

Bristol, North Somerset & South Gloucestershire Sustainability & Transformation Plan

Annex A – Supporting Information

Table of Contents

A.	Governance arrangements	4
i.	Organisations within the BNSSG footprint	4
ii.	STP Planning Phase Governance Structure.....	5
iii.	Delivery Phase Governance Principles.....	6
iv.	Delivery Phase Governance Structure	7
B.	Engagement process	9
i.	Introduction	9
ii.	Development of the communication and engagement plan.....	9
iii.	Stakeholder mapping	10
iv.	Using existing insights to inform the initial design of the future operating model.....	10
v.	Agreement of a single, shared public narrative	10
vi.	Methodologies for communication and engagement	11
vii.	Branding and visual identity	11
viii.	Approach to major service change	11
C.	Enabling Workstreams	12
C.1	STP Estates Enabling Strategy	12
i.	Case for change and evidence base	12
ii.	Relevant National Guidance, current estate overview and risks to sustainability	13
iii.	Key challenges.....	15
iv.	Proposals for change, links to BNSSG priorities and system benefits	16
v.	Medium and longer term priorities (years 2 – 5).....	17
C.2	STP Workforce Enabling Strategy	18
i.	Vision.....	18
ii.	Case for change.....	18
iii.	BNSSG Challenges.	18
iv.	Understanding pressures in General Practice:	19
v.	Links to core workstreams	19
vi.	Analysis of Workforce Transformation by Care Model workstream	20
vii.	Workforce Transformation- STP Commitments	21
viii.	Action Plan – next 6 months	23
C.3	Digital Enabling Strategy	24
i.	Introduction	24
ii.	Vision.....	24
iii.	Driving delivery of the Local Digital Roadmap and the STP models of care	27
iv.	Driving delivery of the Local Digital Roadmap and the STP enablers	28

v.	Conclusion.....	29
C.4	STP Finance and BI Enabling Strategy	30
i.	Approach	30
ii.	Output - Section 1: Finances	30
iii.	Output - Section 2: Activity benchmarking	37
iv.	Output - Section 3: Activity modelling – the “Do nothing” base case position	48
D.	Public Health Intelligence	52
i.	Population projections.....	52
ii.	Life expectancy	53
iii.	Inequalities.....	53
iv.	Contributors to life expectancy gaps	53
v.	Years of life lost.....	54
vi.	Future demands across BNSSG (disease prevalence models)	55
vii.	Risk factors analysis	67
viii.	Disability adjusted life years lost	69
ix.	Return on investment for public health interventions	69
x.	NHSE/PHE best buy public health interventions	71
xi.	Current return from public service example: Smoking cessation.....	72
xii.	References	74
xiii.	Population Projections.....	76
E.	Clinical Pathways Strategy	78
i.	Key Pathways	78
ii.	Work Programme.....	79
iii.	Principles for pathway development.....	80

A. Governance arrangements

i. Organisations within the BNSSG footprint

The BNSSG footprint has an established System Leadership Group (SLG) in place with wide institutional representation, including local government (social services and public health). The Group have agreed a shared vision around the areas of improving experience of care, improving services, making better use of existing capacity and resources, and developing a sustainable, well-managed health and social care system.

The table below outlines the organisations currently represented at the System Leadership Group and who form the BNSSG planning footprint. Further stakeholder analysis is currently underway, with a particular objective of ensuring inclusion of patient, public, voluntary and independent sector representation.

BNSSG System Leadership Group Representation

Commissioners		Providers	
Organisation	Function	Organisation	Function
South Gloucestershire CCG	NHS Commissioner	North Bristol NHS Trust	Acute Provider
Bristol CCG	NHS Commissioner	Weston Area Health Trust	Acute Provider
North Somerset CCG	NHS Commissioner	University Hospitals Bristol NHS Foundation Trust	Acute Provider
Bristol City Council	Local Authority (social care and public health)	Bristol Community Health	Community Care Provider
North Somerset Council	Local Authority (social care and public health)	North Somerset Community Partnership	Community Care Provider
South Gloucestershire Council	Local Authority (social care and public health)	Sirona Care and Health	Community and social Care Provider
NHS England	NHS Commissioner (Primary Care & Specialised)	Avon and Wiltshire Mental Health Partnership NHS Trust	Mental health & LD provider
		South Western Ambulance Service NHS Foundation Trust	Ambulance service provider

ii. STP Planning Phase Governance Structure

In order to secure an at-scale level of ambition and associated practical delivery roadmap to address the significant challenges reflected in the Five Year Forward Vision, the BNSSG organisations have built on this collaborative foundation:

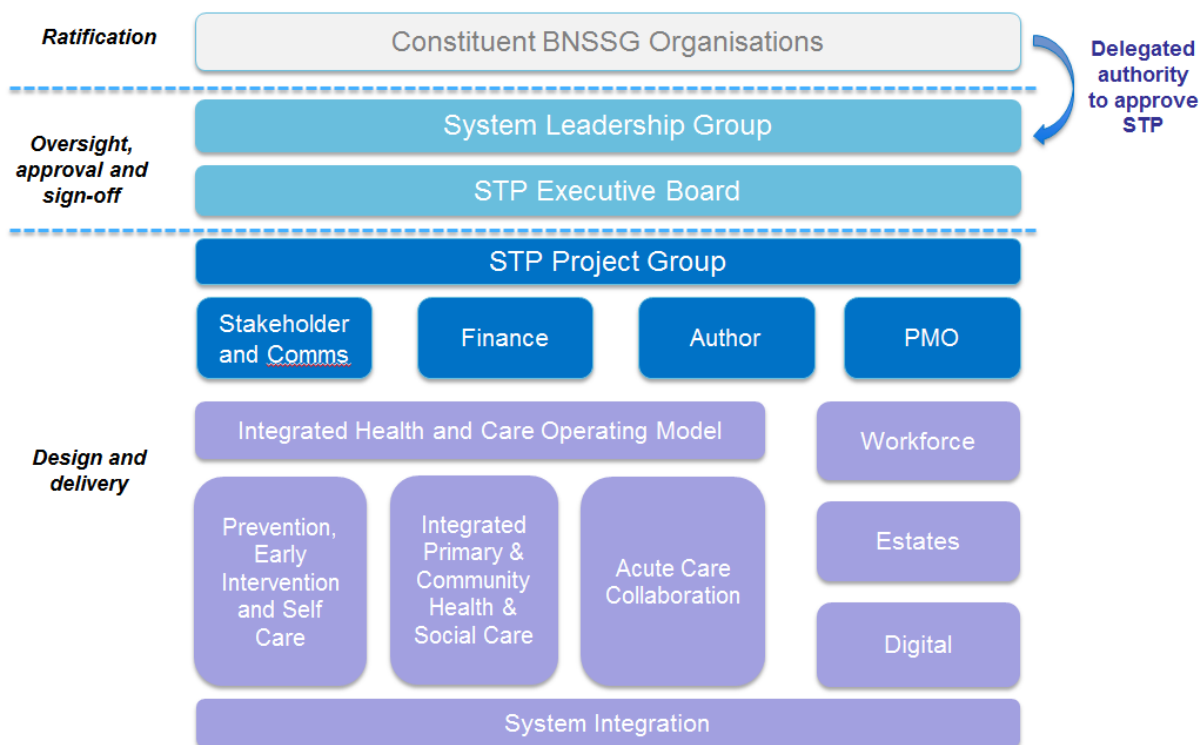
- An STP Executive Board was established beneath the System Leadership Group, with cross-sector representation, including local government, to act as the programme steering group for the STP. This also included our local West of England Academic Health Science Network (WEASHN), who will be key partners in the development and implementation of the plan.
- Cross-sector planning expertise was identified and pooled to form a Project Group which co-ordinated the development of the STP through the following workstreams:
 - Integrated health and care operating model core themes
 - Stakeholder engagement
 - Finance, analytics and capacity modelling
 - Clinical strategy
 - Workforce
 - Digital roadmap
 - Estates

Each workstream was allocated a Project Lead and a Chief Officer or equivalent from the System Leadership Group as SRO. Clinical and Mental Health Leads were identified to work with the Operating Model workstreams.

- External consultancy support was commissioned from PWC to support STP development through:
 - Senior 'check and challenge' facilitation and strategic advice to System Leader discussions.
 - Programme assurance and overall co-ordination of the process.
 - Strategic review of the baseline position of the BNSSG system and existing transformation initiatives.
- South, Central and West Commissioning Support Unit (SCW) provided Senior Consultancy resource to establish a PMO function, and provide leadership and management for the PMO until early July 2016.
- Budget pooling arrangements were agreed to assist development of the STP.

STP Planning Phase Governance Structure

STP – Planning Phase Governance Structure



iii. Delivery Phase Governance Principles

In establishing an appropriate governance structure for the future STP work and delivery of the Five Year Forward View, the following principles have been agreed:

- The governance structure should be commensurate with the needs and scale of the programme.
- The ways of working should be focussed on supporting delivery and minimising bureaucracy.
- The arrangements will be based on trust and collaboration, and where possible the roles within the structure should be filled by individuals with the appropriate skills who are already working within the local care system.
- To identify the leadership and delivery capacity required partner organisations will need to ensure alignment of current processes, and build upon existing programmes of work within the system.
- The interdependencies between the different programmes within the STP will be defined and managed.
- The full engagement of clinical, finance and analytical leads from across the organisations will be essential.
- Effective leadership of the programme will be critical to its success; a Programme Director will have sufficient authority and status within the care system to drive the programme forwards.

iv. Delivery Phase Governance Structure

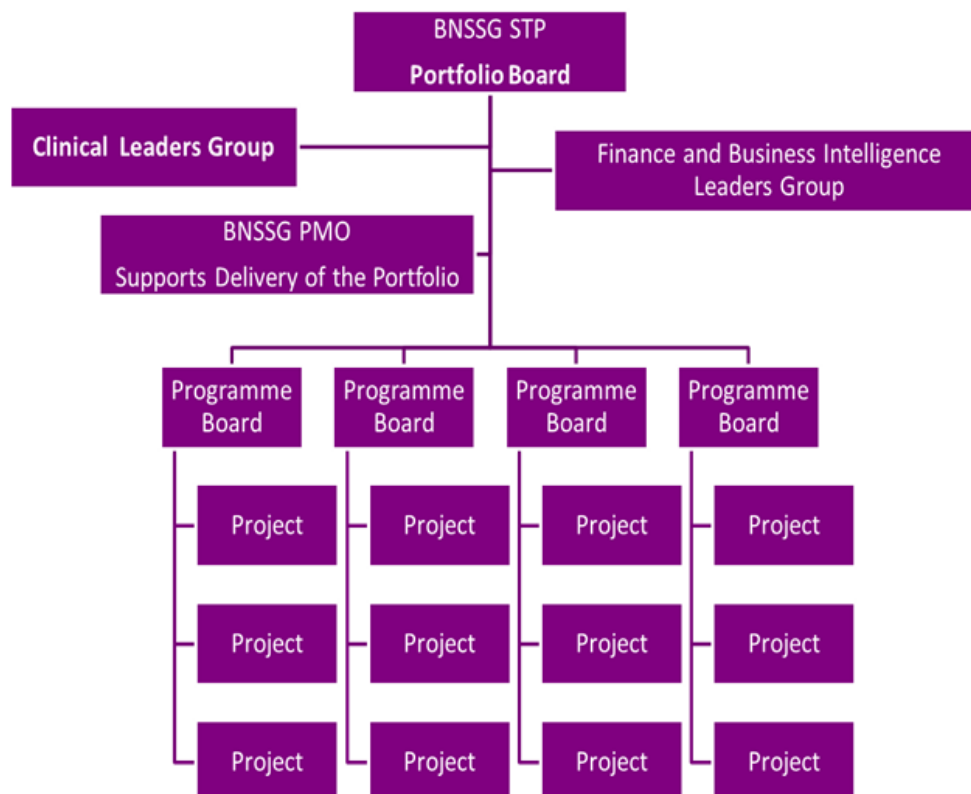
The BNSSG STP is expected to consist of a number of large scale change programmes. In order to ensure effective delivery across the programmes, a Portfolio Management approach will be adopted. Key elements of this will include:

- The establishment of a BNSSG Portfolio Board to oversee delivery of STP programmes and ensure ongoing alignment with system strategy.
- A series of programmes which combine related projects within integrated governance arrangements.
- Arrangements which ensure programmes are coordinated with related activities that are not directly within the STP, for example the annual commissioning cycle;
- A BNSSG STP PMO to support delivery; and
- The Portfolio Board could operate as an executive sub group, with delegated authority from, and reporting links into a revised System Leadership Group. (The role of the System Leadership Group should be reviewed in the context of the future governance needs of the STP).

A proposed outline structure for delivery phase governance arrangements is illustrated below.

Proposed Delivery Phase Governance Structure

STP – Proposed Delivery Phase Governance Structure



Immediate Next Steps

- Design and implement stakeholder engagement plan, including (clinical) staff, communities and local government.
- Appoint to key programme management positions and mobilise all workstreams.

B. Engagement process

i. Introduction

Bristol, North Somerset & South Gloucestershire is an established health and care partnership with a track record for designing and delivering transformative change.

An established shared governance arrangement including a System Leadership Group involving executive and senior clinical leaders from all of the local partner organisations has been in place locally for a number of years and has formed the basis for the Executive Board that is overseeing the development of the local STP.

During the last decade we have worked together to progress a system wide vision based of care closer to home and reduced reliance on acute services which is based on a local clinical consensus.

The development of the Sustainability and Transformation Plan will help us take the next steps in this journey, working together to further transform local health services in order to be able to continue to provide high quality care that we can sustain for the future.

The improvements achieved over the last 10 years have been informed by substantial public, patient and stakeholder engagement, undertaken both on a BNSSG whole-system basis and also at a 'sub-system' level. It has also encompassed major changes to local services that have been subject to formal public consultation.

This has required close working with the health scrutiny committees of each of the local authorities both individually and where appropriate through the formation of joint health scrutiny committees.

This track record of designing and executing engagement and consultation including on a whole system basis, together with the lessons learned from all of this, has provided a platform for this plan for communication and engagement.

This Annex sets out the plan for communication and engagement to support the development and implementation of the local Sustainability and Transformation plan for Bristol, North Somerset & South Gloucestershire. It describes the approach to engagement within partner organisations that has been undertaken in the initial development of the STP and how these existing insights have been used to inform the initial design of the future operating model.

At this stage, as the STP represents 'work in progress' it will therefore remain subject to further engagement, and where indicated formal consultation processes.

Subject to any feedback from this initial STP submission and agreement on the national timetable for further development, we will engage more formally with the Boards and Governing Bodies of partner organisations including the three local Health and Wellbeing Boards.

In parallel with this we will continue to work with the three local Healthwatch organisations and other stakeholders to agree arrangements for more local engagement, and the scope of future engagement will encompass clinicians and social care professionals, service users and carers as well as the wider public.

ii. Development of the communication and engagement plan

The communication and engagement plan has been agreed in outline by the 15 partner organisations

The objective of this communication and engagement plan is to ensure that partners, stakeholders and local people are kept informed about the development of the local STP and are given the opportunity to be involved in the development and implementation of the plans.

Communication and engagement expertise from across the 15 partner organisations including NHS England, have contributed to the development of this plan through a joint working group. There has also been early face to face engagement with the three local Healthwatch organisations to inform design of future engagement and agreement to continue to involve them

We will continue to harness all of this knowledge and experience in further development of the plan and throughout the implementation.

iii. Stakeholder mapping

An initial stakeholder mapping exercise has been undertaken in order to identify target audiences for the development and implementation of the STP. This analysis will be further refined subject to confirmation of the specific elements of the local STP. In broad terms the mapping exercise has identified the following broad segments:

Partners – the 15 local organisations working together to establish the local STP, including staff and their representative organisations

Stakeholders – including the 3 local Healthwatch organisations, Health and Wellbeing Boards, Health Scrutiny Committees and other standing committees and groups; local Councillors and MPs,

Service users and carers - including local and national organisations that represent service users and carer interests

The wider public – including through community organisations and groups representing local people and specific local interests as well as groups representing our diverse community and also ensuring that we used our established mechanisms to ensure we are able to listen to those that are seldom heard.

iv. Using existing insights to inform the initial design of the future operating model

There will be opportunities for service users, carers and the public to have their say on the emerging plan, and to continue shaping the development and implementation of the plan during the next 5 years.

In addition to this and for this initial phase of STP development, existing feedback from service users, carers and the public from across BNSSG has informed the development of the draft STP. This includes information from public engagement activities, local surveys and local health scrutiny committees, and information collated from 'friends and family' test data, patient complaints and Care Quality Commission reports. This has helped to ensure that our thinking is being shaped by the issues that the people who rely on our services have told us is important to them.

v. Agreement of a single, shared public narrative

The local STP encompasses a health and care system serving a population of around 1 million local people and partnership spanning 15 commissioner and provider organisations together with 99 GP practices, as well as the numerous local voluntary organisations involved in health and care.

In this context, the development of a single shared public narrative will help all of the partner organisations to articulate their shared vision for working together to further transform local health services based on a positive case for change.

In response to this, agreement has already been reached on an initial public narrative for Bristol, North Somerset & South Gloucestershire, which sets the scene for the further development of the STP and establishes a shared commitment to patient, public and stakeholder engagement.

The content of this shared public narrative and the FAQs will be further developed as the STP is developed.

vi. Methodologies for communication and engagement

Locally there is agreement across the 15 partner organisations about the range of methods we will use when engaging with service users, carers and the public.

Recognising that there is no 'one size fits all' approach to engagement, and that plans need to be proportionate and appropriate to the needs of those being engaged with, taking into account a range of factors.

The three local Healthwatch organisations are already involved in the design of the engagement plans and they will have a central role in informing the development and implementation of the engagement to support the further development and implementation of the STP.

STP leaders will be personally involved in presenting strategy to stakeholders and senior clinical and social care professionals will contribute significantly to engagement with peers and with service users and carers. Engagement plans will be also shared with Health Scrutiny Committee members for their comments prior to implementation.

The Executive Board for the STP will be responsible for ensuring that appropriate monitoring and assurance is in place for communication and engagement.

To this end a Chief Executive member of the Executive Board, supported by a senior Director has already taken a lead role in overseeing the development of this communication and engagement plan and this will continue during the implementation.

vii. Branding and visual identity

Bristol, North Somerset & South Gloucestershire is an established health and care partnership which is generally recognised by partners and stakeholders and to a greater or lesser extent by the public at large. Subject to further development of the local STP it is proposed to proceed on this basis and avoid the cost or delay in establishing alternative bespoke branding or identity at this stage.

viii. Approach to major service change

There is considerable system wide experience of undertaking substantial public, patient and stakeholder engagement which has also encompassed major changes to local services that have been subject to formal public consultation.

The extent to which major changes to services will arise will be subject to further development of the local STP. However, there will be a shared approach to any such changes which will be undertaken with reference to the established NHS England assurance process and with reference to the four tests, specifically: strong public and patient engagement; consistency with current and prospective need for patient choice; a clear clinical evidence base; and support for proposals from clinical commissioners.

C. Enabling Workstreams

C.1 STP Estates Enabling Strategy

i. Case for change and evidence base

The NHS estate is a key enabler to the delivery of the objectives set out in this plan through its potential to impact positively on quality and patient experience and support delivery of clinical and financial sustainability and system transformation.

A new approach to estates provision and coordination across the whole health and social care system is an essential component of ensuring that we can deliver our shared vision from a property base that is fit for purpose in terms of location, configuration and specification.

A review of available evidence clearly demonstrates that strategically:

- Estates-related initiatives are likely to be more important for their contribution to creating capacity to deal with increases in demand from changing demographics over the longer term and to avoiding the creation of new facilities, thereby avoiding costs to the local health economy in the longer run rather than saving money for the local health economy immediately;
- Even well designed and operationally efficient community-based initiatives are unlikely to break even within 5 years and although offering more flexible capacity and potentially lower fixed costs need to form part of a longer-term planning horizon.

This strategy is intended to align the estate with the strategic goals of the emerging BNSSG STP service transformation strategies in order to support the delivery of effective and high quality services to our patients. This requires that our estate strategy is flexible so that it can adapt as circumstances dictate and support the intended strategic approach to shifting the balance of care from hospital to community, primary, social and self-care.

This strategy is therefore intended to ensure that, based on best evidence, value for money and identified BNSSG priorities:

- Patients' experience of care is enhanced;
- The estate supports delivery of intended new models of care;
- Utilisation of fit for purpose existing estate is maximised (Lord Carter targets) with consolidation of activity and sharing of premises where this better meets future needs and supports the delivery of community and primary care based initiatives that would otherwise have required additional capital investment;
- Surplus estate is removed from the system, estate running/operating costs are reduced and estate delivers value for money;
- There is effective future investment in the estate with poorer quality buildings that are no longer fit for purpose replaced with new facilities that can support a wider range of services.

ii. Relevant National Guidance, current estate overview and risks to sustainability

In January 2015, all GP practices were advised of the availability of and opportunity to submit bids against a new primary care infrastructure fund, targeted at increasing capacity in primary care, enabling better access, reducing unnecessary demands on urgent care services and building the foundations for more integrated care.

A key national priority for NHS organisations is that estate should be used effectively. In 2015, Lord Carter of Coles established a number of targets relating to running costs, maximum non clinical floor space, maximum unoccupied or under-used space and facilities management cost of NHS Trusts to be achieved over the next two years.

The 2004 Bristol Health Services Plan 10 year plan which involved wide stakeholder, including public, engagement has led to some significant strategic estates investment, including the development of new community facilities, a reduction in Emergency Departments in Bristol from three to two, closure of an acute hospital site and relocation to a new PFI build at Southmead. However, many of the existing estate locations remain a result of history as opposed to strategic planning and design. Estate is generally well or over utilised (as far as this can be determined at this time) with acute hospitals already operating at or above the capacity of their estate and facing increasing challenge in managing fluctuations in demand. Similarly, some community and primary care premises are operating at or near capacity, although there is also clear evidence of underutilisation of some estate.

Together, the total occupied floor area across the health estate within BNSSG is estimated to be circa 603,000 m2 with a total annual cost of the BNSSG health economy properties of in excess of circa £134m (excluding some Primary Care premises rates, service charges and running costs and currently unknown community estate costs).

Summary of BNSSG Site Types

Site Type	Overview
Primary Care	
Locations 22 North Somerset 57 Bristol Circa 26 South Gloucestershire	Operate from a mix of old and new properties in varying conditions and ownership including freehold and lease often in NHS health centres. Range of conditions from very good in newer properties to very poor with poor functional suitability in older, less well maintained properties. Geographical access to GP practices across the area is generally good. Requirement to consolidate and collocate practices where possible or practical or consider alternative methods of delivery.
Community Services	

<p>North Somerset Community Partnership (operates from circa 17 premises)</p> <p>Bristol Community Health (operates from circa 29 premises)</p> <p>Sirona Care and Health (operates from circa 59 premises)</p>	<p>Operate from a variety of estate including health centres, general practices, NHS PS, Local Authority sites, CHP LIFT and privately owned freehold properties. Range of physical conditions, space utilisation and functionality from very good in newer properties to very poor in older, less well maintained properties.</p>
<p>Mental Health Services</p>	
<p>Avon and Wiltshire Mental Health Partnership NHS Trust</p> <p>Circa 23 Sites</p>	<p>Operate from freehold premises, or under lease arrangements including PFI leases. Properties in generally good condition. Key focus on access, utilising other healthcare estate, optimising PFI premises and releasing leased properties where possible.</p>
<p>Acute Services</p>	
<p>Weston Area Health NHS Trust</p> <p>University Hospitals Bristol NHS FT</p> <p>North Bristol NHS Trust</p>	<p>Operate from a mix of freehold, lease (non-clinical) and PFI and lift lease premises. Physical condition, functional suitability, compliance and quality generally good (A,B or B/C). Focus on de-commissioning and disposal of older estate, improving adjacencies and co-location of key services, expansion of core clinical accommodation, elimination of nightingale ward environments and improvement in the built environment of services.</p>
<p>Clinical Commissioning Groups</p>	
<p>North Somerset CCG</p> <p>Bristol CCG</p> <p>South Gloucestershire CCG</p>	<p>Operate from leased premises</p>

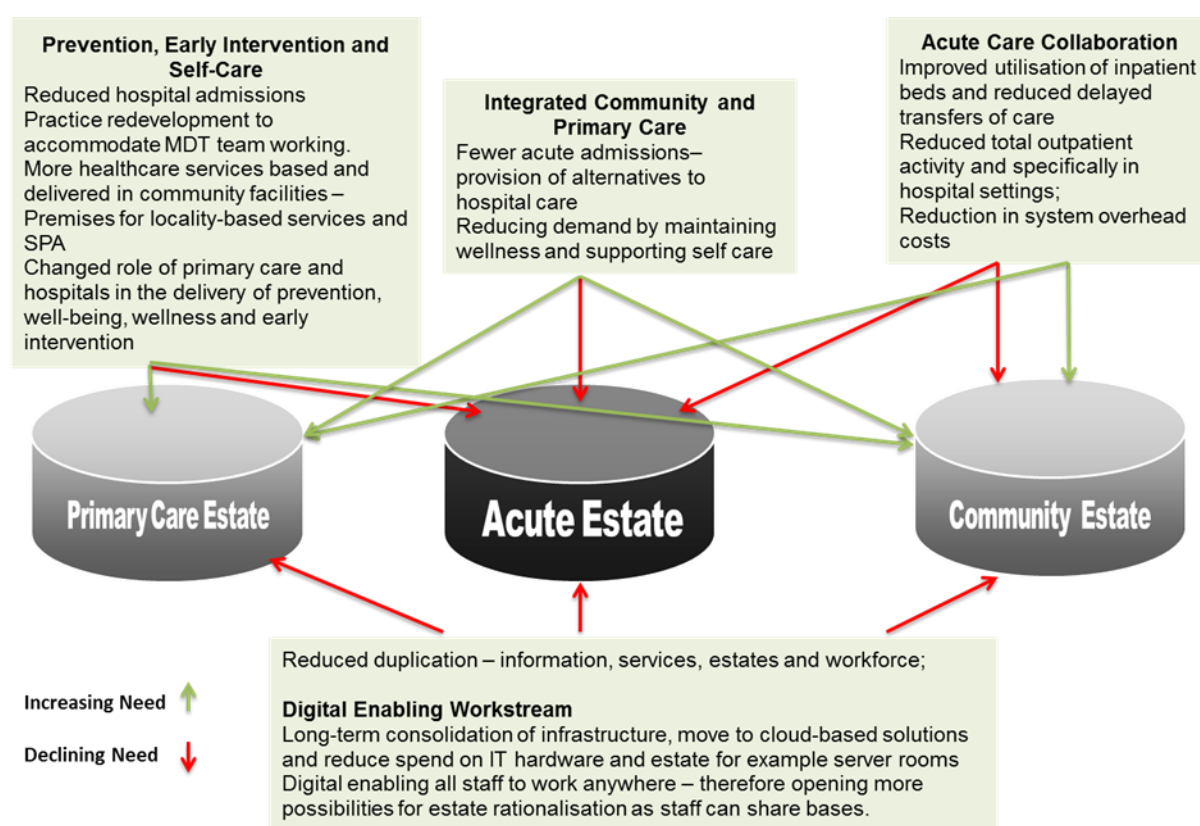
Key risks identified to the sustainability of the estate include:

- Lack of building maintenance, capital investment and poor environmental conditions in some primary and community estate could lead to unforeseen closures, staff being unable to work and a reduction in service delivery;
- Inflexibility of space/estate management leading to increased costs as services take on more space to enable delivery but space becomes underutilised;
- Rising cost of space leading to pressures to reduce occupation with consequent space underutilisation and reduction in service delivery;

- Short termism in estates planning and investment due to service provider change arising from procurement processes and often short term (5 year) contract award;
- Short term local/organisation based decisions potentially compromising longer term efficient use of estate;
- Increasing requirements to rent off site non-clinical/office space to manage flexibility;
- Risk of change of standards, forcing non complaint areas to be downgraded and underutilised.

iii. Key challenges

Overview of impact on estate arising from workstreams



The challenges for the estate of these impacts and the risks identified above (2.4), are that:

- Planning for acute capacity remains challenging. Acute capacity requirements are likely to increase by circa 237 beds in the next five years due to population growth and development of 85,000 new homes (by 2026). However, as the service portfolio with acute Trusts changes in response to new models of care and a national focus on the provision of care in fewer centres, the requirement for acute capacity should decrease and enable the requirement for additional bed requirements to be met within existing capacity;
- Closure of acute capacity is challenging, particularly in the short-term whilst alternative, community or primary care-based schemes are being established. Stranded costs associated with un-utilised clinical space within acute Trusts – a particular challenge taking into account

investment in Private Finance funded estate – will continue to represent a significant cost to the local health economy whether or not it is used;

- Potential investment requirements in primary and community services at a time of limited availability of capital funding are such that simple disinvestment in acute estate and re-investment in primary and community estate is not affordable; nor does it offer best value for money.
- It is essential that utilisation of existing fit for purpose estate is maximised. There is therefore a need to plan and coordinate estate development priorities to ensure that short term imperative does not compromise longer term efficient and effective use of estate.

iv. Proposals for change, links to BNSSG priorities and system benefits

Standardising and Operating at scale and building on existing digital work offers the opportunity to co-locate health, social care, therapies, pharmaceutical staff and potentially diagnostics in real or digitally supported virtual clinical hubs and to support GP practices to more efficiently at scale enabling consolidation or disposal of existing surplus or substandard estate.

In supporting the development of a new relationship with the public and the delivery of the shift of care from an acute setting to primary and secondary and self-care with a reduced dependency on beds, the estate will enable:

- Delivery of the ambition that our population should be treated within the BNSSG footprint;
- Management of the expected increases in demand for acute care over the longer term.

The estates enabling strategy has the potential to release some costs within local health economies by utilising released acute capacity to repatriate some work, including tertiary service delivery, currently being undertaken by the independent sector at higher cost to support referral to treatment constitutional standards.

Developing new relationships between organisations and staff offers the opportunity to;

- Ensure strategic system oversight, cross organisational management and delivery of the estates function, delivering integrated services rather than organisational ambition, ensuring that shorter term investments do not compromise longer-term estate reconfiguration potential;
- Ensure capacity optimisation, avoid stranded costs, reduce lease costs and deliver value for money from the estate;
- Relocate services into fit for purpose premises so improving functionality and working environment for staff;
- Develop managed spaces, centrally monitored and managed, maximising space utilisation and reducing overhead costs;

Developing pathways of care provides opportunities to reduce the rate of capital expenditure growth potentially required in community and primary care premises and to create economies of scale within these services by maximising the utilisation of potentially stranded acute estate in particular and other fit for purpose available premises with the aim of ensuring full utilisation and maximisation of value from the estate.

Short-term Estates priorities (year 1)

<p>Individual organisation responsibilities</p>	<ul style="list-style-type: none"> ○ Continue to ensure that the environment which is used to deliver care to patients: <ul style="list-style-type: none"> ● meets relevant statutory compliance requirements; ● meets the essential standards of quality and care specific to Estates and Facilities Operations required by the CQC; ○ Meet Lord Carter of Cole required efficiency improvement targets; ○ Continue to work with local partner organisations to refine local estates strategies and identify ongoing opportunities arising out of local PLACE workstreams to ensure compliance with requirements of the One Public Estate initiative; ○ Continue to deliver existing estate development and transformation activities including: <ul style="list-style-type: none"> ● Phase 2 of the Southmead PFI project to create a new onsite SSD, additional car parking and new pathology suite (NBT); ● Development of new primary care premises on land vacated by NBT (Sirona); ● Development of a new rehabilitation/health centre on land vacated by NBT (Sirona); ● Replacement and extension to multi-story car park including demolition of flats beyond useful life (UHB); ● Demolition of non-fit for purpose ward (Sirona); ● Move of corporate teams to a new building by end of 2017 (BCH)
--	--

<p>BNSSG responsibilities</p>	<ul style="list-style-type: none"> ○ Establish an integrated workstream to develop a strategic framework for transforming the estate and maintaining system oversight: <ul style="list-style-type: none"> ● establish coordinating governance and capacity management processes to overcome the fragmentation and complexity of health estate ownership and management; ● take into account emerging requirements from clinical workstreams, ongoing local One Public Estate opportunities, development of Local Estates Strategies and the outcome of proposals submitted as part of the new Primary Care Infrastructure fund. ● ensure that short-term local expediency within organisational plans does not compromise longer-term estate reconfiguration potential. ○ Establish a complete set of estates-related data to understand the condition, capacity, cost and constraints of the existing estate to better inform decisions regarding future optimisation;
--------------------------------------	---

v. Medium and longer term priorities (years 2 – 5)

Future estate infrastructure development/realignment proposals will be developed as plans for new models of care delivery mature and will take full account of the opportunities presented by investment in and utilisation of technology rather than buildings to support service delivery.

C.2 STP Workforce Enabling Strategy

i. Vision

Within BNSSG there is a system-wide commitment for a more joined up, co-ordinated, digitally savvy and flexible workforce which delivers increased productivity and meets the changing health and social care needs of the local population. Each of the new models of care described in this STP rely on the requirement to have the right staff with the right skills, values and behaviours in the right place at the right time to deliver respectful, compassionate and expert professional service.

ii. Case for change

As part of the on-going STP planning there will be a requirement to confirm the size and shape of the workforce particularly in the children and adolescent social care services, the SWAFT, the primary care sector (limited data was available) and the voluntary sector – all of which have key enabling roles within the STP. The HEE data provided a baseline as follows:

<p>Workforce excluding non-adult social care is 44,347.</p> <p>Of this there are 2,780 medical staff; 20,567 non-medical and GPs; 21,000 social care staff.</p>

The cost of our workforce is significant and as an indication the costs of the workforce in the three Acute trusts, Mental Health Trust (60% of AWP business) and three of the community providers is as follows¹.

Workforce Costs in BNSSG

Workforce (less agency and bank)	£829,459,279
Bank	£41,001,791
Agency Spend	£52,742,080
Total	£923,203,150

iii. BNSSG Challenges.

The workforce challenges for BNSSG are:

- Retention of key and experienced staff is an issue and this includes clinical and managerial staff across all sectors (social care, primary, community and acute). Staff empowerment and engagement (linked to productivity and retention) is a concern.
- Significant variation in employment offer across organisations and a fragmented approach to the design, development and training of our workforce. Partnership working across existing organisational boundaries is complex.

¹ Not all organisations within the STP were able to provide data within the

- There is a finite supply of appropriately trained and experienced staff within the geographical area and turnover is high. There is a particular issue with GPs and practice nurses.
- There is a prevalence of part time working within the geographical area and this increases costs.
- Recruitment against a number of key specialities is challenging as is offering attractive placements for junior doctors.
- Rising workforce costs including the high costs of temporary staffing and meeting the Weston sustainability challenge.
- Meeting the challenge of the national Apprenticeship levy.

iv. Understanding pressures in General Practice:

Recent findings from the King’s Fund report 2016 ‘Understanding Pressures in General Practice’, huge growth in GP workload, both in volume and complexity are described. The research sample shows a 15 per cent overall increase in contacts, a 13 per cent increase in face-to-face contacts and a 63 per cent increase in telephone contacts. Population changes account for some of this increase, but changes in medical technology and new ways of treating patients also play a role.

Wider system factors have compounded the situation. For example, changes in other services such as community nursing, mental health and care homes are putting additional pressure on general practice. Communication issues with secondary care colleagues have exacerbated GP workload, and increases in workload has not been matched by a transfer in the proportion of funding or staff. As well as this, the number of GPs has grown more quickly than the population but has not kept pace with groups most likely to use primary care (over 65’s and over 85’s). GPs are increasingly opting for ‘portfolio careers’ or part-time work. Only 11 per cent of GP trainees surveyed intend to do full-time clinical work five years after qualification.

At a regional level, two GP Practices have closed in the South west in the past 12 months, nine practice mergers took place during 2015/16, with another seven anticipated in 2016/17.

v. Links to core workstreams

The table below shows the generic impact on workforce of the 5 STP priorities:

BNSSG Priorities	Generic Impact on workforce
Standardise and operate at scale	This will result in changes to where workforce is based and as such the workforce must become increasingly flexible and work across multiple settings. Development of new roles and responsibilities across the footprint area.
A new relationship with our population	Alternative settings for care based on the health and care needs of the individual. Partnership working – particularly targeting areas which are heavy users of health and social care.
A new relationship with organisations and staff	Joint specifications across BNSSG will require not only

	strong System Leadership but common training standards, values and behaviours.
Consistent pathways	Care coordination across the whole pathway requires a workforce committed to cooperation, using shared information and having clear responsibility. There will be a requirement to support and resource joint structures for delivery and accountability across the population. Through care management will lead to some new/developed roles.
A shift to digital	Joint and flexible workforce operating across organisational boundaries Innovation and learning across the system.

vi. Analysis of Workforce Transformation by Care Model workstream

- **Prevention:** Workforce is identified as key to the implementation of a new model of prevention, early intervention and self-care. Specifically:

A joined up team of people working across a range of services, including social workers based alongside primary care.
Wider definition of workforce focussed on this area to include voluntary sector, police, housing, pharmacy, secondary care consultant and social workers.
Non-differentiated workforce across BNSSG with common standards.
Behaviours of the current workforce will be developed to enable prevention, early intervention and self care and to increase appetite for risk.
Better use of voluntary organisations and resources to increase impact and reduce duplication.
Workforce will be able to work at multiple sites through integrated technology.
This also impacts on the configuration of services – for example practices may need to operate at a bigger scale to deploy extended teams and release GP capacity. Secondary care will have a commissioned role to support prevention and early intervention.

- **Integrated Primary and Community Health and Care:** The new model of care will be supported by a flexible workforce that can:

Operate across settings of care, with integrated IT, data and care records and budgets.
Work from care coordination hubs which support the local population and are staffed with multi-disciplinary teams. Delivering new and expanded roles (e.g. advanced practice nursing, pharmacists, physician assistants, more generalist HCA type roles) where additional numbers and higher skill levels are required.
Maximise support from the voluntary and community sector to complement and enhance care and support provided by healthcare and social care professionals.
Deliver a workforce strategy for GPs and other HCPs that supports more sustainable careers and career preferences.
Develop competency frameworks and training for new and expanded health, care and generic roles across services and share training programmes and criteria for trusted assessment.
Develop common culture and values – we will treat staff with kindness and respect so that they feel valued and supported, as we would want to be treated ourselves. Align objectives across the system to build trust.
Strong change management leadership – support our teams through the change so that they embrace the

opportunities and we thrive as a health and care community

- **Acute Care Collaboration.** A new model of care focussed on providing care out of hospital wherever possible, building centres of excellence and joint core capabilities across organisations will require a workforce which is:

Mobile, particularly across the hospital/ community divide.

Not tied to organisation but to capability.

Supported by transformation of some back office functions to allow wider transformation of the system.

Centrally managed in terms of demand and capacity across the whole system and not just individual organisations.

vii. Workforce Transformation- STP Commitments

Workforce transformation takes time, involves complex stakeholder engagement and negotiation, lengthy redesign and delivery of training and it requires strong leadership to ensure that commitment (and therefore retention) is achieved across all specialities. Efficiency benefits realised from workforce are predominantly medium and long term and there is a requirement for some up-front investment in most cases.

Workforce STP Commitments

	Commitment	Comment
1	Improve Health and Wellbeing of workforce	Our workforce as advocates of self-care and prevention in the population. Invest in mental health and resilience and stress training for all staff to reduce sickness, broaden skill sets and improve participation rates. Improve the OH offer for staff, provide a common standard across the workforce, ensuring high quality and value for money. Sharing OH contracts where possible and including primary care. Providing inclusive and non-discriminatory opportunities and supporting employees to raise concerns. Promote healthy lifestyles amongst staff through workplace health initiatives. Medium term return on investment through reduced sickness rates, lower turnover, increased engagement.
2	Shared Recruiting and Training	Sharing recruitment and training functions where practicable. Includes shared DBS, assigning leads for particular functions (recruitment, statutory/mandatory, digital and leadership training etc. Re-focus on core skills framework/minimum training standards. Whilst ensuring better development prospects for clinicians and managers, better peer support and mentoring. Enabling staff rotations, flexible retirement and improving retention. Provide a common offer and banding harmony across organisations – including medical and locum costs. Pooling expertise where appropriate. Achieve reduction in temporary staff costs and drive down agency

		<p>supported by shared bank. Demonstrate effective use of E-rostering for nurses, midwives, HCAs and other clinicians as part of showing greater consistency between financial and workforce plans in 16/17. Commissioners to direct community providers to train care home and domiciliary staff to a shared standard include acute and mental health in the dialogue. Short term return through reduction in duplication and also increasing consistency and standards (quality).</p>
3	STP Collaboration on the National Apprenticeship Levy	<p>Provide a sector wide Apprenticeship collaboratively. Optimising the national offer through sharing of training and mentoring and avoiding external training costs.</p>
4	Create a Common Culture	<p>“We work for BNSSG” Create a common culture (including lexicon) around ways of working, patient assessments, policies etc. Orientation away from organisations into sector. Developing the caring culture, professional commitment and strong leadership across the STP to best serve patients. Ensuring that care {and therefore workforce} is joined up and well co-ordinated. Including with primary and community care providers working together to deliver locally available integrated multi-disciplinary care that maintains and promotes independence, health and well-being. Ensure and establish staff engagement in all aspects of workforce transformation including rapid improvement events, with nominated leads for different aspects Developing new roles to support new models of care including ‘expert generalists’ within Multi-speciality Community Providers (MCPs), associate nurses, physician associates, community paramedics and pharmacists in general practice. Medium term benefits through improved staff experience and reduced turnover and increased participation.</p>
5	Making Every Contact Count	<p>Supporting the Prevention, Early Intervention and Self Care agenda through promoting ‘Making Every Contact Count’; with training for frontline staff in brief interventions around specific lifestyle issues such as alcohol and smoking. Health coaching. Supporting self care through training and on-going support for primary care and community teams in effective goal setting and encouraging self-care. Providing comprehensive multi-disciplinary assessments, enabling a holistic approach, and using home based, “care navigators”. Delivering an urgent and emergency care system that delivers measurably high quality care, by the person with the right skills, in the right place, first time. Integrate the health and social care assessments through broadening the tools and developing protocols. Short and medium term benefits through hospital admission avoidance. Reducing duplication.</p>

viii. Action Plan – next 6 months

Immediate Actions for STP Workforce

- Complete baseline data collection
- WRaPT modelling of STP
- Write PID for Workforce programme and assign project leads.
- Develop workforce programme board

C.3 Digital Enabling Strategy

i. Introduction

We are in the midst of a digital revolution. In the last 20 years, the way we live our lives, support our recreation and leisure, read and share news, shop, bank and communicate have changed beyond all recognition.

Our ability to operate efficiently, share information, support our fellow humans and develop society is now a 'digital first' activity for most of the population. In Bristol, North Somerset and South Gloucestershire we have a rich and impressive heritage of digital vision and delivery. Our 2016 Local Digital Roadmap is not simply a point in time assessment of 'what to do next' but a continuation of a long and proud journey.

We do not believe that our digital roadmap programme is about automating existing processes or making it go more quickly - rather it is an opportunity to change how we work fundamentally by doing things differently and working together differently.

Our Local Digital Roadmap was produced through a series of workshops and with close engagement of Executive Director, Programme Director, Chief Information Officer and Chief Clinical Information Officer level representatives from all the STP partners. Since April, leads for the Local Digital Roadmap have also attended STP Project Group meetings and workshops to define and develop the overall STP scope and plans in order to align digital within them.

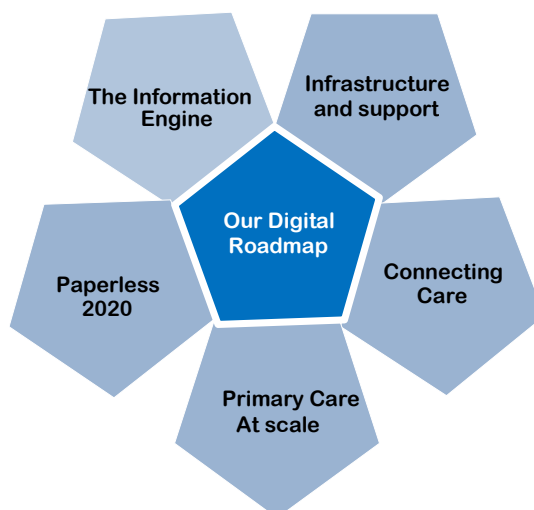
The first edition of LDR was first endorsed on 21 June 2016 by our Connecting Care Programme Board, before being endorsed again as an annex to the STP on 27 June by the System Leadership Group.

ii. Vision

The Local Digital Roadmap vision has been drawn from the Connecting Care Vision, whose core principles and ambitions remain relevant and applicable in describing a vision for the future in delivering change driven by a channel-shift to digital ways of working.

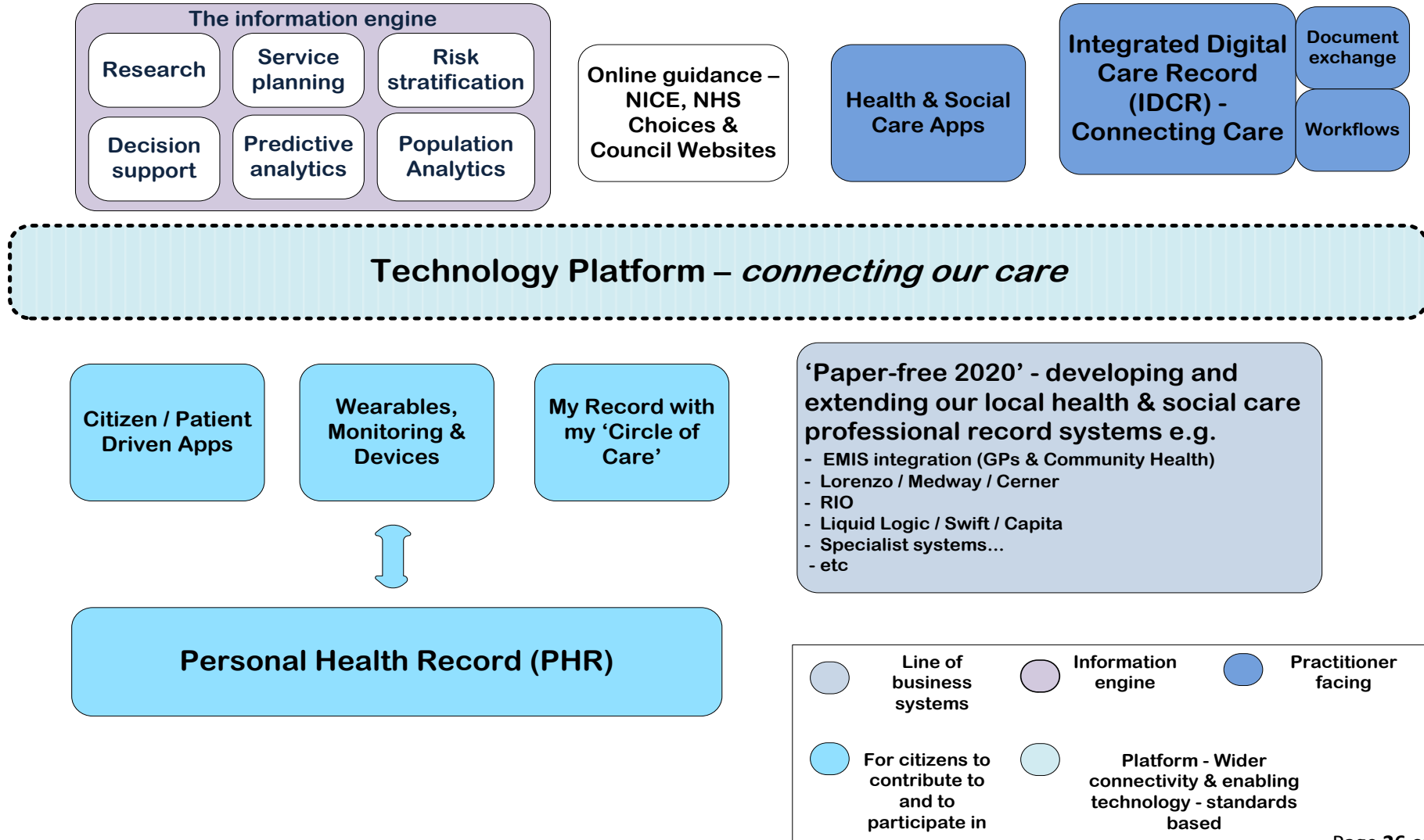
The ability to operate efficiently, share information and support our fellow humans and develop society is now a **digital first** activity for most of the population and we aim to drive this attitude into all aspects of health and social care. We shall deliver this through our five key building blocks:

STP Digital Building Blocks



1. **Primary Care at scale** – focus on maximising digital across GP practices and Out of Hours services.
2. **Paperless by 2020** – Embedding digital records in acute, community, mental health and social care.
3. **Connecting Care** – Information sharing to include putting citizens at the heart of their ‘personal health records’.
4. **The Information Engine** – fully utilising our electronic data to power our planning and delivery engine.
5. **Infrastructure and support** – ensuring we do all of the above on a solid, efficient infrastructure and delivery mechanism.

Bristol, North Somerset & South Gloucestershire - Digital 2020 – Connecting our Care



iii. Driving delivery of the Local Digital Roadmap and the STP models of care

We have closely aligned the formation of the Local Digital Roadmap priorities with the key areas of the STP, as well as closely linking it to the national needs from the Local Digital Roadmap (Universal Capabilities) and the domains and workstreams of the National Information Board.

Our digital work	Our STP priorities	Universal Capability Alignment ²	NIB Domain	NIB Workstream		
				National	Both	Local
Primary Care At Scale	1 2 3 4 5	②③⑨⑩	A C F	1 20		8 9 10 11 12
Paperless 2020	3 5	① ② ④⑤⑥⑧⑨	A B D E G		17 18 20 21	5 6 7 13 15 19 22 23
Connecting Care (& PHR)	2 3 4 5	① ② ④⑤⑥⑦⑧	A D G	1 2	3 4	13 14 15 16
Information Engine	1 4 5		C I H	25	26 27	12 18
Infrastructure & Support	1 3 5		A B G I J	28 29 30 33	24 32	14 31

Specifically the work of the Local Digital Roadmap will drive change in the STP areas of:

Prevention, Early Intervention and Self-Care

- Start the Person Held Record (PHR) journey and extend the Connecting Care platform to include citizen access and ownership. This is a key area of focus and one that we think will be a potentially massive lever in terms of how “ownership” of care shifts.
- Develop the use of PHR to enable communications with ‘my circle of care’ to support early interventions and self-care.
- App development and telehealth – “prescribing of apps” and driving the use of remote consultations; understanding their role in the PHR. Exploring the use of real time and robust sensors, monitoring / alerts to enable people to live at home well.
- New platforms to support information being used for decision support and artificial intelligence to transform our services.

²These Capabilities are:

1. Professionals across care settings can access GP-held information on GP-prescribed medications, patient allergies and adverse reactions.
2. Clinicians in urgent and emergency care settings can access key GP-held information for those patients previously identified by GPs as most likely to present (in U&EC)
3. Patients can access their GP record.
4. GPs can refer electronically into secondary care.
5. GPs receive timely electronic discharge summaries from secondary care.
6. Social Care receives timely electronic Assessment, Discharge and Withdrawal Notices from acute care.
7. Clinicians in unscheduled care settings can access child protection information with social care professionals notified accordingly.
8. Professionals across care settings made aware of end-of-life preference information.
9. GPs and community pharmacists can utilise electronic prescriptions.
10. Patients can book appointments and order repeat prescriptions from their GP practice.

Integrated Primary & Community Care

- Supporting the ongoing use of digital *best practice* within primary care – coming up with standards and rolling them out.
- Interoperability – through EMIS Web and Connecting Care to enable real time information capturing and sharing to transform staff working, ensuring the patients/citizens receive greater quality of care.
- Infrastructure – through mobile working, all staff can work in all sites with all their digital hardware and software driving productivity and financial benefits for the system.
- Real time data and decision support – digital management of flow across the BNSSG system and providing intelligence to transform our services.

Acute Care Collaboration

- Fuller, richer and more contemporaneous electronic record keeping, held in fully interoperable systems.
- Delivering Paperless 2020 – our services becoming truly paper-free at the point of care. Full plans for this are described in more detail in our Capability Deployment Schedule held in our Local Digital Roadmap.
- Real time data and decision support – digital management of flow across the BNSSG system and providing intelligence to transform our services.

iv. Driving delivery of the Local Digital Roadmap and the STP enablers

Digital will also drive change in the other “Enabler” workstreams

Estates

- Long-term consolidation of infrastructure, opportunities to reduce estate. In our Local Digital Roadmap we commit to exploring and developing system wide initiatives when rationalising estates. This includes moving to cloud-based solutions and reducing spend on IT hardware and estate for e.g. server rooms, help desks.
- Digitally support the consolidation of estate across the system by enabling all staff to work anywhere – therefore opening more possibilities for estate rationalisation

Workforce

- Digital will provide recruitment specifications and training support to ensure that we are recruiting and developing a “digital savvy” workforce across BNSSG.
- The programme will drive culture change for a complete “channel shift” to digital ways of working. Partner organisations have committed to ensure that use of digital solutions is not a choice but the default and becomes “the way we do things round here”

v. Conclusion

The Local Digital Roadmap therefore is all encompassing with the STP. The Local Digital Roadmap takes pride of place in already demonstrating that the BNSSG are very capable collaborators and that we can work together across the system when we commit to doing so. But so far we have only just scratched the surface with the potential of what can be achieved.

To see our plans to start reaching this potential then see annex A which provides the BNSSG Local Digital Roadmap.

The BNSSG Local Digital Roadmap will give further detail than listed here in the following areas:

- Commitment to Partnership working
- More detail on the strategic context
- Our Vision in full
- Baseline Position
- Recent and Current achievements in the areas of the five key building blocks.
- How we work together now and moving forwards, including detail on investment; benefits and change management, as well as our governance processes.
- Digital programme in full as detailed in the Capability Deployment Schedule and Universal Capability Delivery Plans.
- Our work on sharing information and agreement of standards.
- Developing our infrastructure
- Managing risk

C.4 STP Finance and BI Enabling Strategy

i. Approach

The case for change was developed as follows:

- The Directors of Finance (DOFs) and Chief Financial Officer group across the footprint developed the high level financial plan, including identifying the key drivers of cost.
- The Business Intelligence work stream collated information across the footprint to benchmark our position as a system to inform analysis of the efficiency and the care and quality gap, building on and interrogating the national STP packs and using Right Care commissioner information and relevant provider benchmarking.
- The Rubicon model was commissioned to construct the activity baseline “do nothing” position to feed the financial model, to test the impacts of our proposed solutions to close the gap and to assess system affordability and impact on the do nothing baseline.

ii. Output - Section 1: Finances

The approach and methodology

1.1 Membership

Finance Directors and Chief Officers have been meeting for three months to support the STP process pro- actively.

1.2 Methodology

- Undertake a comprehensive stocktake of the 2015/16 outturn and 2016/17 plan position for all bodies;
- Assess the underlying position and document the drivers for any declared underlying deficit;
- Document the medium term financial plans for the period 2017/18 – 2020/21 including underlying positions, inflation, cost pressures, savings, activity growth, sustainability funding, cost of activity and other factors specific to individual organisation. Recurrent and non-recurrent cost analysis was included; and
- Use this analysis to populate the NHS England / NHS Improvement templates using the “do nothing / do something” approach advocated. The two presentations have been fully reconciled.

1.3 Assumptions Used

For Providers

- Inflation at 2% from 2017/18 onwards;
- National efficiency requirement of 2% pa from 2016/17 to 2020/21;
- Cost pressures of 0.5% pa require an additional level of savings; and

- General assumption that changes in activity require 100% cost of delivery – however the potential savings section subsequently includes a revision to include a cost of delivery at 90%.

For Commissioners

- CCG and NHS England Allocation assumptions including growth and distances from target were published in January 2016 for the period 2016/17 to 2020/21, the first three years are fixed, the final two years are indicative.
- The accumulated commissioner Resource Accounting and Budgeting (RAB) outstanding on exit of 2016/17 is a net £26.5m, this is not considered in the financial savings plans.
- CCG expenditure plans include national expenditure growth assumptions for demographic growth, tariff price inflation, non-demographic activity and quality cost pressures and nationally mandated priorities.

1.4 Additional analysis undertaken

- Productivity opportunities using reference costs showing all specialties with an RCI over 100 for Acute and Mental Health Providers;
- No financial productivity information was available for Community and Primary Care.
- Corporate overheads and clinical support cost analysis for all organisations (Excluding NHS England) by functional area using normal categorisation of costs.

2. What is the financial position?

2.1 The financials of the footprint as described by DoFs

2.1.1 Footprint Financial Plans

The financial plans of the footprint as described by DoFs are summarised below. The CCGs positions exclude RAB.

The 2020/21 BNSSG footprint deficit is £41.5m.

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
	Actual	Plan	Plan	Plan	Plan	Plan
Surplus / (Deficit)	£'m	£'m	£'m	£'m	£'m	£'m
Providers						
University Hospitals Bristol NHS FT (UHB)	3.5	14.2	6	5.7	5.9	7
North Bristol NHS Trust (NBT)	-51.6	-39.5	-39.5	-39.5	-39.5	-39.5
Weston Area Healthcare NHS Trust (WAHT)	-7	-3.2	-8.8	-9	-9.3	-9.6
Avon & Wiltshire Mental Health Partnership (AWP)	0.1	0.1	0.1	0.1	0.1	0
South Western Ambulance Service (SWAST)	0	0	0	0	0	0
Community Interest Providers	-0.2	-0.8	-0.6	1	0.8	0.5
Sub-total Providers	-55.2	-29.2	-42.8	-41.6	-41.9	-41.5
Commissioners						
Bristol CCG	5.7	-2.2	1.9	2	2.3	0
North Somerset CCG	-13.6	-13.7	-10	-7.2	-3.8	0
South Gloucestershire CCG	-9.3	-6.5	-7.2	-3	0	0
NHS England (Specialised Commissioning)	0	-0.5	0	0	0	0
NHS England (Mandated Primary Medical Care)	0	0	0	0	0	0
Sub-total Commissioners	-17.2	-22.9	-15.3	-8.2	-1.5	0
Total Organisational Financial Plans	-72.4	-52.1	-58.1	-49.7	-43.4	-41.5
Convert to 2020/21 "Do nothing"						
Remove sustainability funding assumed (UHB only)						-13
Remove CIP/QIPPS 2016/17 to 2020/21						-361
Total BNSSG "Do nothing" Position						-415.5

The underlying deficit at the end of 2015/16 has been assessed at £94.2m. This included £32.5m of non-recurrent mitigating actions and the repayment of the net CCG historic debt (RAB) of £10.3m. The net RAB repayment in 2016/17, as a consequence of the 2015/6 outturn, is £17.2m rising to a forecast £26.5m in 2017/8, this is in addition to the recurring savings challenge. By 2020/21 the footprint recurring deficit position is £41.5m.

The drivers for this system deficit are shown below:

- North Bristol Trust - £39.5m deficit (excluding performance fines of £8.5m) – the declared drivers are:
 - Additional costs of PFI - £20m
 - Impact of contractual levers CQUIN - £1.5m
 - Income shortfalls - £10m
 - Balance due to activity / emergency pressures - £8m

- Weston - £9.6m deficit
 - Due to clinical sustainability issues as already recognised from previous and current reviews.

2.1.2 Recurring Savings Requirement

The level of savings required to deliver the financial plan described in section 2.1 are shown in the table below:

	Recurring CIPs and QiPPs					Total
	2016/17	2017/18	2018/19	2019/20	2020/21	
	Plan	Plan	Plan	Plan	Plan	Plan
CIPs / QiPPs	£'m	£'m	£'m	£'m	£'m	£'m
Providers						
University Hospitals Bristol NHS FT (UHB)	17.4	11.5	11.9	12.2	12.6	65.6
North Bristol NHS Trust (NBT)	22.0	14.7	12.4	12.9	17.8	79.8
Weston Area Healthcare NHS Trust (WAHT)	4.1	2.4	2.4	2.6	2.7	14.2
Avon & Wiltshire Mental Health Partnership (AWP)	3.4	2.0	1.9	2.0	2.3	11.6
South Western Ambulance Service (SWAST)	0.0	0.0	0.0	0.0	3.8	3.8
Community Interest Providers	0.9	4.9	4.2	2.8	3.0	15.8
Sub-total Providers	47.8	35.5	32.8	32.5	42.2	190.8
Commissioners						
Bristol CCG	26.9	10.7	10.8	10.0	9.6	68.0
North Somerset CCG	5.2	7.2	7.2	7.2	6.0	32.8
South Gloucestershire CCG	10.9	7.0	7.0	6.1	0.0	31.0
NHS England (Specialised Commissioning)	9.8	7.8	8.1	9.1	10.4	45.2
NHS England (Mandated Primary Medical Care)	0.0	0.0	0.0	0.0	3.7	3.7
Sub-total Commissioners	52.8	32.7	33.1	32.4	29.7	180.7
Grand Total	100.6	68.2	65.9	64.9	71.9	371.4

Note – The 2016/17 planned savings position include £10.6m non-recurring savings.

2.2 'Do Nothing' and 'Do Something' Position

2.2.1 'Do Nothing' Analysis

To convert the above position to 'Do Nothing' the net income and expenditure position is 'grossed' up by removing the sustainability funding assumed and the savings plans. This is shown below:

	Providers	Commissioners	Total
Savings requirement	£m	£m	£m
Organisation Deficit	41.6	0.0	41.6
Remove STF (UHB £13m)	13.0	0.0	13.0
2016/17 CIP/QIPP	45.7	44.3	90.0
2017/18 CIP/QIPP	35.5	32.7	68.2
2018/19 CIP/QIPP	32.8	33.1	65.9
2019/20 CIP/QIPP	32.5	32.4	64.9
2020/21 CIP/QIPP	42.2	29.8	72.0
Total - Savings requirement	243.2	172.3	415.5

Note – The 2020/21 savings requirement of £72.1m includes £0.2m of non-recurring savings.

2.2.2 'Do something' solutions

The £416m 'Do Nothing' deficit can be tackled by measures which range from routine savings, receipt of sustainability funding to major transformational changes. The summary below describes a footprint wide plan for this using a number of measures. It needs to be recognised however, that the savings for future years are not worked up and are in effect, only opportunities which will need to be agreed as appropriate, developed in detail and finally implemented. This should also be subject to risk assessment using normal processes both in terms of delivery and the impact on clinical services.

The assessed level of potential savings delivery and opportunities are show below:

Delivery	Solution per Excel submission	Status per Excel submission	Providers £m	Commissioners £m	Total £m
2016/17 identified schemes	Solution 1 & 3	b	(45.7)	(44.3)	(90.0)
1% Business as usual savings	Solution 2 & 4	e	(54.8)	(10.0)	(64.8)
RCl Benchmarking / Carter (estimate)	Solution 5	d	(100.0)	0.0	(100.0)
Corporate costs / % reduction of 10%	Solution 6	d	(10.0)	(2.0)	(12.0)
Margin on net activity growth @ 10%	Solution 7	d	(7.0)	0.0	(7.0)
System Transformation savings (risk assessed at 50%)	Solution 8	d	0.0	(20.0)	(20.0)
Subtotal - Delivery			(217.5)	(76.3)	(293.8)
Sustainability & Transformation Funding			0.0	(61.0)	(61.0)
Unidentified			(27.7)	(35.0)	(60.7)
Total			(243.2)	(172.3)	(415.5)

Key

b = Detailed plans in place but not all elements or organisations

d = Savings estimate based on baseline modelling and the potential size of the prize

e = No detailed plans in place yet

As can be seen c. £61m of the £416m deficit is unidentified. However, the measures shown all need to be worked up in detail with only 2016/17 identified schemes being able predominantly to be relied upon.

2.2.3 Description of 'Do Something' measures

2.2.3.1 2016/17 identified schemes - £90m

These schemes are included in current organisational financial plans – these are subject to risk assessment at various levels in organisations.

2.2.3.2 1% 'Business as Usual' - £65m

The assumption that 1% savings can be generally delivered through normal processes feels a relatively realistic approach.

2.2.3.3 Benchmarking / Carter Savings - £100m

The Carter work focuses on 'unwarranted variation' - essentially this means benchmarking. For the purpose of this report, the prime source of benchmarking data remains the National Reference Cost Index (RCI). The latest data available is for 2014/15. The table below shows a summary of the RCI data for the provider organisations in our footprint, UH Bristol, NBT, Weston and AWP. No easily accessible data is available for the Community providers and Commissioners.

The analysis has been filtered to show the following;

- All speciality lines with actual cost over £100k where the RCI is over 100 (i.e. national average)
- A total cost submitted for the whole organisation
- A total for all specialty lines with a RCI of over 100 – to show scope for productivity improvements

The results can be summarised as follows:

	UHB	NBT	Weston	AWP	TOTAL
Costs submitted to National Reference Costs	£443.0m	£472.0m	£95.0m	£177.0m	£1187.0m
Overall organisational RCI	98	113	108	128	
Excess costs for specialties over 100 RCI	£27.0m	£68.0m	£11.0m	£48.0m	£154.0m

More work on benchmarking is needed taking into account the other sources of benchmarked data including:

- National Reference Costs Financial Group
- Lord Carter model hospital Financial Group
- PCB Albatross Financial Group

The £154m shown has been reduced to an estimate of £100m which seems a relatively realistic assumption, particularly with AWP's savings needing to be attributed to other footprints.

It needs to be noted that identifying opportunities for such savings is relatively easy but converting them into cash savings is far harder. To deliver this requires transformation in the delivery of those services rather than a simple cost reduction approach.

2.2.3.4 Corporate Costs – reduction of 10%

An analysis of corporate costs for the whole footprint (excluding NHS England) and clinical support costs has been undertaken at a functional level. The results show that the footprint spends c £120m on corporate costs and c £65m on clinical support costs. These costs need to be finalised and

reviewed with a view to realising real savings either from sharing services or organisational change. A target of 10% saving on corporate costs is conservative.

2.2.3.5 Activity Growth

The levels of activity growth are still subject to verification but an assumption of margin of 10% has been made on increased acute activity of c £120m. This will need to be re-assessed in light of the system schemes designed to reduce activity. However, to do this the net analysis by speciality is required and this has not yet been undertaken in detail. The saving has therefore been reduced to allow for the system transformation schemes that should reduce/mitigate the £120m income growth by c.£50m leaving a net £70m growth on which the 10% margin is applied.

2.2.3.6 System Transformation Savings

The system transformation savings have been created in ‘first cut’ form. They require further analysis and risk assessment. The current version of the Finance and Activity Model provided by Rubicon shows a gross saving of £59m with an assumed re-provision at 40% therefore a net saving of £39m. For the purpose of this report a 50% risk assessment has been applied. Therefore a c. £20m net saving is assumed. The schemes will require detailed work up and risk assessment including phasing over the period of the STP. This work will commence in July 2016.

2.2.3.7 Sustainability Funding

Sustainability funding of £61m has been notified by NHS England. This is in excess of the potential sustainability fund of £32m available in 2016/17. Whether this funding will be able to be applied towards organisations savings requirements remains unclear.

3. The Way Forward

System Deficit

The system deficit (defined in 2020/21) of £41.5m needs to be seen in the context of turnover.

2020/21	Deficit £'m	Turnover £'m	Percentage
Providers	(41.5)	1,611.0	-2.6%
CCGs	0.0	1,701.0	
Footprint Total	(41.5)	3,312.0	

It is clear that the real solutions involve the following key features

- NBT – a combination of recognising the unavoidable excess cost of the PFI combined with a resolution of the residual deficit cost reduction through productivity / benchmarking and improvements to the system to minimise DTOC etc.
- Weston – changes to the clinical configuration to enable specialties to operate in links to other acute services to avoid cost levels associated with clinical services which operate below a viable scale of provision.

The system transformation schemes identified do not resolve fully the issues described above but are essential to ensure the projected level of demand in the footprint can be managed – in particular by ensuring patients do not access Acute Services where they do not need to and ensuring that scarce capacity in Acute Services (workforce and buildings) is used where it is needed. This avoids acute demand outstripping the supply of capacity and potentially leading to clinical risk and cost premiums.

iii. Output - Section 2: Activity benchmarking

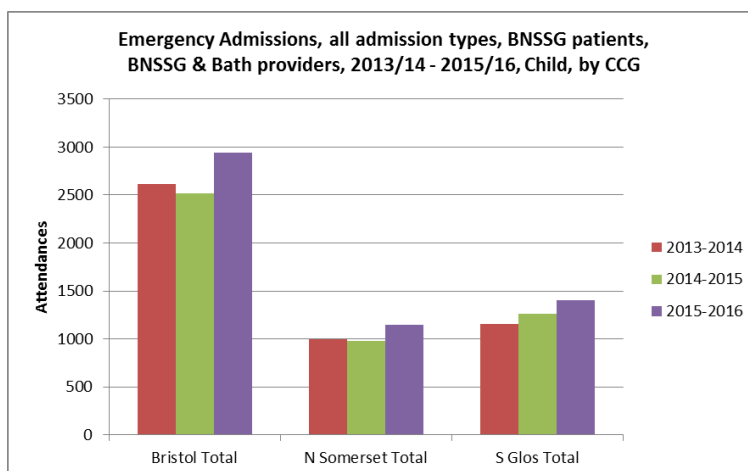
1. Activity

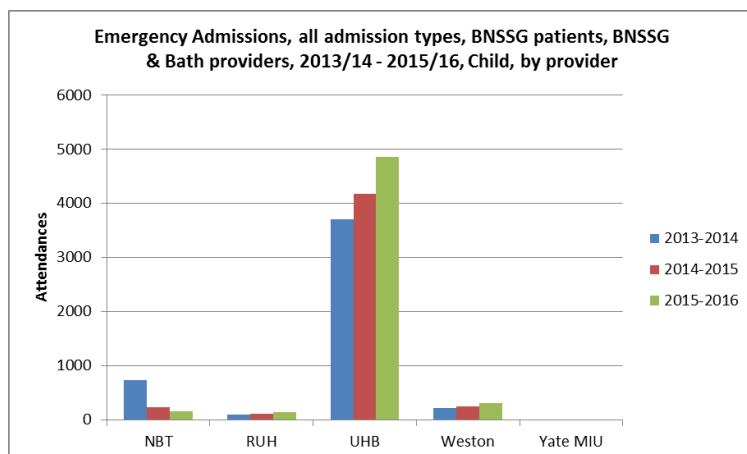
1.1 Trends

Generally, the system wide BNSSG activity trends are not showing marked increases or decreases, masking within that peaks and troughs and variation within particular groups of patients. There has been a steadily increasing number of emergency admissions. A&E attendances across the system as a whole have remained relatively flat but there is a very slight decrease showing for South Gloucestershire CCG population.

There are, however, considerable capacity issues and an impact on the ability to deliver elective performance and A&E performance.

Within the above trend, there has however been significant growth in paediatric emergency activity over the past 3 years. This has been seen in both emergency attendances and admissions and predominately relates to the Bristol CCG population and UH Bristol as a provider.



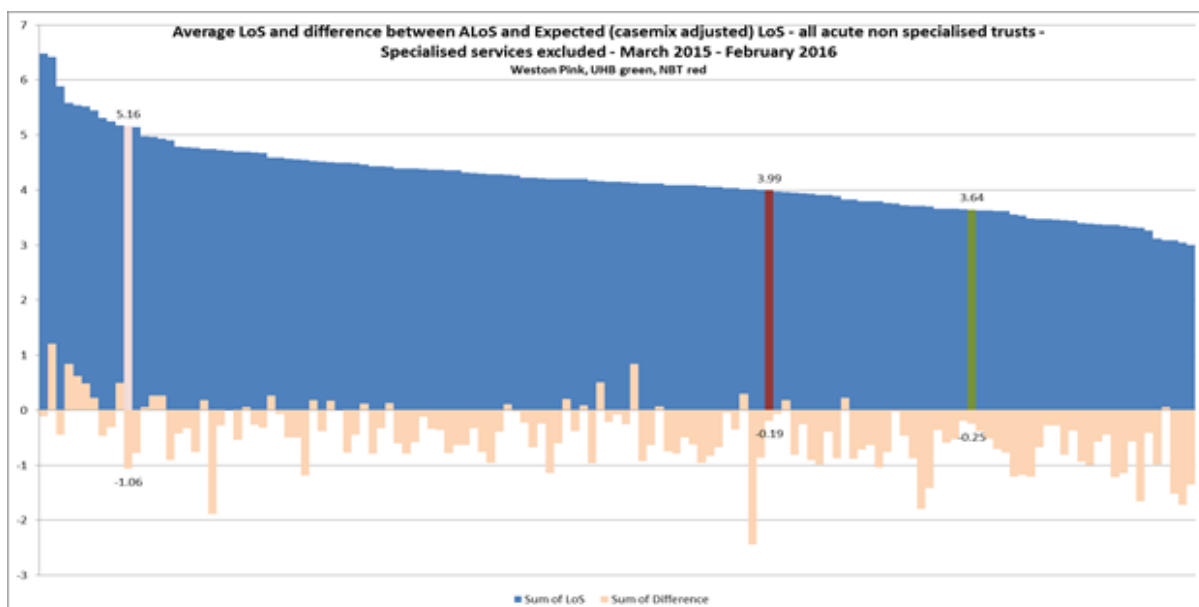


1.2 Urgent and emergency care

The greatest challenge in terms of delivering Constitutional Standards across the STP Footprint is in relationship to the 4 hour standard.

The average length of stay for all three trusts is less than their case-mix adjusted expected length of stay. Weston is more than a day less, while both UHB and NBT are just under or at a quarter of a day less than expected.

1.3 Non-Elective Length of Stay



North Somerset CCG has the greatest challenge in relation to DTOCS but Bristol CCG is also challenged. The providers most affected are Weston AHNHST and AWP. Each of the two acute hospitals has a similar proportion of DTOCs. Bristol CCG population has the biggest opportunity to reduce emergency bed days for its residents.

The table below demonstrates the bed day opportunity associated with delayed discharges. The data considered is the national DTOC data and the full potential opportunity using the acute Trust internal databases (G2G/LHPD).

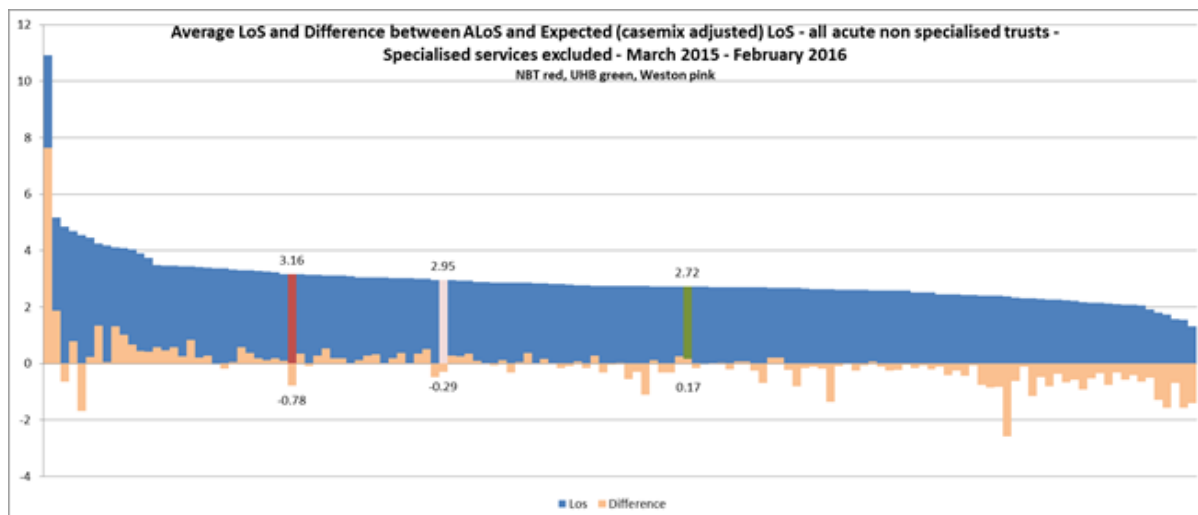
	Scenario 1 DTOC	Scenario 2 Acute view - G2G/MFFD
NBT	16949	45888
UHB	18322	38816
Weston	3165	14228
AWP	5649	5649 (at DTOC)
TOTAL	46569	104,581
Beds (at 92% occupancy)	138	309

Benchmarked admissions for urgent care sensitive conditions is high for Bristol CCG and increasing in all 3 CCG areas. Admissions for ambulatory care sensitive conditions increased in South Gloucestershire in 2015 but offers opportunity throughout BNSSG for improving models of care in the community to keep people at home and prevent admissions. Deaths in hospital could also be reduced although North Somerset residents experience is better than elsewhere.

1.4 Elective care

Referral to treatment incomplete pathways - patients waiting 18 weeks or less from referral to hospital treatment is a significant issue within for the health economy and in particular for NBT. The day case rate for NBT is in the worst quartile, Weston the best quartile, UHB is below average but not significantly

For elective admitted care both NBT and Weston are in the top half of average length of stay compared to English acute non specialised trust. However, when case-mix adjustment is taken into consideration both these trusts have a length of stay less than expected, NBT 0.78 days less and Weston 0.29 below. UHB in contrast have a lower length of stay but have a higher length of stay than expected when adjusted for case-mix. See below:



By CCG the areas of concern in relation to RTT delivery are similar and the specialities are:

- cardiology;
- gastroenterology
- general surgery;
- neurological problems and neurosurgery;
- Trauma and Orthopaedics

Urology and thoracic medicine as specialties are starting to show issues from a commissioner perspective.

From a provider perspective, gynaecology and oral surgery at UHB are also issues. Gastroenterology, neurology; Trauma and Orthopaedics are an issue for both UHB and NBT.

Spend on private and independent sector providers on behalf of the BNSSG population, is notably high in Trauma and Orthopaedics. The table outlines that £14.6m was spent on elective orthopaedics in the private and independent sector in 2015/2016.

	Sum of Spells		Sum of Cost inc MFF		Total Sum of Spells	Total Sum of Cost inc MFF
	CCG	non-CCG	CCG	non-CCG		
EMERSONS GREEN NHS TREATMENT CENTRE	1,925		6,734,474		1,925	6,734,474
SPIRE BRISTOL HOSPITAL	1,173	1	4,975,648	2,563	1,174	4,978,210
CIRCLE BATH	339		1,311,026		339	1,311,026
SOMERSET SURGICAL SERVICES	232		367,811		232	367,811
NUFFIELD HEALTH, BRISTOL HOSPITAL (CHESTERFIELD)	225		788,744		225	788,744
BMI - BATH CLINIC	126		275,932		126	275,932
SHEPTON MALLET NHS TREATMENT CENTRE	49		225,364		49	225,364
				TOTAL	4070	£14,681,561

Generally BNSSG acute providers first to follow up ratios are good and they have better than average DNA rates. However, ophthalmology, T&O, ENT show some opportunity across all CCGs for reducing activity in outpatients.

Cancer

There is an ongoing challenge around delivering the first definitive treatment for cancer within 62 days of referral. UHBristol are particularly challenged in the delivery of 62 days because of the specific portfolio of tumour sites they deliver. There is also, however, an opportunity to off-set underperformance in complex pathways with delivery above the 85% standard in urology in NBT.

Diagnostics

Access to key diagnostics within 6 weeks is a problem for colonoscopy, flexi sigmoidoscopy, sleep studies and gastroscopy. NBT performance is the most challenged.

Mental health

IAPT recovery rate is lower for Bristol residents but improving. The dementia diagnosis rate is good for Bristol residents and North Somerset requires improvement. In 15/16 there were 3662 dementia related admissions in BNSSG.

End of life care

Currently there is a differential across BNSSG but if we were to move to the North Somerset position we would see fewer than 39% of people die in hospital. This is closer to the 29% of people who would prefer to die in hospital rather than at home. Local work in North Somerset has demonstrated that emergency hospital admissions in the last month of life were 51% lower amongst those who received a “Delivering Choice” option, the care coordination centre being the most effective element. In BNSSG there were 2253 emergency admissions where the patient died in hospital

1.5 Frailty services and care homes

The ECIS review of the frailty pathway in North Bristol states that people over 85 years account for 25% of bed days and that the same cohort of patients tend to spend around 8 days longer in hospital than those under 65 – 11 days compared to 3. Areas with integrated services for older people have lower rates of bed use, lower rates of admission and deliver good patient experience.

Quality watch published data (January 2015) which showed that people in care home postcodes account for 13.4% of over 75 admissions, this is 13.74% for BNSSG. In the BNSSG footprint, in 2015/16, there were 3978 admissions and 4909 attendances at ED from care home.

A frailty team model in Ashford and St Peter’s Hospitals NHS Foundation Trust (2013) achieved between 35% and 50% reduction in admissions from care homes. Local work underway in BNSSG suggests that this could be replicated.

1.6 Specialised commissioning

The provider template for 2016/17 will be based on agreed contracts and QIPP plus aligned other budgets (such as RTT and contingency) as already provided. The CCG template will be based on:

- Income: CCG/STP Specialised Commissioning allocations
- Expenditure: Specialised Commissioning Plans attributed to CCGs using the 2014/15 spend analysis to identify spend per head, and applying this spend per head proportionately to the 2015/16 population and 2015/16 actual spend.

(The above (for 2016/17) will be calibrated to the plan without (do nothing- deficit £146.7m) and with (BAU) QIPP of £143m (deficit £3.7m) across the South.

Note that the CCG spend (and overspend) are attributed entirely to South STPs, and the Provider spend/overspend is attributed entirely to the STP in which it sits- there are no inflows/outflows of spend/over/underspend. This is the agreed (with NHSI and NHSE) methodology.

It is noted that there is a reasonably high level of specialised activity undertaken out of the region and most notably at a higher cost to the commissioner in the London.

The table below outlines, for 14/15 the value of Specialised activity treated in London Trusts.

Provider Name	Sum of 1415 Total Costs
Frimley Park Hospital NHS Foundation Trust	21,760
Barts Health NHS Trust	90,458
East London NHS Foundation Trust	7,561
Epsom And St Helier University Hospitals NHS Trust	5,762
Great Ormond Street Hospital For Children NHS Foundation Trust	501,168
Guy'S And St Thomas' NHS Foundation Trust	297,783
Imperial College Healthcare NHS Trust	600,155
King's College Hospital NHS Foundation Trust	210,229
Moorfields Eye Hospital NHS Foundation Trust	11,354
Royal Free London NHS Foundation Trust	826,921
South London And Maudsley NHS Foundation Trust	77,071
The Royal Marsden NHS Foundation Trust	64,094
University College London Hospitals NHS Foundation Trust	326,516
West London Mental Health NHS Trust	3,307,614
	6,348,447

The table below outlines the specialised specialties with high level of spend out of South (14/15)

Row Labels	Sum of Out of South spend
A04 - Vascular	216,538
A09 - Complex Invasive Cardiology	213,396
A10 - Cardiac Surgery	149,311
A11 - Pulmonary Hypertension	341,619
B02 - PET-CT	453,271
B03 - Cancer	684,500
B05 - Haemophilia	108,086
B06 - HIV	334,488
C04 - Gender Identity	293,163
C06 - Tier 4 CAMHs	2,637,771
D02 - Brain Injury and Complex Rehab	2,253,416
D03 - Adult Neurosurgery	349,392
E03 - Paeds Medicine	431,215
E05 - Paeds Cardiac	232,152
TOTAL	8,698,318

It has been identified that there is a high level of out of area mental health placements for acute mental health beds, to a value of over £3m.

The table below outlines for 15/16 the total value of out of area mental health placements.

	N Som	S Glos	Bristol	Total
PICU	£204,024	£197,324	£802,334	£1,203,683
Mental Illness	£0	£0	£101,035	£101,035
Acute	£104,970	£512,589	£1,285,510	£1,903,069
OP	£6,925	£57,162	£49,525	£113,612
Total	£315,919	£767,075	£2,238,404	£3,321,398

1.7 Primary care

We know nationally that:

- Around 90 per cent of care takes place in primary care.
- Demand for GP services rose by 13 per cent between 2008-2013/14.
- According to a recent National Audit Office report, out-of-hours GP services handled around 5.8 million cases including 800,000 home visits.
- Consultations with nurses rose by 8 per cent and with other professionals in primary care, including pharmacists, grew by 18 per cent

1.8 Commissioner benchmarking

1.8.1 Right Care and Dr Fosters and other commissioner benchmarking

BNSSG CCGs are each benchmarked according to their peer group which is different in all 3 cases. Commissioners have utilised range of Commissioning for Value benchmarking tools which support identification of unwarranted variation and opportunities for improving spend and/or outcomes and identified some common areas of interest. The national information to date includes acute inpatients and primary prescribing but has not included:

- Outpatients and A&E (these have been benchmarked locally)
- Primary, community and mental health data
- Non PbR points of delivery

To note, in addition:

- Some elements of the suggested overspend has been investigated and is beneficial e.g. prescribing to prevent stroke so the whole pathway approach will need to be taken to review
- Some of the identified opportunities are already within existing plans or have been addressed through contractual changes
- The opportunity does not take into account cost of re-providing care
- Packs were issued to CCGs but not to specialised commissioning but they include specialised data

Each of the CCGs in BNSSG is benchmarked against comparable CCGs elsewhere and these will be a different group for each CCG. Nevertheless, the CCGs in BNSSG have opportunities identified in common as below:

Spend	Cancer; Circulation; MSK; neurological problems, trauma
Spend and outcomes	Endocrine
Outcomes	Endocrine and respiratory

Total identified opportunities are set out in the table below:

Spend Opportunity (£000s)		CCG			Grand Total
DiseaseArea	Point of Delivery	Bristol	N Som	S Glos	
Cancers & Tumours	Elective	904	1,963	2,124	4,991
	Emergency	311	356	344	1,011
	Primary Prescribing	12	29	123	164
Endocrine, Nutritional and Metabolic Disorders	Elective	150	168	138	456
	Emergency	323	225	166	714
	Primary Prescribing		0		0
Maternity & Reproductive Health	Primary Prescribing	362		155	517
Mental Health Problems	Primary Prescribing			22	22
Neurological problems	Emergency	2,241	990	1,452	4,683
	Primary Prescribing		202		202
Problems due to Trauma and Injuries	Elective	425	306	274	1,005
	Emergency	826	531	452	1,809
	Primary Prescribing		53	189	242
Problems of circulation	Elective		0		0
	Emergency	1,983	1,230	1,148	4,361
	Primary Prescribing	881	430	1,512	2,823
Problems of the gastro intestinal system	Elective		273		273
	Emergency	615	287	634	1,536
	Primary Prescribing		55	408	463
Problems of the genito urinary system	Elective	332	465		797
	Emergency	535	418	166	1,119
	Primary Prescribing		0	263	263
Problems of the Musculo skeletal system	Elective	2,089	2,381	1,317	5,787
	Emergency	518	423	306	1,247
	Primary Prescribing		274	445	719
Problems of the respiratory system	Elective	108	123	319	550
	Emergency	827	318	332	1,477
	Primary Prescribing		0	760	760
Grand Total		13,442	11,500	13,049	37,991

Summary by point of delivery and CCG

BNSSG CCGs - Commissioning for Value (Rightcare) Spend Opportunities
--

Spend Opportunity (£000s)	CCG			Grand Total
	Bristol	N Som	S Glos	
Elective	4,008	5,679	4,172	13,859
Emergency	8,179	4,778	5,000	17,957
Primary Prescribing	1,255	1,043	3,877	6,175
Grand Total	13,442	11,500	13,049	37,991

In addition the STP packs provided nationally drew attention to a number of clinical areas where the population outcomes could be improved or care processes could be improved in relation to other areas of the country. The findings around diabetes are reinforced by the data in the overall STP pack around secondary prevention, structured education and amputations. The more detailed packs have been used to analyse the specific opportunities across care processes e.g. improving secondary prevention within general practice for diabetes care (see clinical pathways section)

The CCGs have clinically reviewed the opportunities and have to date identified the following specific immediate joint areas for action in total, however, this only provides £12m of opportunity prior to more extensive pathway work being undertaken.

- Knee replacement
- Elective neoplasms
- Non elective pneumonia
- Non elective non-specific chest pain
- Blood withdrawals
- IV infusions

Further work is required to identify further clear opportunities in particular with specialised commissioning colleagues and providers as part of the broader pathway work.

RCI Provider benchmarking indicates that there are excess costs across a number of specialty areas within the acute provider sector. The tables below identify for the 3 acute hospitals the highest cost areas using RCI benchmarking.

NBT		
Speciality	Excess Cost	RCI
Health Visiting and Midwifery	£5,645,359	183
Geriatric Medicine	£4,019,259	140
Neonatal	£3,456,878	140
Trauma & Orthopaedics	£10,150,629	124
Neurosurgery	£4,526,836	120
Urology	£3,490,149	119
General Surgery	£5,408,011	118

Weston		
Speciality	Excess Cost	RCI
Allied Health Professionals	£1,322,663	381
Physiotherapy	£1,478,590	274
Gynaecology	£1,088,577	140
General Medicine	£1,305,525	107
Grand Total Organisation	£7,190,882	108

UH Bristol		
Speciality	Excess Cost	RCI
Chemotherapy	£4,595,355	128
Trauma & Orthopaedics	£3,027,236	122
Cardiology	£3,076,926	111

iv. Output - Section 3: Activity modelling – the “Do nothing” base case position

The ‘do nothing’ scenario

The detailed assumptions underpinning the baseline Rubicon modelling are outlined below:

- The scope of the model is all CCG and NHS England commissioned health services provided to people registered with Bristol, North Somerset and South Gloucestershire CCGs, and adult social care and public health services commissioned by Bristol, North Somerset and South Gloucestershire unitary authorities;
- The model reflects 100% of the activity, income and expenditure for the following NHS providers; University Hospitals Bristol, North Bristol Trust and Weston Area Health Trust;
- Avon and Wiltshire Partnership is reflected in the model in proportion to its income from in scope CCGs;
- Costs relating to the local community providers are reflected from a commissioner perspective only since each is a social enterprise;
- The model is based on data for the last 12/ 24 months as far as this exists and is considered robust;
- The model projects activity and financials forward for the period 2016/17 to 2020/21;

- Demographic change is applied to activity using ONS forecasts for each CCG and divided by the age bands set out below;
- An allowance is made for non-ONS demographic growth based on historic trends.
- Inflation of 2% is applied on all provider costs in all years. The tariff efficiency factor is -2% resulting in net tariff change of 0% in all years.
- Marginal costs of 100% is used for all services;
- Where possible activity is divided and shown in output tables by:
 - Specialty;
 - Locality;
 - The following age bands – 0-19, 20-64, 65-79 and 80 and above;
 - Point of delivery (acute only): elective day cases, elective inpatients, non-elective zero day admissions, non-elective inpatients, maternity, first outpatients, follow-up outpatients and A&E;
 - The top-3 providers plus ‘others’;
 - The number of long-term conditions (0, 1, 2-4, 5 or more).
- Admission avoidance assumptions are applied on the basis of ‘shortest length of stay’ first for; all elective patients; all non-elective admissions for patients aged under 64; and non-elective admissions for over people aged 65 and over who have 0 or 1 long-term conditions;
- Admission avoidance assumptions are applied on the basis of ‘average length of stay’ for all other admitted patients;

The summary assumptions used to calculate the activity growth over the period to the end of 2020/21 are as follows:

- ONS forecast demographic change which has been applied at HRG level for acute activity (admitted patients, A&E and outpatients) or service line level for non-acute services (e.g. adult mental health, community nursing, community therapies etc);
- Plus 1.5% on all activity types except;
- 4.4% applied to specialised commissioning.

The national guidance suggests the use of IHAMs forecasts which are based on ONS demographic change applied at a ‘high level’ (acute, MH, community etc) plus an additional allowance for non-demographic growth based on national trends. We have compared the results of our methodology with the IHAMs numbers and there is no material difference, so we have maintained our approach

Our model also has the functionality to replace the global 1.5% assumption with historic speciality-level growth rates. We will not be using this option for the 30th June return because of coding and speciality-level changes which make some of the specialty figures unreliable. We will, however, work to adjust known problems with these numbers to make sure that future iterations of the whole system model can use speciality specific growth rates as appropriate.

The do nothing activity modelling highlighted the scale of challenge for the next five years

Projected activity growth – key services

Acute	16/17	17/18	18/19	19/20	20/21
None-elective OBDs	0.00%	2.59%	5.38%	8.37%	11.18%
Elective IP OBDs	0.00%	2.60%	5.26%	7.91%	10.51%
Elective Day cases	0.00%	2.62%	5.28%	7.93%	10.51%
Outpatients	0.00%	2.59%	5.19%	7.79%	10.32%
A&E	0.00%	2.53%	5.06%	7.63%	10.15%

Acute NEL OBDs	16/17	17/18	18/19	19/20	20/21
0 LTCs	0.00%	2.60%	5.37%	8.30%	11.07%
1 LTCs	0.00%	2.61%	5.47%	8.60%	11.50%
2-4 LTCs	0.00%	2.60%	5.51%	8.74%	11.67%
5+ LTCs	0.00%	2.51%	4.99%	7.57%	10.29%

Acute OBDs	16/17	17/18	18/19	19/20	20/21
0-19	0.00%	2.45%	4.89%	7.46%	10.14%
20-64	0.00%	2.52%	4.96%	7.32%	9.59%
65-79	0.00%	2.77%	5.68%	8.47%	11.27%
80+	0.00%	2.56%	5.59%	9.22%	12.43%

Community Contacts	16/17	17/18	18/19	19/20	20/21
Integrated care	0.00%	2.92%	6.00%	8.93%	11.63%
Community therapies	0.00%	2.93%	6.03%	8.96%	11.67%
Specialist Nursing	0.00%	2.67%	5.56%	8.43%	11.06%

Primary Care	16/17	17/18	18/19	19/20	20/21
Bristol	0.00%	2.67%	5.56%	8.43%	11.06%
N Somerset	0.00%	3.46%	6.88%	9.73%	12.83%
S Glos	0.00%	2.84%	5.92%	8.98%	11.50%

Occupied Bed Days rise more than admissions reflecting a slight shift towards more complex admissions. 237 more beds would be needed to meet demand from the three CCGs.

Avoiding the need to open this additional capacity is a goal of the transformation programme i.e. cost avoidance rather than cash savings.

Acute	16/17	17/18	18/19	19/20	20/21	%
Admissions	228,026	233,987	240,082	246,235	252,178	10.6%
OBDs	657,912	675,130	693,603	713,233	731,632	11.2%
AvLoS	2.9	2.9	2.9	2.9	2.9	0.6%
Beds	2,121	2,176	2,236	2,299	2,358	11.2%

Community & Primary Care	16/17	17/18	18/19	19/20	20/21	%
Community Contacts	695,507	715,796	737,229	757,570	776,405	11.6%
Primary Care Contacts	5,126,684	5,276,025	5,433,777	5,583,513	5,722,438	11.6%

Spend by Service (£m)	BCCG	NSCCG	SGCCG	NHSE	Councils	Total	%
Acute	£334	£177	£187			£698	36%
Mental Health	£77	£27	£25			£129	7%
Community Health	£63	£33	£22			£118	6%
Primary Care (CCGs)	£81	£42	£44			£167	9%
CHC	£41	£17	£27			£85	4%
Other CCG	£25	£11.51	£14.86			£51	3%
Spec Comm				£279		£279	14%
Primary Care (NHSE)				£124		£124	6%
Social Care/Public Health					£303	£303	16%
Total	621	307	319	403	303	1,952	100%

Totality of spend

The review of the whole spend across footprint, suggests that the whole system will need to become more efficient as the required demand will not be met simply by containing acute activity.

Modelling the assumptions for our high level initiatives

High level assumptions are outlined in the plan. Assumptions were adjusted to remove duplication and efficiencies reduced by 40% to allow for the costs of re-provision. All savings were risk adjusted down by 50%.

D. Public Health Intelligence

i. Population projections

Population projection data for Bristol, North Somerset and South Gloucestershire (BNSSG) is provided in annex B. Housing numbers are allocated on the basis of population projections so to some extent the numbers of people moving to the area are captured within the population projections. The exact number of people per household and demographic profile of people moving into new housing however is not known. Population estimates for housing developments are based on 2.3 persons per household.

South Gloucestershire is predominately rural although most of the population live in the urban areas. The South Gloucestershire population has grown over the past decade by 10% and is projected to rise by a further 17% by 2037. The biggest increases will be in the older age groups. At least 30,000 new homes are planned to be built by 2036 in South Gloucestershire.

The figures in annex B cover North Somerset local authority area but it is worth considering in addition the North Sedgemoor area of Somerset as it forms part of the Weston General Hospital catchment population. North Somerset and North Sedgemoor face significant demographic pressures with a population which is both ageing and growing. Longer term projections suggest the population of North Somerset and North Sedgemoor is set to increase at an annual rate of 1% across all age groups, reaching an estimated 300,000 by 2030. The largest increase over the next ten years is set to be identified in the 75-84 age group (5% per annum), followed by the over 85s (4.6% per annum). In respect to the younger age group (0-14), the population is projected to rise by 12% (an additional 5,000 children) in the next 15 years. The 'Weston Villages' are the main strategic growth area for North Somerset and are forecast to deliver 6,200 new homes.

The population of Bristol has grown 11.8% since 2004 (compared to 8% in England and Wales) mainly due to the high number of births relative to deaths. This growth has been mainly concentrated in the inner city. The birth rate is high but has plateaued. The population is young, with a median age of 33.4 compared to 39.9 in England. Around 16% of the population are from BME backgrounds but amongst children it is 28%. The city is increasingly diverse, with significant differences in ethnicity between areas. There are 58,800 older people 65 years and over in Bristol. This proportion (13.3%) is lower than nationally but has risen in the North & West (inner). There are projected to be 8,100 additional older people by 2022, a 14.2% rise.

The Population total across BNSSG is 968,314, with 17.5% of the population living in the most deprived quintile areas of England (IMD2015), this equates to 164,613 people across BNSSG.

Expected population changes over the next five years by age bands across BNSSG

Age	Current population (2015/16)	Five year predicted change (2020/21)
0 to 14	165,737	7.1%
15 to 44	407,959	2.6%
45 to 64	234,326	2.8%
65 to 74	86,453	2.3%
75 to 84	51,234	15.9%
85 plus	22,605	17.6%

ii. Life expectancy

The overall life expectancy (from birth) in Bristol is 78.4 years for males and 82.9 years for females, in North Somerset it is 80.3 years for males and 83.8 years for females and South Glos 81.5 years for males and 84.8 years for females.

The corresponding healthy life expectancies for Bristol is 63.3 years for males and 64.2 years for females, North Somerset 66.8 years for males and 64.6 years for females, and South Glos 67.8 for males and 68.2 for females.

Therefore across BNSSG the average life expectancy at birth for males is 80.1 years and females 83.8 years with corresponding healthy life expectancies of 66 years and 65.7 years. **This means on average across BNSSG males are living 14.1 years in poor health and females 18.1 years.**

iii. Inequalities

The slope index of inequality measures the difference in life expectancy across deprivation deciles in an area. For 2012-2014 the gap for males in Bristol was 9.6 years and 7 years for females, in North Somerset it was 9.1 years for males and 6.5 years for females and in South Glos it was 7.1 years for males and 5 years for females. This results in a BNSSG average difference in life expectancy of 8.6 years for males and 6.2 years for females across the least and most deprived 10% of the population.

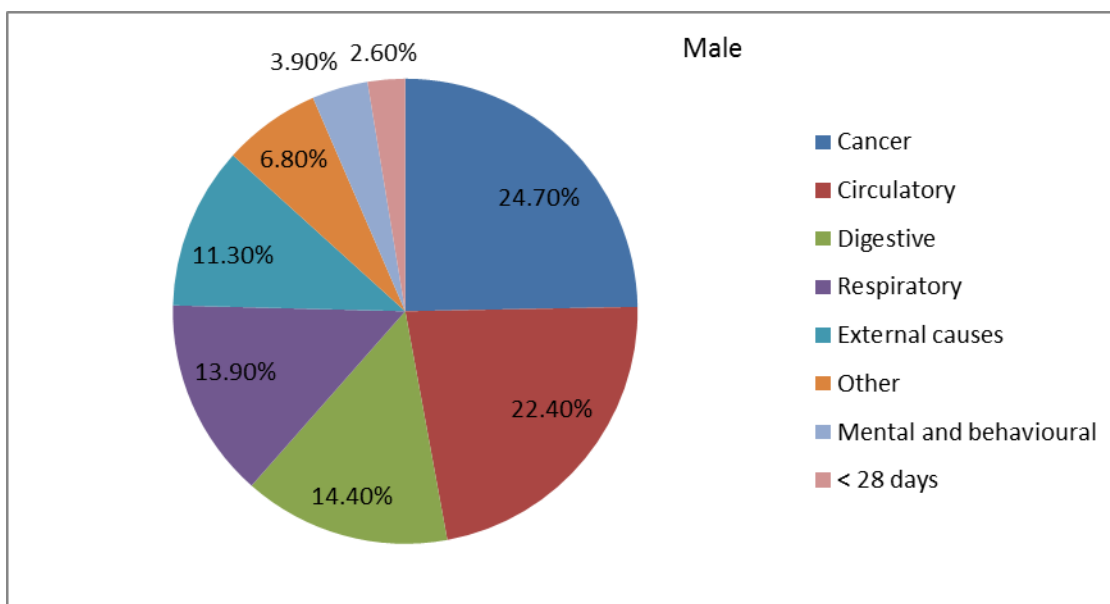
It has been estimated that 20% of healthcare costs are due to the manifestations of inequalities (WHO 2014). The leading causes of disease and death that contribute to the gap in life expectancy across deprivation deciles reflect the higher risk factor profile and clustering of multiple risk factors (Kings Fund 2014). It has been demonstrated that people in lower socio-economic groups are more likely to have multiple lifestyle risk factors. Based on the health survey for England data the Kings Fund demonstrated that in the 2003 survey people in lower socioeconomic groups were 3-times as likely as higher socioeconomic groups to have a combination of 3 or 4 risk factors from smoking, excessive alcohol consumption, poor diet and low physical activity and when this was re-examined in the 2008 survey the figure had risen to 5-times as likely (Kings fund 2014).

iv. Contributors to life expectancy gaps

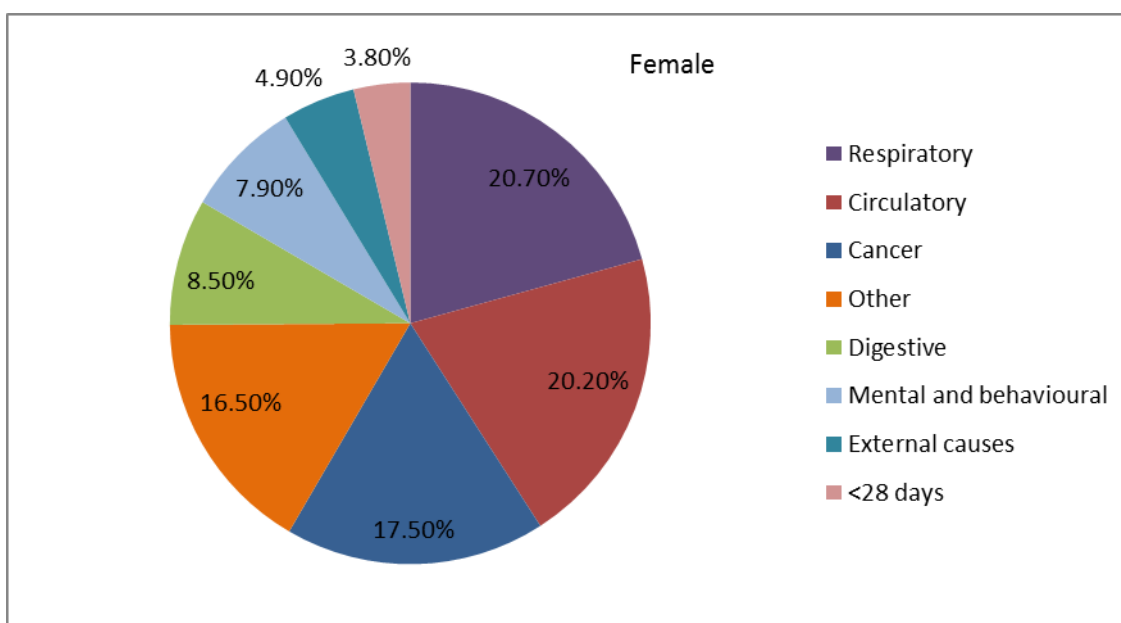
Local authority level data can be used to identify the causes of death that are the largest contributors to life expectancy inequalities. The diseases driving inequalities can then be targeted in order to reduce the gap in life expectancy between the most and least deprived areas across BNSSG. Based on data for 2012-2014 (PHE Segment tool 2016) in males the leading causes of the inequality gap are cancers, circulatory diseases and digestive disorders, and for females respiratory diseases, circulatory and cancers.³

³ Digestive diseases include alcohol-related chronic liver disease. External causes include injuries, poisoning and suicide. Other includes benign neoplasms, metabolic diseases, diseases of the nervous system, eye, ear, and skin; musculoskeletal diseases, perinatal conditions, congenital diseases and conditions related to pregnancy and birth.

Contribution to the gap in life expectancy (Males) across BNSSG.



Contribution to the gap in life expectancy (Females) across BNSSG.



v. Years of life lost

Years of life lost (YLL) is a measure of premature mortality (deaths before the age of 75). It takes into account the age at which a person died, giving a greater weight to deaths occurring at an earlier age. For a death under the age of 75, the number of years of life lost is calculated as 75 minus the age at death. So if a person died at age 35, they would be considered to have 40 years of life lost.

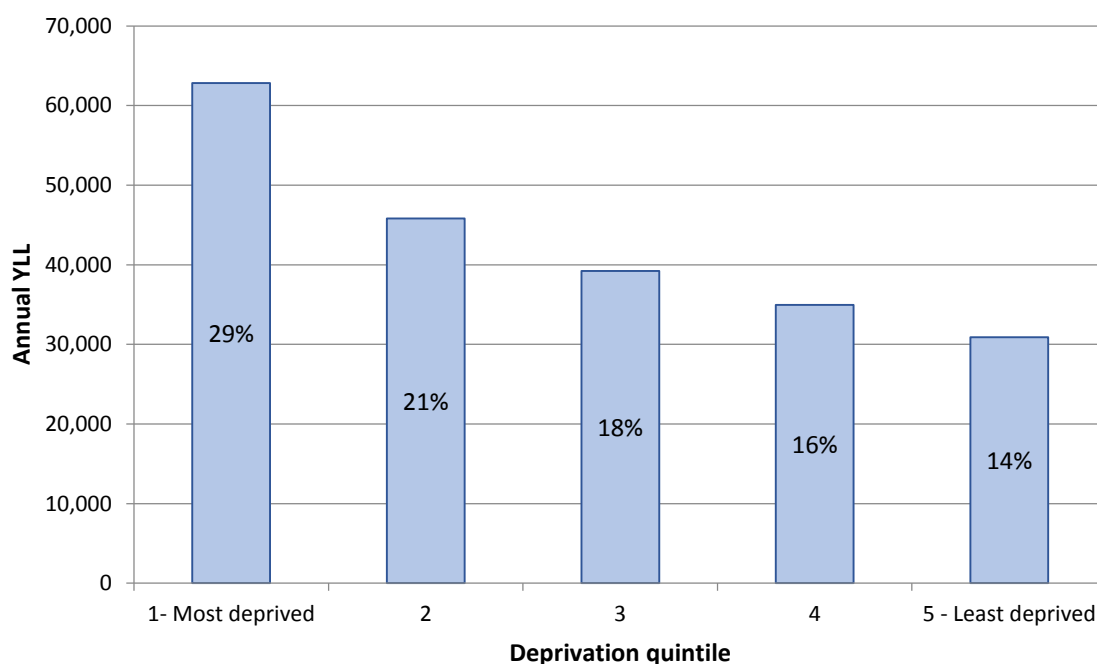
This means that we can assess the extent to which a death is premature, rather than just noting that it occurred before the age of 75. We can calculate years of life lost for different causes of premature death to compare the relative importance of different conditions.

In the South West, causes such as suicide, transport accidents, accidental poisoning, drug use and congenital anomalies affect relatively few people, however a large proportion of deaths from these conditions occur in those under the age of 75. The number of years of life lost per death is high, indicating that people dying from these causes die relatively young.

Fairly high numbers of people die from causes such as stroke, influenza and pneumonia however only a small proportion of deaths occur under the age of 75. The number of years of life lost per death is reasonably low, indicating that these conditions are not principal causes of premature death.

Due to more deaths in younger people being associated with causes that are linked to deprivation (see gap analysis) the number of years of life lost increase with deprivation. Years of life lost in the most deprived areas of the South West are more than double the respective figure for the least deprived areas. Almost 3 out of each 10 years of life lost in the South West during the time period used were in those living in the most deprived areas.

The percentage of annual number of years of life lost in the South West, by deprivation quintiles, 2008-2012



vi. Future demands across BNSSG (disease prevalence models)

The health needs of a population derive from the prevalence of diseases, i.e. the numbers of people suffering from different types of illness. Looking only at the numbers of patients currently being treated for a disease does not show the true prevalence and impact on the population’s health. At any given time, there are many people who have a disease but are not aware of it because they have

not yet been diagnosed. A robust and well-researched disease prevalence model can help commissioners to assess the true needs of their community, calculate the level of services needed and invest the appropriate level of resources for prevention, early detection, treatment and care. Prevalence models provide estimates of underlying prevalence derived from population statistics and scientific research on the risk factors for each disease.

The following shows the expected increase in disease prevalence for various causes of death for Bristol, North Somerset and South Gloucestershire including:

- Cardiovascular disease
- Chronic obstructive pulmonary disease
- Dementia
- Diabetes
- Obesity

It is worth noting that a number of assumptions were made in creating the following prevalence models. They are based on old mid-year estimates (previous to 2010) and therefore may now have changed. It is important to remember that the prevalence figures generated by the models are estimates of the expected prevalence of disease. The subnational population projections (SNPP) were taken from ONS, which were created based on 2012 population data and does not take into account any more recent increases. For a full list of caveats, please refer to the APHO website <http://www.apho.org.uk/diseaseprevalencemodels>.

Cardiovascular Disease (CVD)

CVD includes both coronary heart disease (CHD) and stroke. The prevalence of CHD is almost double that of stroke in the over 75s and double/treble as prevalent in the 65-74 age group.

Prevalence of Cardiovascular disease, coronary heart disease and stroke for Bristol, North Somerset and South Gloucestershire, by age categories

Prevalence of CVD (%) (persons)			
Age Group (years)	Bristol	North Somerset	South Gloucestershire
16-44	3.86	3.97	3.95
45-64	9.81	9.69	9.63
65-74	28.61	27.65	27.98
75+	39.72	38.63	39.02
Prevalence of CHD (%) (persons)			
16-44	0.37	0.43	0.36
45-64	6.12	5.60	4.83
65-74	17.27	15.18	13.75
75+	23.16	20.75	18.92
Prevalence of Stroke (%) (persons)			
16-44	0.32	0.31	0.30
45-64	1.92	1.78	1.71
65-74	6.82	6.14	6.08
75+	11.64	10.64	10.51

Source: APHO: 2011

According to the disease prevalence models, CVD is set to increase across all age groups, with the biggest increase occurring in the over 75 year olds. This is a consistent finding across BNSSG. Over the next 12 years an annual increase of 2.3%, 4.7% and 4.0% respectively in the over 75s compared to 0.8%, 0.7% and 0.9% respectively in the 16-44 age group is expected. North Somerset in particular shows the greatest increase in the number of over 75s with CVD, followed by South Gloucestershire. In an ageing population in North Somerset this in part explains the high disease predictions as the prevalence of disease increases with age.

Predicted prevalence of cardiovascular disease in Bristol, North Somerset and South Gloucestershire, by age categories, 2014-2026.

Year	Category	Bristol		North Somerset		South Gloucestershire	
		No.	% Δ from 2014	No.	% Δ from 2014	No.	% Δ from 2014
2014	16-44	8,072	-	2,619	-	3,951	-
2014	45-64	8,985	-	5,483	-	6,906	-
2014	65-74	8,754	-	7,121	-	7,549	-
2014	75+	11,189	-	8,519	-	8,786	-
2021	16-44	8,594	6.5%	2,747	4.9%	4,096	3.7%
2021	45-64	9,426	4.9%	5,775	5.3%	7,290	5.5%
2021	65-74	9,584	9.5%	7,579	6.4%	7,946	5.3%
2021	75+	12,273	9.7%	10,932	28.3%	10,964	24.8%
2026	16-44	8,895	10.2%	2,854	9.0%	4,242	7.4%
2026	45-64	9,690	7.9%	5,824	6.2%	7,290	5.5%
2026	65-74	9,785	11.8%	7,496	5.3%	8,198	8.6%
2026	75+	14,299	27.8%	13,327	56.4%	13,032	48.3%

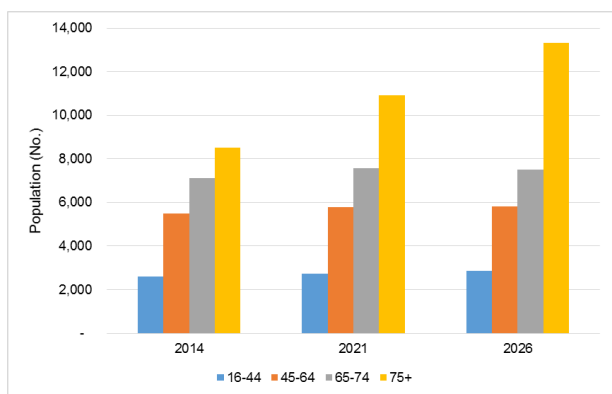
NB/ Figures may not add up due to rounding

Source: APHO, 2011

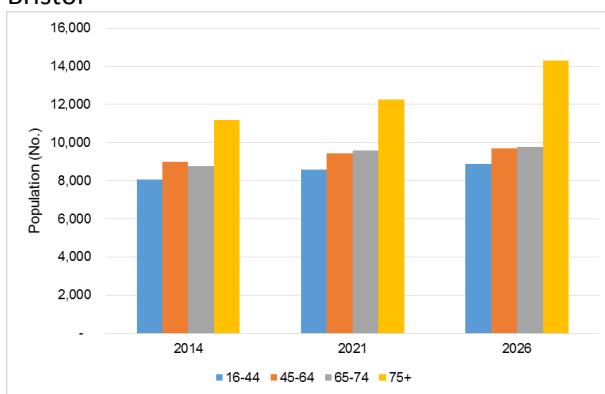
The graphs below highlight the increase in the number of people predicted to have CVD across BNSSG. It suggests that both North Somerset and South Gloucestershire have a similar age structure with an ageing population and fewer younger people. In comparison Bristol has a higher proportion of younger people, therefore the difference between the number of people with CVD in the 16-44 and the 75+ age group is not as stark as North Somerset and South Gloucestershire.

Predicted prevalence of cardiovascular disease in Bristol, North Somerset and South Gloucestershire, by age categories, 2014-2026.

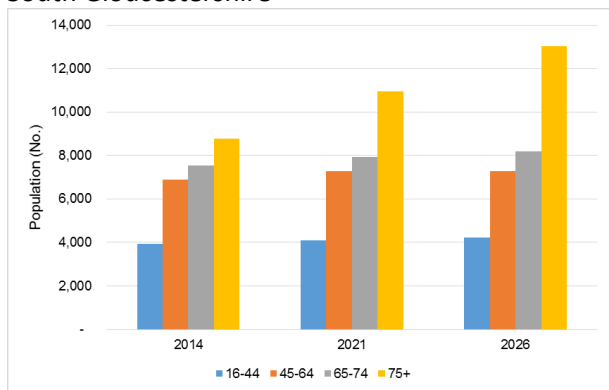
North Somerset



Bristol



South Gloucestershire



Source: APHO, 2011

Chronic Obstructive Pulmonary Disease

Predicted prevalence of chronic obstructive pulmonary disease in Bristol, North Somerset and South Gloucestershire, by age categories, 2014-2026.

Year	Category	Bristol		North Somerset		South Gloucestershire	
		No.	AGR from Baseline	No.	AGR from Baseline	No.	AGR from Baseline
2014	16-44	3516	-	594		1250	-
2014	45-64	5011	-	1771		2948	-
2014	65-74	3329	-	1658		2245	-
2014	75+	3214	-	1544		2045	-
2021	16-44	3743	0.9% ¹	623	0.7% ¹	1296	0.5% ¹
2021	45-64	5257	0.7% ¹	1865	0.8% ¹	3111	0.8% ¹
2021	65-74	3645	1.4% ¹	1765	0.9% ¹	2363	0.8% ¹
2021	75+	3526	1.4% ¹	1981	4.0% ¹	2551	3.5% ¹
2026	16-44	3874	0.7% ²	647	0.8% ²	1343	0.7% ²
2026	45-64	5404	0.6% ²	1881	0.2% ²	3111	0.0% ²
2026	65-74	3721	0.4% ²	1745	-0.2% ²	2438	0.6% ²
2026	75+	4108	3.3% ²	2415	4.4% ²	3033	3.8% ²

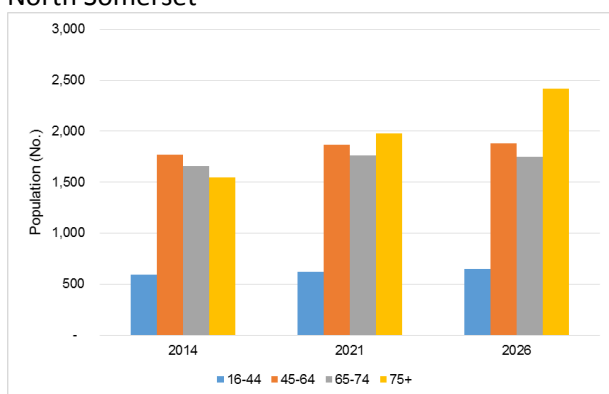
AGR – Annual Growth Rate; 1 – Annual increase from 2014 to 2021; 2 – Annual increase from 2021 to 2026; Figures may not add up due to rounding

Source: APHO, 2011

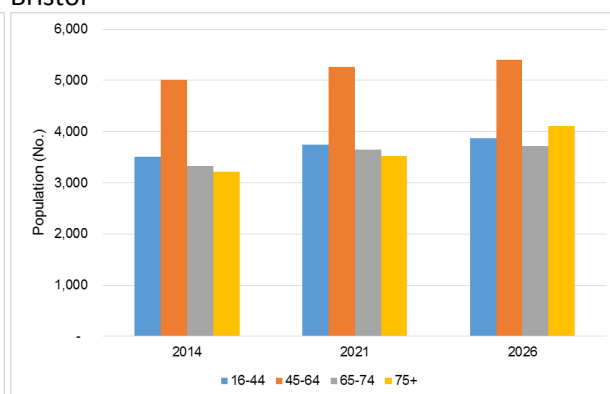
The graphs below show the predicted prevalence of chronic obstructive pulmonary disease (COPD) across BNSSG. A greater number of males suffer from COPD but the predicted increase in prevalence is similar across genders. In Bristol it suggests that the age group with the largest number of sufferers will be in the 45-64 age group, which is also the case in South Gloucestershire. In North Somerset however, the graph shows a greater issue among the over 75s.

Predicted prevalence of chronic obstructive pulmonary disease in Bristol, North Somerset and South Gloucestershire, by age categories, 2014-2026.

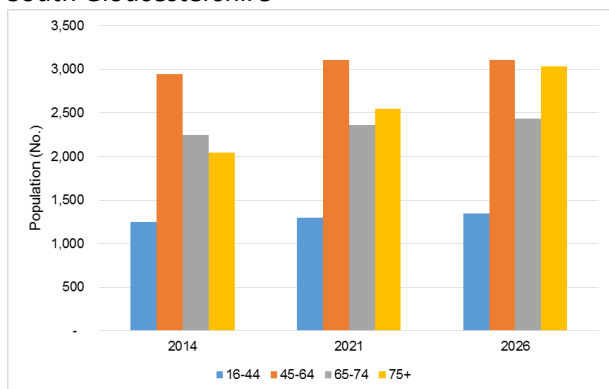
North Somerset



Bristol



South Gloucestershire



Source: APHO, 2011

Dementia

The predicted increase in the prevalence of dementia over the next 12 years for males and females separately. What is clear is that many more females will develop dementia and the older ages are at a greater risk. The data for 2014 suggests that there were 1,540 over 65 year old males and 2,975 females with dementia in Bristol. For North Somerset these figures were 1,237 and 2,278 and for South Gloucestershire they were 1,282 and 2,195. These numbers increase in males by 35% in Bristol, 60% in North Somerset and 54% in South Gloucestershire over the 12 years and by 18%, 42%, 41% for females respectively.

This is important to highlight as a public health concern as dementia costs the UK economy approximately £23 billion per year, which is higher than both cancer (£12 billion per year) and heart disease (£8 billion per year) combined (Alzheimer’s Society, 2014).

Predicted prevalence of dementia in Bristol, North Somerset and South Gloucestershire, for males, 2014-2026.

Age Bands (years)	Bristol			North Somerset			South Gloucestershire		
	2014	2021	2026	2014	2021	2026	2014	2021	2026
60-64	84	91	103	56	60	73	65	73	86
65-69	131	126	138	107	93	102	110	102	117
70-74	193	248	229	164	208	189	177	211	195
75-79	255	302	366	213	292	329	228	292	329
80-84	362	402	474	284	361	484	313	371	474
85-89	301	347	408	234	317	393	236	332	393
90+	215	294	362	179	294	407	152	271	384

Source: Alzheimer’s Society, 2014

Predicted prevalence of dementia in Bristol, North Somerset and South Gloucestershire, for females, 2014-2026.

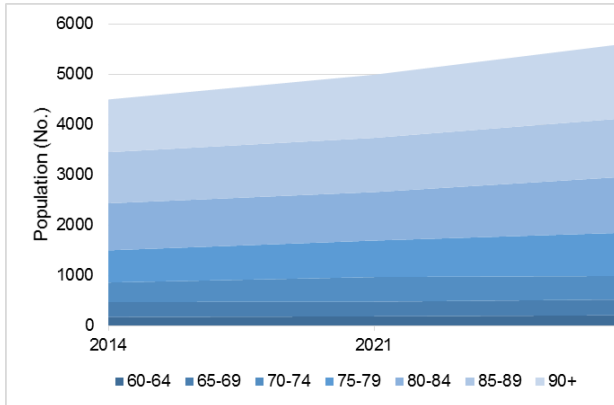
Age Bands (years)	Bristol			North Somerset			South Gloucestershire		
	2014	2021	2026	2014	2021	2026	2014	2021	2026
60-64	85	93	104	61	67	76	66	76	92
65-69	159	157	171	139	122	135	139	131	148
70-74	204	252	240	168	225	204	186	225	210
75-79	387	422	502	308	396	475	332	409	462
80-84	576	562	644	438	503	644	457	515	632
85-89	720	727	747	525	626	707	481	606	687
90+	845	957	1,089	639	792	990	534	660	858

Source: Alzheimer's Society, 2014

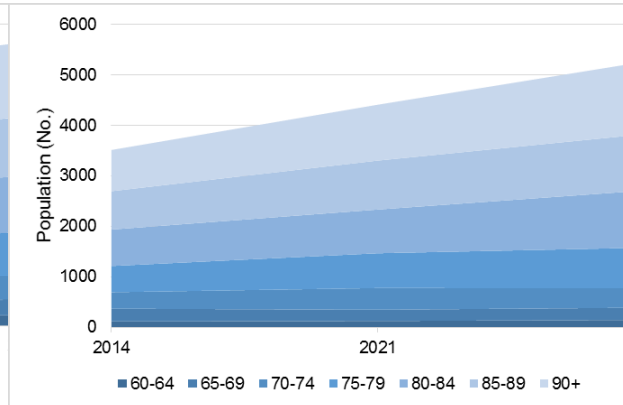
The graphs below highlight the increase in dementia prevalence across BNSSG. Due to North Somerset and South Gloucestershire’s ageing population it is not surprising that there are steeper increases in dementia compared to Bristol.

Predicted prevalence of dementia in Bristol, North Somerset and South Gloucestershire, all persons, 2014-2026.

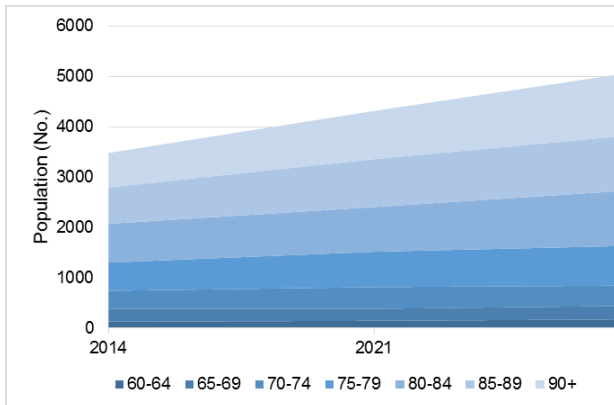
Bristol



North Somerset



South Gloucestershire



Source: Alzheimer’s Society, 2014

Diabetes and Obesity

The projected NHS’s annual spending on diabetes in the UK will increase from £9.8 billion to £16.9 billion over the next 25 years. This increase would mean that the NHS would be spending 17% of its entire budget on the condition. As the tables show, the prevalence of diabetes is set to increase and so too obesity in Bristol, North Somerset and South Gloucestershire.

Predicted prevalence of diabetes in North Somerset, 2015-2030

Year	Number	Prevalence	Lower uncertainty limit	Upper uncertainty limit
2015	14,437	7.6%	5.6%	11.7%
2020	16,334	8.0%	5.9%	12.3%
2025	18,333	8.4%	6.1%	12.9%
2030	20,483	8.8%	6.4%	13.6%

Source: APHO, 2011

Predicted prevalence of obesity in North Somerset, 2015-2030

Year	Obesity continues to rise at current rate		2010 obesity levels maintained	
	Number	Prevalence	Number	Prevalence
2015	14,437	7.6%	14,341	7.6%
2020	16,334	8.0%	15,864	7.8%
2025	18,333	8.4%	17,417	8.0%
2030	20,483	8.8%	19,045	8.2%

Source: APHO, 2011

Predicted prevalence of diabetes in Bristol, 2015-2030

Year	Number	Prevalence	Lower uncertainty limit	Upper uncertainty limit
2015	23,736	5.9%	3.9%	9.1%
2020	26,333	6.2%	4.1%	9.6%
2025	29,303	6.6%	4.3%	10.2%
2030	32,622	6.9%	4.5%	10.8%

Source: APHO, 2011

Predicted prevalence of obesity in Bristol, 2015-2030

Year	Obesity continues to rise at current rate		2010 obesity levels maintained	
	Number	Prevalence	Number	Prevalence
2015	23,736	5.9%	23,578	5.9%
2020	26,333	6.2%	25,576	6.0%
2025	29,303	6.6%	27,841	6.2%
2030	32,622	6.9%	30,335	6.5%

Source: APHO, 2011

Predicted prevalence of diabetes in South Gloucestershire, 2015-2030

Year	Number	Prevalence	Lower uncertainty limit	Upper uncertainty limit
2015	14,748	6.4%	4.7%	10.2%
2020	16,318	6.8%	4.9%	10.8%
2025	17,960	7.1%	5.1%	11.4%
2030	19,670	7.4%	5.3%	11.9%

Source: APHO, 2011

Predicted prevalence of obesity in South Gloucestershire, 2015-2030

Year	Obesity continues to rise at current rate		2010 obesity levels maintained	
	Number	Prevalence	Number	Prevalence
2015	14,748	6.4%	14,651	6.4%
2020	16,318	6.8%	15,849	6.6%
2025	17,960	7.1%	17,064	6.7%
2030	19,670	7.4%	18,291	6.9%

Source: APHO, 2011

vii. Risk factors analysis

The leading risk factors for the diseases that contribute to premature death and to the gaps in life expectancy across deprivation quintiles, are smoking, alcohol and obesity due to poor diet and a lack of physical activity (3:4:50 San Diego Report)

Smoking

Smoking-related illness is estimated to cost the NHS £5.2 billion a year, representing a significant burden on the health service (Kings Fund 2014).

Prevalence across BNSSG varies.

	Smoking prevalence (QOF)	Highest practice recorded prevalence (QOF)	Ex-smokers (GP survey data)
Bristol	21.5%	38.6%	25.5%
North Somerset	17%	42.3%	32.1%
South Glos	15.9%	24.6%	27.9%

Alcohol

Alcohol misuse costs the NHS approximately £3.5 billion per year, equivalent to £120 per tax payer (Department of Health 2013). Over three quarters of adults drink regularly and more than one million people in England have mild, moderate or severe alcohol dependence (LGA 2013).

The majority of individuals suffering from alcohol abuse or dependence do not access treatment (Cunningham 2004). Current estimates for high risk drinkers across BNSSG and numbers of alcohol related hospital admissions.

	Bristol	North Somerset	South Glos	BNSSG
Estimated risk drinkers (>19 units per week)	79,387	39,762	49,068	168,217
Alcohol related admissions	3018	1387	1641	6046

Obesity/diet

Being obese reduces life expectancy by between 3 and 13 years and directly contributes as a risk factor to two of the leading causes of premature death, cancer and heart disease. 13.9% of the attributable proportion of myocardial infarction and 25.8% of the attributable proportion of stroke are due to obesity.

Overweight and obesity (Active People Survey 2012-2015)

	Obese	Overweight
Bristol	21.7%	56.9%
North Somerset	22.2%	62.7%
South Glos	23.3%	63.2%

Physical Activity

Physical inactivity is estimated to cost the NHS £1.6 billion per year (Department of Health 2011). There is good evidence to suggest that being physically active can help us to lead healthier, happier lives. Regular physical activity can reduce the risk of developing numerous chronic health conditions, including mental health problems, type 2 diabetes, coronary heart disease, cancer and musculoskeletal conditions. Studies have shown that even a small increase in physical activity can provide protection against chronic diseases (I-Min Lee 2012)

The advantages of exercise extend beyond health. Increasing the number of people that cycle or walk to work would decrease costs associated with transportation, reduce traffic and help the environment. Participating in sports helps children and young people to develop important social skills such as teamwork, as well as reducing antisocial and criminal behaviour. Physical activity is a vital part of a child’s early growth and development and establishing physical activity as a habit at an early age can lead to a physically active lifestyle in adulthood.

A recent study has found that inactivity is responsible for almost one fifth of premature deaths in the UK and more than 10% of cases of coronary heart disease. (I-Mine Lee 2012)

In addition physical activity is important in older people to help with balance and stability and reduce the risk of falls. Below table shows the average numbers of hospital admissions for fractures due to falls in older people per year.

	Fractured neck of femur (male)	Fractured neck of femur (female)
Bristol	99	255
North Somerset	78	212
South Glos	80	192
BNSSG	257	659

PHOF 2014/2015

viii. Disability adjusted life years lost

Depression and long term mental health conditions (QOF 2014/15)

	Depression	Highest practice depression prevalence	Long term mental health condition	Highest practice long term mental health condition
Bristol	7.6%	13.7%	5.9%	14.7%
North Somerset	9.2%	17.6%	5.3%	11.9%
South Glos	7.7%	11.8%	4.3%	9.7%

Hospital admissions for unintentional and deliberate injuries in people aged 15-24 (QOF 2014/2015)

	Hospital admissions for unintentional and deliberate self-injuries in people aged 15-24
Bristol	1070
North Somerset	357
South Glos	419
BNSSG total	1846

ix. Return on investment for public health interventions

Public health interventions offer good value for money. Based on a thorough analysis of 200 public health interventions considered by NICE in forming public health guidance it was found that 89% were cost-effective at NICE thresholds (85% at the lower threshold rising to 89% at higher threshold) with 15% of those cost-saving and only 11% either above the cost-effectiveness threshold or more expensive and less effective than the comparator (Owen 2011).

Within the subsequent NICE guidelines, the following example interventions were found to offer cost-effective returns for smoking, alcohol and physical activity:

NICE guidance	Intervention	Cost per QALY (range)
Smoking: Brief interventions and referral for smoking cessation	Brief intervention only (5 minutes)	£732 (£577 - £1677)
	Brief intervention (5 minutes plus nicotine replacement therapy)	£2,110 (£1664 - £4833)
	Brief intervention (5 minutes plus self-help)	£370 (£292 – £847)
Alcohol: preventing harmful drinking	Screening and brief advice at GP registration	£6500
	Screening and brief advice at GP consultation	£3300 (0-£6600)
	Screening and brief advice during A+E consultation	£10,400
Physical activity	Exercise prescriptions	£77 (£20 - £159)
	Exercise prescription and exercise information	£425

The WHO produced an assessment of the evidence base for public health/prevention programmes with ‘quick wins,’ returns on investment within five years, these were:

Focus	Intervention
Environmental	Road traffic injury prevention Active transport Safe green spaces Heat wave plan
Social	Health employment programmes Insulating homes Housing ventilation for asthma Community falls prevention
Resilience	Violence prevention legislation Prevention of post-natal depression Family support projects Social emotional learning Bullying prevention Mental health in the workplace

	Psychosocial groups for older people Parenting programmes Depression prevention
Behaviour change	Lifestyle diabetes prevention programmes Restricting alcohol availability Community based youth tobacco control intervention Workplace obesity intervention Tobacco legislation, taxation and control Alcohol legislation, taxation and control Nutrition, reducing salt, trans-fats, promoting healthy diets Physical activity media awareness
Vaccination	Norovirus, pneumococcus, rota virus and influenza in children
Screening	Abdominal aortic aneurysm Depression in diabetes Cervical cancer
Treatment	Depression in diabetes Treatment of CVD

WHO 2014

x. NHSE/PHE best buy public health interventions

- Providing targeted advice and integrated care to tackle excessive alcohol consumption and smoking
- Creating healthy environments in health and care settings to improve diets and keep people in work, and support action to reverse trends in childhood and adult obesity
- Intervening earlier and managing conditions better to keep healthier for longer and reduce their care needs

Health and Wellbeing gap	Interventions
Unhealthy Behaviours	<ul style="list-style-type: none"> • Reduced alcohol consumption and associated hospital admissions through alcohol care teams • Brief advice and screening for alcohol consumption through GPs • Smoking cessation support in secondary care pathways • High quality local stop smoking services
Healthier Environment	<ul style="list-style-type: none"> • Implementation of healthier food buying standards and catering to reduce obesity

	<ul style="list-style-type: none"> • Weight management services • Sign-up to the workplace wellbeing charter, healthy workplaces and active travel • Employment opportunities for people with mental health needs and learning disabilities • Staff support for mental health, physical activity and access to physiotherapy for MSK
Improved patient pathway	<ul style="list-style-type: none"> • NHS health check and referral to the national diabetes prevention programme • Optimal detection and care for hypertension and AF • Self-referral schemes for physiotherapy to manage MSK conditions • Strength and balance programmes for falls prevention • Fracture liaison services and pathways for patients following first fall

NHSE prevention quick guide.

xi. Current return from public service example: Smoking cessation

As described above smoking related disease contribute a significant burden to the NHS. NICE have produced return on investment tools that enable quantification of savings made by current services and where costs occur in the system.

Based on analysis for BNSSG, smoking related illness currently costs the NHS £27.9 million per year and results in lost productivity and other costs amounting to over £45 million to the system. Services currently reach around 28% of the population. Reducing smoking prevalence has the potential to impact on over 140,000 GP consultations and 5,746 hospital admissions which the local health system is experiencing per year. The average smoking prevalence across BNSSG is 17%, PHE have set an aim for reducing this to 13%.

Current savings from smoking support services (from NICE tobacco ROI tool V3.05, October 2015)

	Bristol	North Somerset	South Glos	BNSSG combined costs/savings
Smoking prevalence in tool	18.2%	16.3%	16.7%	Av 17%
Total costs of smoking	£22,144,099	£10,653,104	£12,561,260	£45,358,463
Direct healthcare costs	£13,229,546	£6,907,398	£7,764,339	£27,901,283
Current reach of service	28.6%	31.5%	25.6%	Av 28.6%
Current saving GP and nurse consultations (2 years)	4490	1804	2081	8375
Current Saving outpatients (2 years)	607	535	275	1417
Current saving avoidable admissions (2 years)	122	86	57	265
Current saving on prescriptions (2 years)	1853	1055	902	3810
Current saving to NHS (2-years)	£639,734	£391,327	£297,402	£1,328,463

Where are current costs to the system from smoking related diseases?

	Bristol	North Somerset	South Glos	BNSSG
Lost productivity days (per year) from smoking related sickness	94,875	36,634	51,345	182,854
GP consultations (estimated number of GP consultations due to smoking related illnesses)	69,996	30,821	40,135	140,952
Nurse consultations (estimated number of practice nurse consultations due to smoking related illnesses)	17,517	9,414	11,785	38,716
Outpatients visits (estimated number of outpatient visits due to smoking related illnesses)	12,373	5,523	7,124	25,020
Hospital admissions (estimated number of hospital admissions due to smoking related illnesses)	2,654	1,542	1,550	5,746
Prescriptions (estimated number of smoking related prescriptions)	36,106	18,179	22,584	76,869

xii. References

Bristol JSNA report – data profile of health and wellbeing in Bristol, 2015

County of San Diego, Health and Human Services Agency, Community Health Statistics Unit. 3-4-50: Chronic Disease in San Diego County, 2010. Available from www.SDHealthStatistics.com

Cunningham, J. A. and Curtis Breslin, F. Only one in three people with alcohol abuse or dependence ever seek treatment. *Addictive Behaviours*, 2004 29(1), pp. 221-223.

Department for Health. Public health responsibility deal, 2013 Available from <https://responsibilitydeal.dh.gov.uk/wp-content/uploads/2013/02/Generic-RD-Flyer-Final.pdf>

Department of Health, Start Active, Stay Active: A report on physical activity from the four home countries' Chief Medical Officers, 2011. Available from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216370/dh_128210.pdf

I-Min Lee *et al* for the Lancet Physical Activity Series Working Group, Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy, 2012 *The Lancet*, 380: 9838, 21–27 Available from: <http://www.sciencedirect.com/science/article/pii/S0140673612610319>

Kings Fund: Clustering of unhealthy behaviours over time. Implications for policy and practice, 2012 Available from www.kingsfund.org.uk/publications/clustering-unhealthy-behaviours-over-time

Local Government Association. Tackling drugs and alcohol – local government's new public health role, 2013 Available from http://www.local.gov.uk/c/document_library/get_file?uuid=29b1bd72-bac4-46dd-9189-73ea23c38284&groupId=10180

National institute for health and care excellence (NICE) Alcohol-use disorders: preventing harmful drinking, 2010. Available from <http://www.nice.org.uk/guidance/ph24/chapter/1-recommendations>

National institute for health and care excellence (NICE): Physical activity return on investment tool. Available from <http://www.nice.org.uk/about/what-we-do/into-practice/return-on-investment-tools/alcohol-return-on-investment-tool>

NHS England, 2016 'quick guides' Prevention www.england.nhs.uk/ourwork/futurenhs/deliver-forward-view/stp/support/

North Somerset Council Joint Strategic Needs Assessment: Obesity. Available from www.n-somerset.gov.uk/community/partnerships/Pages/Joint-strategic-needs-assessment.aspx

North Somerset Health Needs Assessment – an overview of the population health of North Somerset, February 2016

Owen L, Morgan A, Fischer A, et al. The Cost-Effectiveness of Public Health interventions. *Journal of Public Health* 2011, 34(1): pp. 37 –45

Public Health England: The Segment Tool, London Health Observatory, 2014 http://www.lho.org.uk/LHO_Topics/Analytic_Tools/Segment/TheSegmentTool.aspx

Public Health England: Years of Life Lost in the South West, 2008 to 2012. Clinical Commissioning Group ranking charts and RAG charts. Knowledge and Intelligence Team (South West), 2014

Robson J, Dostal I, Sheikh A, et al. The NHS Health Check in England: an evaluation of the first 4 years. *BMJ Open* 2016;6:e008840

South Gloucestershire JSNA Executive Summary (draft), January 2016

The Kings Fund, Making the case for public health interventions, 2014. Available from www.kingsfund.org.uk/audio-video/public-health-spending-roi

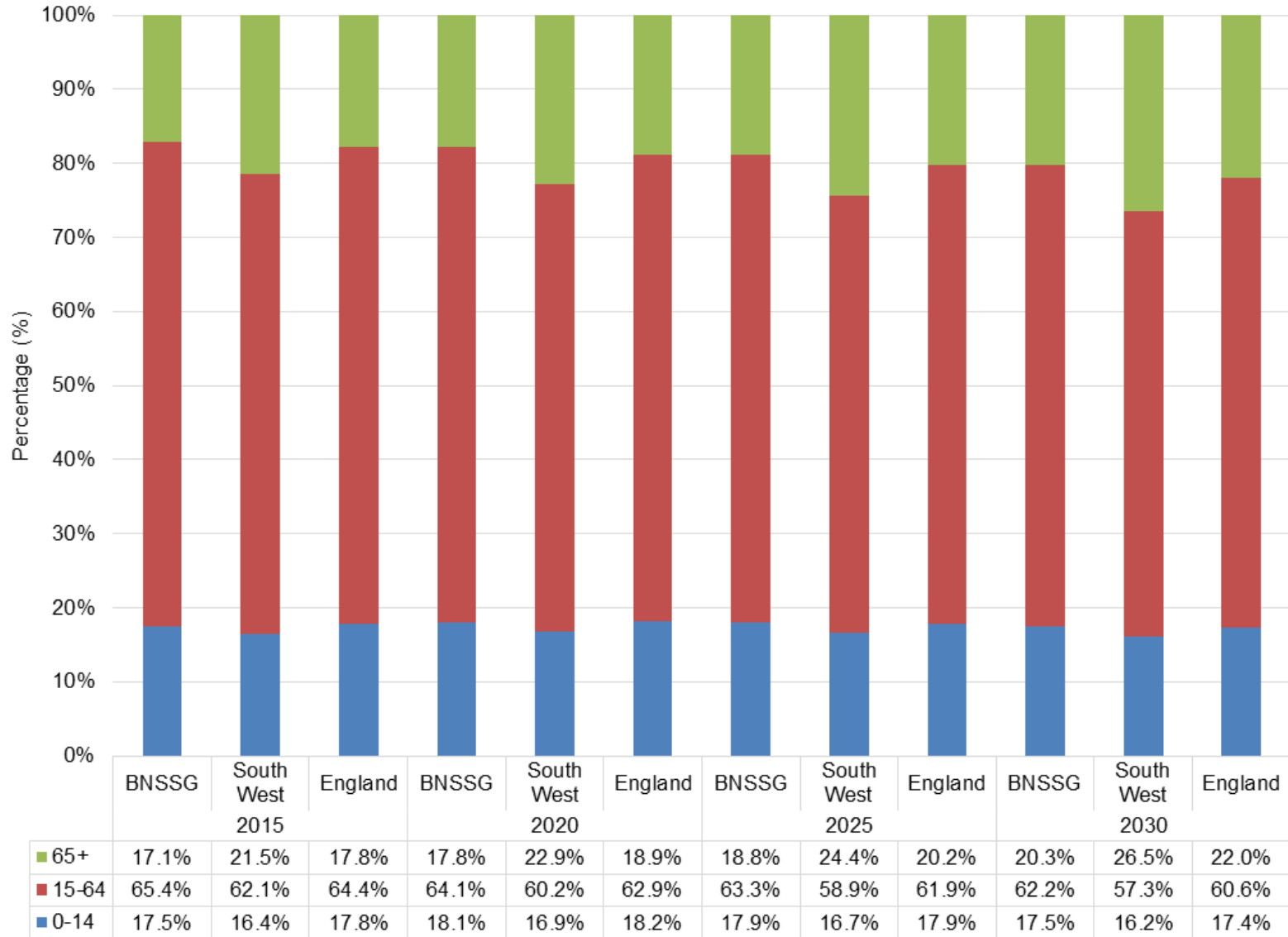
World Health Organisation, The case for investing in public health. A public health summary report for EPHO 8. 2014

The overall picture for Bristol, North Somerset and South Gloucestershire (BNSSG) shows the younger population (0-14) is increasing at a quicker rate than the South West and England. There is a substantial increase in the elderly population with 20.3% over 65 by 2030.

xiii. Population Projections

Population projections for BNSSG, South West and England, by age categories, 2015-2030. (Figures in thousands – to one decimal place)

Area	Age Grp	2015	2020	2025	2030	% Change from 2015	% Change from 2015 South West	% Change from 2015 England
BNSSG	0-4	60	62	63	63	5.18	-0.36	-0.79
BNSSG	5-9	56	59	61	62	10.81	6.31	5.08
BNSSG	10-14	48	55	58	60	26.32	20.00	19.00
BNSSG	15-19	54	52	59	63	15.87	10.60	11.59
BNSSG	20-24	73	73	69	78	7.27	2.44	1.12
BNSSG	25-29	70	73	72	69	-1.85	-6.05	-6.95
BNSSG	30-34	67	71	74	72	6.98	3.09	0.99
BNSSG	35-39	61	66	69	72	17.99	14.33	13.94
BNSSG	40-44	60	59	64	67	11.67	1.80	6.18
BNSSG	45-49	64	59	58	63	-1.57	-11.89	-5.18
BNSSG	50-54	61	62	58	57	-7.98	-17.41	-11.19
BNSSG	55-59	52	60	61	56	9.30	2.98	7.05
BNSSG	60-64	46	50	58	59	27.61	23.53	27.20
BNSSG	65-69	48	44	48	55	15.90	12.04	16.48
BNSSG	70-74	37	45	42	45	20.91	22.73	27.14
BNSSG	75-79	29	34	41	38	31.83	35.70	31.85
BNSSG	80-84	22	24	29	36	59.91	69.69	63.47
BNSSG	85-89	14	16	18	22	60.43	61.16	57.69
BNSSG	90+	9	11	13	17	90.91	92.68	100.51
BNSSG	All ages	930	973	1,013	1,052	13.17	10.04	10.06



BNSSG has a lower proportion of over 65s in comparison to the South West and similar to England, which remains throughout the projections.

The percentage of elderly is increasing across BNSSG at a similar rate to England, reaching 20.3% by 2030, in comparison to 26.5% in the South West and 22.0% in England. However, as seen from the previous figures there is variation among the different areas that make up BNSSG.

E. Clinical Pathways Strategy

i. Key Pathways

As part of the development and delivery of the STP, key pathways requiring a more strategic, cross system review have been identified using:

- Right care benchmarking and Commissioning for Value tools
- Public Health intelligence and evidence of impact
- Provider benchmarking and performance

Based on our analyses, the following pathways have been identified as potential priority areas:

Model of care element for which identified	Self care and prevention	Integrated primary and community care	Acute care collaboration
MSK/Trauma and orthopaedics		X	X
Stroke	X	X	X
Cardiology			X
CVD: including Atrial Fibrillation; hypertension and hypercholesterolaemia	X	X	
Diabetes	X	X	X
Respiratory including COPD	X	X	X
Frailty	X	X	X
Urgent Mental Health		X	X
Dermatology			X
Pain management		X	X
Cancer	X	X	X
Neurology			X
Alcohol	X	X	X
Falls			
Children and Young People Mental Health	X	X	
Sexual health	X		
Dementia		X	X

These will be prioritised according to impact using:

- Right Care
- Getting it Right First Time
- Optimal tool (CLAHRC – West.

ii. Work Programme

The work programme will be developed that prioritises clinical leadership and supporting resource to the relevant pathways, combining existing work in individual CCGs and providers into one consistent approach for BNSSG.

The STP footprint leadership has agreed the following in support of this:

- The establishment of a “clinical cabinet” of clinical and care leaders across organisations that supports the clinical strategy and is accountable for delivery of that element of the STP. Its role will be to:
 - sponsor the work programme
 - support the principles and ways of working
 - agree priority areas (with priority given to areas that support the developing STP model of care work and more cost effective clinical care that delivers value to the system)
 - ensure learning is incorporated into future work programme and BNSSG ways of working
 - be supported by:
 1. BNSSG transformation resource
 2. programme and project management (BNSSG PMO) to ensure pace and oversight.
 - provide focal point, links to and commission work from organisations such as Bristol Health Partners, Avon Primary Care Research Collaborative for work they are doing in support of clinical redesign.
 - work across BNSSG to resource management support.
- A jointly held (provider and commissioner) list of priorities and work programme that requires clinical pathway work at a more strategic level that is identified using:
 - Benchmarking tools such as Atlas of Variation, Right Care etc.
 - Clinical evidence base and best practice reviews.
 - known system issues with quality, performance and delivery, or demand and capacity

- Commitment to involving all the relevant commissioners and providers for any pathway or element of pathway to address the outcomes and spend on a population basis and realise benefits to the system.
- An agreed approach to resourcing and using evidence based, systematic change methodologies for delivering rapid improvement and project management of these.
- An agreed approach to embedding pathways and making them visible to clinicians and patients across the system including running relevant education events.
- A simple, web based repository for holding and maintaining version controlled pathways and forms and making consensus adjustments as required e.g. when new NICE guidance is issued where this does not require significant change that enables rapid consultation with clinicians in BNSSG.
- Referrals management software in GP practices and elsewhere as possible.

iii. Principles for pathway development

Principles for pathway development include:

- Addressing the needs of the whole population including those at risk of disease now and in the future not just those currently in the system;
- Affordable pathways that promote value for the system, the population and the patient
- Ensuring that there is a focus on creating sustainable clinical and care systems where any waste / unwarranted variation is minimised - right care, right time for patients;
- Ensuring the 'patient voice' informs the case for change and opportunities for improvement;
- Get it right first time;
- Minimise use of professionals time;
- Use the most cost effective professional for every contact;
- Minimise use of hospital (and other nursed) beds;
- Minimise administration costs;
- A consistent offer across all of BNSSG;
- Embedding shared decision making tools within key pathways or decision points within pathways;
- Maximising opportunities for prevention, use of self-care and technology;
- Agreeing clear outcomes and methods for measuring "success";
- Identifying opportunities for innovative approaches to commissioning or contracting needed to support delivery.