biodiversity

Green environments are healthy environments. NHS Ayrshire and Arran takes a proactive role in meeting its responsibility towards furthering the conservation of biodiversity when undertaking its duties. In particular, it acknowledges and actively promotes the positive relationship between high quality green space and general physical/mental health and well being. It is pledged to adopt best practice for conservation of biodiversity as part of the Board's Sustainable Development Statement, Appendix 2 – Sustainability and Biodiversity Statement.

A Policy on Sustainable Development for NHSScotland CEL 2 (2012) – states that each NHSScotland body must have a Sustainable Development Action Plan setting out the organisation's contribution to the Scottish Government's sustainable development aims and objectives. A working group has therefore been created consisting of the Head of Procurement, the Energy Manager and the Lead Public Health Practitioner for the Board. The group have developed the

Boards Sustainable Development Action Plan, which was submitted to Scottish Government in December 2014, with the Biodiversity Report following in May 2015.

3.3. Estate Condition

The current condition and performance of the existing estate has been analysed in accordance with the Property Appraisal guidance under the Six Facets

- Physical condition;
  - Building
  - Engineering
- Statutory Compliance;
- Environmental Management;
- Functional suitability;
- Space utilisation; and
- Quality.

The appraisal of all Six Facets was undertaken by in-house staff over the course of 2014/15.The information produced as part of these appraisals is uploaded into the Estate Asset Management System (EAMS) and all appraisal grades are summarised in Table 1 – Condition of the Estate.

Table 1 - Condition of the Estate (6 Facet Grading Key included on page 108)

	Analysis of Property Performance for all NHS Ayrshire and Arran Estate								
Facet	Very Satisfactory		Satisfactory		Not Satisfactory		Very Unsatisfactory		Annual Trend
	2014/15	**2015/16**	2014/15	**2015/16**	2014/15	**2015/16**	2014/15	**2015/16**	
	A		B		C		D		
Building	1%	**1%**	40%	**41%**	54%	**53%**	5%	**5%**	↑
Engineering	0%	**1%**	55%	**53%**	41%	**42%**	4%	**4%**	→
Functional Suitability	0%	**1%**	74%	**87%**	20%	**6%**	6%	**6%**	↓
Quality	3%	**4%**	79%	**78%**	12%	**12%**	6%	**6%**	→
Statutory Compliance	0%	**1%**	46%	**45%**	50%	**50%**	4%	**4%**	→
	2014/15				**2015/16**				
Average SCART Score	69.72%				**72.2%**				↑
Average Energy Consumption	60.33GJ/m^3				**Figures yet to become available**				
Category	Empty		Under Utilised		Fully Utilised		Over Crowded		
	2014/15	**2015/16**	2014/15	**2015/16**	2014/15	**2015/16**	2014/15	**2015/16**	
Space Utilisation	7%	**5%**	3%	**2%**	67%	**69%**	23%	**24%**	↑

While Level 2 on-site condition inspections were carried out by in-house staff; the Third Party owned Primary Care premises were also surveyed through Scottish Government funded surveys by Capita. In addition to these surveys, NHS Ayrshire and Arran commissioned Capita to carry out further surveys at University Hospitals Ayr and Crosshouse which included lifecycle data for both sites. These lifecycle surveys mean that 43% of the estate has been lifecycle assessed within 2014/15.

The grades for these are shown in Table 1. A key highlighting the colour coding used in both Table 1 and Appendix 3 - Appraisal Information can be found on Page 108. This highlights that overall there has been an improvement in Building Condition, Quality and Space Utilisation, as highlighted by the trend arrows shown in the table; however there has been no change to the remaining facets and a deterioration of Functional

Suitability,. The focus for investment over the past year has been primarily geared toward the statutory compliance, which has remained static, and high and significant risk elements of backlog, which has deteriorated over the year, primarily due to the resurvey of University Hospital Crosshouse.

Whilst it has been noted that Functional Suitability, Quality and Space Utilisation has shown an improvement, there are still a number of issues with Functional Suitability. In order to comply with the latest requirements of the HMO (House of Multiple Occupancy) Licence, investment in upgrading the facilities as well as backlog expenditure will be required in some instances.

Overall, there is residential provision for approximately 120 students and clinicians, split between University Hospital Crosshouse and Ailsa Hospital. The backlog figure is circa £2M for the properties. Particular attention will be required at Ailsa Hospital's Content Court and Alton House, where upgrade work will be required in order to retain the capacity of the present numbers. Options around the sustainability of these provisions will be explored as part of the Board's Masterplanning exercise as noted on Page 90.

3.4. Statutory Compliance

As part of the assessment process for the Statutory Compliance Facet, a dual approach has been taken by assessing the risk elements noted in Table 1 – Condition of the Estate through Statutory Compliance Audit and Risk Tool (SCART). These are then noted within the EAMS System where costs are applied to all items identified in order to bring the areas to a compliant standard. Reports are then taken from the EAMS System in order to identify the highest risk items in statutory compliance as part of the overall backlog.

It has been necessary to prioritise the projects so that those with the greatest level of potential risk are considered ahead of other requirements – these relate primarily to addressing statutory compliance across the Board's major sites. As part of this prioritisation process it has been necessary to defer a number of high priority projects. In effect this means that the highest risk backlog items are addressed as priority with lower risk items being deferred to the next financial year. However, the Board has secure funding of £3M for 2014/15 to address high priority items as identified within the Formula Allocation budget.

3.5. Office Accommodation

As noted within Scottish Futures Trust's (SFT) "Smarter Offices" Programme 2014, the biggest duel challenge facing NHS Scotland is the need to improve the quality of services and simultaneously increase productivity. Going forward from this statement NHS Ayrshire and Arran have been proactive in gathering data on the office accommodation across the estate.

An Office Accommodation Master Sheet has been developed (Appendix 3- Appraisal Information) which notes the following office accommodation information;

- Location, GIA and age profile;
- Physical condition (as reported in EAMS);
- Backlog maintenance;
- Space utilisation, including head count, number of desks and whole time equivalent details; and
- Running costs.

As shown in Appendix 3 – Appraisal Information the overall condition of the office accommodation shows that the physical condition of the accommodation has been assessed as acceptable and unacceptable conditions. Whilst collating the data for Smarter Offices allows the Board to view office occupancy across the estate, at high level it can be misleading due to the data only taking into account head count and desk numbers rather than how often these people utilise the desk. Further analysis would be required to determine efficient and effective utilisation of the office space.

This data will be used to underpin and inform the development of the Board's Masterplan for 2015-16, and more detailed utilisation data will be gathered as necessary.

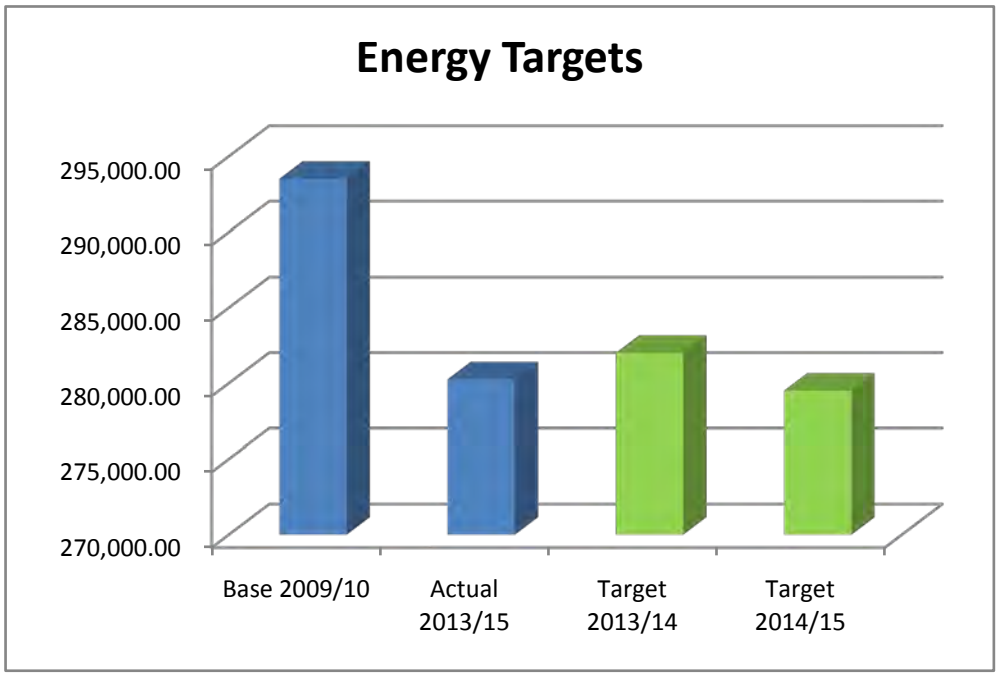
3.6. Environmental Performance

NHS Ayrshire and Arran has reduced its CO2 emissions by 22.85% from the base year 2009/10 using the national HEAT target data. In terms of the 2014/15 HEAT targets we have exceeded our carbon HEAT reduction target by 8.27%.

The national HEAT targets for energy and carbon ensures that each Board must reduce its energy consumption by 1% per annum and its CO2 emissions by 3% per annum in order to meet the NHS Scotland targets.

NHS Ayrshire and Arran achieved energy savings of 6.25% over the base year of 2009/10 which means that we have exceeded our target by 1.38%. Graph 1 – Energy Targets below, shows the progress of energy savings made.

Graph 1 - Energy Targets



NHS Ayrshire and Arran generated 13.56% renewable heat, making it the top performing Board in 2013/14. This was achieved by using three biomass boilers at a number of hospital locations.

In addition, multiple energy saving projects were put into practice during this period and subsequent years have contributed to reducing energy and carbon consumption. Boiler optimisation equipment has been trialled and

implemented at Biggart Hospital, which achieved 12% gas savings and a payback of six months. With this success, more units have been installed across the estate where savings could be made with a very quick payback. In Ailsa Hospital 40 units were installed with two in University Hospital Crosshouse, which saw a seven week payback on the technology. The identified savings total £487k, made up of the following;

- £224,000 from the saving on reduced price of Gas;
- £23,000 from small Energy Efficiency Schemes; and
- £240,000 from Spend to Save initiatives on Heating Controls, Motor Upgrades, Insulation, Boiler Controls, Eccocent Boilers, and Lighting.

Modern light emitting diode (LED) lighting has continued across the estate internally and externally. LED lighting passes energy through a semi-conductor which emits light and which uses a lot less energy than conventional forms of lighting. Car parks have seen upgraded lighting and recently we have introduced the latest wireless control equipment from Phillips which enables full control over lighting from any location. At Ayrshire Maternity Hospital (AMU) five new solar powered car park lights were installed in August 2014, which have no power cables running to them at all, thus minimising work needed to existing car park/road areas on site as part of the installation. However, high initial outlay has prevented further progress with this technology.

Domestic hot water and air source heat pumps have been installed in University Crosshouse Hospital over two phases, which uses the waste heat and moisture in the air and turns it into domestic hot water which is then fed back into the kitchen for use.

Cost Savings

Throughout 2014/15 billing issues have been identified and costs have been reclaimed by the Board. Using the energy billing review framework, Schneider electric did an initial review of the utility billing and savings were identified. Savings arose mainly through water charges, and on the back of the national framework, consultants were commissioned in March 2015 to complete a second pass on the utility bills, looking at the makeup of electricity charges.

In-house staff have identified many areas where savings have also been made. Biomass VAT issues have been identified and sales of wood to the NHS are to be claimed at 5% VAT and not 20%. This VAT over charge has been reclaimed going back for 4 years. Maximum demand electricity charges

were also re-evaluated and savings found in over charges. Water meter resizing has been shown to have an impact on costs, and progress is underway to change the meters. Moving accounts onto the National Contracts has also provided savings by providing lower unit rates over the current tariffs. Furthermore, duplication of metering and incorrect charging has also been identified for water and electricity which has resulted in large refunds to the Board.

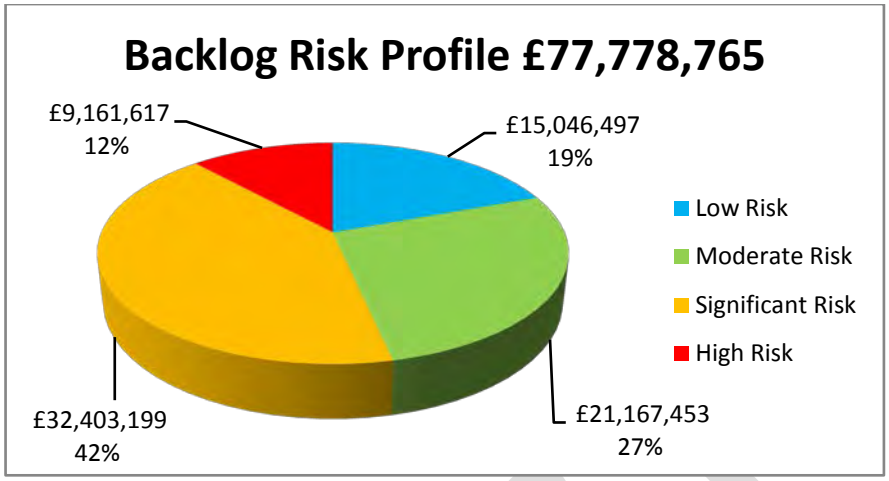
New Energy Management Software has been purchased and will help provide even more clarity to the utility billing, helping to reduce the length of time required for the manual process at present, and to assist in Carbon Reduction Commitment calculations at the end of year..

3.7. Risk Profiled Backlog

The Annual State of Asset and Facilities Report (SAFR) identifies the split of backlog between clinical and non-clinical accommodation for NHS Ayrshire and Arran. The total backlog is split between clinical, 87% and non clinical, 13%. The National average for Clinical backlog is 79% and therefore NHS Ayrshire and Arran will need to focus backlog expenditure in these areas in order to align with other Health Boards. In both cases around half of the backlog relates to High and Significant Risks. A full breakdown of backlog and risks has been included in Appendix 3 – Appraisal Information.

Despite the continuing effort to lower the level of backlog risk, there has been an increase in high risk items over the year of 6%. This increase has been due to the resurvey of University Hospital Crosshouse, which highlighted an increased level of backlog for electrical infrastructure, heating systems and hot and cold water systems. In addition to this it should be noted that the estate is continuing to age and elements of the buildings are degrading in accordance with this rising age. Chart 1- Backlog Maintenance – Risk profiled Backlog Expenditure, below shows that more than half of the backlog expenditure requirement has been assessed as “High” and “Significant” risk. The Backlog is generally spread throughout the organisation with the larger properties accruing more backlog than the smaller ones; this is demonstrated in Chart 2 - Split of Backlog Across the estate.

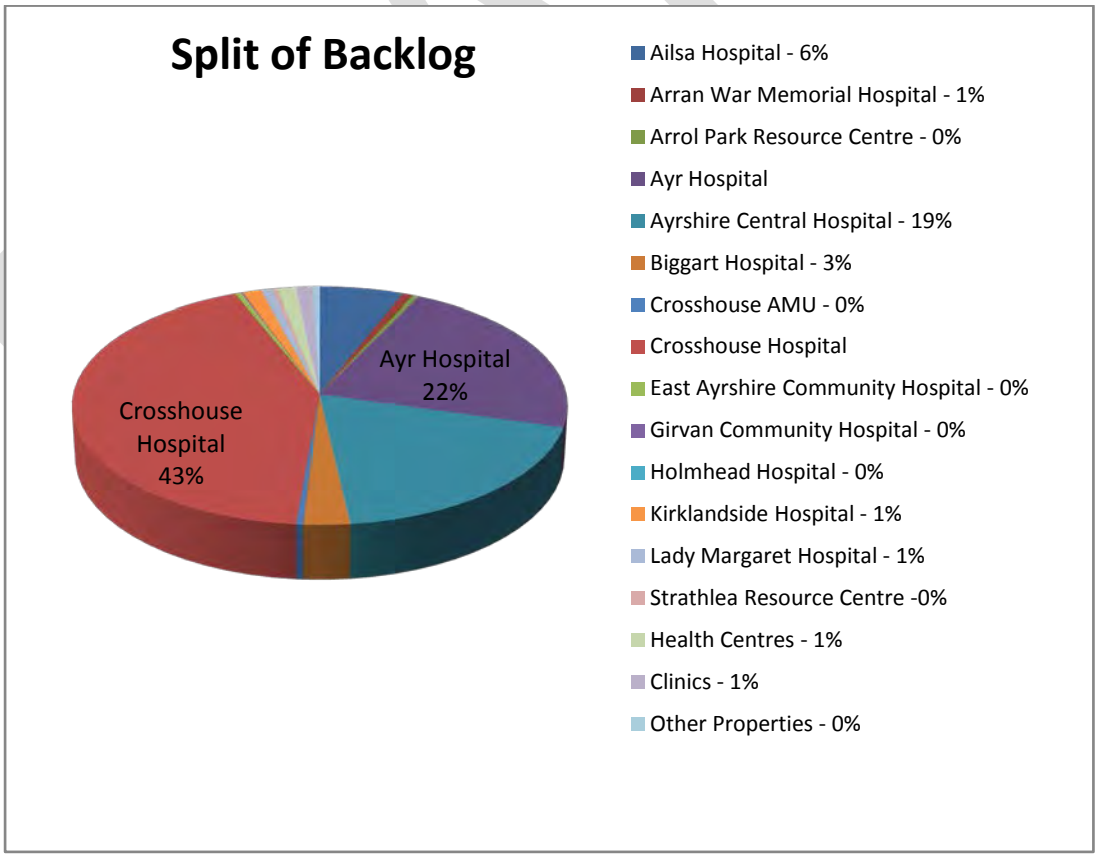
Chart 1 - Backlog maintenance - Risk profiled Backlog expenditure



Sourced from EAM system 2015

It should be noted that over the coming year the Board intends to review the current risk profile of the backlog to bring this in line with corporate risks.

Chart 2 - Split of Backlog Across the estate



3.8. Third Party Estate

In addition to the provision of the care in hospital settings the Board is responsible for making sure the people of Ayrshire and Arran can access a broad range of Primary Care services from a range of locations these include:

- 300 General Medical Practitioners across 90 sites, stretching from Ballantrae in the south to Wemyss Bay in the north, and including 10 sites across the Isle of Arran and Isle of Cumbrae;
- More than 160 General Dental Practitioners at more than 70 sites, including two on the Isle of Arran;
- More than 95 community Pharmacies, including three on the Isle of Arran, and one on the Isle of Cumbrae; and
- 56 Optometry practices, including one permanent practice on the Isle of Arran with a visiting practice every few months and one on the Isle of Cumbrae, plus a further nine practices who provide a domiciliary service

As indicated in last year's PAMS, a mapping exercise was undertaken to establish the extent or otherwise of geographic fit between NHS owned GP practices' registered population and their place of residence.

The analysis showed:

- The location of the practice (including branch surgeries);
- The dispersal of the registered population across the catchment area; and
- A five to ten minute drive time coverage from the surgery location.

Further to the Six Facet surveys carried out by Property Services in 2014/15, Capita, as part of the Phase 5 Surveys for Health Facilities Scotland, were asked to carry out Level 2 surveys on both GP and Dental Practices in Ayrshire and Arran. Currently the third party estate has a backlog of £2,210,000 of which 16% would be categorised as higher risk backlog items. In general the third party estate is in good condition in comparison to the Board owned properties of which 54% are in higher risk categories.

In addition to Health Board owned premises GPs can develop and improve their premises following an approval process by the Primary Care Premises Group. Resultant increases in rent, rates and an element of service charges are payable by NHS Ayrshire and Arran as per the Premises Directions 2004.

However, the Board is unable to approve any premises developments for which there is no revenue funding available.

Building on the intelligence gathered from this analysis and associated surveys and known accommodation pressures identified patient needs and availability issues, the Property Services and Primary Care Teams jointly assessed the relative needs of GP developments.

Using a weighted scoring approach, the Property Services and Primary Care Teams determined the following ranked list of priorities;

Table 2- GP Priorities

Practice	Practice/HB Owned	Score
Beith Health Centre GP Practice, Beith	HB	83.63
Riverside Medical Practice, Rankinston	HB	73.21
Taiglum Medical Practice, Tarbolton	HB	69.92
The Cathcart Street Medical Practice, Ayr	Practice	56.65
Ballantrae Medical Practice, Barrhill	Practice	55.90
Ballochmyle Medical Group, Catrine	HB	55.76
Dalry Medical Practice, Dalry	HB	55.06
Drs Paton, Muduniri, Maybole	HB	51.72
Dalmellington Medical Practice, Dalmellington	HB	49.32
Townhead Surgery, Irvine	Practice	45.01
Auchinleck Surgery, Auchinleck	HB	44.90
Dailly Medical Practice, Dailly	Practice	44.79
Stewarton Medical Practice, Stewarton	HB	42.81
Drs Lau, Wilson and Sheward, Maybole	HB	41.61
Dr Kondol and Partners, Muirkirk	HB	38.92
Arran Medical Group, Arran	HB	38.56
Glencairn Medical Practice, Fenwick	Practice	35.25
The Surgery, 9 Alloway Place, Ayr	Practice	32.56
Central Avenue Surgery, Ardrossan	HB	30.99
Saltcoats Group Practice, Saltcoats	HB	30.01
Dundonald Medical Practice, Dundonald	HB	28.15
Portland Medical Practice, Hurlford	HB	25.78
Frew Terrace Surgery, Irvine	HB	24.92
Ballochmyle Medical Group, Mauchline	Practice	24.44
3 Towns Medical Practice, Stevenston	HB	22.21
Tanyard Medical Practice, Cumnock *	HB	20.89
Stevenston Group Practice, Stevenston	HB	20.57
Station Road Medical Practice, Prestwick	HB	20.47
Kilbirnie Medical Practice, Kilbirnie *	HB	18.11
Dr Pugh and Partners, Kilmarnock	Practice	17.75
Largs Medical Group, Largs	HB	14.67
Old Irvine Road Surgery, Kilmarnock *	HB	12.68
Glencairn Medical Practice, Crosshouse	HB	10.89
Dr McCulloch and Partners, Girvan *	HB	0.00
Dr McMaster and Partners, Girvan *	HB	0.00

* Premises include Public Service Surgeries

This proposal was presented to and endorsed by the Corporate Management Team in August 2013.

Having sought advice from NHS Board's GP Sub Committee, the Teams recommended that Business Cases should be developed for the top seven priorities.

As members of the Ayrshire Public Sector Property Group (APSPG), NHS Ayrshire and Arran have been involved in developing an Ayrshire GIS system. As highlighted in previous PAMS the use of demographic and deprivation data will help to inform any decisions for future service provision and funding to be targeted appropriately across Ayrshire.

To date despite this level of data, revenue funding constraints to support these projects have prevented the development of the outline business cases. In order to progress this agenda, the Board and the Health and Social Care Partnerships (HSCPs) will work collaboratively on any premises developments which are either out with the priority list.

Any decisions relating to premises which impact on GP occupancy which have a consequent cost must have the appropriate funding allocated to the Primary Care Team Premises Budget to support this.

3.9. Performance of Assets

3.9.1. Medical Equipment

Medical Equipment in NHS Ayrshire and Arran is largely managed by the Department of Medical Physics, with some items managed directly by user departments with support from Medical Physics (e.g. Laboratories) and some by Estates (e.g. Suction and Oxygen therapy equipment and weighing scales). A comprehensive asset management system is used to manage the medical equipment under the care of Medical Physics within NHS Ayrshire and Arran.

The medical equipment at NHS Ayrshire and Arran is maintained in safe and effective condition through in-house maintenance programmes largely carried out by Medical Physics and by contracting with third party agencies to provide maintenance. These programmes provide scheduled maintenance and support in the event of equipment failure.

A replacement programme is in place to ensure the use of safe and effective equipment. Replacement considerations are based on age, equipment condition, service support, safety concerns, national guidelines, technology change, functional effectiveness and operating financial considerations. While it is possible to integrate some clinical developments in the replacement programme, it has become difficult to incorporate the requests and expectations of clinical users due to increasing financial limitations.

The overall condition of the equipment is currently satisfactory; however the average age of the equipment is giving some cause for concern. It is expected that capital medical equipment will have a useful average lifetime of 10 years, due to either clinical or technical obsolescence.

With an asset value of approximately £48M, £4.8M per annum would be required to achieve a 10 year life cycle of the existing inventory (i.e. without any developments). The investment for the last few years (£2.2M in 2014/15) has been significantly less than this, with the result that the mean age of medical equipment has crept up from 5.5 years in 2011 (when the capital allocation was reduced) to 7.2 years in 2015. This is projected to reach eight years by April 2016 at the current investment level.

This introduces challenges both for ongoing maintenance spend and procurement. Particular concerns are that it is not possible to allocate a sufficient budget in any one year for the strategic replacement of a particular category of equipment

Example 1 – it is desirable that there is standardisation of resuscitation equipment for safety, consistency and training. The budget for the forthcoming year has an allocation of £300K for replacing defibrillators; however, the estimated cost of replacement is more than double this. This means extending the period of replacement resulting in a mix of equipment in use over several years, making staff training more challenging and potentially increasing the risk to patients.

Example 2 – there is a value of approximately £5M of equipment in the flexible endoscopy category across seven rooms, of which 90% is sourced from a single supplier. It is impractical to consider a move to an alternative, potentially better value supplier on a piecemeal basis due to equipment incompatibility across vendors in both the clinical and decontamination areas would be required to be changed in at least two rooms at one time (est. £1.5M) which would have benefits in throughput

and improving staff ergonomics. Current levels of investment only allow consolidation to the incumbent supplier.

The equipment funding budget includes a small allocation for emergency replacements to cover unanticipated equipment failures during the course of the financial year.

Procurement of Medical Equipment

The process of procuring medical equipment is laid out in the Board's "Procurement Policy" and associated "Procurement Operating Procedures" to ensure compliance with the Board's strategic objectives and with financial governance requirements (Standing Financial Instructions and statutory tendering requirements). Control of expenditure on medical equipment is managed by the Board via the Asset Management Planning Group (AMPG).

Reporting to the Asset Management Planning Group, the medical equipment purchase budget is managed by the Head of Medical Physics.

The budget is divided into three basic groups; rolling replacement, emergency replacement and departmental user identified.

Analysis of Medical Equipment

The condition of medical equipment within NHS Ayrshire and Arran is reviewed as part of the maintenance cycle carried out either by in-house staff or by external contract. The condition is also reviewed annually when consideration is given to the medical equipment replacement programme. Replacement is considered in three broad ways:

- Strategic replacement plans;
- Review by Medical Physics of the medical equipment; and
- Review by clinical departments routed through their Health Care Managers following the annual call for requests for replacement equipment.

The criteria used for prioritising requests are based on the following categories:

- Clinical Risk, including Safety Warning;
- End of life notification from manufacturer;
- Regulatory requirements;
- To reduce revenue costs;
- No longer fulfils clinical needs;
- Maintenance considerations; and
- Change in technology.

High value capital items such as imaging equipment (MRI/CT etc) and some of the general medical equipment are covered by maintenance contracts provided by either the equipment supplier or a third party. In-house maintenance is carried out by Medical Physics workshops based at University Hospital Crosshouse, University Hospital Ayr and Ayrshire Maternity Unit.

Medical equipment is integral to healthcare. The risk is managed by an equipment management process compliant with Medicines and Healthcare products Regulatory Agency (MHRA) guidelines, by a planned equipment procurement process, by regular scheduled maintenance, by supporting the delivery of training of clinical staff and by responding to incidents reported on Datix and to safety warnings issued by suppliers and the MHRA.

3.9.2. Catering Services

The Catering production provides meals and food items to various service areas such as:

- In-patient meals;
- Dining Room;
- Hospitality; and
- External services e.g. Hospital Volunteers, Medical representatives, Local Authority Day Care Centres and Meals on Wheels Service.

Integration with Local Authorities is already taking place with meal provision service being provided to South Ayrshire Council Day Centres, North Ayrshire Council Meals on Wheels on Isle of Cumbrae and meals for Brooksby Resource Centre are being purchased from North Ayrshire Council.

Production Centres

Over the past few years NHS Ayrshire and Arran have proactively reviewed hospital production centres with a strategic review of closing smaller hospital production kitchens and relocating production to larger units. As shown in Table 13 – Production Kitchens within Ayrshire & Arran below;

Table 3 - Production Kitchens within Ayrshire & Arran

Hospital	In-patient beds	Production Kitchen	Delivered to	Comments
Arrol Park Resource Centre	19	No		
Ailsa Hospital	130	Yes	Ailsa Hospital Arrol Park South Ayrshire Council	provides Meals service to Local Authority Day Centre's
University Hospital Ayr (UHA)	330	Yes	UHA Biggart Hospital	
Ayrshire Central Hospital	120	Yes		
Biggart Hospital	150	No		
Girvan Community Hospital	24	Yes	Girvan CH South Ayrshire Council	
Arran War Memorial	20	Yes		
Lady Margaret Hospital, Millport	9	Yes		
University Hospital Crosshouse (UHC) Includes Ayrshire Maternity Unit	630	Yes	UHC Kirklandside Hospital	
Kirklandside Hospital	24	No		

Food Waste

Food waste is kept to a minimum and the disposal of waste has two routes:

- NHS Ayrshire and Arran have two units where a vacuum food waste system is in place; and
- All other sites use macerators, and with Waste Regulations (2012) requiring alternative arrangements to be in place for 1st January 2016 options have been explored.

Retail Units (Healthy Living)

The Board is compliant with CEL (2012) 01 in that all Dining Rooms within the Board have achieved the Healthliving Plus Award, in conjunction with complying with HDL (2005) 35 Catering Trading Accounts. We have a Fully Managed Vending Service contract, which commenced April 2013 until March 2018. The contract specification requires the supplier to have a plan over the five year period to comply fully with CEL (2012) 01, and is monitored over the contract period to ensure the stepped-plan is being achieved.

To support the Board's request to accelerate access to healthier food and drink it has been necessary to revisit the Fully Managed Vending Service Contract.

In addition within the Dining Rooms, if the Board wish to have a higher compliance on healthier foods than the 70% requirement for Healthliving Plus Award, there is serious risk to the Catering Trading Accounts and subsequent financial viability for the Dining Rooms.

Patient Menus

From the Area Nutritional Care Group a menu-visioning group reviewed menus looking to reduce the menus across NHS Ayrshire and Arran and also to reduce inequality for all patients. The results of surveys and patient focus groups have determined the nature of what a menu will look like such as breakfasts and three courses need to be offered at lunch and evening meals with patients able to choose two courses.

The new menus also need to comply with Food In Hospitals and are currently being analysed for nutritional content and will then be costed and proposal provided to the Area Nutritional Care Group.

Strategic Catering Reviews

Further reviews have been commissioned by Health Facilities Scotland, as part of the Soft Services Review, and will be on catering production strategies. Other reviews that we are involved with include

- Nutritional and Catering Specification (Food in Hospitals); and
- Catering Supervisor Workbook.

NHS Ayrshire and Arran have a very good reputation for food provision and having invested in their services would wish to remain a provider of conventional cook-serve model of production.

3.9.3. Vehicles

All vehicles operated within Ayrshire and Arran Health Board are managed in-house by the Transport Services Department located at Ailsa Hospital and part of the Corporate Support Services Directorate. The development of this new team has brought together the core functions of Transport Management and Car Leasing.

Currently the fleet comprises of:

- 664 Lease Cars;
- 178 Pool Cars; and
- 126 Commercial Vehicles.

During 2014/15, the remainder of the pool cars were upgraded to more efficient and environmentally friendly models. This programme is now complete, with the oldest pool vehicle under two years old. In order to achieve greater financial efficiency and value for money, the Board has opted into a four year contract instead of the traditional three year contract.

Overall, the current fleet is of a very high standard. Pool cars are under two years old, leased cars under three with the majority of commercials under three years old. All vehicles are covered by a planned maintenance programme which is built into the lease contract. The programme to replace the fleet of commercial vehicles is about to resume. Once again we will adopt the following in our selection process incorporation of the latest technology such as:

- "stop start";
- cleaner fuels;
- recyclability;
- low emissions; and
- improved safety ratings.

The performance of the current fleet of vehicles is monitored by using the department's Key Performance Indicators. These include fuel monitoring and the use of telemetric information which is obtained via installed tracking and information systems in all commercial vehicles and business use only cars. Particular attention is paid to individual vehicle's fuel consumption, driving style, routing and speeding control monitoring. Monthly reports are obtained from the system and this information is sent to all managers with responsibility for the above vehicles on a monthly basis. Any adverse events or areas of concern are highlighted to them for action.

Costs

The cost of vehicles varies dependant on certain parameters including:

- Commercial vehicles: type of use, goods carried, vocational licences available etc;
- Lease cars: type of vehicle selected by end user, current rate of reimbursement , mileage carried out; and
- Pool cars: procured via mini-competition within the boundaries of national contracts. By doing so, vehicles can be of a specific specification and model i.e. emission output, best price possible etc.

This has already achieved substantial savings for the organisation over the last two years. These costs are illustrated in Table 4 – Number of Vehicles and Annual Costs.

Table 4 - Number of Vehicles and annual costs

	Number	Annual cost to organisation
Pool cars	174	£260,770
Commercial vehicles	105	£466,230
Lease cars	652	£1,609,536

3.9.4. eHealth

eHealth Service Delivery Plan

The Table 5 – eHealth Development Projects below shows the progress of the eHealth development projects over the past year.

Table 5 – eHealth Development Projects

Completed	✔	**6**
On target	●	**11**
Slightly adrift of programme	▲	**1**

Projects – eHealth Delivery Plan	Progress	Status	Start	End
Relevant Outcomes: Better Integration of Care, Better Support for LTC, Better Access to Information for Healthcare Workers,				
Clinical Portal to Support EPR	10%	●	01-Mar-2014	31-Mar-2019
EMIS Community System – ICES & Dietetics	30%	●	31-Mar-2014	31-Mar-2017
TrakCare (PMS) Phase 2 (inc. Laboratory Order Communications)	70%	▲	01-Mar-2014	31-Mar-2016
TrakCare (PMS) Phase 3	5%	●	01-Nov-2014	31-Mar-2016
Emergency Medicine eHealth Development Plan	5%	●	31-Aug-2014	31-Mar-2016
Data Sharing: implementation of AyrShare Phase 1, across 3 Local Authorities and Health for GIRFEC.	100%	✔	01-Mar-2014	31-Mar-2015
Data Sharing: implementation of AyrShare Phase 2, including Education.	0%	●	31-Mar-2015	31-Mar-2016
Clinical eWhiteboards – Ward Management, Handover Efficiency	45%	●	31-Jan-2015	01-May-2015
eWhiteboards - Bed Management, Patient Flow	100%	✔	01-Mar-2014	30-Sep-2014
Digital Dictation & Electronic Document Transfer (EDT)	100%	✔	31-Jan-2012	31-Jul-2014
Implementation of GP Order Communications	5%	●	01-Apr-2015	31-Jan-2016
Implement eReferrals support for Community Optometry	79%	●	01-Mar-2014	31-Mar-2015

Projects – eHealth Delivery Plan	Progress	Status	Start	End
Relevant Outcomes: Improve Hospital Medicines Management				
Implementation of HEPMA into Crosshouse Hospital	100%	✔	01-Mar-2014	30-Sep-2015
Electronic Immediate Discharge Letter	25%	●	01-Oct-2014	01-Apr-2016
Relevant Outcomes: Healthcare services are more efficient, Support people to communicate with the NHSS, Improvement in relation to Information Assurance				
Patient Self Check-In	25%	●	01-Feb-2015	01-May-2015
Patient Communication – Text Messaging	50%	●	01-Jul-2014	01-Jul-2015
FairWarning	100%	✔	01-Apr-2015	31-Dec-2015
Implement QlikView to improve management information access	100%	✔	01-Mar-2014	31-Mar-2017

Focus for Investment Key Infrastructure Projects

Netcall

Netcall is an ongoing project to utilise the existing Microsoft Active Directory database to act as the master reference for a new internal telephone directory. Once completed this platform will handle all internal calls automatically without the need for routing via the switchboard operator.

Microsoft Exchange Migration

The current project is to migrate from the existing email platform to a new fault tolerant Microsoft Exchange 2007 email platform. Scope is for 15,000 user's mailboxes to be migrated. Tenders received and contracts being awarded for the necessary infrastructure.

SAN Replacement

Project work continues on migrating from legacy data storage equipment.

File Server Migration

This project continues migrating users to new file server platforms as the original server operating systems will be end of life in 2015. This project has a direct dependency on email archive which has been procured.

Network Upgrades

This includes the deployment of fast links to core sites. Sites completed include Bridgegate, Three Town Resource Centre, Stevenston Practice and the Isle of Arran sites where previous links were congested and slow.

New Backup Platform

Live project migrating backups from legacy platform. Also within scope are all GP sites. Project ongoing with 26 GP sites now backing up remotely to the new platform. The traditional backup tapes that required daily intervention from the Practices is now no longer required in these sites.

Health and Social Care Integration

eHealth leads from Local Authorities and Health have met to agree how IT support for the Partnerships will be taken forward. LAs are required to comply with a new Public Services Network (PSN) code of connection which introduces a level of complexity which did not exist previously. Health and Local authority have developed a proposed architecture which would support eHealth requirements within shared premises and this has been submitted to the PSN governing body for approval via North Ayrshire Council.

In addition analysis is being carried out with NHS Integrated Care and Emergency Service teams based at Kirklandside, Biggart and Bridgegate. An initial workshop has been held with these teams to determine information flows and strategy in relation to application systems and the interaction between Health and Social Care staff.

Scottish Wide Area Network (SWAN)

The physical data lines that carry the data traffic on our wide area network are now being managed under a new contract named SWAN (Scottish Wide Area Network). Planning and pre-implementation work commenced throughout NHS Ayrshire and Arran to migrate the lines from BT who held the previous contract to Capita who now have the contract for SWAN. The first tranche of sites have replacement circuits installed and migrated from the beginning of September followed by all 300+ circuits by end of May 2015.

Telephony

Work has commenced to migrate a number of telephony users at University Hospital Crosshouse to a new digital telephony platform that makes use of the existing data cabling to carry voice traffic as well.

Remote access for GPs

GP Practices have requested a new remote access solution to allow them to connect their own devices in order to access patient records from any location. Technical solutions have been evaluated following meetings with suppliers to be discussed with GP colleagues.

Desktop Refresh PCs/XP Migration

Rollout of full client Windows 7 PCs is continuing in tandem with the project to create a new Windows 7 virtual desktop image, which allows users to access a desktop that is based on a centralised server. The use of virtual desktops allows easier upgrading of systems in the future. Replacements will be based on user roles with a mixture of virtual desktops and full client PCs rolled out. A new monitoring tool called Quest has been used to target the Windows XP devices that require to be replaced by Windows 7.

3.10. Summary

NHS Ayrshire and Arran currently operate over 69 sites including five on the Isle of Arran and two on the Isle of Cumbrae, this serves circa 400,000 people which equates to 7.3% of the population of Scotland.

Health and Social Care Partnerships

The Ayrshire Health and Social Care Partnerships (HSCPs) have now completed the transition from Shadow Boards to fully functional Boards as of April 2015.

Current Developments

Building for Better Care

Enabling work for the new Combined Assessment Unit (CAU) at University Hospital Crosshouse started on 30 June 2014. However, the mining report indicated that a disused mineshaft could be in close proximity to the proposed development in an area adjacent to the existing Day Surgery Unit. Investigations to locate the mineshaft and to determine its condition was carried out in August 2014. Remedial works have slowed progress of the new construction works.

Preparatory work for the new Emergency Department at University Hospital Ayr began in May. The new Emergency Department will have resuscitation bays, high care areas and cubicles, and will be fully integrated with the minor injury unit and NHS Ayrshire Doctors on Call (ADOC).

Woodland View (formerly known as NACH)

Balfour Beatty began construction in the summer of 2014. Despite a spell of poor weather, they remain on schedule to open in the spring of 2016. More than 100 Balfour Beatty personnel are now working on the site. Construction of the timber frame is progressing well. Construction of the steelwork to the central entrance area has started. The fine details of the design, including interior design, are being finalised and agreed.

Disinvestment and Sales

As at March 2015 the Board has sold eight properties with six remaining on the market.

Estate Condition

The current backlog for the estate is £77.8M with 54% being shown as High and Significant Risks. There is a programme in place, however, to reassess the risks within EAMS to bring this in line with the Corporate Risk matrix. The condition of the estate is shown in Table 1 – Condition of the Estate with a full breakdown within Appendix 3 – Appraisal Information.

Environmental Performance

NHS Ayrshire and Arran has reduced its CO2 emissions by 22.85% from the base year 2009/10 using the national HEAT target data. The Board has achieved energy savings of 6.25%

Third Party Estate

In addition to providing care within a hospital setting the Board is responsible for making sure the people of Ayrshire and Arran can access care from a range of services. Further to the Six Facet Surveys carried out by Property Services and Capita, the third party estate has a backlog of £2,210,000 of which 16% would be categorised as higher risk items.

Medical Equipment

With an asset value of circa £48M, £4.8M per annum would be required to achieve a 10 year lifecycle of the existing inventory.

Vehicles

All vehicles operated within Ayrshire and Arran Health Board are managed in-house by the newly formed Transport Services Department located at Ailsa Hospital and are part of the Corporate Support Services Directorate. Currently the fleet comprises of the following vehicles as shown in Table 6 – Number of Vehicles and annual costs:

Table 6 - Number of Vehicles and annual costs

	Number	Annual cost to organisation
Pool cars	174	£254,388
Commercial vehicles	105	£398,895
Lease cars	652	£1,769,182

eHealth

The table below (Table 7 – eHealth Development Projects) shows the status of the eHealth development projects over the past year.

Table 7 - eHealth Development Projects

Completed	✔	**6**
On target	●	**11**
Slightly adrift of programme	▲	**1**

4. Where do we want to be?

4.1. NHS Ayrshire and Arran's Service Plans

4.1.1. Our Health 2020: A Health and Wellbeing Framework for Ayrshire and Arran

The purpose of Our Health 2020 is to provide a locally relevant strategic overview for NHS Ayrshire and Arran. The framework will incorporate the Board's three major strategies along with a number of other services strategies, plans and service reviews. These are shown in Image 7 – Wellbeing Framework. The framework will provide a clear statement for staff and the public and gives benchmarks against which progress can be monitored.

To link these various strands into a coherent structure NHS Ayrshire and Arran developed an overarching strategic framework (Image 8) and Corporate Strategy (Image 9). The Strategic Framework builds on the relationship between the national priorities for the 2020 Vision, NHS Ayrshire and Arran Strategic Direction Statements and Corporate Objectives. To provide assurance that NHS Ayrshire and Arran is delivering against the national priorities set out in the 2020 Vision, the Corporate Strategy defines key programmes of work, strategies and plans with their associated measures of performance that NHS Ayrshire and Arran will achieve each year as we work towards 2020 and the delivery of the 2020 Vision. The Corporate Strategy is reviewed annually and a bi-annual performance report is produced to support performance reporting to the NHS Board and scrutiny at the mid year and Annual Review Processes.

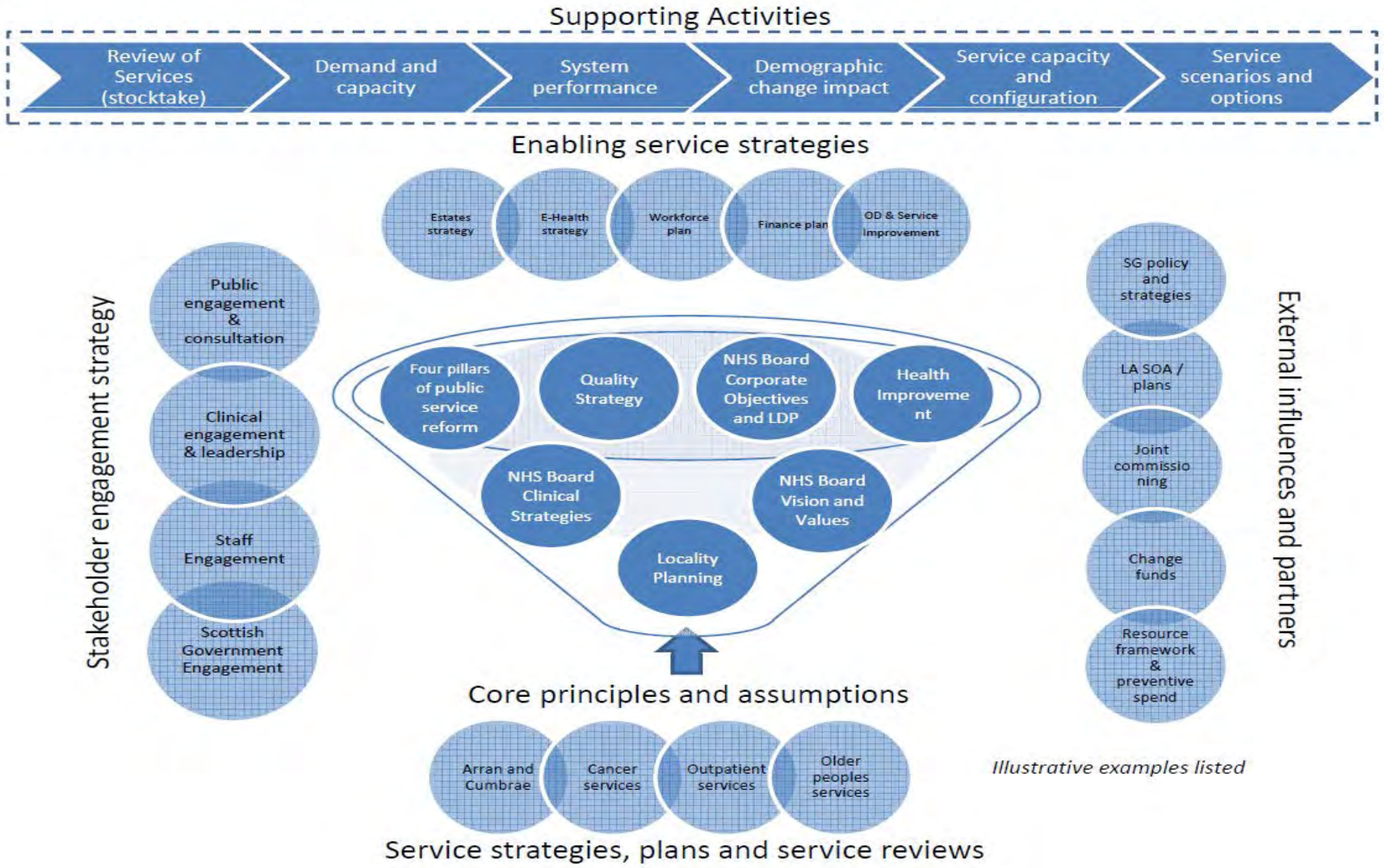


Image 7 - Wellbeing Framework (source: NHS Ayrshire and Arran)

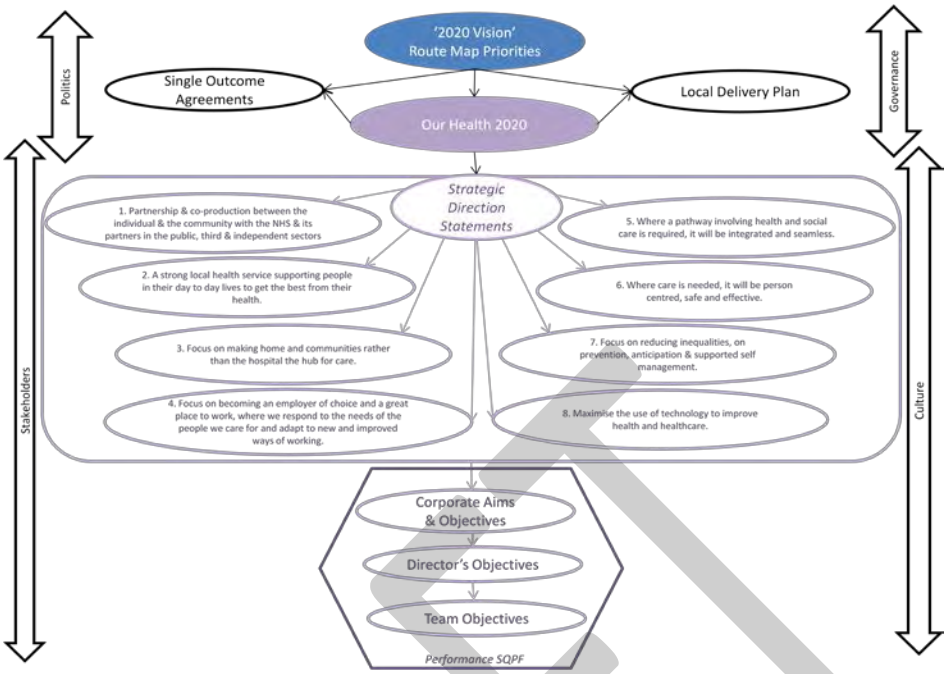


Image 8 - Overarching Strategic Framework

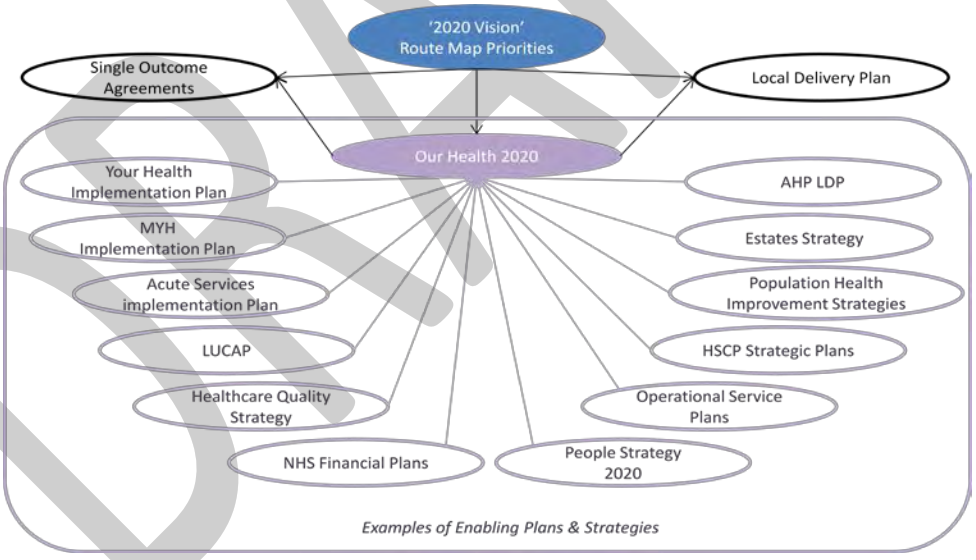


Image 9 - Corporate Strategy

4.1.2. Transform Services for Older People

Over the last few years health and social care partners have been working together to develop the range of services required in primary and community settings to support and maintain more older people in their own homes and communities. In 2014 work to support this planned shift in the balance of care was strengthened by the

establishment of the Health and Social Care Partnerships in North, East and South Ayrshire.

To enable the Partnerships to deliver the 2020 vision within communities they have each been developing and consulting widely on their draft strategic plans. These plans set out their priorities for 2015-18.

The move to Partnerships provides the opportunity to consider assets across health and social care including:

- infrastructure related to buildings;
- IT/new and assistive technology;
- use of mobile/agile working;
- options for co-location and information sharing to release time and resource to support improved productivity and different ways of working/new models of care; and
- management information from clinical systems to enable joint working with acute services to develop a whole systems approach to shifting the balance of care into community and primary care.

The Partnerships have already been looking at future models of care and new ways of working. To support this they have identified the need to develop an asset strategy as part of their local strategic plans.

Each of the Partnerships has identified below some initial key changes. They will require a different approach and capital funding (inclusion in the Capital Programme) to support the changes to infrastructure/eHealth systems necessary to deliver improved services at locality level.

All the Partnerships will require to ensure current buildings are fit for purpose and have sufficient future capacity and flexibility to enable changes. Furthermore, improvements such as co-location, development of locality hubs, pathway redesign, service model change and increasing use of new technologies to support the delivery of services will be necessary.

As an example of this South Ayrshire Health and Social Care Partnership have identified the following areas:

- Development of locality hubs;
- Community Hospital pathway redesign to support locality hubs;
- Maybole Charette (design and planning activity); and
- Asset and capital requirements specific to co-location, service model change and upgrading of IT systems.

4.1.3. Acute Facilities

It is through the Strategic Commissioning Process that the National Health and Well-being outcomes will be delivered and the required shift in the balance of care achieved. Health and Social Care Partnerships (HSCPs) will be responsible for strategic planning, in partnership with the hospital sector, of those hospital services most commonly associated with the emergency care pathway, alongside primary and community health and social care. The role of clinicians and care professionals, along with the full involvement of the third and independent sectors, service users and carers, will be embedded as a mandatory feature of the commissioning and planning process through the clinical and care governance framework now agreed, and through locality arrangements. Health and Social Care Partnerships (HSCPs) in Ayrshire have established strategic planning groups to prepare the strategic plan - this group will include representation of these key stakeholders.

Under the Board's Building for Better Care (BfBC) Programme a number of developments are underway which will help facilitate the transformation of unscheduled acute care within Ayrshire and Arran. The result will be a Model of Care delivered at the front door of the hospital which improves outcomes for patients and makes more efficient use of resources. These developments which are under construction include:

- The developments of a new Emergency Department at University Hospital Ayr to replace the existing Accident and Emergency Department. This will meet the latest building standards and offer a fit-for-purpose departmental layout; and
- The introduction of Combined Medical and Surgical Assessment Units at University Hospitals Ayr and Crosshouse. The development will create a modern environment in which to deliver an innovative and high quality standard of care.

The above developments constitute Phases 1 and 2 of the Building for Better Care Programme. The proposals associated with Phase 3 of the programme relate to the scale and configuration of Critical Care Services at both University Hospitals Ayr and Crosshouse. These include:

- The expansion of Intensive Care and High Dependency capacity at both sites;
- The integration of an Intensive Care Unit, Medical High Dependency and Surgical High Dependency on the University Hospital Crosshouse site; and
- Greater flexibility of bed use.

4.1.4. Community Hospitals

The development of a new community hospital based in North Ayrshire is in line with the Board's strategic vision for service development and improvement. The new community hospital will be known as Woodland View, which will be built on the old fever wards, with two new 15 bedded units for frail elderly and elderly rehabilitation.

There are already successful community hospitals in operation in Cumnock, East Ayrshire and Girvan in South Ayrshire, where staff are able to deliver integrated services for local patients. Woodland View will provide a geographical and organisational hub for local health service delivery in the north of the region, enabling residents to benefit from convenient, accessible services. The development of the community hospital in North Ayrshire also supports the Board's commitment to retaining healthcare services on the Ayrshire Central Hospital site, which was given in the NHS Ayrshire and Arran Local Health Plan, 2004-07. Co-locating the community hospital and acute mental health services provides an opportunity to further develop NHS Ayrshire and Arran's approach to health and wellbeing in partnership with other stakeholders and the community at large. The proposed community hospital development will replace existing inadequate accommodation and enable the development of new models of community care for the people of North Ayrshire.

4.1.5. Adult Mental Health

Now in phase two of the programme, the Directorate of Mental Health Services have successfully implemented the risk assessment and safety planning workstream within the Intensive Care Psychiatric Unit (IPCU) and the Safer Medicines management work stream within Park Ward both within Ailsa Hospital. this also applies to Wards 1D and 1E

University Hospital Crosshouse and testing of these workstreams is underway.

The Mental Health Services Directorate is currently spreading learning from the earlier phase of the programme to further clinical areas and starting to test out elements of the remaining workstreams. All adult mental health inpatient services are now involved in the programme, which includes the Forensic and Rehabilitation inpatient service and the community forensic mental health service. The use of the Breakthrough Series Collaborative approach is being considered in relation to spread in these areas as it would help facilitate large numbers of staff coming together at structured time periods to learn, report on progress and develop further priorities. This may ensure the most benefit of the limited resource available. This will be reviewed and revised as part of the stock take exercise for all improvement programmes.

The three Health and Social Care Partnerships have yet to define their IT requirements therefore it is not possible to predict the impact on eHealth. There is an Information and Communication Technology Working Group comprising technical specialists from NHS Ayrshire and Arran and the three Local Authorities and they have presented some high level proposals for the infrastructure requirements for sharing access to IT systems. This has still to be presented to the Partnership Boards.

4.1.6. Primary Care

The Strategic Assessment of Primary Care in Ayrshire and Arran undertaken in 2014 found the vision set out in the local Primary Care strategy *Your Health – We're in it Together* (2009) offered a firm foundation for further development as we move forward with integrated Health and Social Care Partnerships (HSCPs). Widespread engagement underpinned the strategy and its implementation led to the shifts in the balance of care in relation to access to diagnostics for a number of conditions, the piloting of telemedicine, Practitioners with Specialist Interest and community-based alternatives to emergency admission.

The Strategic Assessment therefore includes plans to revisit the strategic priorities under the leadership of the Health and Social Care Partnerships. Within the Strategic Assessment, a number of areas for development are identified. These include:

- Ensuring that Primary Care is embedded in locality planning arrangements within HSCPs;
- Raising the profile of the Primary Care Information System as a tool for locality needs assessment and service planning within HSCPs;
- Taking forward the Primary Care Premises Development Plan in line with the priority assessment, available budget; and
- Workforce planning to address pressures associated with recruitment to General Practice, based on evaluation of demand and capacity.

During 2015/16 we will build on our innovative use of new technology, both to digitally connect people and communities, to maintain wellbeing and support self-management but also home-based monitoring and management solutions for people with long-term conditions. Programmes of work will aim to empower patients who wish and are able to self-care with support and information including web-based resources.

Partnerships will put in place Joint Strategic Commissioning Plans based on an agreed shared assessment of need within partnership areas including intelligence from locality engagement.

From 2015/16, place-based approaches to support primary care will be further developed through Health and Social Care Partnerships locality working arrangements. There will be considerable opportunities from integrated Health and Social Care Partnerships in relation to collectively considering the contributions to supporting people in the community from the third and independent sectors, clinicians, social workers, other professionals, local service users and communities. This will include exploring how collaboration with the voluntary and third sectors can support hard to reach or seldom heard communities.

NHS Ayrshire and Arran will develop and refine care pathways to ensure input of Primary and Community Care to Care Pathways associated with *Building for Better Care* and the Combined Assessment Unit model. Engagement with Primary Care in developing and testing new models of care to reduce unscheduled care and promote integrated working will also take place.

Partners will need to assess Primary Care infrastructure with a view to future capacity and design requirements in the context of changing demographics, complexity of care and the range of community-based services. This will also involve exploring innovative opportunities for developing capacity and infrastructure in Primary Care to fit with these future requirements. The sharing of best practice models and resourcing at a national level could assist with this work.

The increase in General Dental Practitioners numbers within Ayrshire and Arran has allowed the Public Dental Service to realign its' care into a hub and spoke model, with a review of the outlying premises that are now little used, or are no longer fit for purpose. This has resulted in the identification of some premises that can be released to other services, and others whose lease can be considered for termination.

Workstreams to take forward the development of eHealth in relation to appropriate information sharing to support quality person-centred care at the point of care will be taken forward.

Workforce planning at whole system and partnership levels to address recruitment and retention issues and develop the skills-mix required will be a key focus.

Underpinning this will be a focus on organisational development centred on positive collaborative culture, good relationships and leadership.

4.1.7. Building for Better Care

The NHS Boards Building for Better Care capital investment programme sets out a new vision of how acute unscheduled care will be organised in the future. The Boards Local Unscheduled Care Action Plan (LUCAP) includes many clinical improvements set out in Building for Better Care. These will accelerate progress and bring about transformation of services ahead of the fit for purpose new build facilities.

These plans and the targeted interventions and redesigns they describe will strengthen community and primary care services in support of the unscheduled and emergency care agenda. The Out of Hospital Care Action Plans is transformational and sustainable, bringing about fundamental changes that will deliver against all related HEAT targets and the six key quality outcomes of the NHS Quality Strategy. In addition sustained delivery and improvement against the

relevant HEAT targets will provide tangible evidence of progress towards the 2020 Vision.

The Board's Emergency Care Quality Improvement Programme (ECQIP) is addressing this challenge through changes and actions set out in the LUCAP which are fully consistent with the new ways of working and new clinical models required for the Building for Better Care capital investment programme. These combined will transform unscheduled care in Ayrshire and Arran and deliver sustained a four hour standard compliance.

4.2. NHS Scotland 2020 Vision

Healthcare policies are being aligned to drive the delivery of the quality ambitions. The Quality Strategy is the approach and shared focus for all work to realise the 2020 Vision for Healthcare in Scotland.

4.2.1. Organisation of Healthcare around Communities

The Scottish Government has set out nine national Health and Wellbeing Outcomes in secondary legislation supporting the Public Bodies (Joint Working) (Scotland) Act 2014. In the planning and delivery of Health and Social Care services, the new integrated partnerships (HSCPs) for health and social care are aiming to ensure successful delivery of these outcomes. A suite of integration indicators to underpin the national health and wellbeing outcomes has also been developed to demonstrate progress. HSCPs partnerships will be required to report on the national health and wellbeing outcomes and the underpinning indicators annually. Quality and safety for people who use our services must remain at the forefront during 2015/2016 while the system transitions towards integration.

The Strategic Plans set out each Partnership's vision, mission and values together with key priorities, particularly for the first year of existence (2015/16) within the context of the presenting challenges. The priorities in each of the Partnerships described in their draft Strategic Plans are described in Table 8 – Partnership Draft Strategic Plans.

Table 8 - Partnership Draft Strategic Plans

North Ayrshire	East Ayrshire	South Ayrshire
Tackling Inequalities - through supporting people to maximise their income and their potential to work, and through reducing the impact of health inequalities by working closely with communities to understand their needs and preferences. Engaging Communities - working in tandem with our Community Planning Partners, we will seek the views of all six neighbourhood areas in relation to future strategic plans. These are Kilwinning, Irvine, North Coast, Three Towns, Garnock Valley and Arran. Integrated Services - through bringing together health and social care teams to ensure seamless services including those of the third and independent sectors, developing clear service standards, and providing more services through GP practices. Prevention and Early Intervention - through supporting all our staff to work with users in a way which is anticipating the needs of individuals, and also empowering individuals to better manage their own health. Improved Mental Health and well-being - through a greater focus on recovery and the personal, social and clinical outcomes of individuals who need mental health, learning disabilities or drug and alcohol support services.	**Establishing the Partnership** • Developing the organisational structures; and • Integration of information and technology etc, to ensure a safe transition of services into, and ensure the stability of the Partnership; **Underpinning and Interfacing issues** • Development of communications; • Integrated working practices; • Development of commissioning and procurement processes; • Developing the focus of locality planning; and • Develop the interface. **Service development** • Based around the needs of service users and carers. This theme will increase and develop further through the progress of the plan.	• Reduce the number of avoidable emergency admissions to hospital; • Minimise the time that people are delayed in hospital; • Reduce the adverse events in children and young people and provide the best start in life for them; • Institute a transformational change programme across the functions delegated to the Partnership; • Integrate services and staff supported by development of integrated strategy, systems and procedures; and • Efficiently and effectively manage all resources to deliver Best Value.

The Partnerships are already contributing to a range of key NHS outcomes, for example, through the joint work with Acute colleagues on the Local Unscheduled Care Development Plans and through the work on addressing Delayed Hospital Discharge.

This integration agenda and its development will require the involvement of and have an increasing impact on all aspects of the asset base.

Sophisticated medical equipment has contributed to the centralisation of health care in structured hospitals. The challenge now is to harness the developments in medical equipment to facilitate and support care in the community, requiring vision and innovation as to the provision, management, support and maintenance of medical equipment outside the hospital environment. The support includes the supply of consumables and the training of the patients and carers who will use the equipment.

For transport having patients cared for in their own homes will have an impact on the number of vehicles being utilised by community based teams for two reasons:

- For staff travel between patients homes and bases; and
- Increased level of technology that will be in patient homes requiring maintenance and support from a range of technical and clinical staff.

With the need to become more agile the above groups will all require transport, if they are still to be efficient, embrace new technologies and work practices in order to make this work.

While within eHealth work has commenced to tackle the information and communication technology (ICT) considerations when setting up the Health and Social Care Partnerships (HSCPs) between NHS Ayrshire and Arran and the three Local Councils. An initial meeting has been held with the following outcomes agreed:

- Creation of standard terms of reference;
- Creation of a technical sub group;
- Information governance to be addressed through the data sharing partnership; and
- Review of ICT policies.

It is expected that the development of Health and Social Care Partnerships will provide greater opportunities for sharing of services across Local Authority/Health Board areas. Particular areas that we have considered are:

- Logistics - Multiple movements of goods and services are carried out on a daily basis around locality by both Health and Local Authority commercial vehicles. The changes above provide the opportunity to undertake analysis of the information available and develop joint services. This may include mail, general deliveries, equipment and service users. This could include the ambulance services also. Additional expertise in analysis and journey planning would be required to maximise this;
- Shared use of specialist vehicles- in particular mini buses used to carry service users. It is acknowledged that these vehicles are often not used on a daily basis. Therefore a shared arrangement would enhance fleet utilisation and reduce costs to all organisations involved. This would require financial structures in place to allow appropriate charges to be made.; and
- Better use of pool cars - as our telematic systems evolve in our pool car fleet, it is hoped that the information gained from these systems will enable better utilisation. This will enable us to identify utilisation patterns, idle time, mileage and allow the management of pool cars in a more efficient manner.

4.3. Drivers for Change

4.3.1. Reducing the Need for Inpatient Care

New working relationships between statutory, voluntary and independent sectors are being developed. This will enable services which are person centered, outcome focused, based on prevention wherever possible and designed to promote resilience within local communities.

Key community services elements of the Out of Hospital Care Action Plan which will be further developed and actioned in 2014/15 include:

- Reducing emergency admissions from care homes through coordinated training and support involving multi-agency teams, including dementia training;

- Community based Intermediate Care, Integrated Care and Enablement teams supporting rapid, integrated interventions to encourage independence and avoid hospital admission;
- Enhanced out of hours nursing services working jointly with Ayrshire Doctors on Call services, out of hours social work and home care from Single Point of Contact to provide more care at home, including palliative care and will provide A&E staff with a community based alternative to admission;
- Support for GP leadership and Multi Disciplinary Team working in community and island hospitals to facilitate local care and avoid acute admission;
- Allied Health Professions service change and enhancement including move to seven day working and integrated Occupational Therapy (OT) approaches;
- Robust evaluation of the Change Fund projects with approved projects mainstreamed to contribute to integrated approaches. Development of community based hubs where single point of contact will operate day and night to coordinate intermediate care services which will help GPs to avoid admissions and support acute hospitals to discharge patients safely from the front door and reduce their length of stay; and
- The Board aims to provide an efficient use of existing assets and the development of flexible fit for purpose new builds will provide facilities that support this service change. Investment in new technology and disinvestment in old dysfunctional and inefficient estate and other assets will be considered in order to achieve this.

4.3.2. Developing and Empowering Communities

NHS Ayrshire and Arran is committed to realising the national and local strategic objective of working in partnership to ensure people are empowered to live at home or in a homely environment. In recent years, NHS Ayrshire and Arran has embarked on an inclusive process of whole system change to community services, working with partners (patients, public, Local Authorities, third sector organisations) to support wellbeing and independence.

A number of NHS Board strategies and programmes support the aspiration of providing information and supporting people at home and during times of transition, which link explicitly to Health and Social Care Partnerships draft strategic plans to provide a strong platform as integration develops. This programme is a key strategic priority for Scotland and is viewed as fundamental to the delivery of the person-centred quality ambition within the NHS Scotland Healthcare Quality Strategy. It is essential in the delivery of the 2020 vision for Health and

Social Care, which articulates a commitment to care being provided to the highest standards of quality and safety, with the person at the centre of all decisions. It also has a role to play in the delivery of Reshaping Care for Older People as part of Single Outcome Agreements, which propose the development and delivery of collaborative, integrated and people centred care provision, whether in hospitals, homes or in the community.

The Person Centred Health and Care Programme is driving the delivery of improvements in person centred care locally. Key deliverables over the coming year include:

- Distributed, values based leadership culture from the point of service delivery through all leadership levels;
- Person Centred values and behaviours being evident in words and actions at all levels within the organisation;
- Values and behaviours form the basis of recruitment and development of staff;
- Dignity, respect and compassion frame all communication and interaction with people who use our services;
- Physical and cultural environments support the delivery of person-centred care;
- There are reliable opportunities to personalise supporting interventions for every person all of the time (delivery of the five Must Do With Me's); and
- Feedback is actively encouraged and listened to and learning has been effectively implemented and shared with stakeholders.

4.3.3. Estate Condition

While clinical services are normally the driver behind change for the estate, issues arising from poor performance from the physical estate may result in the properties becoming the driver for change. A number of properties have been identified below which highlight this.

Biggart and Kirklandside Hospitals

As a result of the continuing Six Facet surveys, it has been highlighted that Biggart and Kirklandside Hospitals will require significant investment over the next few years. Due to the continuing deterioration and increasing age of the buildings, as well as many of the physical elements reaching the end of their anticipated lifespan, an investment of £2.98M is required to maintain the current backlog levels. As a result of this analysis, alternative scenarios should be considered for

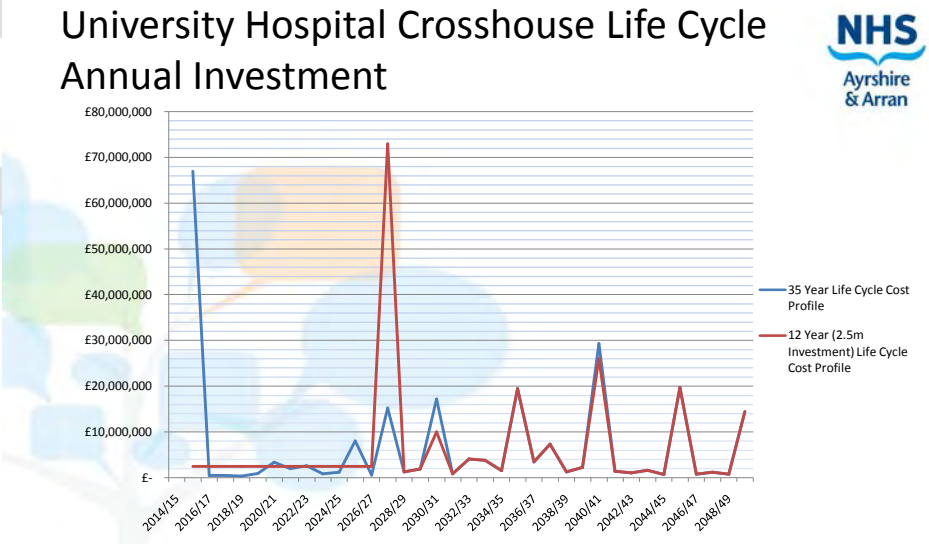
re-provision of the facilities, either in an alternative location or by major investment to reconfigure the existing sites.

Crosshouse-increasing backlog, replacement

In previous PAMS reports, the need for significant investment in the infrastructure of our two District General Hospitals was identified. As a result of recent lifecycle surveys carried out on both hospitals, University Hospital Crosshouse, because of its age, has been highlighted as requiring this investment more urgently.

As a result of the lifecycle surveys carried out by Capita in 2014, it was highlighted that in 2025, a significant increase in the current level of backlog for the Crosshouse facility will occur. Currently the backlog figure for Crosshouse is approximately £36.2M, however, due to the age of the building and continuing deterioration of the fabric and other key infrastructure components which are approaching the end of their anticipated lifespan, this is expected to increase to a total of £73M. In order to maintain the backlog at the existing level, it is estimated that an investment of circa £190M over 20 years will be required. This is shown in Graph 2 – University Hospital Crosshouse Lifecycle Annual Investment and Table 9 – Annual Investment Profile UHC

Graph 2 - University Hospital Crosshouse Life Cycle Annual Investment



Life Cycle profile for next 35 years. Assumes all backlog undertaken 2015/16.
Assuming £2.5m investment at UHC for next 12 Years.
(In comparison the entire estate investment in 2013 and 2014 = £3.8M)

Should a 12 year investment profile be viable, a tipping point at 2027/28 of £73m is triggered.

Table 9 - Annual Investment Profile UHC

Year	Investment required
2015/16	£3.4M
2016/17	£4.4M
2017/18	£4.0M
2018/19	£6.8M
2019/20	£6.6M
2020/21	£8.0M
2021/22	£9.6M
2022/23	£5.4M
2023/24	£6.4M
2024/25	£24.0M
2025/26	£4.8M
2026/27	£6.8M
2027/28	£44.6M
2028/29	£8.8M
2029/30	£24.6M
2030/31	£6.0M
2031/32	£3.6M
2032/33	£5.6M
2033/34	£3.6M
2034/35	£3.0M
TOTAL INVESTMENT	**£190.0M**

The main focus for reducing backlog would be predominantly within the Engineering Facet, including the electrical infrastructure; water supply; and utilities. To do so however, would require a major decant of the ward tower block to another facility, which is simply not feasible.

As a result, the only practical alternative to addressing these critical issues would be to build a replacement hospital on a new site.

4.4. Office Accommodation

Now the three local Health and Social Care Partnerships have moved from the "shadow period" to fully functional boards, the needs of the supporting office accommodation is likely to change to enable service delivery. Whilst there is an expectation that a number of Partnership colleagues will look to NHS facilities for office accommodation, there is also an understanding that there may also be a requirement for a number of NHS staff to relocate with

their Partnership colleagues to Local Authority facilities. Office requirements will be monitored going forward.

Three Working Groups within the Partnership areas have been created, these are noted below. These groups will give a platform for discussion on future scenarios around co-location, collaborative working and how the estate is best placed to support them. The groups will consider the provision of both clinical and non-clinical accommodation.

- North: Premises Group in the process of being established;
- South: Health and Social Care Partnership - Premises and Accommodation; and
- East: East Ayrshire Co Location Board.

As strategies are developed by both NHS Ayrshire and Arran's Clinical Services and the Health and Social Care Partnerships, the potential to consolidate office accommodation will be fully explored.

eHealth and Medical Equipment will play a significant role in enabling "new ways" of working for patients and staff both within NHS facilities and as part of the wider community.

4.5. Key Performance Indicators

The National Asset and Facilities Performance Framework provides an essential link between asset and facilities services performance and patient needs as defined in the NHS Scotland Quality Strategy's three key Quality Ambitions of Person Centred, Safe and Effective. Since introducing the Performance Framework in 2011, further work has been undertaken to align the Framework with the outcome measures for the Quality Strategy developed by the NHS Scotland Quality Measures Technical Group. The Framework provides targets for improvement in asset and facilities services performance by 2020 and uses 23 key performance indicators shown in Table 9 – Quality Framework, to monitor "year on year" progress towards the achievement of these targets.

Table 10 - Quality Framework

NHS Scotland National Asset & Facilities Performance Framework								
Quality Ambition	Performance Measure	KPI No	Key Performance Indicator	2020 Performance Target	2016 Performance Targets	2014/15 Performance	2015/16 Performance	Trends
Patient Centred	Quality of physical environment	1	Percentage of properties categorised as either A or B for Physical Condition facet of estate appraisals	90%	55%	48%	48%	
		2	Percentage of properties categorised as either A or B for Quality facet of estate appraisals	90%	85%	82%	82%	
	Patient opinion of healthcare accommodation	3	Positive response to Patient Questionnaire on patient rating of hospital environment	88%	88%	85	89	
	Patient needs are accommodated in modern, well designed facilities	4	Percentage of properties less than 50 years old	70%	70%	69%	71%	
	PAMS reflective of service needs and patient preferences	5	PAMS Quality Checklist Overall Score (max score 100)	95	76	76	S.G.	
Safe	Statutory compliance status of property asset base	6	Overall percentage compliance score from SCART	95%	75%	69.72%	72.2	
	Backlog maintenance expenditure requirement	7	Cost per square meter for backlog maintenance	£100	£300	£293	£319	
	Level of risk associated with outstanding backlog maintenance requirement	8	Significant and high risk backlog maintenance as percentage of total backlog expenditure requirement	10%	35%	50%	54%	
Effective & Efficient	Estate Functionally suitability	9	Percentage of properties categorised at A or B for Functional Suitability facet of estate appraisal	90%	90%	88%	88%	
	Estate Utilisation (from Property Appraisals)	10	Percentage of property categorised as "Fully Utilised" for space utilisation facet of estate appraisal	90%	70%	67%	69%	
	Estate Utilisation (from Cost Book)	11	Building Area sq.m per Consumer Week (from Cost Book)	3.0	3.0	2.97	TBC	
	Cleaning	12	Cleaning Costs £ per sq.m (from Cost Book)	36.5	36.5	40.00	42.00	
	Property Maintenance	13	Property maintenance costs £ per sq.m (from Cost Book)	31.3	52.0	49.22	54.69	
	PFI – Facilities Management	14	PFI – Facilities Management Costs £ per sq.m (from Cost Book)	28.4	28.4	N/A	TBC	
	Energy Consumption	15	Energy Costs £ per sq.m (from Cost Book)	23.9	24.6	24.85	24.78	
	Rent & Rates	16	Rent & Rates Costs £ per sq.m (from Cost Book)	12.2	10.00	11.29	8.14	
	Catering	17	Catering Costs £ per Consumer Week (from Cost Book)	71.2	8.5	84.38	85.83	
	Portering	18	Portering Costs £ per Consumer Week (from Cost Book)	41.8	60.0	56.28	62.89	
	Laundry & Linen	19	Laundry & Linen Costs £ per Consumer Week (from Cost Book)	29.5	42.0	42.22	45.97	
	Waste	20	Waste Costs £ per Consumer Week (from Cost Book)	9.5	9.5	10.00	TBC	
	Vehicles	21	To be confirmed	0	0	N/A	N/A	
	Medical Equipment	22	To be confirmed	0	0	N/A	N/A	
	IM&T infrastructure and equipment	23	To be confirmed	0	0	N/A	N/A	

As can be demonstrated in Table 9 – Quality Framework, there has been an overall improvement in estate performance over the past year. The area which has shown no improvement is physical condition which has remained static. This has been due to the continuing estate evaluations refining appraisal data and is primarily due to the continuing aging of the estate. Similarly functional suitability has also remained static. This shows how the estate has not met the pace of change associated with the shifting needs of the clinical services.

Performance targets have been included for 2016 which are considered realistic in terms of the proposed developments across the estate in the next twelve months.

4.5.1. Energy Benchmarking

Energy benchmarking has revealed three sites shown in Table 10 – Energy benchmarking, below as underperforming in terms of total energy.

.Table 11 - Energy Benchmarking

Site	Energy Benchmark CIBSE Guide (kWh/m2)	Total Energy Benchmark (kWh / m2)
Kirklandside Hospital	510	585.25
East Ayrshire Community Hospital (PFI)	510	528.53
Biggart Hospital	510	525.89

Similarly the heating benchmark highlights three hospitals shown in Table 11 – Heating Benchmarking, which consistently underperform.

Table 12 - Heating Benchmarking

Site	Heating Benchmark CIBSE Guide (kWh/m2)	Heating Benchmark (kWh/m2)
Kirklandside Hospital	420	510.87
Biggart Hospital	420	439.10
East Ayrshire Community Hospital (PFI)	420	437.58

The electricity consumption benchmarking shows a different set of results (Table 12- Electricity Benchmarking) and highlights the three worst performing sites. Girvan Community Hospital, which was built in 2010, is one of the three. This is surprising considering it is the only

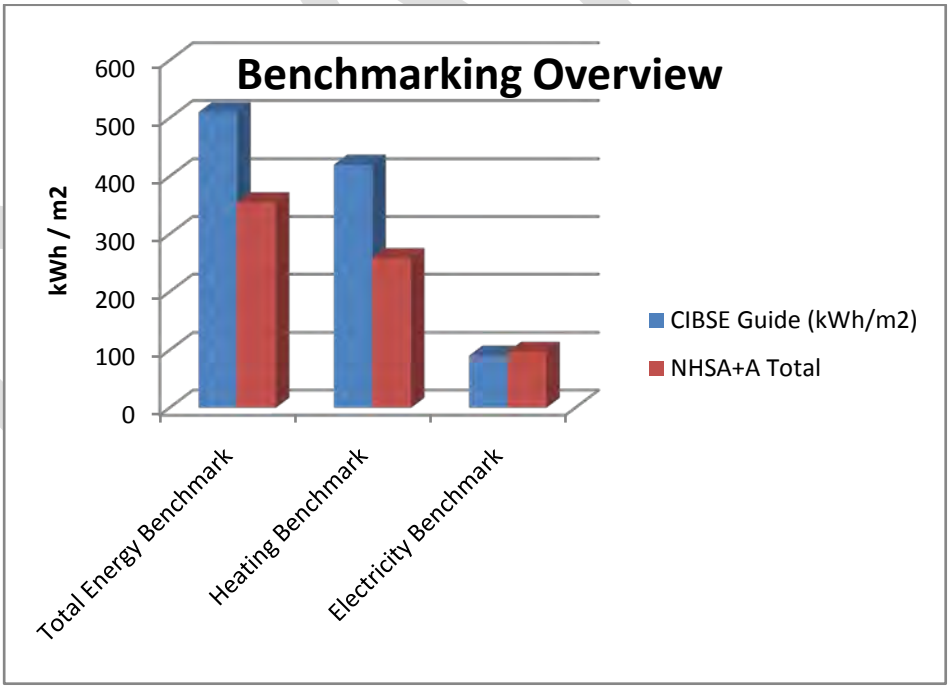
EPC 'A' rated building within the estate and has been built to BREEAM standards. This suggests that BREEAM may not be the best way to build energy efficient hospitals and that the building design may not be focusing on being energy efficient.

Table 13 - Electricity Benchmarking

Site	Electricity Benchmark CIBSE Guide (kWh/m2)	Electricity Benchmark (kWh/m2)
Girvan Community Hospital	90	150.24
University Hospital Ayr	90	130.19
Arran War Memorial Hospital	90	110.84

As displayed by Graph 2 – Benchmarking Overview, when aggregated the overall the benchmarking has shown a positive result. NHS Ayrshire and Arran are meeting the benchmarking targets in terms of total energy and heating, but missing out on electricity benchmarks.

Graph 3 - Benchmarking Overview



Benchmark information shown in Graph 2 – Benchmarking Overview, will help to tackle the sites which are under performing. Steps have already been taken to address the issues found in each of the three categories.

1. Boiler optimisation has been installed on all seven boilers at Biggart Hospital and is producing a reduction in annual gas consumption of 12%.
2. The plan for Kirklandside Hospital is to replace the old inefficient steam boilers with new ones from University Hospital Crosshouse (UHC). At UHC the need for steam is being removed by installing new self steam generating autoclave sterilisers, thus removing the need for steam at the hospital. Once these are installed the boiler plant can be moved to Kirklandside Hospital and used to help drive efficiencies.
3. PFI contract negotiations have been undertaken with Scottish Futures Trust to help clarify and define the PFI contract in terms of energy and consumption to help drive efficiencies with the PFI sites.
4. An in depth "Post Occupancy Energy Study" has been commissioned to investigate the performance of Girvan Community Hospital since its opening. Girvan Community Hospital has a high benchmarking score on electricity, considering it has an EPC "A" rating and 66% of its total energy comes from renewable sources. Issues around the design and fabric of the building are being investigated and reports are being generated. Real time 3D modelling is being built to help provide this information and then solutions can be simulated in order to identify value for money solutions. Simulations can then be run making changes to the building, for example the addition of solar Photovoltaic's, or adding inverters onto the air handling unit motors, to find out which would have the overall benefit in terms of reducing energy consumption for the cost.

An energy benchmarking exercise has taken place on the hospital sites using the eMART data.

Energy and Greenhouse Gas performance targets

New energy and Greenhouse gas (GHG) performance targets have to be set for the reporting years 2015/16 to 2020/21. Year on year targets are not going to be used, but a trend towards the final 2020/21 will be seen. This will replace the eMART system and the HEAT targets previously used to collect data and trend progress on carbon and energy emissions reduction. The data will be presented in two formats,

one as raw through the meter data, and the second set will be weather corrected. NHS Ayrshire and Arran are evaluating the new reporting methodology and are working with Health Facilities Scotland to develop the coming year's targets. Agreed targets by Scottish Government Health and Social Care Directorate for the whole NHS Scotland are detailed below in Table 13 – Energy Targets.

Table 14 - Energy Targets

Criteria	Energy and GHG Reduction Targets 2020/21 (against 2014/15 baseline)			
	Basic		**Stretch**	
Energy Consumption (kWh/m2)	Electricity 6.8%	Fossil Fuel 6.8%	Electricity 16%	Fossil Fuels 13.5%
	Combined 6.8%		Combined 14.75%	
GHG Emissions (kgCO2e/m2)	6.8%		14.75%	
Percentage of heat from renewable sources	11%		11%	

Building for the future – Carbon Neutral Property – Sustainable Design

Working with Zero Waste Scotland, NHS Ayrshire and Arran has been seeking to pro-actively provide a comprehensive specification for enabling the Board to build sustainable new buildings. This now focuses directly on the partnership between sustainability, life cycle costing, and low to zero carbon design. This should help merge all the people involved in the build and reduce the chances of engineering out the parts of the design. There are new online tools which can be used from Zero Waste Scotland to help easily model the effects of capital spend on various parts of a build, and how these will affect the overall whole life cost of the building. This model will help show in graphical form the overall effect of how effective spending in certain areas will ultimately reduce costs to the Board. A classic example of this is modelled below by comparing light bulbs in Table 14 – Energy Modelling.

Table 15 - Energy Modelling

	Purchase Cost	20 year "Whole Life Cost"
Incandescent Light bulbs (20)	£20	£21,424
LED (A++) lamps (20)	£200	£1,752

A £180 increase in capital cost produces a "Whole Life Costing" saving, over 20 years of £19,672.

With the possibility of new health clinics being built in the coming years, which would be built using capital funding, a basic model has been drawn up which details how the first zero carbon building can be built. The model shows that within the first year the Board would see a positive return from utilities and create an income to the Board each year through secured index linked government funding. The model uses specific building standards which are far greater than at present, by specifying U values, lighting levels, and energy per m^2 per annum, combined with renewable technologies. This has provided a model which produces a carbon neutral building which will generate an income to the Board. In turn this income can then be used for future projects or used to invest into other healthcare priorities. This model has been embraced by Health Facilities Scotland and used as a template to demonstrate to various parties what can be achieved when you provide a sustainable model to design and build. This project will be ideal for NHS Ayrshire and Arran to prove on a small scale that sustainable building design can produce a carbon neutral property, one which will suit the needs of the community and provide an income to the Board.

Various parts to this project have been evaluated and considered. Firstly the conventional tender route for an Architect will not provide the correct knowledge to build such a building. Therefore a modified tender specification has been written in order that an Architect who has the desired skill set for the project is found. A person who has in-depth knowledge of the Scottish Health Technical Memorandum's combined with PassivHaus knowledge and experience.

Secondly, a bespoke specification has been drawn up to ensure sustainable building and design principles are adhered to throughout the process. Building what is needed, and not a building that has extraneous design is one which will keep the cost under budget. In theory there should be no "value engineering" at the end of the project, as this will have been considered at every step of the process. Ensuring that the building is modelled throughout the whole process

and also operationally modelled will help ensure these goals are achieved.

Thirdly, developing a group of "Sustainable KPI's" should be introduced and monitored throughout the new build process. Right from the outset, these KPI's should be in place, to ensure the build keeps on track and the finished building is what was envisaged at the start. For example whilst building the Olympic Park the design teams kept referring back to the KPI's and they found a curb stone which had a 88% recyclable content, was easier and quicker to install over its concrete rival as it weighed less than 6kg vs. 70Kg. This led to significant benefits in the construction delivery time, recycled content and potential for end of use recovery, project performance and the wellbeing of the installer. Not only did they manage to keep to the sustainability goals but also saved money.

4.5.2. Transport

Analysis of NHS Ayrshire and Arran's fleet of vehicles and its services is carried out in conjunction with Health Facilities Scotland's 'Transport Services Advisory Group' and the 'National Transport Managers Group'. Data, systems and practices are shared with fellow health authorities and often benchmarked to promote best practice. In addition to this, the 'National Transport Managers Group' is scoping the potential regionalisation of transport functions with an element of National support.

There is close working with other Shared Services organisations such as the Local Authorities, Scottish Ambulance Service, Fire Service and Police Scotland where data, expertise and services are exchanged.

The Transport department operates within the Boards policies and national vehicle guidelines set out by various groups. NHS Ayrshire and Arran continue to develop a Board wide Transport strategy; however the position with the development of the Health And Social Care Partnerships (HSCPs) and the work being undertaken by the National Transport Managers Group has delayed this development. A combined strategy will clearly set out the expectation of all parties with a view to enhancing the services provided and facilitate efficiency savings. It will assist in ensuring the fleet in place continues to meet the needs of patient's health and social care journey.

There is potential for the HSCPs to streamline patient services and release funding for use elsewhere in the system through the

development of a shared approach to service delivery. An example of this is the current work ongoing in the development of an area wide health and social care 'Community Equipment Service'. This has the potential to reduce the current number of vehicles delivering these services across NHS and Local Authority providers from 15 vehicles to 12 vehicles and will allow for co-location of the equipment and staff in a single Ayrshire location. The benefits to patients will be that they will have access to a larger stock of equipment and an enhanced delivery service.

Performance Targets

In an attempt to reduce our carbon footprint for vehicles, our aim is to reduce vehicle emissions to 120 g/km or below for non commercial pool and lease cars. This has been achieved 100% for pool cars and the aim is for this to be implemented for the lease cars with the introduction of a new Car User Policy which is currently in the process of being ratified.

4.5.3. eHealth

eHealth Key Performance Indicators are gathered locally from the Service Desk System alongside electronic tools including SCCM, PDQ and Quest, which are used to compile assessments of the age and condition of eHealth. equipment.

4.6. Reducing High and Significant Risk Backlog

The Board continues to seek to balance the need to reduce backlog maintenance expenditure whilst ensuring that its estate and assets operate at an acceptable standard in terms of their physical condition and the statutory obligations.

Backlog Maintenance Costs are required to be expressed as works costs (i.e. base costs to undertake works) and these will exclude Professional Fees, Value Added Tax, Contingencies, Risk, Decanting, temporary Services to other Areas, Overtime/Out of Hours Working, Disruption. in effect, the true investment cost is on average twice the backlog figure. As a result for every pound of backlog two pounds will be required to be invested to reduce the backlog to zero.

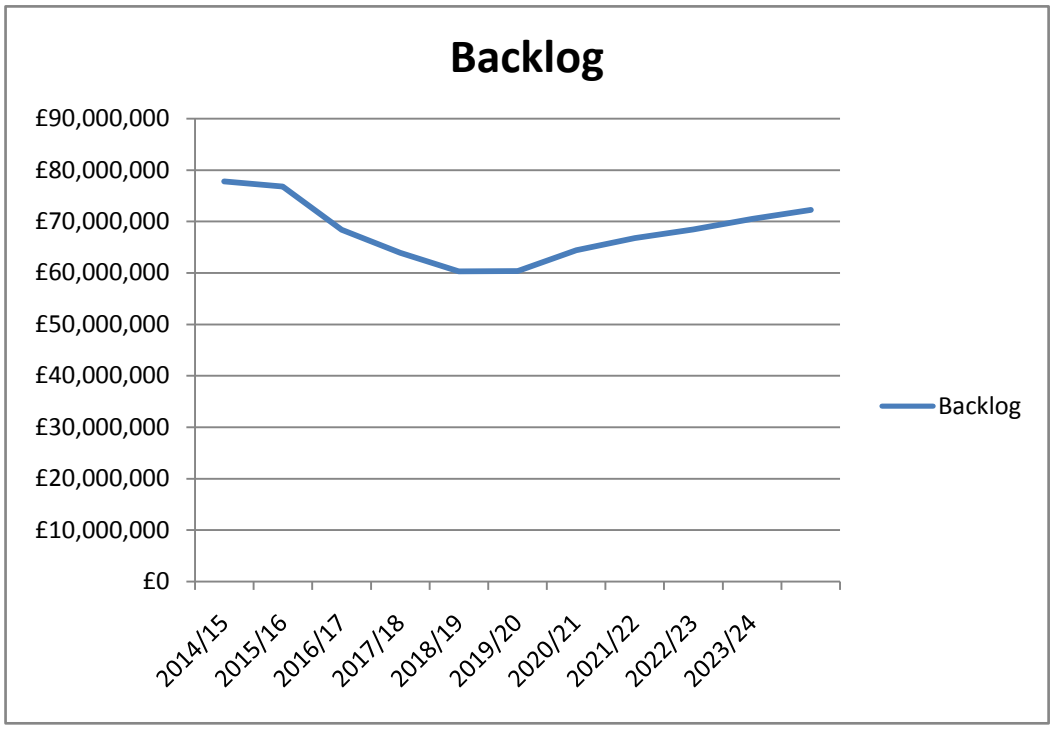
The Board has collated backlog cost information against the following facets:

- Physical Condition (Building Fabric and Engineering Services); and
- Statutory Compliance.

Currently the total value of the backlog maintenance for the Board as determined by the Six Facet survey information held on the Estate Asset Management System (EAMS) is £77.8M.

Due to the continued year on year investment in backlog, together with the major investments across the estate (Woodland View and Building for Better Care) backlog will reduce. By modelling this investment it is anticipated that within the next five years backlog will reduce to approximately £60.4M as shown in Graph 3 – Backlog Projection below:

Graph 4 - Backlog Projection



Whilst this represents a significant improvement, beyond this period without further planned major investment the backlog figure starts to rise. The same model predicts that with the same level of backlog investment, but no major capital investment, the backlog will have increased to £72.2M by year ten.

Therefore in order to improve the performance of the estate in the medium to long term, it will be imperative that major investment is sustained and underperforming buildings are disposed of.

As part of the aforementioned five year reduction figures, it has been identified that £2.2M of high risk backlog will be reduced next year. In addition to this the backlog risk ratings will be reviewed, in accordance with new appraisal guidance. As a result of this review it is expected that there will be a further reduction it is anticipated this will greatly improve the backlog risk profile for the entire estate, therefore reducing the amount of backlog categorised as high risk.

5. How do we get there?

5.1. Decision Process for Service Change

NHS Ayrshire and Arran recognises the compelling factors driving the need for change, especially in the context of Health and Social Care. Some of these reasons are listed below:

- The need to be better at preventing ill health;
- The importance of patient and person centred care;
- Increasing demand on nearly all programmes of care;
- Current inequalities in the health of our population;
- Giving our children the best start in life;
- Sustainability and quality of hospital services;
- The need to deliver high quality service based on evidence;
- The need to meet expectations of our population;
- Making the best use of resources available;
- Maximising the potential of technology; and
- Supporting our workforce.

This emphasises the need for the Board to have an overarching framework that takes account of these reasons, recognises the work already underway in primary, community, secondary and specialist care which is driving change. The Board will develop this framework to enable communities and clinicians to develop local solutions consistent with this.

In response Our Health 2020 builds on this and acknowledges the national context for public services in general, health services in particular and the three-step improvement framework for Scotland's public services. The framework has been constructed to align with this national position whilst focusing on both local priorities and local "pillars" covering quality, service, people and finance. It takes the Board's core clinical strategy "Your health – we're in it together" as its central spine and builds in other key local clinical strategies covering mental health and acute services as well as other approved service strategies. As part of the preparation of this overarching framework "Your health" has been sense checked and, where appropriate, will be updated to ensure a goodness of fit with the national 2020 vision and the national route map to the 2020 vision.

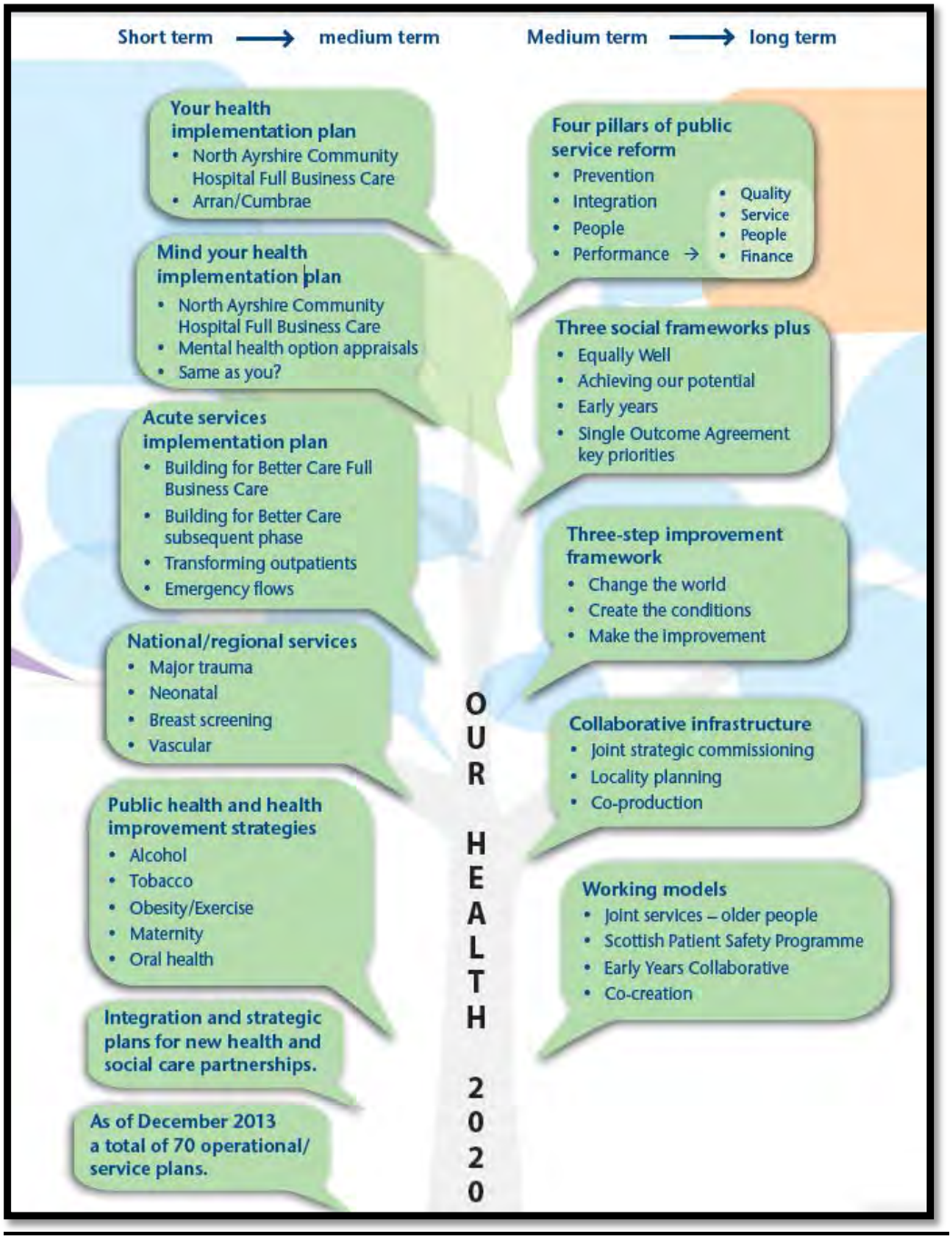
While the framework focuses on health and wellbeing in the short to medium term, it recognises in the long term that health and wellbeing will be driven by three interrelated drivers:

- the requirement to achieve a decisive shift towards preventative spend and its particular link to the Early Years Social Framework (supporting children pre-birth to age eight);
- the integration of adult health and social care; and
- the relatively worsening position in Ayrshire in terms of multiple deprivation and its links to the Equally Well Social Framework (health inequalities) and Achieving Our Potential Social Framework (tackling poverty).

Our Health 2020 makes these key drivers its main strategic focus whilst acknowledging the more short-to-medium term health care service priorities which are a consequence of the Board's clinical strategies and service reviews.

Each component of the framework will be progressed in line with the collaborative approach outlined above and new partnership arrangements which will be introduced through integration and revised single outcomes agreements. The purpose of Our Health 2020 is to provide a locally relevant strategic overview for Ayrshire and Arran. The key components provide a clear statement for staff and the public as well as benchmarks against which progress can be monitored. Our Health 2020 is summarised in Image 10 below.

Image 10 - Our Health 2020 Components (Source: NHS Ayrshire and Arran)



Within this framework, professionals and communities will be enabled to develop local solutions to local issues through joint needs assessment and locality plans. The branches growing from the spine are designed to be living things which will be reshaped as Health and Social Care Partnership (HSCPs) and locality plans and are developed, all within the framework of joint strategic commissioning. In the meantime, the various priorities and actions attached to the existing branches of the framework will continue to be progressed.

This is how NHS Ayrshire and Arran will take forward partnership and co-production between the individual and the community with the NHS and its public sector partners, including the third and independent sectors.

5.2. Stakeholder Engagement

Engagement with stakeholders is a key factor in the right decision being made, whether in respect to service strategy or the design of a new building. This collaborative approach will ensure NHS Ayrshire and Arran delivers the services that best meet the needs of the population of Ayrshire and Arran.

Having this embedded, from inception to delivery of any major service change or asset procurement exercise will help ensure probity of the business case process. The Scottish Capital Investment Manual (SCIM) sets out the requirements for this in detail but the crossover of co-production, collaboration and partnerships will also require to be factored into option appraisal and scenario planning exercises where appropriate.

Engagement specific to the development of the PAMS and the Board's developing estate masterplan has been focussed with extensive dialogue and workshops taking place including, but not exclusive to:

- Regular workshops with Asset Groups;
  - Transport;
  - Medical Equipment;
  - eHealth;
  - Estates;
  - Property and Capital Planning; and
  - Soft FM –Including: Catering/Domestics/Portering
- Finance;
- Local Authorities;
- Community Planning Partnerships;
- Community Services;
- Primary Care Development Team; and
- Health and Social Care Partnerships.

5.3. Future Investment

New projects or major changes to the estate or infrastructure require that business cases are developed in line with SCIM guidance. Options and scenario planning are naturally included; however the advent of the HSCPs will necessarily expand on this, allowing far more potential for creative solutions with the Local Authorities, third sector and other partners.

It is expected this may also influence the future opportunities around estate rationalisation. Surplus property among the Partners should ideally not be competing against one another on the open market and a controlled or phased grouping could be considered that better matched the aspirations of the HSCPs.

It is also expected that space utilisation will naturally be improved through the implementation of the Boards Capital Investment Plan with Building for Better Care, Woodland View (NACH) and Ayr Outpatients and Community Services all bringing considerable new build into the estate, and substantial disinvestment through surplus property and demolitions.

Should rationalisation be the preferred option within the business case, the Boards Capital Investment Plan will allow for any potential receipt to be allocated for the provision of healthcare. This may be the re-provision of property, or a shift in investment to other assets for example Medical Equipment or eHealth.

All assets have varying degrees of innovation underway including the following:

- To continually review how advances in other technologies (e.g. Gastro Intestinal and surgical endoscopy; patient monitoring) can be harnessed to improve patient care. In addition, the Board will review equipment plans in the light of developing clinical guidelines – for example we are delaying the replacement of our cardiac defibrillators pending the review of the resuscitation guidelines envisaged to be released in 2015;
- The provision of appropriate resources, including medical equipment and IT, with the appropriate transport support will be key to developing and implementing the innovative solutions required for developing care in the community. Consultation with patient groups to understand their needs and what appropriate technologies can support this care will be carried out;
- University Hospital Crosshouse is unable to have a wind turbine due to its location and helipad. An Anaerobic Digestion Plant is a solution where NHS Ayrshire and Arran could use its food waste streams to generate biogas. The gas will then be passed through a fuel cell to generate heat and electricity for the hospital. Feasibility funding for this project has been identified through Zero Waste Scotland and the study in April 2014;
- Hydrogen produced by waste water and stored this way has the potential to power internal NHS vehicles which deliver food and laundry, fuel transport vehicles for the Estates teams, and buses

which would travel to and from the hospital. We could provide fuel in partnership with the council and private companies to generate an income stream, reduce our tertiary carbon emissions, and provide clean air to our patients and workers in and around the hospitals; and

- Transport is considering a web based quoting system for leased cars. This will provide a streamlined ordering and quotation system, reducing time spent on the administration of leasing for clinical staff when choosing appropriate vehicles.

5.4. Reducing Backlog

The Board continues to seek to balance the need to reduce backlog maintenance expenditure whilst ensuring that its estate and assets operate at an acceptable standard in terms of their physical condition and statutory obligations.

Currently the total Backlog is £77.8M which is determined by the Six Facet appraisals carried out over the preceding year. Full analysis of this can be found in Appendix 3 – Appraisal Information.

Planned disposals, capital investment and investment through revenue funded schemes will aid in reducing the backlog costs from the current figure of £77.8M to £60.3M over the next five years. However with no further major capital investment beyond this point the backlog would rise to around £72.2M in 10 years. Details of this can be found in Appendix 4 – Projections and Lifecycle.

The 2015/16 plan is for the Board to invest £0.75M of Capital funding, and £3.00M of Revenue funding to be allocated to address mostly statutory compliance higher risk backlog issues within clinical accommodation. Details of this are highlighted in Appendix 6 – Capital Investment Plan.

The Asset Management Planning Group has reviewed the prioritised submissions from nominated Project Managers against the available allocation.

These submissions represent the outcome from estate's review of priorities and risks, taking account of statutory, health and safety and key operational requirements.

Any projects out with these priorities will require to be risk managed by the nominated Project Manager and await any further funding opportunities that may become available later in the financial year.

5.5. Capital Investment Plan

The Board's Capital Programme comprises two key elements, namely:

- Earmarked / prioritised capital projects; and
- Formula capital (and revenue) projects.

Earmarked / prioritised capital generally covers major infrastructure projects including new development and major refurbishment of existing estate. Formula capital is designed to cover on-going requirements for replacement of assets (e.g. equipment) and estates improvements (including compliance works and backlog maintenance); recent changes in asset accounting policy have resulted in much of the estate replacement expenditure now being funded through revenue sources.

The Board's Capital Plan sets out which specific projects and programmes will be prioritised against the available resources.

A summary of the Board's latest Capital Investment Plan is provided at Appendix 6 – Capital Investment Plan, covering the six year period 2013/14 to 2018/19.

This includes two major projects, North Ayrshire Community Hospital at Ayrshire Central Hospital, now known as Woodland View and Building for Better Care; which are underway at University Hospitals Ayr and Crosshouse.

The projects in Table 15 – Implementation Plan; Investment over the next five years, meets the requirements set out in the relevant Business Cases supporting the Board's key clinical strategies. Furthermore developments meet key statutory requirements supporting the 2020 Vision and will also aid the masterplanning process.

Table 16 – Implementation Plan: Investment over the next 5 years

Project	Investment over the next 5 years	Impact on Backlog
Woodland View new build at Ayrshire Central Hospital (please note that this is not on the Capital Investment Plan and is an NPD project)	£46,661,000	Investment will affect space utilisation, functional suitability with only the remaining Pavilions backlog of £2.0M to be removed
Woodland View refurbishment of Ailsa Campus following of relocation of services	£5,794,000	Reduce backlog from £7.2M to £3.8M
Building for Better Care Phase 1 development of Accident and Emergency Department at University Hospital Ayr and the Combined Assessment Unit at University Hospital Crosshouse	£18,875,000	Investment will affect space utilisation, functional suitability rather than reduce backlog
Building for Better Care Phase 2 development of the combined Assessment Unit at University Hospital Ayr	£8,709,000	Investment will potentially remove backlog
Additional Car Parking at University Hospital Ayr and Crosshouse and Ayrshire Central Hospital to provide additional parking capacity	£2,174,000	Investment will affect space utilisation rather than backlog figure
Refurbishment of Tarbolton Clinic	£1,300,000	Investment potentially remove backlog
Refurbishment of Main Entrance Areas at University Hospitals Ayr and Crosshouse	£826,000	Will reduce backlog from £2.0M to £1.5M
Review of office accommodation Board wide	£174,000	Investment will affect functional suitability and quality rather than backlog figure
Endoscopy New Decontamination Regulations at University Hospital Ayr	£1,224,000	Investment will potentially remove backlog
Endoscopy New Decontamination Regulations at University Hospital Crosshouse	£1,278,000	Investment will potentially remove backlog
Infrastructure replacement – high priority larger items	£3,972,000	Will reduce backlog from £20.1M to 17.7M
Infrastructure improvement – priority service changes (Oncology/Possible Renal 2F move)	£3,587,000	Will reduce backlog from £5.8M to £3.7M
HUB Projects – no specific commitment but possible funding source for acknowledged priorities in Beith and Dalry	£8,500,000	Investment will potentially remove backlog
Surgical Admissions Unit, University Hospital Crosshouse allocation from Volunteer Funds, for extension to improve patient environment in Day Surgery Unit	£927,000	Investment will potentially remove backlog

Our investment plan for the next five to ten years will be driven primarily by the 2020 Vision with several other elements feeding into and from this as shown in Image 11 – Strategic Methodology below:

Image 11 - Strategic Methodology

5.5.1. Bringing our Infrastructure up to Modern Standards

eHealth will work over the coming years to provide not only technology but new ways of working. Services who adopt the Electronic Patient Records (EPR) system, will be required to implement new processes and ensure that they are ready to adopt the EPR.

For the programme to be truly transformational there are a number of "must haves" that are essential to the successful adoption of the EPR and the removal of the paper record. These include certain eHealth Systems that are the "building blocks" of the EPR and also essential processes which services must adopt shown in Table 16 – EPR Building Blocks.

Table 17 - EPR Building Blocks

Systems	Processes
• Single Patient Administration System (PAS) • Single MPI (CHI) • Order Communications and results reporting • Prescribing system (or electronic recording of medication) • Departmental systems • Electronic letters • eForms • Scanning of certain paper records	• Data capture in near real time • Real time recording of admissions, discharges and transfers • eVetting • Clinic outcome recording • Compliance with IG and IT Security policies • Business continuity

Benefits for patients include:

- Patient Safety;
- CHI (one Master Patient Index);
- Sign off of laboratory results and radiology investigations;
- Single source of information;
- Up to date information available at point of care;
- Potential to access own record;
- Electronic communications with patients, email of appointments, letters etc;
- Patients *expect* clinicians to have this information in hours and out of hours; and
- Better communication across care providers.

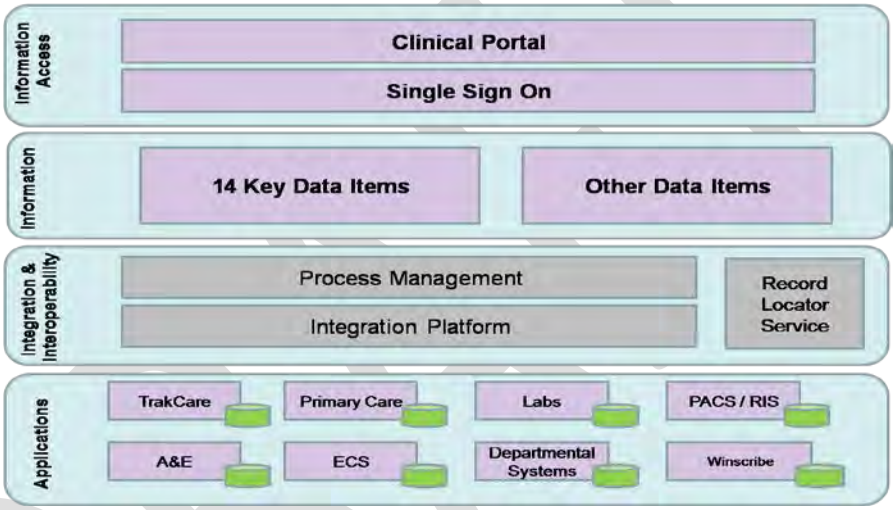
Benefits for staff include:

- Single source of patient information accessible using one password;
- Access to patient information based on role;
- Accessible from any location;
- Reliably available;
- Radiology and laboratory results sign off;
- Better informed;
- Up to date Estimated Date of Discharge;
- Up to date care provider;
- eVetting – reduced time to vet referrals;

- Digital letters;
- Up to date bed state;
- Streamlined processes to retrieve information;
- Electronic access to clinical guidelines; and
- Track patients on a pathway – monitor waiting times.

Significant progress has been made in ensuring that clinical systems that will contribute information to the EPR are fit for purpose and the technology that links the information to the Clinical Portal is in place. The table below shows how the EPR will be built and accessed from the Clinical Portal using single sign on.

Table 18 - EPR Makeup



5.5.2. Investment in Strategic Health Priorities

Detailed analysis has been undertaken to identify important areas, and the following actions and measures will be put in place or further developed in 2015/16:

- Standardisation of processes within wards to review, test and implement improvement at ward level throughout the two main acute hospital sites, including ward round scheduling, implementation of a ward round tool, determination of estimated date of discharge, criteria led discharge, more morning discharges and a range of care quality standards;
- Implementation of e-Whiteboard systems linking both Emergency Departments with their respective Acute Medical Assessment Units, e-Whiteboards across all acute wards;
- Introduction of an electronic IT driven Bed Management Hub to allow better management of patient flow. This will release time and allow the Bed Management Team to support improvements

at ward level with a view to securing earlier discharge for patients;
- Discharge Planning improvements being taken forward in conjunction with Health and Social Care Partnerships;
- Introduction of standardised approaches to weekend service planning to maintain patient flow and minimise transfer of patients out with specialty beds;
- Provision of six additional beds at University Hospital Ayr to offset the current modelled bed deficit as part of the interim step to the new Combined Assessment Unit;
- Additional medical posts in Acute Medicine, Geriatrics and Emergency Medicine; and
- Introduction of Pharmacy led medicines reconciliation in Emergency Departments.

5.5.3. Investment in Communities

To maximise the effectiveness of Health and Social Care Partnerships Strategic plans and to achieve the strategic vision that will be established for Primary Care, it will be necessary to create the clinical capacity required to support innovation and development within Primary Care. NHS Ayrshire and Arran must therefore utilise the available incentives and levers to generate interest, support and capacity at a General Practice level.

It is therefore important that NHS Ayrshire and Arran supports General Practice to ensure sufficient capacity is available in the future to continue to meet the needs of the local population. To work in partnership with other service providers to meet the needs of vulnerable children and families, support older people to live longer at home, and tackle health inequalities and promote positive lifestyles.

Moving forward the Board aspires to use the estate as a community resource. Delivering services and sharing assets with other stakeholders to deliver co-produced services. In order to adapt to the shifting balance of care a more flexible community approach is needed. A more generic health centre where service users have greater flexibility to see patients into the evenings and at weekends is desirable.

With this shift towards patient driven services at the right place and the right time the need to flexibly offer accommodation to smaller groups is likely to increase. The Property Transaction Handbook (PTHB) will require to be amended to reflect these requirements as they increase through the Health and Social Care Partnerships. NHS Ayrshire and

Arran are involved in a short life working group to address the changes required within the PTHB in order to facilitate these arrangements.

Health professionals are encouraged to undertake the Working in Partnership training that will allow them to enhance their knowledge and communication skills to support people living with long term conditions, to allow the empowerment of patients to self manage their condition, by helping them recognise their symptoms and giving them confidence to go about their daily lives. An integral part of the Telehealth pathway is the inclusion of self-management support. In the three pilot schemes, patients have been encouraged to participate in the six-week Moving on Together self-management programme which aims to provide people with the confidence, knowledge and skills to manage their condition and to work as partners with health professionals.

5.5.4. Workforce

The Board provides a range of acute, community and primary care services from a variety of locations across Ayrshire and Arran. It employs a total of 10,580 staff, with 49% full time and 51% part time staff across 10 nationally defined job families noted below, Image 12 – Workforce Composition and Table 18 – Job Families. Corporate Support Services currently has WTE of 1079.6 which is 10% of the total WTE for the Board.

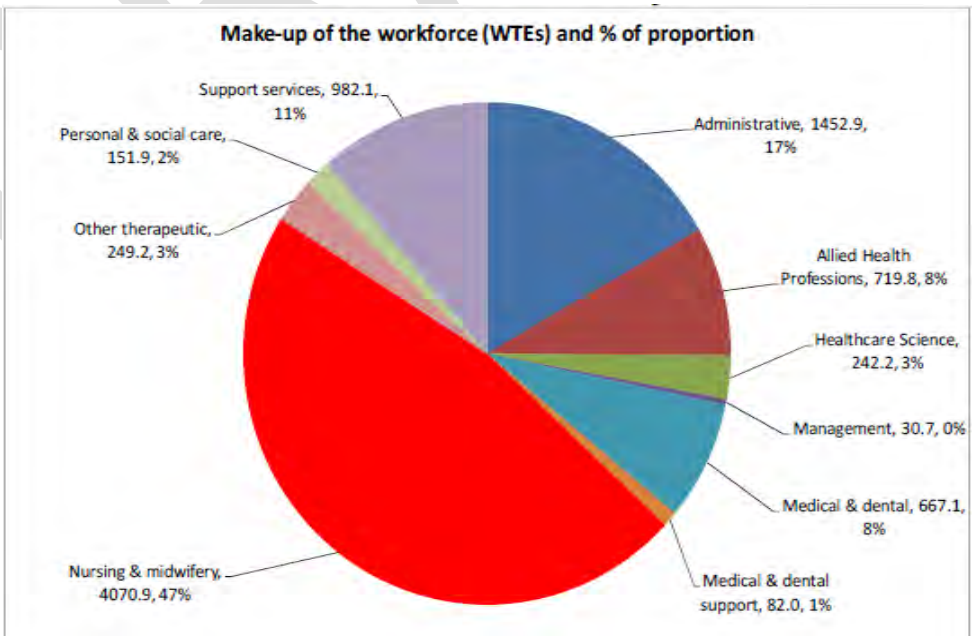


Image 12 - Workforce Composition

Table 19 - Job Families

Job Family	Roles/professions
Administrative service	Health records, medical secretaries, clinical team support, IT services etc.
Allied Health Professionals	Arts therapists, dieticians, occupational therapy, orthoptists, physiotherapy, podiatry, radiography and speech and language therapy
Healthcare science	Laboratories staff, audiology, cardiac physiology
Management	Non Agenda for Change managers
Medical and Dental	All grades of doctors (including those in training) and dentists employed by community dental service
Nursing and Midwifery	Branches: adult, children, mental health, learning disabilities and maternity
Other therapeutic	Psychology, optometery, pharmacy and play specialists
Personal and social care	Health promotion staff and some addictions staff
Support services	Includes chaplency, cleaners, portering, catering, maintenance and estates and sterile services

Continuing to adequately resource the needs of the organisation from this workforce pool will become even more challenging with future efficiencies programmed and the additional requirements of Health and Social Care Partnerships. It will therefore be necessary to monitor these work force statistics in line with the board's Work Force Strategy in order to ensure sustainable support.

The Health and Social Care Partnerships (HSCPs), which came into operation in April 2015, will have a direct impact on NHS and Local Authority staff and the mechanism for ensuring a robust and inclusive approach to workforce planning which takes cognisance of the characteristics of the respective workforce as a key consideration.

NHS Ayrshire and Arran are working on the development of a five year People Strategy, which sets out where we want to be as an employer by 2020 and provides a strategic focus and coherent framework for all the Board's people agenda programmes of work. Delivering "Everyone Matters" is a key part of this. The full range of separate action and improvement plans are being combined into one overarching document, which will support the implementation of the People Strategy.

Retention of specialist knowledge and skills within the FM establishment is of significant importance. The sustainability of workforce skills and expertise is vital to meet the demands of the developing clinical services. With the Woodland View project currently underway, NHS Ayrshire and Arran Capital Planning staff have developed skills in working within the Non Profit Distributing (NPD) environment. These skill sets could be utilised across NHS Scotland with skill hubs being created. The National Shared Services Programme Board have established through review, a pending skills shortage in some Boards, through staff turnover and ageing workforce. Retirements and the loss of tacit knowledge, is not considered a high risk from an Estates perspective within NHS Ayrshire and Arran, due to succession planning, skill development and training programmes. However any efficiencies to service delivery must be considered if deemed beneficial to the Board.

NHS Ayrshire and Arran has undertaken work to identify "hotspot" workforce areas within the organisation across clinical and non clinical staff groups. There has been a significant variation between NHS pay and the private sector which has had an impact on filling posts within, eHealth, Property Services and Capital Planning. eHealth may look to solving this issue by using contracted agency IT staff, however there will be a cost implication associated with this choice.

The Board will face a number challenges in implementing new systems as resource have yet to be identified to enable the use the these tools. New systems in this category include:

- **VFA** is a new Capital development modelling tool to be used to assess the viability of future projects. Scottish Government will require all future business cases be underpinned using the modelling tool available within the system: and
- **SCART2**: (Statutory Compliance Audit and Risk Tool 2) The purpose of SCART is to enable NHS Boards to measure their level of compliance with a range of aspects of legal and best practice compliance and produce a prioritised high-level summary for consideration at Board level. The move to SCART2 will increase the breadth of information required putting additional pressure on existing staff.

Scottish Government requires all Boards to implement the use of VFA and SCART2 in 2015.

- **GIS** (Geographic Information System): Scottish Government has committed all NHS Scotland's Boards to the national One Scotland Mapping Agreement (OSMA). As yet, no resources have been made available to allow in-house use of this licence to develop demographic data and other information within a GIS System.

Another area where workforce requirements are changing relates to the commitments of National and regional programmes of work. By working with the National Shared Services Programmes and other advisory groups, NHS Ayrshire and Arran will continue to contribute to the short life working groups that cover both soft and hard FM to ensure skills and knowledge can be applied at both a local and regional level as appropriate.

5.5.5. Reducing Carbon Emissions

As technology improves, the predicted reduction in carbon emissions will be beneficial to the organisation. The Board is committed to utilising low emission vehicles with improved fuel consumption. This, along with our vehicle management tracking protocol, further enhances these potential reductions. All managers with commercial vehicles receive a monthly data report showing idling, (excess use of fuel), speeding and poor driving.

Longer term the Board is looking at continuing to install renewable technologies across the estate to make large energy and carbon reductions, shown in Table 19 – Future renewable projects.

Table 20 - Future renewable projects

Hospital	Technology	Project Cost	Annual Savings	CO2 savings	Payback
Ayr / Ailsa	Wind Turbine	£1.3M	£300,000	632 Tonnes	5.6 years
Ayr	Biomass Boiler	£785,000	£84,638	1,142 Tonnes	9.3 years
Ayr	CHP Plant	£497,400	£111,927	731 Tonnes	4.4 years
Ailsa	Small Scale Biomass x 10	£1,000,000	£300,000	1,200 Tonnes	7.2 years

By incorporating Micro Generation Certification Scheme Technologies from February 2014 in University Hospital Crosshouse the waste heat from the kitchen and food serving areas is used to generate a domestic

hot water supply. This water is used to fill both pot wash machines and provide hot water to the kitchen sinks. As a bi-product of this process there is a 10 degree dehumidified cold air stream, which will then be put back into the working area's to cool them down. This will ensure that a more comfortable working environment for the teams in the kitchen and food serving area. This makes a projected annual savings of £25,000 per annum and saves 82 Tonnes of CO2.

This technology is to be incorporated across the estate as a way of providing cool air to places which are over heated for example, ward blocks, sterile laboratory areas, and kitchens, where there is a demand for hot water which can be used for heating and hot water requirements.

Over the coming five years NHS Ayrshire and Arran aim to:

- Introduce AMR metering on all gas, electricity, and water meters;
- Automatic Monitoring and Targeting system to view consumptions and progress;
- Small scale biomass projects – Ailsa Hospital / Health Centres / Clinics;
- Build the first carbon neutral health clinic as an exemplar for sustainable building practices;
- Steam boiler removal at University Hospital Crosshouse;
- LED lighting – to introduce LED lighting in all hospitals, clinics and health centres ;
- Motors and drives – install high efficiency motors and VSD drives;
- Upgrade Building Management System controls across the estate; and
- IT strategy – moving towards cloud based servers.

NHS District heating scheme – working with the community and council

The planning application for the South East Ayr housing project, which is adjacent to University Hospital Ayr and Ailsa Hospital; has been submitted for approval with South Ayrshire Council. The first phase of this scheme is to build 750 new homes, a business hub and a large supermarket. NHS Ayrshire and Arran will integrate pathways and healthcare in this new development to provide services and access routes to existing nearby hospitals. District heating has potential here to provide carbon free heat and power to the hospital, the new houses, and local businesses. A potential ESCO (Energy Saving Company) could be formed to achieve security and stability for the project using

the governments Heat Network Partnership set up to help the public sector. Possible opportunities could include:

- Large scale combined heat and power – providing heat and power;
- Hydrogen power generated from renewable sources and piped directly to premises, homes and hospitals where micro generation will take place into heat and power;
- Large scale biomass plant to feed heat to surrounding buildings; and
- Ground source heat pump to provide heating.

Energy and carbon training program

Last year a pilot internal training program was put in place based around sustainability. The program is called PACE – Positive Action on Carbon and Energy and was run by Carbon Saver. It was a nine month course which focused on saving energy and carbon within the workplace. It equipped people with the practical tools and knowledge to be able to tackle the challenges of energy efficiency, and sustainability. This was undertaken by the Board's Energy and Sustainability Champions. This year NHS Ayrshire and Arran is working with the Energy Saving Trust and the Energy Agency to roll out a learning module for all NHS staff. It focuses around energy savings and behaviour changes, which will transfer into the working environment. It is based on LearnPro, and therefore adaptable to the NHS e-learning tool.

5.6. Estate Rationalisation and Masterplanning

The NHS Board's existing estate strategy was originally developed in 2012 and this was fully embedded within the NHS Board's PAMS submission of that year. The Estates Strategy set out a number of strategic aims and issues that would require to be addressed in order to meet the short, medium and long term planning horizons. Since then the scope of the PAMS report has grown and there is now an expectation that medium to long term plans be included. A number of key sites have question marks placed against them in relation to their longer term viability and sustainability, both in terms of the clinical services delivered; the physical condition of the buildings and the infrastructure. This includes several Community Hospitals: Biggart, Kirklandside, Arrol Park, and East Ayrshire Community Hospital (EACH). The latter operates under a PFI Contract managed by BAM Construction, with the existing contract due to expire in 2026. Unlike later PFI Agreements, the facility does not automatically transfer to the NHS

Board and would require to be purchased at market price, should the Board wish to retain the facility. Other concerns over the latter, centre on the under utilisation of the building. Similar underutilisation issues also relate to the Girvan Community Hospital. These however, are likely to be resolved by enabling Police Scotland to co-locate within the Hospital. By doing so Police Scotland will be able to rationalise part of their estate with the NHS Board benefitting from increased utilisation of the Community Hospital facility.

As previously explained, of particular concern is the long term sustainability of the two District General Hospitals. University Hospital Ayr and University Hospital Crosshouse both have issues that will not be fully addressed by the major investment in the Building for Better Care Programme.

Both facilities have significant infrastructure issues that require to be addressed. University Hospital Ayr has ageing infrastructure that is coming to the end of its useful life and will need to be replaced in the medium term. University Hospital Crosshouse on the other hand also has significant building fabric and infrastructure issues which require to be addressed as a matter of urgency because of its age. The Crosshouse facility was opened in 1981.

Last year's PAMS highlighted a number of scenarios including the possibility of developing a single replacement hospital, with replacement of the current Crosshouse facility being the more urgent. In addition, as part of the scenario planning exercise, the existing provision of office accommodation within Lister Street at University Hospital Crosshouse will require to be considered , with a view to providing "Smarter Office" accommodation at less cost, on a separate site. This will require to be addressed in advance of any replacement facility for University Hospital Crosshouse.

Improvements in space utilisation throughout the estate will be essential if the Board is to maximise the performance and efficiency of its estate. Technology and the way that staff work within the office environment has also changed greatly over the years. As the Health and Social Care Partnerships develop there will also be a greater need for collaborative working and more flexible office accommodation to support this.

New ways of working within the office environment based on agile working and the "Smarter Office" will have to be explored and adopted to ensure that the Board is able to meet the challenges ahead. These will include shared premises; touchdown facilities for mobile staff; hot-desking; break out areas; whiteboard technology and the use of video conferencing facilities. Consideration should also be given to other ways of acquiring office

accommodation other than the traditional approach of design, build, own and maintain.

As staff become more mobile, technology will play a major role in enabling a shift in the working environment from single to multi-use sites, including touchdown centres that allow users to log on anywhere within the network and to make and receive calls from their allocated telephone number. Access to NHS networks, both within NHS and Local Authority sites, will also be key in developing greater partnership working and further rationalisation of the office estate.

Significant stakeholder engagement will also be required to establish the Board's requirements for the future provision of student and trainee doctor accommodation within the estate. A number of properties are currently used for this purpose, although these are of generally poor physical condition and subject to Local Authority HMO (House of Multiple Occupancy) licence requirements.

In order to plan these changes systematically, NHS Ayrshire and Arran will require to develop a comprehensive Estates Masterplan based on the most up to date information available. This will help identify what the future estate might look like and what changes will be required over the next 10-20 years. Some of this is likely to be radical and ambitious but will be absolutely essential if the Board is to meet the requirements of the 2020 Vision and beyond.

To create an efficient and flexible estate it will be necessary to consider all running costs and not simply the cost of backlog. Of particular significance will be opportunities for greater energy efficiency, sustainability and other environmental considerations.

Changes to service delivery resulting in further estates rationalisation can also potentially impact on the level Non Domestic Rates Relief received by the Board. Many sites within the estate currently receive Disabled Persons Rates Relief which is based on a qualifying % within a site. Should this change due to a change in service provision or as part of any estates rationalisation exercise, this relief could be lost resulting in the full Non Domestic Rates being charged to the site. With careful management, the Board currently receives an annual reduction of the Non Domestic Rates of approximately £1M per annum.

5.6.1. Disposal of Surplus Assets

Planned disposal of surplus assets are discussed with members of the Property Group, which include Local Authorities, Police, Ambulance Service representatives etc. These discussions allow shared information on planned disposals and disposal strategies. this is further reinforced with the advent of the HSCPs and the disposal strategy now must take into account the needs of other partners.

In 2013/14 the Board was successful in disposing of four properties using the Scottish Government property auction. Originally a pilot scheme, this process has now been formally adopted using a framework arrangement. NHS Ayrshire and Arran successfully utilised this again selling another property at auction in 2015. However, significant challenges remain in securing the anticipated receipts for disposal for 2015/16, as noted within the Capital Investment Plan, Appendix 5 – Disposal Information.

Nightingale House, Ayr has a preferred bidder with negotiations currently underway to bring the sale to a conclusion.

The three properties at Heathfield have been demolished leaving a single cleared site which has successfully been marketed with a closing date for offers as of April 2015.

Ayrshire Central Hospital, Irvine, has two areas currently on the market. This includes an area of land prime for development, along with a more challenging site that has the former residency building, which is listed. Work is currently underway with Scottish Futures Trust, Historic Scotland and our Property Advisor in order to determine whether the Scottish Historical and Environment Policy (SHEP) requirements can be met. This will enable options for disposal, including demolition, to be explored going forward.

NHS Ayrshire and Arran currently provides a monthly update on surplus property within the estate and circulates this information to Chief Executive, Directors and other partners.

5.7. Summary

The Board recognises the work already underway in primary, community, secondary and specialist care which is driving change. The Board will develop a framework to enable communities and clinicians to develop local solutions consistent with this.

Engagement specific to the development of the PAMS and the Board's developing estate masterplan has been focussed with early dialogue and workshops taking place.

New projects or major changes to the estate or infrastructure require that business cases are developed in line with SCIM guidance. Extensive stakeholder engagement, options and scenario planning are naturally included; however the advent of the HSCPs will necessarily expand on this, allowing far more potential for creative solutions with the Local Authorities, third sector and other partners. It is expected this may also influence future opportunities around estate rationalisation.

It is also expected that space utilisation will naturally be improved through the implementation of the Boards Capital Investment Plan with Building for Better Care, and Woodland View all bringing considerable new build into the estate, and substantial disinvestment through surplus property and demolitions.

Planned disposals and minor investment through revenue funded schemes will aid in reducing the backlog costs from the current figure of £77.8M to £60.3M. However with no further major capital investment beyond this point the backlog would rise to around £72.2M in 10 years. Details of this can be found in Appendix 4 – Projections and Lifecycle.

The 2015/16 plan is for revenue funding of £3.00M to be allocated to address mostly statutory compliance higher risk backlog issues within clinical accommodation. Details of this are highlighted in Appendix 6 – Capital Investment Plan.

Other funding will be put in place for the following proposals:

Project	Investment over the next 5 years	Impact on Backlog
North Ayrshire Community Hospital (NACH) at Ayrshire Central	£46,661,000	Investment will affect space utilisation, functional suitability with only the remaining Pavilions backlog of £2.0M to be removed
Woodland View refurbishment of Ailsa Campus	£5,794,000	Reduce backlog from £7.2M to £3.8M
Building for Better Care Phase 1	£18,875,000	Investment will affect space utilisation, functional suitability rather than reduce backlog
Building for Better Care Phase 2	£8,709,000	Investment potentially remove backlog
Car Parking at University Hospital Ayr and Crosshouse and Ayrshire Central Hospital	£2,174,000	Investment will affect space utilisation rather than backlog figure
Refurbishment of Tarbolton Clinic	£1,300,000	Investment potentially remove backlog
Refurbishment of Main Entrance Areas at University Hospitals Ayr and Crosshouse	£826,000	Reduce backlog from £2.0M to £1.5M
Review of office accommodation Board wide	£174,000	Investment will affect functional suitability and quality rather than backlog figure
Endoscopy New Decontamination Regulations and University Hospital Ayr	£1,224,000	Investment potentially remove backlog
Endoscopy New Decontamination Regulations and University Hospital Crosshouse	£1,278,000	Investment potentially remove backlog
Infrastructure	£3,972,000	Reduce backlog from £20.1M to £17.7M
Infrastructure improvement	£3,587,000	Reduce backlog from £5.8M to £3.7M
HUB Projects	£8,500,000	Investment potentially remove backlog
Surgical Admissions Unit, university Hospital Crosshouse	£927,000	Investment potentially remove backlog

eHealth intend to work over the coming years to provide not only new technology but new ways of working. Services who adopt the Electronic Patient Records will be required to implement new processes and ensure that they are ready to adopt the EPR.

Energy schemes utilising renewable technology have also been identified with projections and payback periods all identified.

Moving forward the Board aspires to use the estate as a community resource. Delivering services and sharing assets with other stakeholders to deliver co-produced services. In order to adapt to the shifting balance of care a more flexible community approach is needed.

NHS Ayrshire and Arran are working on the development of a five year People Strategy, which sets out where we want to be as an employer by 2020 and provides a strategic focus and coherent framework for all the Board's people agenda programmes of work. Delivering "Everyone Matters" is a key part of this. We are currently pulling together the full range of separate action and improvement plans into one overarching document, which will support the implementation of the People Strategy. Also the Board faces the challenge of recruiting vacant posts within the Corporate Support Services Directorate. In addition there is also the challenge of resourcing new systems such as VFA Capital Planning System and SCART2.

Notwithstanding the significant investment plans noted above; a number of key sites have question marks placed against them in respect to their viability and sustainability both in terms of the clinical services delivered, and the condition of the buildings and infrastructure associated with them. In particular further development of options around a replacement for University Hospital Crosshouse will be developed over the coming year.

Improvements to space utilisation throughout the estate needs to be addressed in order to make best use of what we have in order to maximise efficiencies. This coupled with the need to address matters relating to the "Smarter Offices" programme highlights the need to make better use non-clinical accommodation in order maximise the performance of the estate.

As the HSCPs develop there will be a greater need for collaborative working, and more flexible workspace will be needed to support this.

In order to recognise and address these maters strategically NHS Ayrshire and Arran will use the latest information available to undertake a fresh Estates Masterplanning exercise. This will address some the of the key questions coming out of the PAMS in terms of the work undertaken to date and map out what the future estate might look like and what changes will be necessary for the next 10-20 years.

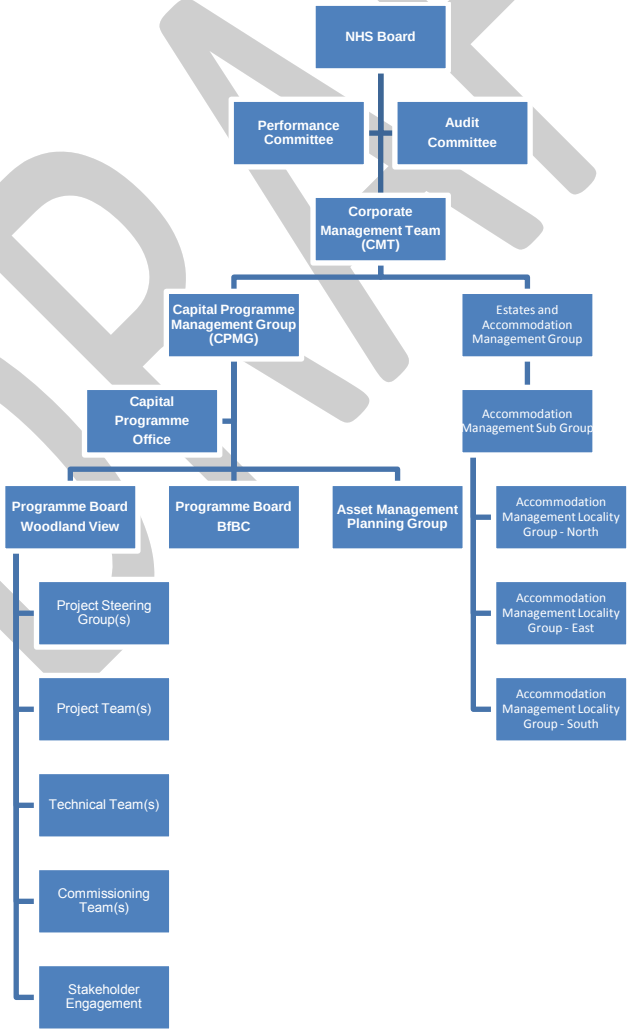
6. Implementation of PAMS

6.1. Governance Process

By implementing the service requirements and changes identified within Our Health 2020, the Board will support this through the provision of suitable governance and quality control measures. Key to this will be the natural alignment with the national HEAT targets and six quality outcomes of the NHS Quality Strategy in order to provide tangible evidence of progress towards the 2020 vision.

For some of the asset groups there are slight variations but in the majority of cases the governance routes are noted below, in Flowchart 1 – Governance Structure. The chart will be further augmented as the HSCPs are developing their governance routes and linkages for the use of assets.

Flowchart 1 - Governance Structure



Further control measures are in place through the use of the Covalent System which allows for monitoring of HEAT measurements as set out in the Local Delivery Plan including:

- Public Health Performs, which currently monitors performance against Health Improvement strategies and improvement plans as well as the Public Health Department's Business Plan;
- Change Fund project monitoring, which monitors progress of project plans, in partnership with the three Ayrshire Local Authorities;
- Mental Health Performs, which monitors performance against Mental Health improvement plans; and
- Development work is progressing to provide dashboards summarising organisational performance and to provide scorecards of performance for each of the directorates.

Along with the use of Covalent, Estates also utilise the Statutory Compliance Audit and Reporting Tool (SCART), a web based risk assessment tool which has been developed by Health Facilities Scotland (HFS). The purpose of SCART is to enable NHS Boards to measure their level of compliance with a range of aspects including policies and procedures. The outputs from this can be in the form of a prioritised high-level summary report for consideration at Board level. Plans are being developed in order to facilitate the transition to SCART2 which will be reported on in PAMS 2016.

All NHS Ayrshire and Arran properties are recorded on the SCART system. As SCART is an audit reporting tool, the process of review and update is a continuous one. The current site average score for NHS Ayrshire and Arran is 72.2%.

As part of the assessment process for the estate facets, a dual approach is taken by assessing the risk elements noted above through SCART, these are then noted within the EAMS System where costs and risks are applied to all items in detail. this provides a financial measure to achieve compliance standard. The entire estate is re-graded in this way every three months.

Due to an update to appraisal guidance it will be necessary to re-grade this against corporate risks rather than building element risks. This reassessment will be rolled out this year and is anticipated to reduce the quantity of high and significant risks across the estate. This will result in a direct correlation of risk on EAMS and those identified at high level within Datix. This will provide a higher degree of accuracy and consistency of reporting.

Within Estates and Capital Development significant risks are identified and are reflected in Datix, the Board's corporate risk register.

Datix is a Risk Management Software System which uses five separate modules, Incidents, Claims, Complaints, Risk and Request for Information. The Incident module is the most widely used module and can be accessed by any member of staff who has access to a computer. Specific users of the system will also have access to the Corporate Risk Register within the system where they can allocate and monitor risks at both a corporate and operational level.

Additionally operational risks are also captured at a service level with a Risk Register kept for individual projects to provide monitoring and performance management through the appropriate managers/project boards.

6.2. Risks and Constraints in delivering PAMS

The PAMS working group comprise of representatives from asset bases noted below:

- Property;
- Transport;
- eHealth;
- Medical Equipment; and
- Soft FM.

With Property Services acting as the lead in collating and presenting the information, year on year with the expanding scope of the document it has become more challenging to focus on PAMS while maintaining operational service delivery with a team of only three full time staff.

Going forward it would be beneficial to engage with Health Facilities Scotland regarding additional training and guidance to assist with the collation and presentation of the PAMS data on behalf of the Board. Due to the limited places available at training events in the past this has been limited. As such not all members of the PAMS group have been able to attend and find it challenging to align their information with strategic service needs.

This year the PAMS Working Group has been able to engage more fully with the service users, as noted in stakeholder engagement, to determine their requirements and how the assets can aid in service delivery. Of particular significance is the developing relationships with the Health and Social Care

Partnerships, this will develop further as the requirements of the Partnerships become clearer.

6.3. Asset Based Risk Reporting

As previously noted within the Board significant risks are identified and are reflected in Datix, the Board's corporate risk register.

Additionally operational risks are also captured at a service level with a Risk Register kept for individual projects to provide monitoring and performance management through the appropriate managers/project boards.

In order to identify high risk factors in the estate which need to be addressed urgently in comparison to those that can be programmed into an Estate Investment Planning Process over a longer period, it is necessary to carry out risk assessments for all items of backlog where costs have been identified within the Estates Asset Management System (EAMS).

Risk is calculated with a five by five matrix, multiplying Consequence and Likelihood scores to achieve an overall Risk Rating between 1 and 25 (25 being the Highest risk). However, it is recognised that elements of the backlog have not been risk assessed in line with Corporate risk assessment; therefore, over the next six months the Estates Teams will be working with Property Services to address this within the Estates Asset Management System. This will satisfy the requirements of the updated Health Facilities Scotland (HFS) appraisal guidance that, once approved, will be issued to all Health Boards.

Statutory Compliance Audit and Reporting Tool (SCART) developed by HFS is used by NHS Ayrshire and Arran to measure their level of compliance with a range of aspects including policies and procedures and produce a prioritised high-level summary for consideration at Board level.

Other asset bases record their own risks utilising Datix.

Transport currently has maintenance contracts on all lease and Crown vehicles, this allows for the risks to be managed by the contractor.

Medical Equipment operates similarly to Transport with a number of maintenance contracts taken out on the equipment. Medical Equipment are in the unique position where they recognise that equipment has a set lifespan either in terms of technology or clinical requirements, as such

equipment is replaced at the end of its term, therefore reducing the risk of failure. Other issues are dealt with on a reactive basis.

eHealth are reactive to any demands on infrastructure rather than being proactive, this increases the risk of service disruption should failure occur. However, with regard to desktop P.C.s there is a rolling replacement programme in place which reduces the risk of these items failing.

6.4. Benefits of Implementing PAMS

6.4.1. A More Efficient and Effective Asset Base

NHS Ayrshire and Arran has a clear mission statement of providing "*the healthiest life possible for the people of Ayrshire and Arran"* which is supported by the vision of Ayrshire and Arran Health Board as a leaner, fitter, healthier organisation.

As part of the ongoing NPD development, at Ayrshire Central Hospital, several of the existing poor quality buildings on the site has been demolished. This has resulted in a general improvement of condition on the site and a subsequent reduction in high risk backlog.

Furthermore, the completion of the OPD extension at University Hospital Ayr has allowed for the reconfiguration of community sites within the district enabling estate rationalisation. This specifically relates to the sale of Strathdoon House, Miller Road, Boyd Street Clinic and the demolition of Heathfield Site prior to sale. As a result, backlog has reduced by £1.4M with improved utilisation and quality of the estate.

6.4.2. Better Utilisation of NHS and other Partner Assets

While there are many points under consideration and already noted there are still some key outstanding questions, as noted in Table 20 – Q&A on moving forward, that must be asked to allow future decisions to be made.

Table 21 - Q&A on moving forward.

Question	How will this be answered?
1. What is the longer term of maintaining two District General Hospitals?	Influenced by; estate masterplanning, lifecycle costs, office admin review and Integration Agenda
2. What is the impact of "shifting the Balance of Care" on the Community estate?	A service led decision – Health and Social Care Partnerships and Primary Care
3. How are we going to address underutilisation of both clinical and non clinical accommodation?	Review of service requirements across community hospitals and associated non clinical accommodation: • Integration Agenda; • 24hr occupation; • Community and Primary Care use.; and • Consolidation and rationalisation of estates.
4. How are we going to address under utilisation of premises at Ailsa Hospital following the Woodland View move?	Estate Masterplan
5. How are we going to improve office accommodation performance?	Estate Masterplan and Public Sector Partnership Arrangements.
6. What are the requirements of the Health and Social Care Integration Partnerships?	Service led influenced through Integration Agenda.

6.4.3. Aligning Assets

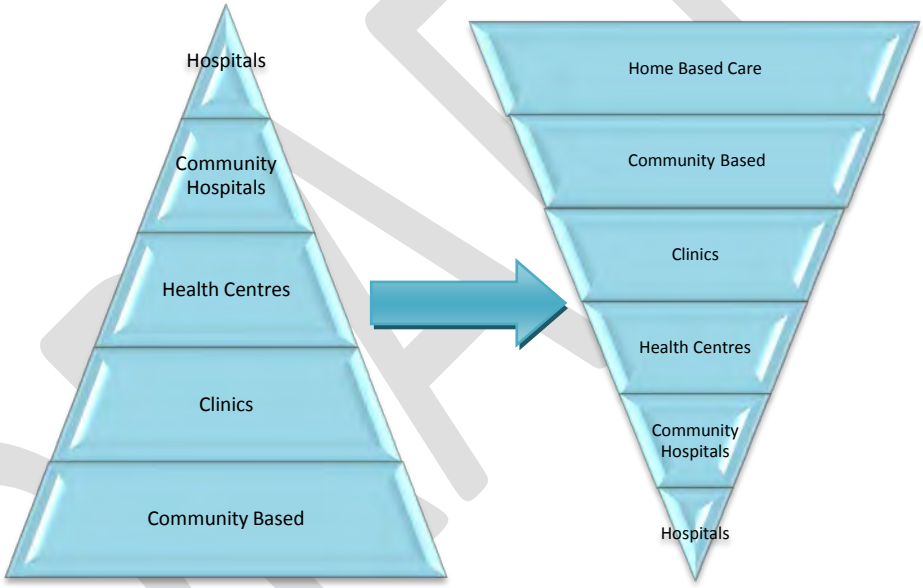
In recognition of the implementation of the Our Health 2020 and changes in the way clinical and non-clinical services will be delivered to patients in coming years, we need to challenge the views and perceptions of the assets we have.

It is expected that over the coming years the emphasis on care will move from an Acute Hospital setting toward treating patients within their own homes and the community (homely setting). This could have

a significant impact on how the assets will support future service delivery. The ability to shift investment to eHealth and Medical Equipment in order to enable more agile working across the estate would also be beneficial. This would impact on both clinical and non-clinical staff.

If however we are to align our assets with the ongoing shift in the balance of care, with far greater emphasis on delivering care to the patient in the home or community, rather than as an inpatient within an acute facility, then we need to rethink our view of the estate and reshape it accordingly. This is illustrated in Image 13 – Reshaping the Balance of Care below.

Image 13 - Reshaping the Balance of Care



NHS Ayrshire and Arran will start to realign not just property, but eHealth, Medical Equipment and Transport to recognise the gradual shift of emphasis away from the main hospitals. This will take many years, encompass the requirements of the Integration of Health and Social Care, capitalise on the work already underway and support the Corporate Strategy. This is demonstrated within the inverted "V" diagram above.

Currently with expansion of the pilot for Telehealth/Telecare it is recognised that Medical Equipment and eHealth will work together more closely in the future allowing more focus on patient self-management within the community. Transport will also have to recognise these changes and adapt to a more community or home care based service. Added benefits from this will also include the ability to

shift investment to eHealth and Medical Equipment in order to enable agile working across the estate. This will impact on both clinical and non clinical staff.

Exploring the balance of investment requirements will allow the Board to reassess the priorities for funding. This should allow for the funding to be distributed from the built environment and inpatient care toward newer technology provision in patients homes.

The largest of these assets are our land and property. From an asset perspective the biggest challenge revolves around the sustainability of the major hospitals and then in decreasing order, to community hospitals, health centres, clinics and so on. Unsurprisingly then, most of our resource and effort revolves around the services currently deployed from our two District General Hospitals at Ayr and Crosshouse.

With the increase in community based services the need to maintain two District General Hospitals will require to be assessed. Given both sites are continuing to age, at some point in the future it may be a more viable option to re-provide the remaining acute service within one purpose built facility. The lifecycle review has highlighted that University Hospital Crosshouse requires significant investment sooner than University Hospital Ayr. Even if the works were to be carried out at University Hospital Crosshouse, the logistics of closing down ward areas to allow for this would see the re-provision of this facility as a more viable option going forward.

Extensive stakeholder engagement will be required before robust plans can be developed in order to explore options.

7. Conclusion PAMS

This year has seen the establishment of the three Health and Social Care Partnerships (HSCPs) in Ayrshire & Arran with the three former "shadow boards" having successfully completed the transition to fully "integrated boards" in the North, South and East. Over the coming year there is an expectation that joint service strategies will be developed within these areas. This is likely to have a significant impact on the Board's future estates requirements.

The current backlog for the Board's estate is £77.8M, which is an increase of £4M from last year of this, 54% is currently identified as High and Significant risk. The Estates teams will reassess the current risks within EAMS, and bring these into line with the corporate risk matrix. This work will be completed within the next six months.

The Board currently has a number of major developments which are due to be completed in 2016. These include Building for Better Care at University Hospitals Ayr and Crosshouse. Work is also well advanced on the development of the new community and mental health hospital (Woodland View), on the former Ayrshire Central Hospital site in Irvine which is due to be handed over early in 2016.

In addition to this will be the medium to long term development aspirations that will result from the work identified within the PAMS in order to realise the 2020 Vision. Whilst the short to medium term responses are addressed within the current PAMS, the longer term requirements will require to be addressed through the Estates Masterplanning work. Preparatory work is already underway in terms of the sustainability analysis for the two District General Hospitals. Preliminary results from earlier lifecycle modelling show clearly that University Hospital Crosshouse is no longer sustainable in its present form and that the development of a replacement facility needs to be given a high priority, given the anticipated lead time of some 10-12 years.

Early scoping works are required to establish the needs of the various stakeholders based on a comprehensive clinical service delivery model for NHS Ayrshire and Arran.

8. Glossary & Key

Term	Meaning
6 Facet	The collective name for Physical Condition, Statutory Compliance, Environmental Management, Space utilisation, Functional Suitability and Quality
ADOC	Ayrshire Doctors on Call
APSPG	Ayrshire Public Sector Property Group
Backlog	Maintenance that has built up over a number of years and is showing as having poor condition or performance
Capital Receipt	The money received from selling fixed assets is known as a capital receipt.
CDU	Central Decontamination Unit
CEL 35 (2010)	Chief Executive Letter 35 (2010) detailing mandatory requirement for all Boards to have a Property and Asset Management Strategy which should be updated on an annual basis.
CHI	Community Health Index number
CHP	Community Health Partnerships
CIG	Capital Investment Group
CIP	Capital Investment Plan
Cost Book	Scottish Health Service Costs (known as the Costs Book) is the only source of published costs information for NHSScotland (NHSS), and provides a detailed analysis of where resources are spent in the NHSS. This information is mainly derived from financial and statistical data compiled by Scottish Health Boards. It is published by ISD with the support of the Scottish Government Health Department (SGHD) and is used mainly for comparison across health care providers to ensure efficiency and to benchmark costs.
CPMG	Capital Programme Management Group
EAMS	Estates Asset Management System
ECQIP	Emergency Care Quality Improvement Programme
EPR	Electronic Patient record
FM	Facilities Management
FMT	Facilities Monitoring Tool
Functional Suitability	How well the available accommodation supports the delivery of healthcare assessed on the basis of internal space relationships, support facilities and location
GCH	Girvan Community Hospital
GIS	Geographic Information System
HAI	Healthcare Associated Infections
HEAT Targets	Health Improvement; Efficiency; Access; Treatment Targets, measuring performance in these areas to aid Board set priorities for incorporation in Local Delivery Plans

Term	Meaning
HEI	Healthcare Environment Inspectorate
HEPMA	Hospital Electronic Prescribing & Medicines Administration
HFS	Health Facilities Scotland
HSCPs	Health and Social Care Partnerships
ICT	Information and Communication Technology
IM&T	Information Management and Technology
KPI	Key performance Indicators
LDP	Local Delivery plan
LED	Light Emitting Diode lighting
LUCAP	Local Unscheduled Care Action Plan
MPI	Master Patient Index
MSK	Musculoskeletal
NACH	North Ayrshire Community Hospital
NPD	Non-Profit Distributing funding model
OPD	Out Patients Department
OSMA	One Scotland Mapping Agreement
PAMS	Property and Asset management Strategy
PAS	Patient Administration System
Physical Condition	The appraisal of Physical Condition of the properties including building fabric condition, mechanical systems, electrical systems and condition of external grounds
PTHB	Property Transaction Handbook
Quality	The aim of quality is to determine how well the available accommodation provides a comfortable, modern, pleasing environment in which healthcare services can be provided. It is assessed on the basis of three elements: amenity; comfort engineering; and design.
SAFR	Annual State of Asset and Facilities Report
SCART	Statutory Compliance Audit and Reporting Tool, a system to assist NHS Boards to identify their level of compliance with a range of property legal and best practice requirements and guidance.
SCIM	Scottish Capital Investment Manual
SFT	Scottish Futures Trust
SOA	Single Outcome Agreements
Space Utilisation	How efficiently and effectively the available space is being used, e.g. the number of people using it and the frequency that it is used as well as identifying areas of over/under utilisation.
SPAG	Scottish Property Advisory Group

Statutory Compliance	Compliance with all statutory guidance and legislation related to the Estate including Fire, Health, Safety and DDA.
UHA	University Hospital Ayr
UHC	University Hospital Crosshouse
VFA	Capital Planning modelling tool

Key

Facet Grading Key	
Facet: Building Engineering, Statutory Compliance, Functional Suitability & Quality	
A	Excellent/as new condition (generally less than 2 years old). Expected to perform as intended over its expected useful service life.
B	Satisfactory condition with evidence of only minor deterioration. Element/Sub Element is operational and performing as intended
C	Poor Condition with evidence of major defects. Element/Sub Element remains operational but is currently in need of major repair or replacement
D/DX	Unacceptable condition. Non-operational or about to fail. Has reached the end of its useful life.
Facet: Space Utilisation	
E	Empty or grossly underused at all times (excluding temporary closure).
U	Underutilised: utilisation could be significantly increased
F	Fully Utilised: a satisfactory level of utilisation
O	Overcrowded: overloaded and facilities generally stretched.

Key to Trends	
	Positive Trend
	Negative Trend
	No Change

9. Index of Inserts