

Innovation and Health Connected



NORTH WEST COAST  
**ACADEMIC HEALTH  
SCIENCE NETWORK**

Business Plan

April 2014

*working together .....*



Every day in healthcare services, in universities and in industry, brilliant people are having brilliant ideas...

...brilliant ideas that can change the lives of people here and across the world.

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# 1 Executive Summary



## 1.1 Background to Academic Health Science Networks

The policy initiative for the development of the AHSNs stems from “Innovation Health and Wealth” (DH 2011). The primary purpose of AHSNs is to implement innovation (which in this context refers to clinically proven healthcare innovations being applied for the first time, or in new clinical settings) at “scale and pace”, that is more quickly, and more widely than is currently the case. This requires AHSNs to broker new working relationships between the NHS, academia, industry and other key players. There are 15 AHSNs across England.

AHSNs operate as system integrators, drawing together and capitalising on the extensive skills, resources and facilities in the region to accelerate innovation by aligning the priorities and plans of their partners and members in the most effective and efficient way. The North West Coast Academic Health Sector Network (NWC AHSN) has commenced its integration role by building upon established networks and partnerships across the region, including the NIHR CLAHRC NWC, the NIHR Clinical Research Network, Liverpool Health Partners, Lancaster Health Hub, the North West region’s two Strategic Clinical Networks, and the Northern Health Science Alliance.

## 1.2 Core aims

The core aims of the NWC AHSN are to;

*1. Drive and enable access to safe, effective, evidence-informed healthcare for the entire NWC population*

*2. Drive the development and delivery of advanced treatments, technologies and clinical practice across the NWC to enhance the quality and efficacy of service provision.*

*3. Attract global investment and generate jobs for the NWC*

## 1.3 Approach

The NWC AHSN will:

*Integrate and build upon established networks and partnerships across NWC*

We have implemented new systems and processes to ensure strategic and operational linkage between other established NHS/University partnerships, NIHR networks, and other NHS England networks across the NWC and the North of England. We aim to realise the very strong potential for achieving effective systems integration of networks and partnerships across the entire NWC. This will provide the NWC with a powerful and distinctive asset for enhancing health Innovation across this area.

*Establish core Infrastructure to achieve impact and sustainability*

We have identified core infrastructure and capability for ensuring the growth, impact and sustainability of health innovation across the NWC. Throughout 2013/14 we have supported and will continue to drive and support the following key areas:

- Integrated Health Records for healthcare and research, through the combined Liverpool Big Data Collaborative (LBDC) programme and the Lancashire Patient Record Exchange Service (LPRES), the HeRC project and the Sapphire Project.
- Roll-out of existing models of NHS “best practice in innovation” more widely across NWC
- Training, establishing and supporting innovation champions within each NHS organisation
- Training, developing and supporting a workforce equipped with the skills to enable innovation within the NHS
- Establishing and supporting NHS / university expert groups to work with industry, and to advise on and support adoption of innovations within their specialist area of expertise

- Establishing an NWC academic network to support Higher Education Institutions (HEI) engagement with industry and to identify joint H2020 initiatives
- Extending our local base of skills and expertise to support evaluation and assessment of innovative products

*Drive and support the establishment of new innovation campuses as a focus for job and wealth creation*

We shall actively shape and support the further development of three new innovation campuses in the area (Liverpool Bio-Innovation Hub; Alder Hey Institute in the Park; Lancaster Health Innovation Campus). We regard these as key components of our plans to attract external investment and to enable local job creation.

*Establish a NWC framework for selecting and supporting specific business initiatives, aligned to our thematic priorities*

We have established robust processes for identifying businesses (at least three per year) to which we will provide focused support for product development / evaluation / implementation across the NWC. The impact and outcome of the scheme will be monitored prospectively in each case.

*Support the further development and wider implementation of established programmes relevant to our core aims*

We have identified More Independent (Mi) as an exemplar programme for potential development and implementation across a wider footprint. Similarly, we shall explore the potential for achieving added value for other already-established NWC-based programmes.

*Support the growth of developing programmes that will add benefit across our footprint and beyond*

We have identified the North West Coast genomics programme as a key programme for development and spread.

*Establish NWC AHSN funding infrastructure*

We are establishing infrastructure to enable us to bid successfully for funding from public funding streams in the UK and abroad, and to attract funding through a range of private and venture capital funding streams.

*Establish partnerships with medical charities to advise, inform and support knowledge translation, innovation and horizon scanning within their specialty area*

We shall build upon our current discussions with UK medical charities to develop formal partnerships aimed at enabling the AHSN to benefit from their knowledge and understanding of health need, best practice and advancing knowledge within their specialty area.

*Participate in and/or lead larger scale regional, national and international events and activities*

We are leading as an expert on Stop and Go, a European-wide procurement project, and we shall contribute to, and in some cases lead, high profile conferences, events and other initiatives relevant to our core aims, for example NHS EXPO 2014, Year of the Brain, International Festival of Business.

## 1.4 Our 'campaigns'

In 2014/2015, alongside our partners, we will drive the following campaigns as we believe that these areas will bring significant benefit for our region. Annex 1 details the expected outcomes and partners in these campaigns.

- Reducing health inequalities focusing in 2014 on reducing stroke due to atrial fibrillation
- Developing and disseminating good procurement practice
- Integrating patient records and developing the use of big data to inform future healthcare practice
- Developing good practice in medicines safety, optimisation and effective prescribing

- Further developing and disseminating digital health solutions for residents and health professionals
- Developing good practice in medications safety and optimisation
- Attracting funding and creating wealth across NWC
- Developing a culture of innovation across healthcare providers in the NWC

## 1.5 National and Regional Areas of Focus'

All AHSNs have four "areas of focus", which form the basis of the 'licence to operate' from NHS England. These are:

- Address the needs of patients and local populations: support and work in partnership with commissioners and public health bodies to identify and address unmet medical needs, whilst promoting health equality and best practice
- Build a culture of partnership and collaboration: promote inclusivity, partnership and collaboration to consider and address local, regional and national priorities
- Speed up adoption of innovation into practice to improve clinical outcomes and patient experience - support the identification and more rapid spread of research and innovation at pace and scale to improve patient care and local population health
- Create wealth through co-development, testing, evaluation and early adoption and spread of new products and services

The actions we will take in 2014/15 to achieve against the licence areas are included in Annex 2.

In accordance with the six principles of a successful health system, the NWC AHSN will continue to develop its strategy and planning according to the paramount

aims of driving the development and uptake of innovation across the NWC, attracting investment, resource and new facilities into the area and informing and supporting the development of a high-quality healthcare system across the region. All of the themes and work programmes presented in our Plan on a Page and our Business Plan have been identified for their potential to deliver activity and enhance capability within each of these aims. As part of this, we shall continue to work with the Strategic Clinical Networks and with the local Healthwatch to develop effective engagement of residents in not only the identification and design of health innovation but also the uptake and utilisation of new approaches. This will include the need, in some instances, for programmes to support engagement and understanding of new technologies and ways of working, and for these to be tailored according to key demographic and cultural factors.

We shall further develop our links with Specialised Commissioners, particularly to ensure that their decisions are informed by full awareness and understanding of the local innovation pipeline relevant to areas of different specialised services, and the research and evidence-base to inform decision-making regarding the effectiveness, impact and value of new approaches within these fields. In addition, we shall continue to provide significant momentum and support towards two major strategic initiatives to develop platforms for integrated health records (IHR), which collectively encompass the entire NWC. We have been instrumental in establishing linkage and co-ordination between these initiatives, and shall ensure that they deliver on their potential to provide an advanced, comprehensive IHR system for care and research purposes across the NWC.

We will support a minimum of three and a maximum of ten businesses across our footprint in 2014/15. During 2013/14 we conducted a robust search and assessment, with a trade body to select three SMEs to whom we will give intense support over the next year. This support will take the form of a full business development package,

providing accelerated access to NHS organisations (so that products and services can be trialled in situ), full assistance in meeting relevant IP and regulatory requirements for the product or service through to establishing the conditions for full commercial exploitation and operational implementation either in the UK or abroad.

In addition we are supporting a number of companies to co-develop and evaluate health solutions. We are also working with an external body to establish a pipeline of investors and conduct robust due diligence and product assessment for SMEs on our patch. Our full time Commercial Director has been in post since March 14. This role is solely aimed at selecting and supporting business and raising funds/ creating wealth.

## 1.6 NWC Priority Themes

The NWC AHSN's priorities are determined by its overall vision:

- Improving population health by reducing variation and equalising access to excellent care
- Promoting a vibrant economy through investment, innovation and sustainability of employment

This vision is underpinned by three guiding principles

- Reducing health inequalities
- Enhancing high value, effective, evidence-based healthcare
- Improving safety in healthcare

The NWC AHSN's strategy is informed by a 'Smart Specialisation' approach, leading to identification of existing benefits and advantages, such as the location of certain industries in the North West Coast region, the presence of leading edge research groups, advanced clinical and academic expertise, and the further development of international class innovation initiatives

such as the Mi project, Liverpool's DALLAS community. The NWC AHSN has worked with partners to identify areas of strongest local health need and potential impact. Its main clinical themes are Cancer, Child and Maternal Health, Cardiac Health, Stroke, Mental Health, Musculoskeletal Health and Long-Term Conditions.

The AHSN is also providing space and opportunity for creative, imaginative innovation by bringing together disparate sectors, clinical and academic disciplines, industry and the public in novel configurations. It works closely with both the well-established and "new" universities within its geography, having convened a series of Academic Summits and meetings to combine and fully exploit the special attributes each institution possesses.

It has adopted a wide definition of the term "innovation", which embodies a bio-psychosocial view of health, and includes areas such as psychological interventions, public health strategies, and education and training.

## 1.7 System Wide Support

The NWC AHSN provides system wide national support in the following areas:

- Digital health, including telehealth, telecare and telemedicine
- Infection and tropical disease
- Personalised care and treatment
- Neurological health
- Procurement

The first four areas are linked to existing activity, interests and structures, identified using a Smart Specialisation approach, across the North West Coast area. In addition, the NWC AHSN will facilitate the sharing of knowledge and expertise developed by the NW



Procurement Group with all other AHSNs through the Network of Networks.

## 1.8 Resources Available to the AHSN

All AHSNs have received funding from NHS England, enabling them to employ staff, develop facilities and networks and provide a degree of stability. Funding is allocated on an adjusted population model, providing NWC AHSN with a total allocation of no less than £2.71 million for 2014/15. During the next five years, the centrally allocated sum will decline as a proportion of the total financial resource raised by the AHSN. During 2013/14 and continuing forward each NHS organisation has contributed a membership fee to the NWC AHSN. The AHSN plans to extend this into other sectors.

Based on partnerships formed in 2013/14, a number of match funded projects have been brokered with the four Local Enterprise Partnerships in the NWC AHSN region for 2014/15. A small amount of European funding has been secured for the next three years and a further collaborative bid has been submitted for further European funds.

The NWC AHSN also supported a large number of successful Research Innovation Funds for partner organisations. It has also funded some of the high-quality projects that were unsuccessful in gaining national funding but were clearly complementary to the AHSNs priorities.

During 2014/15, NWC AHSN achievements will include a focus on generating income, and entering into commercial arrangements with a range of bodies. This will enable the organisation to achieve an appropriate amount of Return on Investment (ROI). Our Commercial Director will work with a number of agencies to achieve the wealth metrics established between NHS England and the AHSNs.

## 1.9 Governance Arrangements and Legal Form

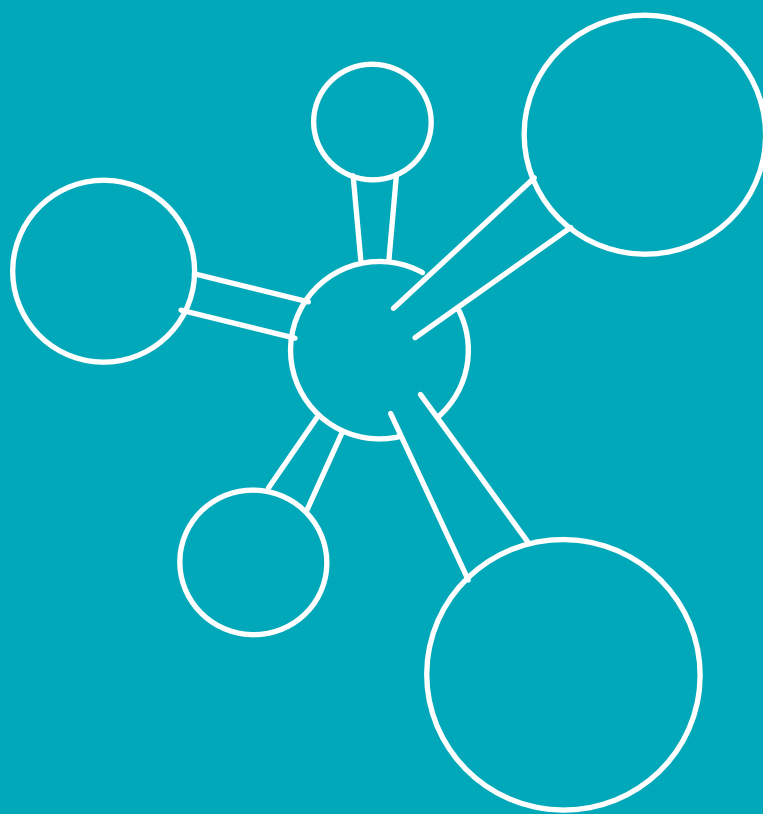
The NWC AHSN Board has considered the range of available options available in relation to legal form.

NWC AHSN will continue to be hosted by Lancashire Care NHS Foundation Trust. This locates the organisation firmly within the NHS so that it has a strong understanding of the needs of residents, service users and patients.

The above information is summarised as a series of appendices for ease of reference. These are as follows:

- Annex 1: Our campaigns
- Annex 2: Annual plan on a page, outlining partners of the AHSN
- Annex 3: Metrics mapping
- Annex 4: Mapping of key priorities against the domains of the NHS Outcomes Framework
- Annex 5: Domain Allocations
- Annex 6: Sample clinical work programme
- Annex 7: Our members and stakeholders
- Annex 8: Glossary of terms

# 2 Delivery Plan



## 2.1 Introduction

NWC AHSN will deliver a set of work programmes which will facilitate the end-to-end innovation pathway from identification of unmet need, generation of innovations and service improvement, through to adoption and implementation of sufficiently evidenced and AHSN approved innovations and service improvements. This innovation pathway will be supported by additional work programmes to ensure that it creates wealth by bringing inward investment into the NWC, and exporting its expertise and capabilities, particularly around the lead areas of expertise.

## 2.2 Identify and Address Unmet Need

### Purpose

To deliver one priority clinical improvement area in year for potential service improvements through research, innovations and development of best practice, which will feed into a pipeline of approved innovations and service improvements to be adopted by AHSN members.

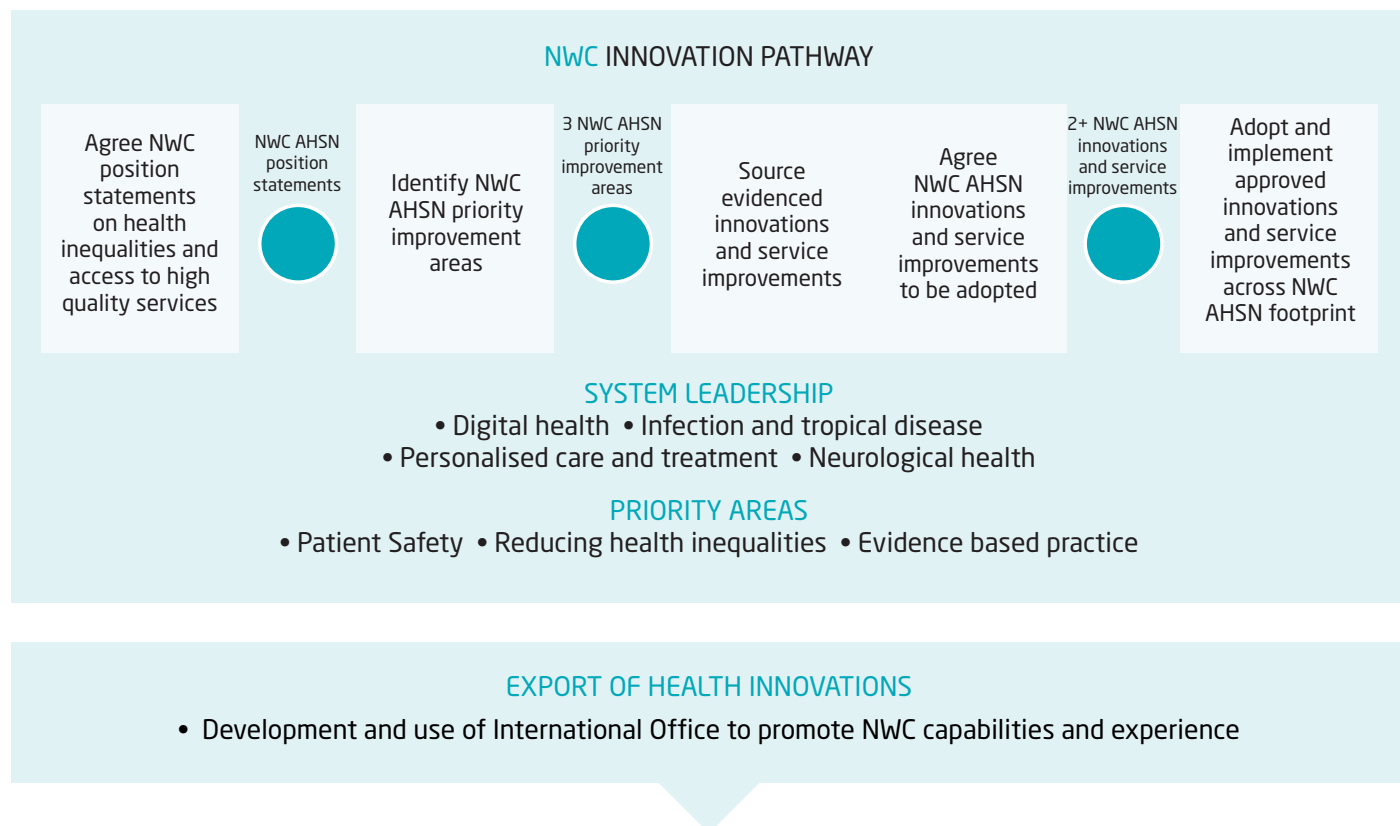
In 2013/14 the AHSN commissioned a piece of work around health inequalities in the region from its service improvement delivery partner AQuA. In summary this stated that:

- Health spend per head in the NWC is similar across the Index of Multiple Deprivation (IMD) quintiles, however the most deprived have a lower spend per head than average on acute care (but it is not the lowest of the quintiles)
- Despite overall similar levels of spend per head, differing types of service are being accessed by the most deprived – it is not simply the same care via a different route
- There is clear rising trend of non-elective admissions per head of population with increasing deprivation
- Increases in non-elective admissions for Long-Term Care (LTC) conditions as deprivation increases are related to the structure of primary care services

This evidence is that as deprivation rises, NWC residents are more likely to access care via an emergency route due to the late presentation in more deprived communities, who defer accessing care until their condition precipitates an emergency. There is also an issue with the complexity of the elective case mix for this group, with low access to elective care, but the most complicated case mix when it does occur.

Alongside this work the AHSN selected a trade body to work with in order to produce an agreed set of criteria with which to evaluate appropriate innovations and service improvements for adoption and implementation by AHSN members. These innovations will be deployed during 2014/15.

Figure 1: NWC innovation process for selection of service improvement innovations/ technologies



## Objectives

- Establishment of a pipeline of approved innovations and service improvements aligned with the NHS Outcomes Framework and findings above, to be adopted by AHSN member organisations.
- A collaboration between the NWC AHSN and industry and academia in place where:
  - The AHSN shares its high priority needs with industry and academia to explore for potential opportunities for innovation and research within the region
  - Industry and academia bring areas of research and innovation to the AHSN to explore for addressing priority improvement areas
- A multi-way interaction between the NWC AHSN and member Trusts and CCGs in place, facilitated by a network of geographic (see Section 2.3 'Speed of adoption of innovation and service improvement'), where:

- The AHSN shares high priority needs for Trusts and CCGs to explore for the identification of potential best practice and service improvement within the region that may have benefits for the wider NWC region

## Delivery approach

The NWC AHSN will facilitate the production of approved innovations and service improvements for the NWC region, by matching identified needs with the interest and capabilities of industry and academia. In 2014/15, commissioners have requested a strong focus on digital health, co-ordination of specialised services and stroke. To address these issues the AHSN will:

1. Work closely with member CCGs and Trusts, SCNs, Industry, local authorities and academia through the regular forums to disseminate three priority improvement areas each year for exploration and research to develop innovations and service improvements. In this forum, the

AHSN will share the position statements, and Trusts, CCGs, industry and academia will share innovations, research and potential best practice and service improvements that may have benefits for the wider NWC region. The annual NWC AHSN Innovation Expo (see Section 2.5 'Wealth creation') is designed to support this – this will showcase innovations, research, and service improvements from industry (particularly SMEs), academia and the NHS to stimulate 'managed' collaboration.

2. Enhance translation of research into practice. Research collaborations across industry, academia and the NHS have been further stimulated as a result of the successful NIHR CLAHRC NWC bid. The NIHR CLAHRC NWC will be an important partner for the AHSN in facilitating the response to the agreed priority improvement areas and

their development into specific innovations and service improvements.

## Outcomes and benefits

### Outcomes:

- Collaborations in place across academia, industry and the NHS to address the priority improvement areas of unmet need for the NWC region.

### Benefits:

- A pipeline of appropriately evidenced innovations and service improvements can be taken forward for adoption by AHSN organisations to reduce health inequalities and improve access to high quality health services, as defined by the position statements.

## Risks and mitigation

Figure 2 Risks and mitigations for 'Identify and address unmet need'

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
1. Lack of agreement across the region on annual plan.	L	H	Extensive engagement from the start with all relevant stakeholder organisations through the Industry Forum around position statements.
2. Relevant stakeholders (e.g. industry, academia, local authorities) do not feel sufficiently engaged in determining the priority improvement areas.	M	M	Engagement around selection of priority improvement areas through a variety of forums. Also other engagement tools e.g. NW AHSN Innovation Expo.

## 2.3 Speed Up Adoption of Innovation

### Purpose

To implement a pipeline of innovations and service improvements across the NWC region that delivers improvements in health inequalities and access to high quality services.

### Objectives

- An improved set of capabilities across the AHSN members for delivering and implementing innovations and service improvements
- A close liaison at a local level between the AHSN and academic institutions, NHS Trusts and CCGs to deliver service improvements and identify innovations and service improvements that could benefit the wider region

### Delivery approach

NWC AHSN will commit to implementing appropriate innovations or service improvements each year that have been approved by the AHSN. These approved innovations and service improvements may be nationally prescribed or recommended e.g. HIs, NICE Technology Appraisals, or locally identified or developed. The NWC AHSN will support AHSN partners to do this, through a number of routes:

NWC AHSN Programme Managers and Project Managers will work with named innovation leads in each Trust and CCG. The named innovation leads will be trained in 'state of the art' improvement techniques by the AQuA Academy (who have already provided training and development in improvement and innovation to around 5,000 NHS staff from "ward to board" level in the North West) who will also engender collaboration, further development and peer support. The costs of providing the training and facilitating the collaborative will be met from the joint AQuA/ AHSN membership subscriptions. Significant benefits will flow from the fact that the AHSN is closely linked into relevant partners e.g. LEPs, HEIs, SMEs and large companies.

The AHSN will facilitate interaction between the AHSN stakeholder organisations and industry where:

- Industry will be encouraged to identify and share with the AHSN stakeholder organisations issues preventing or delaying the adoption of innovations and service improvements
- AHSN stakeholder organisations will share progress and issues on adoption and implementation with industry and industry collaborates where appropriate to further improve adoption and service improvement, and stimulates new innovation and research

The AHSN will ensure close liaison with universities to provide a consistent approach to evaluation of the impact of innovations and service improvements, both in their proof of concept phases, and in full deployment. This will be facilitated through individual institutions and also through the regular Academic Summits run by the AHSN.

### Outcomes and benefits

#### Outcomes:

- A consistent and collaborative approach to delivering key innovations and service improvements across the NWC region

#### Benefits:

- A consistent adoption of appropriate innovations and service improvements across the NWC region, with a consequent impact on improving health inequalities and quality of care services

#### Incentives and levers

- Working through CCGs, who can require organisations, through their contracts, to adopt and implement agreed innovations and service improvements

## Risks and mitigation

Figure 3: Risks and mitigations for 'Speed up adoption of innovation'

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
1. Trusts do not implement AHSN approved innovations and service improvements.	H	M	Extensive engagement encouraging nominations for AHSN approved innovations and service improvements, as well as concerning the evaluation and selection of AHSN approved innovations and service improvements. Liaison with CCGs as appropriate to incorporate commitments within contracts to incorporate the implementation of approved innovations and service improvements.
2. Innovation leads appointed in Trusts do not have the responsibilities, capabilities and skills to make sure NWC AHSN innovations and service improvements implemented.	L	M	NWC AHSN has supported organisations to choose the most appropriate staff to be innovation leads by providing a role descriptor.

## 2.4 Identify and Enable Research

### Purpose

To support the newly established NWC NIHR Clinical Research Network (CRN) to deliver, through helping to standardise and integrate the set-up and operation of research studies across the region; thereby creating optimum conditions for industry and academia to work with the NHS to deliver research in the NWC region. To enable patients / service users to access ground

breaking treatment / drugs through clinical trials, without cost to the NHS.

### Objectives

NWC AHSN will share key objectives with the NWC CRN, plus some additional locally agreed objectives. The NIHR CRN High Level Objectives (HLOs) are currently as follows, and the NWC AHSN will work to re-align the work programme as and when changes to these HLOs are made:

- Increasing the proportion of NIHR Portfolio studies that deliver in line with the study's planned delivery time and patient recruitment targets
- Doubling the number of participants recruited into studies on the NIHR Portfolio
- Reducing the time taken to get NHS permission for studies to start
- Reducing the time taken to recruit the first participant into NIHR Portfolio studies
- Increasing the number of life-sciences studies on the NIHR Portfolio
- Increasing the percentage of NWC NHS Trusts involved in delivering the NIHR Portfolio

The additional local objectives are:-

- Achieve closer engagement with primary care around research, innovation and improvement capacity
- Design a research approvals process which ensures that excess treatment cost issues are resolved prior to study approval

## Delivery Approach

The NWC AHSN, led by the Medical Director, will cooperate with the NWC CRN through a joint working group to deliver the following across the NWC region:

- Common information and guidance. There will be a single gateway into the region's extensive research infrastructure, supported by 'NWC Access' (see Section 2.5 'Create wealth') and providing consistent, equitable information
- Contribute to the development of a regional infrastructure to support industry engagement in health research
- Closer engagement with primary care around research. The NWC AHSN will support the CRN in working closely with its primary care colleagues to develop research, innovation and improvement capacity. The NWC AHSN has identified significant untapped potential in this area. Closer engagement with primary care were also

enhance the AHSN's depth of understanding about, and capacity for, addressing unmet needs and reducing health inequalities

The NIHR CRN will own and deliver this work programme, and will be supported by the NWC AHSN in terms of the standardisation of processes and approaches, and in delivery. It is not anticipated at this stage that the AHSN will commission (further) work to deliver this programme, but that the programme will capitalise on key expertise already available within the region.

## Outcomes and benefits

### Outcomes:

- An integrated approach to costing, setting up and delivering NIHR portfolio research studies across the NWC region.
- Increased engagement by primary care in research.

### Benefits:

- Easier access for industry to the NHS and HEIs to develop, set up and deliver research, which will help the CRN to deliver more research within the NWC region and to deliver the NIHR CRN's HLOs.



## Risks and mitigation

Figure 4: Risks and mitigations for “Identify and enable research”

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
1. CRN funding has been cut	L	H	NWC AHSN remains flexible around whether standardisation work is delivered through AHSN or CRN resources.
2. Lack of agreement around technical architecture to create single source of subject recruits, shared governance and costs.	M	H	NWC AHSN and LCRN to liaise closely with stakeholders in development of recommended architecture, particularly where these organisations have existing proven systems. NWC AHSN and LCRN will be able to withhold approval if studies are not designed or carried out against agreed standards.

## 2.5 Create Wealth

### Purpose

To create wealth and jobs in the NWC region through inward investment, exporting health innovations and expertise and collaborating with industry.

### Objectives

#### 1. Inward investment

- Operation of an active process to manage queries and capitalise on interest around the development of innovation and service improvement and its adoption in the NWC region
- Operation of an active process to manage queries and capitalise on interest around the development of innovation and service improvement and its adoption in the NWC region
- The co-ordination of the assets in the NWC region to develop and shape IP in relation to the lead areas of expertise of digital health, infection and tropical disease, personalised care and treatment, and neurological health
- Close partnership working, particularly with key corporate partners, the Local Enterprise Partnerships (LEPs) the Small Business Research Initiative (SBRI) to secure public and private sector funding for the development and commercialisation of innovations and service improvements
- Close working with SMEs

#### 2. Exporting health innovations

- Work, in tandem with UKTI, Healthcare UK etc, to promote NWC's capabilities and experience internationally in its systems lead areas

#### 3. Collaborating with industry

- Provision of easier access, signposting and general support and advice to industry to work collaboratively with the NHS to drive the development and adoption of innovations and service improvements

- Close collaborative working across the NHS, academia and industry to develop, commercialise and adopt innovations and service improvements
- Working with industry, the development of a select group of high impact opportunities each year (in the three priority improvement areas) into identified innovations and service improvements that can be considered for NWC AHSN adoption (See Section 2.2 'Identify and address unmet need')

### Delivery Approach

The NWC AHSN will provide the environment to create wealth within the NWC region by delivering the 'Innovation Express'. This is the collective term for a group of structures and processes designed to provide a gateway between industry, academia and the NHS for the NWC region, removing needless barriers and obstructions to working with the NHS, improving and enhancing communication and brokering collaborations between different sector partners. The 'Innovation Express' includes:

- 'NWC Access', a web-based portal providing a single source of information for industry about how to work with the NHS in the NWC region to develop and commercialise innovations
- A Customer Relationship Management system to manage and derive intelligence from enquiries and contacts around innovation and service improvement
- Annual NWC AHSN 'Innovation Expo' showcasing innovation and service improvement and linking local SMEs and large companies
- Regular forums, working academia, the NHS and industry to agree priority areas
- SME 'clinics'
- Filtering and matching relevant innovations with capabilities and expertise from across the region, and sharing facilities across industry and health organisations

through collaborations. This includes Knowledge Transfer Partnerships (KTP) and Knowledge Exchange Fellowships, industry secondees into the NHS and NHS secondees into industry placements. The Knowledge Exchange Fellowships will help the two way transfer of knowledge such that commercial approaches are more an everyday part of the NHS, and that industry gains a greater understanding of the NHS

- Facilitating and brokering access to private and public sector funding to support the development and commercialisation of innovations and service improvements. This will include working with LEPs to access the European Development Fund and Regional Growth Funds, and the development of the SBRI
- Specific intensive development support for a small number of the most promising opportunities, to give them the best chance of progressing into defined innovations and service improvements to be considered by the AHSN for adoption across the NWC region and beyond
- Investigate the development of, funding streams to invest in innovations and service improvement
- Additional support for lead areas of expertise. There will be a particular focus by the NWC AHSN on supporting the identification and development of innovation and the consequent creation of wealth in the lead areas of expertise for the NWC AHSN, digital health, infection and tropical disease, personalised medicine and neurological conditions. This will include:
  - Working to secure corporate funding for investigating, developing and adopting innovations and service improvements in the lead areas of expertise
  - A focus on innovation in young people through local schools to create a culture of curiosity which may lead to future life science business
  - A mutually beneficial relationship with Sci-Tech Daresbury for their access to innovative products and

companies and our ability to develop and ensure spread of products at pace and scale

- Collaborating with partners to gain an international profile for capabilities and expertise in the NWC region for the specialist lead areas
- The NWC AHSN will liaise with delivery partners to make the best use of innovations and service improvements developed by them. For example, the NW Procurement Group will facilitate improvements in procurement in the region. The NWC AHSN will also work with the Network of Networks to make sure that the procurement expertise and capabilities of the NW Procurement Group are shared with the other AHSNs

## Outcomes and benefits

### Outcomes:

- Commercialisation of appropriate innovations and service improvements.

### Benefits:

- Opportunities for industry whose products meet the priorities of the region to collaborate with the NHS and HEIs in the development and commercialisation of innovations and service improvements

### Metrics and trajectories:

The metrics and their trajectories will be regularly reviewed by the AHSN Board and adjusted as appropriate to ensure that they are realistic but at the same time contain an appropriate level of ambition. The milestones outlined earlier will also be monitored and reported against, alongside the metrics.

## Risks and mitigation

Figure 5 Risks and mitigations for 'Create wealth'

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
1. Lack of integration with LEP plans.	L	H	LEP representation on AHSN board already and also helping to shape business plan. Involved LEPs already liaising with other LEPs in the region to ensure sufficient LEP engagement.

## 2.6 Engage Locally and Nationally

### Purpose

To provide overall co-ordination of engagement with local and national stakeholder organisations to develop buy-in to NWC AHSN plans and progress.

### Objectives

- To create ownership and buy-in to the AHSN and its plans across the NWC region by both the public and organisations working in the health sector
- The establishment of an open and transparent relationship with NHS England, generating confidence and trust by NHS England in NWC plans
- The establishment of a supportive and collaborative relationship with other AHSNs through the Network of Networks, where NWC AHSN is valued for its contribution, particular in its lead areas of expertise
- To create ownership and buy-in to the AHSN by other stakeholder organisations, particularly delivery partners in the region such as LEPs, HE NW, LCRN, NIHR CLAHRC NWC and Strategic Clinical Networks
- Support Trusts, CCGs and other colleague organisations in responding to the implications of significant, system wide reports working with partners such as AQuA, who have a track record in this area

### Delivery Approach

The NWC AHSN has had an emphasis on public engagement since the beginning and will continue this going forwards making good use of established best practice to make sure that the plans and priorities for the NWC AHSN are appropriate. The NWC AHSN will deliver both public and other stakeholder engagement as follows:

- NWC AHSN Board membership. The NWC AHSN Representative Board enjoys wide representation from the four main geographical zones in its region (Lancashire, South Cumbria, Cheshire and Merseyside) for CCGs, providers, HEIs, HE NW, the LCRN, industry, the Public Representation Network, Liverpool Health Partners and LEPs
- NWC AHSN Stakeholder Forum. The NWC AHSN forum extends the membership of the Board and meets quarterly. As well as AHSN partners, members and affiliates, this forum includes representatives from other important stakeholder organisations such as NICE, local authorities/ Health and Wellbeing Boards and AQuA

- Website. Considering the wide geographic area in the NWC region electronic communication is vital to developing the right level of engagement. The NWC AHSN website was updated and re-launched in 2013/14

- Industry Forum, International Festival of Business and National Innovation Expo. These events will help drive collaboration across HEIs, the NHS and industry to drive and develop innovation and service improvement

- Network of networks. The NWC AHSN is already building links with other AHSNs, particularly the other AHSNs in the North of England. NWC AHSN is a very active participant in the National AHSN Network and the North of England AHSN Network. NWC AHSN expects to have a particular focus in working with other AHSNs around its lead areas of expertise, to showcase the capabilities and expertise in these lead areas of expertise in the NWC region; and more generally in sharing resources and structures where this will maximise effectiveness and reduce unnecessary duplication

Our relationships with our key delivery partners are essential to the success of the NWC AHSN and will be as follows:

- Health Education North West (HE NW). NWC AHSN will work increasingly closely with HE NW to influence its education and training agenda. To cement this close relationship the Accountable Officer of HE NW is on the NWC AHSN board

- NIHR Clinical Research Network (CRN). The NWC AHSN will support the CRN to achieve the NIHR objectives

There is representation on the NWC AHSN board from the current CLRNs and future CRN. At an operational level there will a joint NWC AHSN and CRN working group to drive through the 'Identify and enable research' work programme.

- Local Enterprise Partnerships (LEPs). There are four LEPs in the NWC region. NWC AHSN is working closely with each of the four LEPs and has jointly funded some projects to establish infrastructure for the development of SMEs and jobs for the future. The AHSN will continue to work closely with the LEPs to align plans, objectives and the delivery of projects and programmes to create

jobs. This alignment should help the NWC AHSN benefit from additional public sector funding sources such as the Regional Growth Fund and the European Development Fund. There is LEP representation on the AHSN board

- NIHR CLAHRC NWC. The NWC AHSN will work closely with the NIHR CLAHRC NWC to increase research in the region for translation and implementation into practice

- Advancing Quality Alliance (AQuA). AQuA is the NWC AHSN's service improvement partner. There is a single membership fee covering both AQuA and the NWC AHSN. The NWC AHSN will be adopting AQuA's model of spread, as the locally enhanced version of the NHS Change Model. AQuA Analytics support the delivery of the position statements on health inequalities and access to high quality services. The AQuA Academy will help develop the required improvement capabilities within the workforce. The NWC AHSN Director of Innovation also has a role with AQuA

- Strategic Clinical Networks (SCNs). There is close liaison and bi-monthly meetings between the NWC AHSN and the two SCNs in the AHSN patch so that there is good clinical direction in the design and delivery of the NWC AHSN work programmes. In addition the SCNs link in strongly to the lead areas of expertise, where they have a relevant source of expertise

## Outcomes and benefits

### Outcomes:

- Ongoing, effective engagement of all relevant stakeholder organisations.

### Benefits:

- Buy-in and support amongst stakeholder organisations for the NWC plans and progress made.

- Confidence of commissioners and NHS England in the delivery of the NWC AHSN.

- NWC AHSN being a valued participant in the Network of Networks.

## Risks and mitigation

Figure 6: Risks and mitigations for 'Engage locally and nationally'

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
Lack of engagement from local partners causing unco-ordinated regional plans	L	M	Strong representative Board, widely published stakeholder events and various forums for each sector of the triple helix

## 2.7 Digital Health

### Purpose

To support the spread of the tele-care and tele-health capabilities and expertise developed in Merseyside through the Mi project (Liverpool's DALLAS community) and other exemplars more widely across the NWC region, and beyond to other AHSN regions and internationally.

To explore the use of digital health to address NWC's priority improvement areas.

To work with partners to develop an integrated patient record, with consented data that can be used to improve future patient care.

To work with NHS England to develop standards for the selection and adoption of digital health technologies.  
To explore the use of digital health in addressing the challenges and high costs of specialised services

### Objectives

- To help the Mi project make the North West an international centre of excellence for the application of life enhancing technology
- To have good practice in the use of digital health and develop interoperable patient record systems across the NWC region
- To maximise the use of digital health capabilities, expertise and infrastructure developed through the Mi project within the NWC region

- To deliver improvements for health inequalities and access to high-quality services through maximising independent living and self-care, putting care services closer to home and reducing the demand for more costly in-patient and institutional care services
- To generate inward investment in the NWC region as a result of digital health capabilities, expertise and infrastructure
- To export digital health expertise and capabilities to other AHSN regions and internationally, including the development of markets for the introduction of life enhancing technology across Europe

### Delivery Approach

The Mi programme is hosted by Liverpool CCG, a member of the AHSN, and commenced in June 2012 with initial funding of £17.3m for three years. The programme has developed into being a reference site for the European Innovation Partnership on Active and Healthy Ageing.

The NWC AHSN will work closely with the Mi project which is focused on Merseyside but has links with the local health economies in Cheshire, Manchester and Yorkshire, to identify, share and reuse the expertise and capabilities from the Mi project with the wider NWC AHSN region.

## Activities and Milestones

- Mi expertise shared across the NWC geographical area and beyond
- Innovations and service improvements from Mi being evaluated for AHSN adoption and implementation
- Developments across the whole region to support an interoperable patient record system, which can be used to harness consented data to support future health services
- Tele-medicine expertise supporting the exploration of the three priority improvement areas agreed by the NWC AHSN board
- NWC AHSN shaping and delivering programmes around this lead area of expertise within the Network of Networks and North of England AHSN network

## Outcomes and benefits

### Outcomes:

- NWC region making best use of Mi capabilities and expertise
- NWC region making best use of digital health data to address priority improvement areas for innovation and service improvement

### Benefits:

- North West becomes an international centre of excellence for digital health
- Wealth is created in the NWC region from inward investment and exports as a result of digital health capabilities and expertise

## Risks and mitigation

Figure 7: Risks and mitigations for 'Telehealth/care/medicine'

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
1. Delivery against some Mi targets and systems interoperability targets may need support and may divert attention from regional and national spread of good practice.	M	H	Mi and the 'Big Data' project has a dedicated team and AHSN will support via Programme/ Project Leads

## 2.8 Infection and Tropical Disease

### Purpose

To use the expertise and capabilities in the NWC region around infection and tropical disease to improve how infection is managed across the NWC region, and beyond to other AHSN regions and internationally.

### Objectives

- To help make the North West an international centre of excellence for infection and tropical disease
- To have good practice in the use of infection control across the NWC region
- To maximise infection and tropical disease expertise and capabilities within the NWC region, and make improvements in infection prevention and control by learning from international good practice
- To deliver improvements in health inequalities and access to high quality services (see Section 2.2 'Identify and address unmet need') through preventing and minimising the impact of infections
- To generate inward investment in the NWC region as a result of infection and tropical disease capabilities and expertise
- To export infection and tropical disease expertise and capabilities to other AHSN regions and internationally

### Delivery Approach

It is anticipated that the focus here, certainly initially, will be on identifying innovations and service improvements particularly to meet NWC priority improvement areas, rather than adoption and implementation. The NWC AHSN will facilitate collaboration between industry, academia and the NHS to identify and develop these innovations and service improvements, and set-up and operate research studies.

Key specialist expertise and associated delivery partners will include:

- Tropical Medicine. The Liverpool School of Tropical Medicine will provide specialist expertise in tropical medicine and its application, as well as useful expertise in managing infections relating to tropical diseases. This will help identify innovations and service improvements
- Logistics and supply chains. The business schools in the region, such as Lancaster University Business School and Liverpool Business School, will provide expertise to the NWC AHSN around the logistics and the management of supply chains to prevent and minimise the impact of infections. This will help identify innovations and service improvements that have the capacity for maximum effectiveness

### Outcomes and benefits

#### Outcomes:

- NWC region making best use of capabilities and expertise in NWC region for infection and tropical disease



## Benefits:

- North West becomes an international centre of excellence for infection and tropical disease
- Wealth is created in the NWC region from inward investment and exports as a result of infection and tropical disease capabilities and expertise.

## Risks and mitigation

Figure 8: Risks and mitigations for 'Infection and tropical disease'

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
1. Lack of engagement from key stakeholders	M	H	Reference/ expert group to be formed to lead the project

## 2.9 Personalised Care and Treatment

### Purpose

To use the expertise and capabilities in Liverpool around personalised medicine and genomics to reduce admissions to hospital and from adverse reactions to drugs across the NWC region, and to keep residents in employment due to medicines optimisation. To spread this good practice to other AHSN regions and internationally. Develop technologies to support the wide scale implementation of personalised medicine.

To extend the scope, utility and value of this paradigm so that biopsychosocial approaches and factors can be acknowledged, explored and adopted as appropriate.

### Objectives

- To make the North West Coast an international centre of excellence for personalised care / genomics
- To maximise personalised healthcare capabilities and expertise within the NWC region
- To generate inward investment in the NWC region as a result of personalised capabilities, expertise and infrastructure
- To export personalised healthcare expertise and capabilities to other AHSN regions and internationally

### Delivery Approach

The NWC AHSN's interest in personalised care and treatment aligns with the initiative to sequence the personal DNA code (genome) of up to 100,000 patients or infections in patients over the next five years, announced by Prime Minister David Cameron in December 2012. The Department of Health (DH) has prioritised sequencing of lung and paediatric cancer, rare diseases and infectious diseases.

The NWC AHSN will work closely with the personalised medicine expert group, to identify, share and reuse the expertise and capabilities developed with the wider NWC AHSN region.

### Outcomes and benefits

#### Outcomes:

- NWC region making best use of capabilities and expertise in NWC region for personalised care and treatment

#### Benefits:

- North West Coast becomes an international centre of excellence for personalised care and treatment

## 2.10 Neurological Health/Year of the Brain

### Purpose

To use the expertise and capabilities in the NWC region in neurological conditions to decrease inequalities in access to effective, efficient and person centred treatments and services for people with neurological conditions, and to influence and inform practice throughout the UK and further afield.

### Objectives

- To sustain the North West Coast's reputation as an international centre of excellence for neurological conditions.
- To ensure equality of access to neurological services across the region.
- To enhance the skills of primary and secondary care practitioners in recognising and referring neurological conditions.
- To enhance a community services approach to the delivery of neurological conditions across the region.
- To develop capacity in the delivery of randomised controlled trials and other methodologies across a range of neurological conditions.
- To support the Year of the Brain in 2014 in its campaign to reduce stroke due to atrial fibrillation.

It is anticipated that a number of local research studies currently in progress will deliver findings with the potential to significantly advance treatment and clinical practice in epilepsy, motor neurone disease and multiple sclerosis.

### Outcomes and benefits

#### Outcomes:

- North West Coast region making the best use of the specialist Trust in its region.
- North West Coast region making the best use of expertise to train primary care practitioners in the identification and treatment of neurological conditions.
- Successful outcome of the Year of the Brain activities

#### Benefits:

- North West becomes an international centre of excellence for neurological conditions.
- Wealth is created in the NWC region from inward investment and exports as a result of its capabilities and expertise in neurological conditions.
- Research results rolled out across the region

### Risks and mitigation

Figure 9: Risks and mitigations for 'Neurological conditions'

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
Research results are not as expected and cannot be disseminated	M	H	Ongoing updates and expert group to monitor results of research.

# 3 Performance Management



### 3.1 Metrics and Dashboard

The NWC AHSN performance dashboard is attached to this document at annex 3 and will be reviewed regularly by the NWC AHSN Board and reported on quarterly to NHS England. Action will be taken to address under-performance as appropriate. The metrics and their trajectories will be adjusted by the NWC AHSN as appropriate to ensure that they are realistic but at the same time contain an appropriate level of ambition. The AHSN has identified a number of possible risks to fulfilling its business plan and delivering the metrics. These risks and the actions taken in mitigation are described below

### 3.2 Risks and Mitigations

Table 1: Risk and mitigations for the NWC AHSN

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
Lack of agreement across the region on annual plan.	L	H	Extensive engagement from the start with all relevant stakeholder organisations through the Industry Forum around position statements
Relevant stakeholders (e.g. industry, academia, local authorities) do not feel sufficiently engaged in determining the priority improvement areas.	M	M	Extensive engagement around selection of priority improvement areas through a variety of forums. Also other engagement tools e.g. NHS Access, NW AHSN Innovation Expo
Trusts do not implement AHSN approved innovations and service improvements.	H	M	Extensive engagement encouraging nominations for AHSN approved innovations and service improvements, as well as concerning the evaluation and selection of AHSN approved innovations and service improvements. Liaison with CCGs as appropriate to incorporate commitments within contracts to incorporate the implementation of approved innovations and service improvements

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
Innovation leads appointed in Trusts do not have the responsibilities capabilities and skills to make sure NWC AHSN innovations and service improvements implemented	L	M	NWC AHSN has supported organisations to choose the most appropriate staff to be Innovation leads by providing a role descriptor
CRN funding has been cut	L	H	NWC AHSN remains flexible around whether standardisation work is delivered through AHSN or CRN resources
Lack of agreement around technical architecture to create single source of subject recruits, shared governance and costs	M	H	NWC AHSN and LCRN to liaise closely with stakeholders in development of recommended architecture, particularly where these organisations have existing proven systems
Lack of integration with LEP plans	L	H	LEP representation on AHSN board already and also helping to shape business plan. Involved LEPs already liaising with other LEPs in the region to ensure sufficient LEP engagement
Lack of engagement from local partners causing unco-ordinated regional plans	L	M	Strong representative Board, widely published stakeholder events and various forums for each sector of the triple helix
Delivery against some Mi targets and systems interoperability targets may need support and may divert attention from regional and national spread of good practice	M	H	Mi project and the 'big data project' has a dedicated team and AHSN will support via Programme/ Project Leads

RISK	LIKELIHOOD	IMPACT	MITIGATIONS
Lack of engagement from key stakeholders around infection/ tropical medicines	M	H	Reference/expert group to be formed to lead the project
The region is not successful in its bid to be a national genomics hub	M	H	AHSN, LHP and a range of other partners working together to highlight and develop good practice in preparation for a bid
Research results for the neurological workstreams are not as expected and cannot be disseminated	M	H	Ongoing updates and expert group to monitor results of research

By working together, we can make these ideas real. Research them, test them and bring them to market, to benefit everyone.

The benefits really are not just for people here and across the world who will see direct health benefits, but for the North West Coast region which will see investment creating jobs and prosperity.

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*working together* .....

# 4 Appendices





## Annex 1 - 'Innovation and Health Connected' - our 2014-16 Campaign Plan

CAMPAIGNS 2014 - 16	OUTCOME	PARTNER
1. Reducing stroke due to Atrial Fibrillation (Neuro)	<ul style="list-style-type: none"> <li>• Decrease healthcare spend</li> <li>• Decrease the number of strokes</li> <li>• Increase wealth / sustainability of employment for residents/ carers</li> </ul>	<ul style="list-style-type: none"> <li>• Advancing Quality Alliance (AQuA)</li> <li>• Strategic Clinical Networks</li> <li>• Healthwatch</li> <li>• CCGs</li> </ul>
2. Develop and disseminate good procurement practice (Procurement)	<ul style="list-style-type: none"> <li>• Improve the procurement process for innovative products</li> <li>• Improve the business environment for SMEs working in health care</li> </ul>	<ul style="list-style-type: none"> <li>• North West Procurement Development Service</li> <li>• Partner AHSNs</li> </ul>
3. IT / Patient record integration (System Integrator)	<ul style="list-style-type: none"> <li>• Consistency and sharing of data for treatment and research</li> <li>• Use of 'Big Data' to reduce healthcare appointments, improve quality of life for residents and decrease costs to the NHS</li> </ul>	<ul style="list-style-type: none"> <li>• Liverpool Big Data</li> <li>• Health Economics Research Centre</li> <li>• Lancs Patient Record Exchange Service</li> <li>• Liverpool Health Partners</li> </ul>
4. New model of specialised services (System Integrator)	<ul style="list-style-type: none"> <li>• Decreased costs - less visits to hospital (Telehealth)</li> <li>• Decreased duplication of service</li> </ul>	<ul style="list-style-type: none"> <li>• Specialised Commissioners</li> <li>• AQuA</li> </ul>
5. Digital health develop and spread (Telehealth)	<ul style="list-style-type: none"> <li>• Doctors use tele-health (which results in a decrease in hospital appointments)</li> <li>• Management of Long-Term/ self-care decreases visits to health care settings and reduces costs</li> </ul>	<ul style="list-style-type: none"> <li>• More Independent</li> <li>• European Connected Health Alliance</li> <li>• Technology Enabled Care Board</li> </ul>
6. Develop pathways and good practice for medicines safety and effective prescribing (Patient Safety)	<ul style="list-style-type: none"> <li>• Decreased costs due to failed treatment/ wasted drugs within the context of Pharmaceutical Price Regulation Scheme</li> <li>• Increase in sustainability of employment</li> <li>• Change in education and training leading to better practice</li> <li>• Improved compliance with National Institute for Health and Care Excellence (NICE) guidance and Medicines Optimisation</li> </ul>	<ul style="list-style-type: none"> <li>• Association of the British Pharmaceutical Industry (ABPI)</li> <li>• NICE</li> </ul>
7. Creating wealth by achieving grant funding and jobs for the region (Create wealth)	<ul style="list-style-type: none"> <li>• Funding drawn into region from a range of sources</li> <li>• Increased numbers of jobs</li> <li>• Increased research funding enables more evidence-based practice to be disseminated across the region and beyond</li> </ul>	<ul style="list-style-type: none"> <li>• Consultancy support</li> <li>• Local Enterprise Partnerships</li> <li>• Voluntary and community sector</li> <li>• AQuA</li> <li>• ABHI/ABPI</li> <li>• British In Vitro Diagnostics Association</li> </ul>
8. Develop an innovative culture across the region	<ul style="list-style-type: none"> <li>• Identification of regional areas of need for application of innovative solutions</li> <li>• Patients / residents / service users get early benefits of innovation with a particular emphasis on more disadvantaged groups</li> <li>• Each organisation prioritises innovation</li> </ul>	<ul style="list-style-type: none"> <li>• AQuA</li> <li>• UKTI / Healthcare UK</li> <li>• Industry</li> </ul>

## Annex 2 - 'Innovation and Health Connected' - our 2014/15 plan on a page

LEAD AREAS OF EXPERTISE:	TELEHEALTH/ TELECARE/ TELEMEDICINE	INFECTION AND TROPICAL DISEASE	PERSONALISED MEDICINE	NEUROLOGICAL CONDITIONS	PROCUREMENT
OUR PRIORITIES:	PATIENT SAFETY		REDUCING HEALTH INEQUALITIES		EVIDENCE BASED PRACTICE
Needs of local populations (reflecting our rural urban population)	<ul style="list-style-type: none"><li>• Disseminate Year of the Brain (YoB) stroke / AF learning</li><li>• Run Child and Maternal Health / Small Business Research Initiative (SBRI)</li><li>• Implement improvements in three health inequality areas</li><li>• Disseminate work of the National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care North West Coast (NIHR CLAHRC NWC)</li><li>• Support Nature/ Health regional initiative</li><li>• Digital health implementation and spread of good practice</li><li>• Train Innovation Champions in each organisation</li><li>• Develop proposal, with local partners for the national Patient Safety Collaboration</li><li>• Improve compliance with NICE Guidance and Medicines Optimisation, in the context of the Pharmaceutical Price Regulation Scheme and “Now or Never”</li></ul>		Rapid spread of innovation	<ul style="list-style-type: none"><li>• Co-ordinate ‘Stop and Go’ European project</li><li>• YoB- stroke/ AF spread of good practice</li><li>• Innovation template implemented in NHS organisations</li><li>• Innovation Champions trained for NHS organisations</li><li>• European strategy developed</li><li>• Implement and spread NIHR CLAHRC NWC research findings</li><li>• Assist commissioners to use technology and new pathways of care to move to a new model of specialised services</li><li>• Expansion of telehealth resources and usage/ spread of good practice</li><li>• Dissemination and development of good practice in medicines safety/ optimisation</li></ul>	
Partnership & collaboration System integrator	<ul style="list-style-type: none"><li>• Run a Health Week for International Festival of Business with Liverpool Health Partners (LHP)</li><li>• Implementation of Mayor’s Liverpool Health Commission</li><li>• Co-ordinate Big Data/ patient record projects in Liverpool, Cheshire and Lancashire</li><li>• Research body co-ordination</li><li>• Appoint Academic Liaison Officer</li><li>• Develop integrated IT Ecosystem</li><li>• Develop proposals for a network of Living Labs</li></ul>		Create wealth	<ul style="list-style-type: none"><li>• Investment in Liverpool Bio Innovation Hub and Alder Hey in the Park</li><li>• Submit appropriate funding bids</li><li>• Champion three small and medium enterprises (SMEs)</li><li>• Champion companies with SBRI funding</li><li>• Further develop and implement commercial and investment strategy</li><li>• Establish investment fund</li></ul>	
Working with our partners on behalf of our members:	<ul style="list-style-type: none"><li>• Advancing Quality Alliance</li><li>• NIHR CLAHRC North West Coast</li><li>• European Connected Healthcare Alliance</li><li>• Association of British Pharmaceutical Industries</li><li>• Sci-Tech, Daresbury</li></ul>		<ul style="list-style-type: none"><li>• NHS North West Leadership Academy</li><li>• Strategic Clinical Networks</li><li>• Northern Academic Health Science Networks</li><li>• Health Education England North West</li><li>• Healthwatches</li></ul>		<ul style="list-style-type: none"><li>• Lancashire &amp; Cumbria Clinical Research Hub</li><li>• Liverpool Health Partners</li><li>• Network of Academic Health Science Networks</li><li>• Association of British Healthcare Industries</li><li>• Local Enterprise Partnerships</li><li>• Northern Health Services Alliance</li></ul>
RESIDENT INVOLVEMENT					

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## Annex 3 - Metrics for delivery 2014/15

AREA AND OBJECTIVES	ACTIONS (AHSN LEAD)	OUTCOMES	Q1	Q2	Q3	Q4
NEEDS OF LOCAL POPULATIONS						
Support, develop and harness partnership working to meet existing needs more safely, effectively and efficiently, and to identify and address unmet needs in the same ways	1. Implement the Year of the Brain (YOTB) campaign around stroke / atrial fibrillation and roll out learning across Europe (CEO)	YOTB used to stimulate development of technology supported care programmes commissioned by at least 3 NWC AHSN commissioners and 4 European partners				✓
	2. Run Child and Maternal Health / Small Business Research Initiative (SBRI) competition (Commercial Director)	Project call developed in collaboration with partner AHSN (Oxford)			✓	
		At least 10 valid proposals developed, of which at least 1 has potential for commercial exploitation in the North West area			✓	
	3. Disseminate work of the National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care North West Coast (NIHR CLAHRC NWC) (Medical Director)	Subject to the outputs from the NIHR CLAHRC NWC, implement and evaluate at least one service change across the AHSN "footprint" for which the evidence was generated by the NIHR CLAHRC NWC, using AQuA as the service improvement delivery partner, and SCNs and CCGs to structure and incentivise the change				✓
	4. Natural health service (mental and physical) (Programme Manager)	Develop links and support funding opportunities for groups such as the Natural Choices group and the Mersey Forest Partnership to build sustainable improved health outcomes for residents in both physical and mental health				✓

AREA AND OBJECTIVES	ACTIONS (AHSN LEAD)	OUTCOMES	Q1	Q2	Q3	Q4
	5. Digital health/telehealth and telemedicine implementation (Programme Manager in support of the CEO and Director of Innovation, Nursing and AHPs)	Align existing providers (e.g. MI) and services around key principles for dissemination in the NWC area.				✓
		Via leadership roles on TEC Board and "Stop and Go", start the process to develop specifications for the effective procurement of telehealth services in England and the EU				✓
	6. Training Innovation Champions in each organisation (Director of Innovation, Nursing and AHPs)	As a minimum, the innovation lead from the 22 provider trusts within the AHSN footprint have undergone AQuA Advanced Improvement Practitioner training	✓			
		Establish a community of improvement for all Innovation Champions in the region		✓		
	7. Develop proposal, with local partners, for the national Patient Safety Collaboration (Director of Innovation, Nursing and AHPs)	Develop a bespoke programme, which meets national requirements and local needs for the Patient Safety Collaboration, in collaboration with local partners especially AQuA. Subject to acceptance and approval of the programme, roll out across the region and share good practice widely.				✓
	8. Improve compliance with NICE Guidance and Medicines Optimisation, in the context of the Pharmaceutical Price Regulation Scheme (Director of Innovation, Nursing and AHPs)	Development of an agreed approach to improving NICE compliance across the NWC region, including resource and technology implications				✓
		Shared understanding of the impact of the Pharmaceutical Price Regulation Scheme (PPRS), and its potential implications for NWC AHSN initiatives and activity				✓
		Identification of three key improvement initiatives, and delivery organisations based on "Now or Never" - Development	✓	✓		
		Identification of three key improvement initiatives, and delivery organisations based on "Now or Never" - Rollout (then ongoing)			✓	
		Identification of three key improvement initiatives, and delivery organisations based on "Now or Never" - Quarterly Review	✓	✓	✓	✓

AREA AND OBJECTIVES	ACTIONS (AHSN LEAD)	OUTCOMES	Q1	Q2	Q3	Q4
PARTNERSHIP AND COLLABORATION						
Support, develop and harness partnership working to address all relevant priorities via processes and systems which ensure inclusivity	9. With Liverpool Health Partners (LHP) run a Health Week for International Festival of Business (Director of Innovation, Nursing and AHPs)	Active involvement of international stakeholders and spread of good practice		✓		
	10. Implementation of Mayor's Liverpool Health Commission (Programme Manager)	NWC AHSN in its role of system integrator agrees and has a role in implementing a delivery plan which addresses the outputs and findings of the Commission with health partners across the NWC area	✓	✓	✓	✓
	11. Provide funding and lead the steering group to integrate health care and healthcare research data sets across the region	Integration of healthcare records to enable planning of the future healthcare system (Chief Executive Programme Manager)	✓	✓	✓	✓
	12. Research body co-ordination (Medical Director)	Take coordinating role in ensuring the effective transition of operational and governance arrangements from two CLRNs to one LCRN. Contribute to the department of a regional infrastructure to support industry engaged in health research	✓	✓	✓	✓

AREA AND OBJECTIVES	ACTIONS (AHSN LEAD)	OUTCOMES	Q1	Q2	Q3	Q4
	13. Appoint Academic Liaison Officer (Medical Director)	In collaboration with a HEI partner, appoint a senior officer for the dissemination of good practice and joining up of agendas to achieve a common goal between HEIs and also between research bodies		✓		
		During the year, develop specific goals and improvement plan against which 2015/16 objectives will be measured		✓		
	14. Integrated IT ecosystem (Innovation Director and Programme Manager)	In collaboration with the European Connected Healthcare Alliance (ECHA) develop a bespoke IT Ecosystem, which operates across the AHSN footprint and links into the network of European IT Ecosystems for good practice and collaborative partners	✓	✓	✓	✓
	15. Develop proposals for a regional Living Lab	During 2014/15 scope up possibilities with partners for a Living Lab in the region.		✓	✓	✓
RAPID SPREAD OF INNOVATION						
Support, develop and harness partnership working with academia and industry to ensure rapid and widespread realisation of health and wealth gains from innovation	17. Act as an expert partner in the "Stop and Go" European project (Director of Innovation)	Delivery of work programmes 1 and 2	✓		✓	
	18. Year of the Brain (YOTB) - European spread of good practice (CEO + Programme Manager)	Run launch of Year of the Brain and organised lead-in activities, roll out good practice across European partners		✓	✓	✓

AREA AND OBJECTIVES	ACTIONS (AHSN LEAD)	OUTCOMES	Q1	Q2	Q3	Q4
Support, develop and harness partnership working to address all relevant priorities via processes and systems which ensure inclusivity	19. Develop innovation "template" for each organisation (Programme Manager)	Develop, adapt or adopt an innovation template for each partner organisation, to enable assessment of readiness for innovation	✓			
		Innovation Champions trained for each provider organisation				✓
		Agree innovation plan with each NWC organisation. Use content of innovation plan to inform business, commercial and strategic planning 2015/16	✓	✓	✓	✓
	20. Build up a European profile to influence European policy (CEO)	Develop a European strategy and appropriate networks to be in a position to collaborate with key partners on funding bids and influence European policy in the long term	✓	✓	✓	✓
	21. Develop, implement and spread CLAHRC NWC actions (CEO and Medical Director)	Joint working with the NIHR CLAHRC NWC to contribute to and disseminate the outcomes from its work programmes		✓	✓	✓
	22. Assist commissioners to use technology and new pathways of care to move to a new model of specialised services (Programme Manager)	Programmes for selected specialised care areas			✓	
	23. Expansion of telehealth resources and usage together with spread of good practice (Programme Manager)	See above re telehealth/ telemedicine, big data and IT Ecosystems				✓



AREA AND OBJECTIVES	ACTIONS (AHSN LEAD)	OUTCOMES	Q1	Q2	Q3	Q4
CREATE WEALTH						
Support, develop and harness partnership working with investors, external fund holders, academia, and industry to optimise the conditions for inward investment, job creation and business development in the North West Coast Region	24. Run SBRI competition for Child and Maternal health/ champion companies with SBRI funding (Director of Innovation, Nursing and AHPs)	Adoption of at least one priority bid. Successful funding and support of the adopted bid area.		✓	✓	
	25. Investment in Liverpool Bio Innovation Hub and Alder Hey in the Park (Commercial Director) and arranging progress monitoring	Bio Innovation Hub - support and partly resource the hub, creating the conditions which will deliver: 127 FTE jobs safeguarded, 290 FTE jobs created, 29 businesses intensively assisted, 29 businesses engaged in new collaborations with the knowledge base, £100m additional GVA	✓	✓	✓	✓
		Alder Hey in the Park - support and partly resource the development, creating the conditions which will: stimulate and support business led innovation, link 40 bio-medical SMEs to clinical, academic and commercial interests, co-ordinate 30 business assists in the Liverpool City Region and 10 business assists in the rest of the North West (by 2018), create 43 net additional jobs, generate £27.5m GVA (by 2025)	✓	✓	✓	✓
	26. Participate in two Horizon 2020 bids (Programme Manager)	Funding bid to be submitted with collaborative partners, roll out contingent on the bid being successful	✓			
	27. Investment strategy for SMEs/establish investment fund (Commercial Director)	Revise AHSN Commercial and Investment Strategy in light of experiences of SME engagement in year 1, and appointment of Commercial Director to the organisation		✓	✓	✓
	28. Champion at least three innovations (Commercial Director)	Bring at least three products into the NHS market (or an overseas healthcare market if NHS penetration already achieved) via the AHSN's "pilot adoption scheme"				✓

## Annex 4 - Mapping of outcome domains & licence objectives to NWC AHSN work programmes

WORK PROGRAMMES	ELEMENTS OF NWC INNOVATION PATHWAY ADDRESSED	LICENCE OBJECTIVES	NHS OUTCOMES FRAMEWORK DOMAINS
1. Identify and address unmet need.	<ul style="list-style-type: none"> <li>• Source evidenced innovations and service improvements.</li> <li>• Implement identified service improvements - in 2014/15 focus on reducing strokes due to AF</li> </ul>	<ul style="list-style-type: none"> <li>• Objective A, excluding 'lead areas of expertise'.</li> </ul>	<ul style="list-style-type: none"> <li>• Domain 1: Preventing people from dying prematurely.</li> <li>• Domain 2: Enhancing quality of life for people with long-term conditions</li> <li>• Domain 3: Helping people to recover from episodes of ill health or following injury.</li> <li>• Domain 4: Ensuring that people have a positive experience of care.</li> <li>• Domain 5: Treating and caring for people in a safe environment and protect them from avoidable harm.</li> </ul>
2. Speed up adoption of innovation.	<ul style="list-style-type: none"> <li>• Agree and implement approved innovations and service improvements across NWC AHSN region.</li> </ul>	<ul style="list-style-type: none"> <li>• Objective B.</li> <li>• Objective C:</li> <li>• Education and training.</li> <li>• Impact of best practice programmes.</li> </ul>	<ul style="list-style-type: none"> <li>• Domain 1: Preventing people from dying prematurely.</li> <li>• Domain 2: Enhancing quality of life for people with long-term conditions</li> <li>• Domain 3: Helping people to recover from episodes of ill health or following injury.</li> <li>• Domain 4: Ensuring that people have a positive experience of care.</li> <li>• Domain 5: Treating and caring for people in a safe environment and protect them from avoidable harm.</li> </ul>
3. Identify and enable research.	<ul style="list-style-type: none"> <li>• Inward investment to NWC: Close partnership with CRN to ensure robust and integrated systems across the NWC</li> </ul>	<ul style="list-style-type: none"> <li>• Objective C: delivery of CLRN's objectives.</li> </ul>	<ul style="list-style-type: none"> <li>• Domain 1: Preventing people from dying prematurely.</li> </ul>

WORK PROGRAMMES	ELEMENTS OF NWC INNOVATION PATHWAY ADDRESSED	LICENCE OBJECTIVES	NHS OUTCOMES FRAMEWORK DOMAINS
		<ul style="list-style-type: none"> <li>• Objective D: clinical trials.</li> </ul>	<ul style="list-style-type: none"> <li>• Domain 2: Enhancing quality of life for people with long-term conditions</li> <li>• Domain 3: Helping people to recover from episodes of ill health or following injury.</li> </ul>
4. Create wealth.	<ul style="list-style-type: none"> <li>• Inward investment to NWC from a range of sources:</li> <li>• Support for high impact innovations.</li> <li>• Promotion of NWC capabilities and experience on an international level</li> </ul>	<ul style="list-style-type: none"> <li>• Objective C: LEP and investor liaison.</li> <li>• Objective D, except clinical trials.</li> </ul>	<ul style="list-style-type: none"> <li>• Domain 2: Enhancing quality of life for people with long-term conditions.</li> </ul>
5. Engage locally and nationally.	<ul style="list-style-type: none"> <li>• Provide the engagement across industry, academia and the NHS, as well as other stakeholder organisations to deliver the NWC Innovation pathway effectively and contribute the maximum to inward investment and export of health innovations.</li> </ul>	<ul style="list-style-type: none"> <li>• Objective C:</li> <li>• Network of networks participation.</li> <li>• Academic liaison.</li> <li>• Health liaison</li> <li>• Industry liaison</li> <li>• Objective D: Business report production.</li> </ul>	<ul style="list-style-type: none"> <li>• Domain 1: Preventing people from dying prematurely.</li> <li>• Domain 2: Enhancing quality of life for people with long-term conditions</li> <li>• Domain 3: Helping people to recover from episodes of ill health or following injury.</li> <li>• Domain 4: Ensuring that people have a positive experience of care.</li> <li>• Domain 5: Treating and caring for people in a safe environment and protect them from avoidable harm.</li> </ul>

## Annex 5: Domain Allocations

The five cross-cutting lead areas of expertise address Objective A of the licence around the lead areas of expertise. They will make use of the different work programmes to create a specific and accelerated focus on innovation and service improvement in the four areas, particularly in relation to inward investment and exports. The four areas of expertise and how they address the NHS Outcomes Framework are:

These work programmes and lead areas of expertise are described in more detail in the remainder of this section.

LEAD AREA OF EXPERTISE	NHS OUTCOMES FRAMEWORK/PUBLIC HEALTH OUTCOMES FRAMEWORK DOMAIN
1. Digital health - telehealth/ care/ medicine	NHS Outcomes Framework <ul style="list-style-type: none"> <li>• Domain 2: Enhancing quality of life for people with long-term conditions.</li> <li>• Domain 3: Helping people to recover from episodes of ill health or following injury.</li> </ul>
2. Infection and tropical disease	Public Health Outcomes Framework <ul style="list-style-type: none"> <li>• Domain 3: Health protection</li> <li>• Domain 4: Healthcare public health and preventing premature mortality.</li> </ul>
3. Personalised Care and Treatment	NHS Outcomes Framework <ul style="list-style-type: none"> <li>• Domain 5: Treating and caring for people in a safe environment and protect them from avoidable harm.</li> </ul>
4. Neurological Health	NHS Outcomes Framework <ul style="list-style-type: none"> <li>• Domain 2: Enhancing quality of life for people with long-term conditions.</li> </ul>
5. Procurement	Enabler for all the NHS Outcomes Framework domains.

## Annex 6: Example Clinical Work Programme

### NORTH WEST COAST SYSTEMS INTEGRATION PROGRAMME

Exemplar Project 1: Detection and management of atrial fibrillation to reduce risk of stroke

The purpose of this nationally-distinctive programme is to provide exemplars of effective joint working between established networks and partnerships in the North West Coast to maximise their individual and collective impact on health across the area.

The programme will comprise a portfolio of projects selected not only because of their importance for health and wellbeing but also because of the paramount need for NHS services throughout the NWC to provide access to advanced care and facilities for these conditions to maximise health benefit for the entire NWC population.

Each project will bring together key organisations, including the AHSN, SCN, LCRN, NIHR CLAHRC NWC, LHP and LHHub, to establish and deliver an agreed set of initiatives within a defined time-frame. The scope of work involved in each case will include the implementation of best practice across the area, introduction of new technologies, services and ways of working to enhance prevention and treatment, campaigns to raise awareness, support change in practices and facilitate public engagement, and systems to encourage and support collaborative research and delivery of clinical trials across the NWC. It will also include an assessment of risk, and an evaluation of the impact and value of the project.

Each project will be closely managed and monitored according to agreed timelines and deliverables. A report will be produced at the end of each project to describe the key outcomes and learning points. This information will be used both to address further initiatives within the specific field of interest and to refine the exemplar model

for future projects.

It is proposed that the first NWC Systems Integration Exemplar project should address the recognised need to detect and treat atrial fibrillation to reduce the risk of stroke.

#### APPROACH

**Stage 1:** A scoping exercise to identify current or planned activities within this theme will be undertaken to identify potential synergies, focusing on:

NWC AHSNZ	New technologies and devices pertinent to this topic
GMLSC SCN	Campaign design and delivery
	Clinical leadership and engagement for the project
	Public engagement
NIHR CRN	Delivery of NIHR portfolio studies pertinent to this topic

#### Academic partners, LHP and LHHub

Current research pertinent to this topic  
Potential for new funding applications to evaluate impact of the exemplar project  
Development of related projects for UG and PG students

**Stage 2:** A planning exercise to:

- Design the project
- Plan and agree resource allocation
- Agree timelines and deliverables
- Identify a project manager and working group to oversee the timely delivery of the project.

## SUMMARY

The systems integration model offers the strongest possible potential for reducing the impact of significant health conditions across the whole of the NWC.

We shall develop and test the feasibility and efficacy of this model, using carefully-selected exemplar projects. If successful, this approach would not only lead to substantial health benefits, but would also enhance the global reputation and profile of the NWC as an area capable of delivering cross-sectoral partnerships for major health improvement.

## Annex 7. Partner and Members

### Partners

#### Trusts and Foundation Trusts

Aintree University Hospital NHS FT  
 Alder Hey Children's NHS FT  
 Blackpool Teaching Hospitals NHS FT  
 Calderstones NHS FT  
 Cheshire and Wirral Partnership FT  
 Clatterbridge Cancer Centre NHS FT  
 Countess of Chester NHS FT  
 Lancashire Care NHS FT  
 Lancashire Teaching Hospital NHS FT  
 Liverpool Community Health NHS Trust  
 Liverpool Heart and Chest NHS FT  
 Liverpool Women's NHS FT Mersey Care NHS Trust  
 Mid-Cheshire Hospitals NHS FT  
 Royal Liverpool and Broadgreen University Hospitals NHS Trust  
 St Helens and Knowsley NHS Trust  
 Southport and Ormskirk Hospital NHS Trust  
 The Walton Centre NHS Foundation Trust  
 University Hospitals Morecambe Bay NHS FT  
 Warrington and Halton NHS FT  
 Wirral Community NHS Trust Wirral University Teaching Hospital NHS FT  
 5 Boroughs Partnership NHS FT  
 Cheshire, Warrington and Wirral Area Team  
 Lancashire Area Team  
 Merseyside Area Team

#### Clinical Commissioning Groups

Blackburn with Darwen  
 Blackpool  
 Chorley and South Ribble  
 East Lancashire  
 Greater Preston  
 Halton  
 Knowsley  
 Lancashire North  
 Liverpool  
 St Helens  
 Sefton  
 South Cheshire  
 Southport and Formby  
 Warrington  
 Western Cheshire  
 West Lancashire  
 Wirral  
 Fylde & Wyre  
 Vale Royal

#### Universities

University of Central Lancashire  
 University of Chester  
 University of Cumbria  
 Edge Hill University  
 University of Lancaster  
 Liverpool Hope University  
 Liverpool John Moores University  
 Liverpool School of Tropical Medicine  
 University of Liverpool

## Members

ABHI (North)  
 ABPI (North)  
 Advancing Quality Alliance (AQuA)  
 Greater Manchester, Lancashire and South Cumbria  
 Strategic Clinical Network  
 Cheshire and Mersey Strategic Clinical Network  
 Health Education North West  
 Liverpool Health Partners  
 North West Ambulance NHS Trust  
 North West Coast Healthwatch Organisations  
 NIHR CLAHRC NWC  
 North West Coast Clinical Research Network  
 North West Leadership Academy  
 Self Management UK  
 Liverpool Local Enterprise Partnership (LEP)  
 Cheshire and Mersey Local Enterprise Partnership (LEP)  
 Lancaster Local Enterprise Partnership (LEP)  
 Cumbria Local Enterprise Partnership (LEP)  
 Lancaster Health Hub  
 Network of public health directors  
 Network of NWC Healthwatch

## Annex 8. Glossary

**Area Team (AT).** NHS England has 27 ATs which act as one single organisation operating to a common model with one board. The ATs commission specialised services, primary care services, offender healthcare and services for members of the armed forces. They came into being from April 2014. The relevant ATs for the NWC region are Cheshire, Warrington and Wirral AT, Lancashire AT, Merseyside AT and Cumbria Northumberland and Tyne and Wear AT.

**Association of the British Healthcare Industry (ABHI).** The industry association for the medical technology sector in the UK.

**Academic Health Science Network (AHSN).** Set up to drive innovation at pace and scale. They are regional NHS led Networks with universal participation by all NHS organisations within their region and have very close links to universities, industry and other organisations and partners.

**Advancing Quality Alliance (AQuA).** A membership body based in the North West of England which aims to improve the quality of healthcare.

**Clinical Commissioning Group (CCG).** Groups of GP Practices which are responsible for commissioning most health and care services for patients.

**Collaboration for Leadership in Applied Health Research and Care (CLAHRC).** CLAHRCs are collaborative partnerships between a university and the surrounding NHS organisations. They undertake high-quality applied health research focused on the needs of patients and support the translation of research evidence into practice in the NHS. Thirteen new collaborations, funded by NIHR from 1 January 2014, have been announced including one for the NWC region.

**Company limited by guarantee (CLG).** A not-for-profit company with members rather than shareholders. Shares are not issued and there is no share capital; it is not intended to grow in value. Members instead have a guarantee agreement to provide a nominal amount, e.g. £1, in the event that the company is liquidated. The company is run as a business with the rights to employ staff. Directors are appointed by the members, and are subject to a similar duty of care as a director of a company limited by shares.

**Comprehensive Local Research Network (CLRN)** - There are 25 CLRNs which cover the whole of England by region and together form the NIHR Comprehensive Clinical Research Network (CCRN). CLRNs are locally based Research Networks which coordinate and facilitate the conduct of clinical research and provide a wide range of support to the local research community. These will be transition into 15 Local Clinical Research Networks (LCRN.) from April 2014.

**Commissioning for Quality and Innovation (CQUIN)** - The CQUIN payment framework enables commissioners to reward excellence, by linking a proportion of English healthcare providers' income to the achievement of local quality improvement goals.

**Delivering Assisted Lifestyles Living At Scale (DALLAS).** A programme developed by the UK's innovation agency, the Technology Strategy Board and jointly funded by the National Institute for Health Research and the Scottish Government. DALLAS is aimed at transforming the lives of people through the development and use of innovative technology products, systems and services to improve well-being and increase independence. Mi, is Liverpool's DALLAS community, and was successful in securing one of the four partnerships that would deliver DALLAS.

**Foundation Trust (FT).** These were created to devolve decision making from central government to local organisations and communities. They provide and develop healthcare according to core NHS principles - free care, based on need and not ability to pay.



**Health Education North West (HE NW).** The Local Education and Training Board (LETB) for the North West and part of Health Education England. HE NW provides a forum for providers and professionals to work collectively to improve the quality of education and training outcomes within the NW region, and meet the needs of service providers, patients and the public.

**Higher Education Institutions (HEI).** A university or college of higher education.

**Health Innovation and Education Cluster (HIEC.)** - HIECs were created in 2009/10 to enable collaborative partnerships between NHS organisations, academia and industry. The aim was to transform healthcare and drive up quality in order to continually improve patient care, safety, outcomes and experience.

**High Impact Innovation (HII.).** The six 'game changing' proven national innovations - Child in a chair in a day, International and commercial, Digital first, 3 million lives, Intra-operative fluid management, Support for carers of people with dementia.

**Intellectual Property (IP).** Products of innovative and intellectual or creative activity and can include inventions, industrial processes, software, data, written work, designs and images.

**Knowledge Transfer Partnership (KTP).** A relationship formed between a company and an academic institution, which facilitates the transfer of knowledge, technology and skills to which the company currently has no access. There are currently 800 Partnerships across the whole of the UK. KTPs are currently funded by fifteen Government organisations led by the Technology Strategy Board.

Each Partnership is part-funded by Government with the balance of the costs coming from the company partner.

**Lancaster Health Hub (LHHub).** A strategic partnership between Lancaster University, six NHS Trusts and the University of Cumbria to drive locally-led NHS/University collaboration in research and innovation, to develop infrastructure and capability, to deliver programmes for professional and organisational development, and to engage with Industry and with other large multi-partner networks nationally and globally.

**Local Clinical Research Network (LCRN.)** - From April 2014 the NIHR Clinical Research Network (CRN) will comprise 15 NIHR LCRNs. The boundaries of these NIHR LCRNs will be based on the geographical footprint of the AHSNs. Each NIHR LCRN will provide support for all therapy areas or clinical "themes" and will cover both commercial and non-commercial research.

**Local Enterprise Partnership (LEP).** Partnerships between local authorities and businesses. They decide what the priorities should be for investment in roads, buildings and facilities in the area. LEPs can apply to become an Enterprise Zone. These zones can take advantage of tax incentives and simplified local planning regulations. Local Education and Training Board (LETB). - Hosted by Health Education England and will bring education, training and development together locally in order to improve the quality of care and treatment of patients through the development of skills and values for staff. All providers of NHS services will need to be a member of, and be involved with the work of the LETB. The LETB for the NWC region is HE NW.

**Liverpool Health Partners (LHP).** An Academic Health Science System that brings together expertise from within the University of Liverpool, The Liverpool School of Tropical Medicine and seven local NHS Trusts to help ensure that medical research breakthroughs lead to direct clinical benefits for patients.

**Local Workforce and Education Group (LWEG).** Responsible for workforce planning and education commissioning within their localities.

**Medilink.** Medilink UK, a national network of Medilink partners working to improve innovation and technology transfer in the UK healthcare sector. In the NWC region Medilink North West is a membership-based professional organisation with a remit to stimulate growth and innovation in the medical and health technology sector throughout the North West.

**MIMIT.** This is a collaboration of the University of Manchester and Greater Manchester NHS and Primary Care organisations. It brings clinicians, scientists, engineers and industry together to develop innovative technology for patient benefit.

**National Institute for Health and Care Excellence (NICE).** Provides national guidance and advice to improve health and social care.

**National Institute of Health Research (NIHR).** A large, multi-faceted and nationally distributed organisation, funded through the Department of Health to improve the health and wealth of the nation through research.

**NHS England.** Formerly established as the NHS Commissioning Board in October 2012, NHS England is an independent body, at arm's length to the government. Its main role is to improve health outcomes for people in England. It will provide national leadership for improving outcomes and driving up the quality of care, oversee the operation of clinical commissioning groups, allocate resources to clinical commissioning groups, commission primary care and specialist services.

**NorthWest EHealth (NWEH).** A partnership between the University of Manchester, Salford Royal Foundation Trust and Salford Clinical Commissioning Group (formerly NHS Salford). It was set up in 2008 to develop links between academia and the NHS in the area of health informatics and develop new research using anonymised patient

records to support improving healthcare. Both GM AHSN and NWC AHSN are involved in NWEH.

**North West Leadership Academy.** Was established in 2007 to provide current effective leadership programmes, products and support to help NHS NW leaders face and overcome the challenges that come their way. There are over 80 NHS member organisations from the North West and the Academy has provided development support to over 6,000 people.

**Quality-adjusted life year (QALY).** A standard and internationally recognised method to compare different drugs and measure their clinical effectiveness. A QALY gives an idea of how many extra months or years of life of a reasonable quality a person might gain as a result of treatment (particularly important when considering treatments for chronic conditions). Cost effectiveness is calculated by understanding how much the drug or treatment costs per QALY and is expressed as "£ per QALY".

**Return on Investment (ROI).** A performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. ROI is expressed as a percentage or a ratio and the formula is:  $ROI = (\text{Gains from investment} - \text{Cost of investment}) / \text{Cost of investment}$

**Small Business Research Initiative (SBRI).** This programme, facilitated by the Technology Strategy Board, is designed to help SMEs gain greater access to publicly funded research and development contracts. Through the SBRI SMEs are invited in to present innovative solutions to specific problems in a competition format. The ideas presented can result in 100% funded government development contracts with the public sector body running the competition. Since inception in 2009, the scheme has run 124 full competitions, resulting in 1270 contracts awarded to SMEs at a total value of £104.8 million.

**Small and Medium Enterprise (SME).** An organisation with less than 250 employees.

**Specialised Services Commissioning Innovation Fund (SSCIF).** Will open for business 2 September 2013, and will specifically focus on innovations in those clinical areas that are defined as prescribed specialised services commissioned directly by NHS England. It will transform the way that new innovations are identified, tested and adopted.

**Strategic Clinical Networks (SCNs).** NHS England has been hosting a category of clinical networks entitled Strategic Clinical Networks (SCNs) since April 2013. These networks will work across the boundaries of commissioning and provision, as engines for change in the modernised NHS. The emphasis is on SCNs being one element of the new system that will support commissioners with their core purpose of quality improvement and ultimately the achievement of outcome ambitions for patients. SCNs will sit alongside a system of Operational Delivery Networks (ODNs) and Clinical Senates.

**Technology Transfer Offices (TTOs).** Commercialise research and technologies developed through the HEI that owns them through, for example, licensing the use of our technologies to a third party, using joint ventures to develop innovations further and investing in spin-out companies which frequently retain close links to the HEI.



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