



Department of
**Health, Social Services
and Public Safety**

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Research for **Better Health & Social Care**

A Strategy for Health & Social Care
Research and Development in
Northern Ireland
(2016-2025)



February 2016

Minister's Foreword

Research and development is an integral part of ensuring that the health and social care services we provide, both in HSC and primary care, are of the highest quality and informed by the best available, up-to-date evidence. Through world-renowned, high quality research in health and social care, conducted in Northern Ireland, the population not only benefits in terms of health and wellbeing, but also from the wider economic prosperity that it brings.

This strategy was developed in collaboration with a wide range of people from across health and social care, the public sector, academic institutions, voluntary and charitable organisations and private companies. Further views were sought through a consultation process, and these comments have helped shape the final strategy. The strategy sets out our commitment to support research, researchers and the use of evidence from research to improve the quality of both health and social care and for better policy-making. It describes our ambition to increase investment in R&D by competing successfully for R&D funding, with all the benefits that brings.

Northern Ireland has a proud heritage of research, with many success stories. It is not just the health and social care sector that undertakes relevant research. Other parts of the public sector, private companies and the charitable organisations also support and undertake R&D that benefits the people of NI as well as enabling economic progress. We all need access to R&D facilities, resources and expertise so across Northern Ireland it makes a great deal of sense that we who share a common mission should work in partnership. A wide range of partnerships both within NI and further afield is a hallmark of our HSC R&D strategy and this will continue into the future. Involvement in R&D is an important way in which we engage with other regions and researchers internationally. This strategy will contribute to Northern Ireland as an outward-looking region that welcomes and supports the work of highly educated, experienced researchers and health and social care professional staff.

This is a strategy that is wider than Northern Ireland, however we must ensure that sufficient emphasis is given to local needs and priorities. Many members of the population consent willingly to get involved in research alongside our health and social care professionals and academics. I am most grateful to all who are committed to success in these endeavours and I take every possible opportunity to highlight our investments, our work and our achievements.

Minister's Foreword

I am now pleased to publish this new HSC R&D strategy for **Better** Health and Social Care.

Simon Hamilton, Minister of Health Social Services and Public Safety.

CMO's Foreword

The importance of R&D for progress in health and social care services is clear to all. Without research and the use of the research findings we wouldn't have health screening programmes, diagnostic tests or treatments; and we wouldn't understand how to lead healthy lives or how best to meet people's care needs. The findings from research are used locally and globally by governments, by health and social care professionals, by businesses, in academia and by the population more widely. Increasingly, the research we support through our HSC R&D strategy focuses on providing the robust evidence we all need to formulate successful policies and effective, safe practices.

Undertaking research is a very strong motivational factor for staff who relish the opportunity to provide evidence that is otherwise unavailable for the development of better health and care practices. We know that some of our services can be improved, or abandoned altogether in favour of others for which research provides evidence of effectiveness. Our HSC organisations that deliver services value the benefits derived from research and have robust structures to support their staff who lead and undertake research. The support includes facilities where patients can take part in research safely within clinical environments, expertise such as research pharmacists or statisticians, and enabling professional staff time for research. I recognise the very considerable progress in these areas that has been made and that our new strategy must enable progress to continue.

Across government no single strategy stands alone. This HSC R&D strategy builds on what has been most successful in previous R&D strategies in Northern Ireland and beyond. In addition, it has been informed by other strategies, recently developed and currently in progress, from sectors that include academia, charity and voluntary bodies and economic development in addition to health and social care. I am mindful that the completion of good research and the implementation of findings is a long-term endeavour so the objectives we have set out are intended to remain relevant for years to come, providing a framework for investment and for action.

The involvement in research of patients and their carers, users of services and the wider population is important and appropriate. This involvement is very different to perceptions we may have had in the past – where the patient may have been regarded as a research 'subject'. I know that we are at the forefront in involving people as active participants in our research endeavour. I have been hugely gratified on many occasions to witness the enormous, and valuable, contribution made to our research by many people and I thank them for their commitment.

CMO's Foreword

I want to emphasise that this strategy applies to all health and social care professions and includes research in the fields of public health; allied health professions and social work. Greater coordination with the voluntary and community sector, patient groups, industry and the wider public is vital. This new HSC R&D strategy will support our continuing research and the use of evidence from research to improve our health and social care.

Dr Michael McBride, Chief Medical Officer

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Introduction and Development of The Strategy

Director of HSC R&D

This is our third strategy for Health and Social Care R&D. The first two strategies were implemented highly successfully and the realisation of their objectives has transformed our capacity to undertake high quality research that provides knowledge for improvements in health or social care services, prevention of ill-health and support for the economy.

This new strategy builds on these successes and describes our commitment to continually improve the HSC R&D landscape in Northern Ireland. Its development has been informed through extensive engagement with a wide range of stakeholders who have divergent connections to research and to our health and social care services. During this engagement, there was remarkable consistency with regard to those areas of HSC R&D activity that are valued most and those that need to develop and transform. The five objectives we have set in this Strategy are intended to ensure that the research we support is focussed on providing evidence to support the delivery of the highest quality health and social care.

While fundamental, discovery research is vitally important, it is not normally within the remit of the HSC R&D Fund. But we must be ambitious so that researchers based in Northern Ireland have the resources necessary to undertake the best research, working within a system that supports the use of research findings for policy, practice and services.

We are committed to focussing on research that addresses priorities for evidence that are identified by local policy-makers, HSC staff/organisations and the population; yet we must recognise that we can access evidence generated in any part of the globe. Recognising that we are unable to support research to meet all of our evidence needs, we are committed to supporting a finite number of areas based on existing strengths and will take action to prompt the development of new research areas where a deficit is recognised.

Participating in research adds real value to academic and clinical careers. It is vital that we deliver this message to colleagues at the earliest stages of their careers, that they are able to identify and be supported by appropriate mentors, and that they have realistic opportunities to become research leaders. As our principal partners, HSC organisations clearly recognise the benefits of research. As stated by a Trust Chief Executive:

Introduction and Development of The Strategy

“We need to promote innovation and creativity in the organisation. Our current operating context – that will only get tighter in the future – requires us to be more productive. Research unlocks the creativity and innovativeness that are essential for our success.”

The development of a strategy must reflect the opinions and views of a wide range of stakeholders and expertise. Many consultation meetings were held with colleagues across the province and a Project Board was established with membership drawn from leaders of our own HSC organisations, universities and businesses. An External Reference Group of R&D leaders from outside of NI was also established.

In October 2013 approximately 90 delegates attended a half-day workshop that enabled the Department to secure the input of interested parties in the development of this strategy. Delegates shared their views during round-table discussions, considering what might be the priorities for HSC R&D and to how the new strategy can enhance HSC R&D partnership working.

Feedback from this workshop was extremely valuable and has been integrated into this strategy. Recurring themes included the need for improved communication between organisations and partnership working, including public and patient involvement; raising the profile and priority of R&D within the HSC and primary care Trusts; providing better support and career opportunities to researchers; and the importance of research in social care, as well as health services.

Intended Audience

Who is this Strategy for?

- **Researchers, potential researchers and their employing organisations:** to increase their understanding of how and why research structures (can) support their work.
- **Users of research findings:** to increase their knowledge of HSC-relevant topics and so support them in making policies and decisions.
- **Patients, service users and the public:** to increase awareness of the importance of their involvement in research.
- **Businesses:** to clarify how they might work with the HSC research structures for mutual advantage.
- **Research funders:** to consider how they might work within the HSC research landscape in a mutually beneficial way.

Strategy Summary

AIM: The health, wellbeing and prosperity of the Northern Ireland population will benefit from excellent, world-renowned R&D in health and social care that is led from NI.

Five objectives underpin our strategy:

Objective 1

To support research, researchers and the use of evidence from research to **improve** the quality of both health and social care and for better policy-making.

Objective 2

To compete successfully for R&D funding, and optimise local funding, to deliver returns on **investment** for health and wellbeing, academia and commerce.

Objective 3

To support all those who contribute to health and social care research, development and innovation by enhancing our research **infrastructure**, benefitting from local, national and international **partnerships**.

Objective 4

To increase the emphasis on research relevant to the **priorities** of the local population.

Objective 5

To disseminate research findings in such a way as to promote understanding and knowledge, support and share best practice, stimulate further **research** and celebrate achievement.

The organisation of Health and Social Care (HSC) R&D in Northern Ireland

A common approach to supporting research relevant to health and social care has existed in the UK since the 1990s. At that time Northern Ireland established a single regional R&D Fund which was managed through a newly-created office and in line with an agreed R&D strategy. Working closely with research funders across the UK and internationally, HSC R&D has invested in many research initiatives that contribute to the quality of health, wellbeing and services as well as contributing to the international knowledge base, enhancing local research capability and supporting economic development.

Within current HSC organisational structures, policy and strategy responsibility for R&D lie with the Chief Medical Officer's group of the Department of Health, Social Services & Public Safety (DHSSPS) that includes the Director of HSC R&D. The HSC R&D Division of the Public Health Agency (PHA) is responsible for implementing the HSC R&D strategy. The context for this work is also informed by other relevant EU, UK and NI strategies.

Review of progress

Development of this new Strategy has provided an opportunity to reflect on the achievements of its predecessor: *Research for Health and Wellbeing 2007 – 2012 (extended to include 2013)*. This aimed to support research, develop understanding, and improve health and wellbeing; themes that still are highly relevant. It set out five strategic themes to achieve these goals.

- (i) Enabling Infrastructure**
- (ii) Research Capacity**
- (iii) Research Funding**
- (iv) HSC Innovation**
- (v) Ensuring Personal and Public Involvement (PPI)**

Details of progress during the past strategic period are set out in Annex A.

The overall profile of the research supported by the HSC R&D Fund is evident in the reports of the UK Health Research Classification System (HRCS). Those reports show a shift in emphasis towards research of direct relevance to patients and care services, summarised in Figure 1.

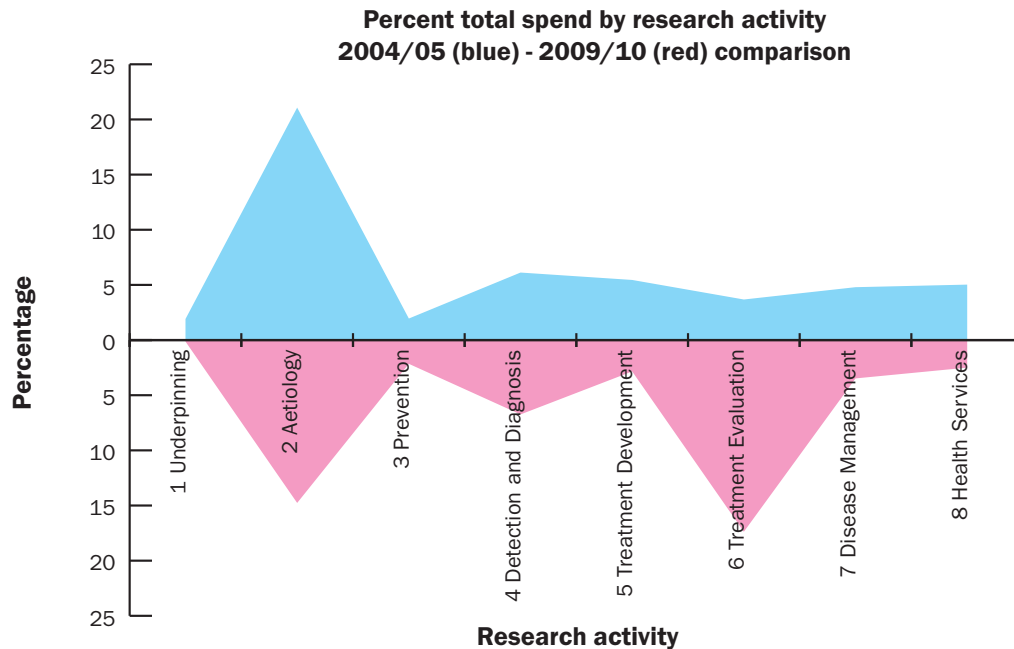


Figure 1: Change in the profile of allocation of HSC R&D Fund between 2004/5 and 2009/10. (UK Clinical Research Collaboration, 2012)

Evaluation of the Impact of HSC R&D Funding

Evidence of the impact achieved to-date through the HSD R&D Fund was collated in 2012 through an independent report '*Evaluation of the Impact of HSC R&D Funding in Northern Ireland, Including Benchmarking with other Countries*'. Key findings included:

- £4.14 in direct funding was attracted to research per £1 of HSC R&D funding allocated;
- significant numbers of high quality peer reviewed publications were achieved;
- many clinical and academic research staff achieved career advancement;
- 20% of projects claimed an impact on policy or practice;
- the HSC R&D Fund is significantly lower per capita than analogous funds in the other UK countries; and
- there are opportunities to attract additional funding through direct partnerships with other funders.

Many other studies have documented that health R&D leads to significant additional benefits for the economy and society.

The independent evaluation, that was also undertaken to inform development of this Strategy, made a number of recommendations, many of which were echoed in the views of those who attended the Strategy Development workshop. These included the importance of involving policy makers and those responsible for planning and delivering services in HSC R&D and the necessity of contributing to National Institute of Health Research (NIHR) Evaluations, Trials and Studies (NETS) funding.

Improved partnership working was a consistent theme, as was the need for enhancing the profile of research in HSC Trusts. The Evaluation report also recommended an online monitoring approach for funded projects to demonstrate return on investment, and the need to reinvest surplus to support further research. Both of these have been achieved.

The report also recognised that R&D was not limited to the HSC, but needed to fit with the wider economic context. This, and a number of other recommendations, has been integrated into this Strategy. Annex B lists all the recommendations made in the evaluation report and indicates those outside the remit of this Strategy.

Our current research infrastructure (i.e. capacity and resources), programmes and systems are shown below (Table 1 and Figure 2).

Table 1: NI HSC Research Infrastructure

Infrastructure Element	Purpose
HSC Trust R&D Offices	To support the development of HSC research and manage Trust research governance, including the costing of research proposals and agreement of research contracts using standardised methodologies.
Data	ADRC: Administrative Data Research Centre enables research on routinely collected, population-based data HBS: Honest Broker Service makes available appropriately anonymised data collected via HSC organisations and primary care services

Infrastructure Element	Purpose
Research Networks	Provide a framework for clinical academic oversight of HSC research; provide experienced staff to support project development, management and performance *NICRN: NI Clinical Research Network NICTC/NICTN: NI Cancer Trials Centre / Network NIPHRN: NI Public Health Research Network
Clinical Research Facility	NICRF: Provides access to high quality, appropriately supported facilities for clinical research Also provided by C-TRIC (Clinical-Translational Research Innovation Centre)
Clinical Trials Unit	NICTU: UKCRC-accredited to provide expertise in research design, statistics, health economics, data monitoring and management to support HSC research. Works closely with MRC All Ireland Methodology Research Hub
Intellectual Property advice and management	HSC Innovations on behalf of all HSC Trusts
Research Ethics Committees	ORECNI: Manages a regional research ethics service, independently of HSC R&D or Trusts
NI Biobank	Collects and stores cell and tissue samples under high quality, ethically-approved conditions for provision to researchers

* NICRN hosts studies in 11 areas: cardiovascular, children's, critical care, diabetes, dementia, mental health, renal, respiratory, stroke, vision and primary care

Figure 2 Current HSC research infrastructure, programmes and systems



The Strategic Context

The current strategic context, including recent changes, future challenges, and other (emerging) strategies has also informed the development of this Strategy. These include:

- **Programme for Government 2011 – 2015**

The NI Executive's Programme for Government (PfG) sets the strategic context for both the Budget and the Investment Strategy for Northern Ireland. The Programme for Government identifies actions the Executive will take to deliver its foremost priority – a vibrant economy which can transform our society while dealing with the deprivation and poverty which has affected some of our communities for generations.

Creating Opportunities is the second priority in the PfG and is described as *Tackling Disadvantage and Improving Health and Wellbeing*. This priority refers explicitly to encouraging innovation and R&D.

- **Innovation Strategy**

The NI Innovation Strategy aims to stimulate R&D, innovation and creativity across all sectors of the economy. Delivery of this Strategy requires collaboration, partnership and leadership from the Executive, business, academia and the third sector, with the aim of transforming NI into one of the most innovative regions in the UK. Progress in R&D within the HSC and the wider Life and Health Sciences sector is highly relevant to successful innovation.

- **European Context**

The European Union's Research and Innovation Strategy, Horizon 2020 (2014-2020) and its European Health Programme (2014-2020) will, in the coming years, help shape research priorities internationally. The former focuses funding on challenges including an aging society, while the latter aims to disperse around 449 million euro to advance the objectives of reducing health inequalities, encouraging innovation in health, increasing sustainability of health systems, addressing current mental health issues and supporting and encouraging co-operation between member states. In so doing, the European Union will, through its programmes, encourage and support research innovation, collaboration and dissemination of information internationally.

- **Life & Health Sciences Strategy**

A Life and Health Sciences strategy is in development, informed *inter alia* by a refresh of the 2008 Matrix Life and Health Technologies report. The Director of

HSC R&D and others within the HSC are involved thereby ensuring a high level of cohesion across the two new strategies.

- **Social work Research and Continuous Improvement Strategy**

The HSC Board has produced a strategy with the aim of building a research minded culture among professional social workers. In focusing on priority areas such as promotion of research collaboration and partnership including with academia and on the development and improvement in social work services, the strategy reinforces priorities within “Research for Better Health and Social Care”.

- **Strategic Partnerships**

Our HSC R&D system works in parallel and in partnership with many other research funders locally, nationally and globally. Within the UK this is particularly evident with the R&D funding elements of each of the other Health Departments: England’s National Institute for Health Research (NIHR); Scotland’s Chief Scientist Office (CSO) and in Wales the National Institute for Social Care and Health Research (NISCHR).

- **NI Executive’s Economy and Jobs Initiative – Task and Finish Report**

The NI Executive’s Economy and Jobs Initiative included a number of measures to help support economic growth. This included establishing a Task and Finish Group to consider how the economic opportunities from the Health and Social Care (HSC) sector could be exploited. The Report, which was published in May 2012 and agreed by the Minister for Health, Social Services and Public Safety, and the Minister for Enterprise, Trade and the Economy, made a number of proposals to underpin the role the HSC can play a key role in driving both innovation and economic growth. Key within the proposals is the development of a Life and Health Science Strategy (as referred to earlier) and the establishment of a Health Innovation and Life Science Hub (HILSHub) to bring together the health, industry and academic sectors to create synergies and accelerate growth and innovation. Work on this is at the project definition phase and will be completed in March 2016.

Other significant UK partners are:

Organisation	Research purpose
Medical Research Council (MRC), Economic and Social Research Council (ESRC), Engineering and Physical Science Research Council (EPSRC)	Support excellent research
Invest Northern Ireland (InvestNI) and Technology Strategy Board	Support for economic development, including R&D and innovation
Charitable and voluntary organisations	Support for research in line with their mission
Businesses	R&D and innovation

Annex C details strategic and operational HSC R&D partnerships

- **Challenges in the HSC sector**

A growing population with a higher number of older people, poorer health and growth in chronic conditions and instability in the health and social care system are driving the need to reform health and social care in Northern Ireland. *Transforming Your Care* (TYC), the NI Strategy for Health and Social Care, sets out the model of health and social care for the future which will require significant re-configuration of services which will place the individual at the centre. Among the key principles for change identified in TYC are the need to use outcomes and quality evidence to shape services; improved integration of services; maximising the use of technology and incentivising innovation at a local level. Within this new landscape HSC R&D can be a vital resource by:

- supporting access to research to identify best practice;
- supporting research-led methodologies for robust evaluation of new initiatives to inform their roll-out; and
- supporting HSC researchers to access funding for evaluations and other studies that document good practice in NI and disseminate it widely.

- **Organisational Context**

There has been considerable structural and organisational change across the HSC since publication of the previous HSC R&D strategy, most significant of which was the Review of Public Administration. This integrated the former 'NI R&D Office' with the HSC Public Health Agency. The need to ensure good

communication with the R&D community across the HSC landscape remains a priority to maximise communication, share learning and provide support and advice.

Ongoing financial constraints in the HSC are challenging for all organisations. By ensuring robust performance management processes and demonstrating return on investment, assurance can be provided in relation to the expenditure of HSC R&D funds.

Clear, streamlined and effective communication is necessary to link HSC staff to other funders of HSC R&D in NI and support and enable participation in UK-wide and international funding initiatives.

- **Cultural Context**

The HSC R&D Evaluation highlighted the need to raise the profile of research in HSC Trusts and with commissioning and policy-making organisations. To support this, we will develop and equip HSC R&D leaders to remove barriers and promote interaction among industry, academia and voluntary and community sectors as partners. Strengthening these links will enable R&D to more effectively address the needs of the NI population through research-led evaluation of policy and practice and the use of evidence from research in order to achieve effective, and cost-effective, top-quality care.

Individual patients, service users and the wider population must be convinced of the value of their participation in research, while being assured that their concerns regarding care or confidentiality are managed appropriately and responsibly.

Strategic Aim and Objectives

The strategic aim and objectives for HSC R&D from 2014 onwards are challenging yet sufficiently broad to align with wider endeavours to progress R&D and innovation.

AIM: The health, wellbeing and prosperity of the Northern Ireland population will benefit from excellent, world-renowned Research & Development in health and social care that is led from NI

Patients, clients/service users, and the general public must remain our fundamental reasons for undertaking HSC R&D. This is best achieved by fully participating, collaborating and leading at national and international levels.

By continually investing, developing and building on our considerable achievements in both health and social care R&D, we can improve the health and wellbeing of the NI population through clinical, public health, academic and economic advances.

Through this strategy, patients and clients/service users can access the diverse range of HSC facilities and services in the knowledge that the care and treatments they receive have been clearly evidenced to be the most effective and will result in the best possible outcomes for them, and their families. Where such evidence is lacking, every effort will be made to encourage research and evaluation in that area to address any evidence gaps.

It is our intention that the benefits of this strategy will be extended beyond the HSC sector. By strengthening our links with local, national and international industries and promoting NI as a primary location for clinical research studies, we aim to exploit the potential to grow the local economy.

To fulfil the strategic aim, we have identified five broad objectives together with metrics through which success may be judged.

The Objectives

Objective 1

To support research, researchers and the use of evidence from research to improve the quality of both health and social care and for better policy-making.



What we would like to achieve

Implementation of the outgoing strategy has resulted in increased capacity of the HSC to engage with research. An important driver in this change has been the inclusion of increasing numbers of HSC staff in research project teams funded either through the HSC R&D Fund or others. This participation in research is essential so that:

- research projects focus on topics that are of real, current consequence for the staff who interact directly with patients and clients to provide services;
- staff understand the research that is underway and are supported to participate and facilitate its completion;
- staff understand better the advantages that can be achieved by implementing the findings of good quality research and are motivated to enhance the quality of their services and outcomes for patients;
- HSC organisations have a sufficient, visible research profile to attract and retain high calibre professional staff; and
- additional income is attracted.

Championing and supporting existing and new R&D in HSC Trusts will enable them to attract and retain high calibre health and social care professionals who will contribute to the delivery of high quality care and high quality research. Ensuring that R&D is seen as integral to the roles of health and social care professionals demonstrates this commitment, as does our commitment to ensure that research (undertaking it and using its outcomes) is a core function of HSC organisations and is supported by the most senior HSC decision-makers.

Effective dissemination of research findings is necessary to realise the beneficial impacts of research. Such dissemination requires more than conventional, academic-led approaches therefore HSC organisations, staff, researchers and

The Objectives

others outside of the HSC, including service users, will be supported to access high quality evidence from research. Improved access to research will also be explored with the business sector that supports HSC service delivery, ideally within an ethos of academic – business – clinical co-creation.



How will we know it's working?

Measures of Success: Objective 1

- The number of research studies that gain approval to take place in HSC Trusts, primary care and public health
- The number of service users and other members of the population participating in studies
- The range of different professional groups participating in research and development
- The number of high quality peer reviewed publications that ensue from HSC-funded research projects
- The number of events organised by HSC R&D funded researchers to disseminate research findings
- Research as a criterion for HSC staff appointment / progression

The Objectives

Objective 2

To compete successfully for R&D funding, and optimise local funding, to deliver returns on investment for health and wellbeing, academia and commerce.



What we would like to achieve

While the research programmes we support should focus on delivering outputs that can be translated into health or care benefits, a flourishing R&D community must also achieve a return on existing investment as well as identifying, and competing successfully for, new funding. Return on investment is evidenced by clinical benefits and improved care for patients and service users as well as academic and commercial success. Participating in the creation of new opportunities to develop research, maintaining a strategic overview of current and emerging opportunities, and an effective, efficient support and advice mechanism for enabling successful funding proposals, will be hallmarks of our HSC R&D function.

A significant outcome following the publication of the HSC R&D evaluation in 2012 was a decision by the Minister for Health, Social Services and Public Safety to enable NI-based researchers to lead proposals for funding to NIHR programmes. Termed *NIHR Evaluations, Trials and Studies (NETS)*, these programmes relate directly to the needs of the HSC and the population of NI. Proposals from teams that comprise academics, clinicians as well as service user representatives and are supported by a clinical trials unit are the most likely to succeed in NETS programmes. To date, several NI led proposals have already achieved funding and further proposals will be encouraged and supported strongly.

The benchmarking element of the HSC R&D evaluation highlighted that the HSC R&D Fund is significantly lower per capita than analogous funds in the rest of the UK. This strategy aims to increase this funding to the point where it is at least in line with that of the other jurisdictions.

Economic development is an important accompaniment to HSC benefits so the likelihood of achieving a return on our investment will contribute to decisions on

The Objectives

which projects to fund. Further, evidence of return on investments will strengthen the case for sustained investment in HSC R&D.

Through HSC staff, capacity, resources and intellectual property (IP) from research, we will work with businesses and economic development agencies to improve productivity, maximise impact and attract investment. Developing skilled, experienced staff and attracting good academic and clinical researchers to NI will enhance HSC services and, combined with our infrastructure, provide a compelling encouragement to industry to invest in NI.

As funding constraints across the UK become more severe, accessing external funding and developing partnerships including through the UK Governments 'catapult' initiative to stimulate innovative research, is more important than ever. In turn, having the information to demonstrate return on investment becomes even more important. As well as generating new knowledge, we need to make better use of research findings and implement what we already know. Collaboration and coordination of effort is vital.



How will we know it's working?

Measures of Success: Objective 2

- The total value of the HSC R&D Fund
- The number and monetary value of NIHR NETS awards involving NI-based researchers
- The number and monetary value of studies funded through research partnerships that involve HSC R&D
- The number and monetary value of industry-led research studies that gain approval to take place in HSC Trusts
- The number of items of IP disclosed by HSC staff and the amount of investment attracted for their development
- The sources of funding attracted e.g. UK. European, International

The Objectives

Objective 3

To support all those who contribute to health and social care research, development and innovation by enhancing our research infrastructure, across the health and social care community benefitting from local, national and international partnerships.

An overview of the current HSC research landscape has been provided on pages 12 - 17. Comprising support staff; expertise in statistics; project design (methodology); health economics; IP advice and management; data monitoring and analysis; access to usable population-based data; template contracts and agreements; and standardised processes, it is accessible to all HSC – relevant researchers.



What we would like to achieve

As with any physical infrastructure, the enhancement of research infrastructure across the health and social care community will require building capacity of those working in the sector to both undertake and exploit the benefits of research output. It will require the strengthening of research networks for the purpose of collaboration, sharing of knowledge and mutual learning. Importantly it will require the strengthening of the skills base and the priority afforded to research competence in career development.

More specifically, NI differs from the rest of the UK due to the absence of a biomedical research facility embedded within service provider organisations. These facilities drive health and care service and academic collaboration, focussing on the translation and implementation into practice of research discoveries in a specific disease area, with a direct reporting line to the most senior management level in each organisation. Recognising the demonstrable benefits of this model, a biomedical research facility will be developed in NI.

A supportive system of Research Management and Governance (RM&G) has been established to balance the management of risks associated with research

The Objectives

with the benefits it can deliver. While recognising the autonomy of individual HSC Trusts, RM&G increasingly will be presented as a regional service based on the principles of coherence, consistency, transparency and proportionality.

As our HSC research structures mature, their successful operation and further development will require advanced skills, including those such as management skills that are not usually acquired during research training. We will continue to support research involvement, advanced research skills and leadership through a portfolio of research and research management training. Support needs to be available to the full range of professional groups involved in research, including public health; social work; and allied health professionals, and those undertaking research in primary and community care. This is particularly important in organisations where, as recognised in the course of consultation, the research infrastructure lags behind more advanced research orientated bodies and institutions.



How will we know it's working?

Measures of Success: Objective 3

- Creation of a NI biomedical research facility
- A regional RM&G system that is recognised for its proportionate, streamlined operation relative to those in other parts of the UK
- Increased numbers of HSC R&D – funded researchers who have undertaken management training to support their work
- Increased number of research partnership initiatives that involve HSC R&D in Northern Ireland, UK, European and International partnerships.
- Level of engagement with researchers from academia and industry in development of innovative solutions

The Objectives

Objective 4

To increase the emphasis on research relevant to the priorities of the local population.



What we would like to achieve

The need to identify and prioritise emerging research questions in order to close evidence gaps is pressing. Prioritisation of topics is already undertaken in many research programmes and this will continue.

One particular need for research relates to *Transforming Your Care (TYC)* – the new model for health and social care in NI. Successful implementation of TYC must be informed by evidence gained through robust, research-led methodologies, ideally conducted within partnerships across all HSC sectors, including the eHealth agenda and Trust / service innovation initiatives. Other strategies for which research-led evidence is required include ‘Quality 2020’ and the 10-year quality strategy and the new public health strategy ‘Making Life Better’. This strategy will be supported by research which not only analyses and evaluates its success but also by research which informs those policies specific to tackling health inequalities and societal challenges in areas such as alcohol and substance abuse, mental health and nutrition.

Routinely-collected demographic data on HSC and primary care services and other administrative activity provide a rich resource to explore health and social care needs of the local population and sub-groups within it. Ways of utilising these data, appropriately anonymised to maintain confidentiality, are already in place, and there is much scope for expansion recognising the dependence of this area of work on highly developed quantitative expertise.

We will demonstrate best practice in the training, support and engagement of patients, clients, carers and other members of the NI population in HSC R&D. We will also work to ensure that researchers deploy service user involvement effectively. All final decision-making about awards from the HSC R&D Fund will require evidence of service user involvement as well as input from representative policy-makers and other relevant partners alongside researchers from outside of NI who advise on excellence in research.

The Objectives



How will we know it's working?

Measures of Success: Objective 4

- The number and scale (e.g. monetary value, number of participants) of HSC R&D funding initiatives that explicitly link the projects to specific NI priorities
- Number of studies using local sources of data
- Number of studies impacting strategy and policy in NI
- The number of service users and other members of the public involved in HSC R&D
- Number of Personal and Public Involvement (PPI) training events facilitated for representatives and / or for researchers

The Objectives

Objective 5

To disseminate research findings in such a way as to promote understanding and knowledge, support and best practice, stimulate further research and celebrate achievement.



What we would like to achieve

Understandably, researchers within the health and social care sectors will be primarily concerned with the validity and reliability of their findings, influence on policy and practice in the health and social care sectors and the need and potential for continued research. Dissemination beyond the 'community of interest' has also an important role in ensuring recognition of the clinical and social value of research, the potential for the influence on policy, the reputation of those involved, the promotion of international collaborations, the attractions of high calibre researchers to Northern Ireland and ultimately the continued funding of research.

Researchers need to consider how to further communicate the significance of their findings beyond their research community of interest including to policy makers and the public in general. Otherwise, at one extreme the value and implications of research findings may go largely unnoticed beyond the 'technical audience' or at the other the significance in the more popular media can be exaggerated leading to unrealistic expectations.

We need to ensure that quality research influences clinical and social care practice and leads to better outcomes for patients, clients and the population at large. Research of recognised quality and value should be sustainable in terms of knowledge, skills and retention funding.

By raising awareness of the central relevance of research to professional development, research skills will increasingly be regarded as an essential core competency by clinical and social care professions providing a wider 'community of interest' promoting a culture of co-operation and collaboration.

The Objectives



How will we know it's working?

Measures of Success: Objective 5

- The number of peer review articles published in high profile journals
- The number of ongoing collaborative research projects involving researchers in HSC
- Total drawdown of research funds for HSC relevant research
- Number of citations of health and social care research led or involving significant input from NI researchers
- Increased coverage by local, national and international media of stories related to Health and Social Care research in NI
- Recognition by international organisations of the contribution to knowledge and practice, made by Northern Ireland researchers.

Delivering the strategy and demonstrating achievement

This strategy sets out an agreed vision of the future. It is inspirational and aspirational but must now result in action. An Implementation Plan will be developed and published by the HSC R&D Division of PHA which also will be responsible for its delivery.

Progress towards successful pursuit of the strategy will be measured so that we can demonstrate our achievements and address any aspects that are not progressing as planned. Metrics have been defined for each of our five objectives and they will be complemented by qualitative evaluations of impact on health, wellbeing and HSC service delivery. Together these modalities will comprise robust evaluation of success.

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Annex A

Achievements during the period of the previous strategy

Development of a new R&D strategy has provided an opportunity to reflect on the achievements of the previous strategy: *Research for Health and Wellbeing 2007 – 2012 (extended to include 2013)*. That version aimed to support research, develop understanding, improve health and wellbeing and make a difference – all themes that still are highly relevant. It set out five strategic themes to achieve these ends and these are considered briefly below.

(i) Enabling Infrastructure

Sound organisations and infrastructure are foundational so that research can be carried out in appropriate facilities, supported by trained, experienced staff and in compliance with ethical and governance standards. It is a mark of success that NI has developed all of the infrastructure entities that comprise a modern HSC research system. The principal components of the system are shown in Table 1, page 13 and Figure 2, page 15.

(ii) HSC research capacity

Research skills enrich the ability of professionals to contribute to clinical and academic practice. While not all HSC staff will have scope to undertake research within a regular working week, it is essential that high quality research is undertaken by a number of people across all HSC professions and that research skills, e.g. accessing the research literature and implementing evidence for best practice, are employed by all. The principal stage at which research skills are developed is during a period of PhD study. Since its inception in the late 1990s, a significant part of the HSC R&D Fund has been allocated for Doctoral Fellowships. Some Fellows have made a very valuable impact and have continued in research throughout their subsequent careers.

During the previous strategy period, funding was provided to establish a R&D Office in each of the five HSC Trusts. Additional support was provided to ensure timely services for research, e.g. pharmacy and medical physics. The five Trust R&D Offices now work together towards unified, coordinated and streamlined research governance procedures and systems. This work has taken account of, and ensured compatibility with, UK-wide and international developments in research management and governance, including consultation with partner organisations, e.g. universities and government bodies.

The increasing complexity and scale of research studies requires greater partnership working among the other UK devolved administrations, the Health Research Authority (HRA), industry and the third sector. The evolution of these partnerships is enabling a regional offering for studies, i.e. a single study would have one HSC costing, one HSC contract or one HSC material transfer agreement to remove the need and the opportunity cost of negotiating multiple agreements. Promotion of integrated working between Trust R&D Offices and the Clinical Research Networks is an on-going process towards improved management of research from conception to completion.

(iii) Funding HSC research

Research funds are allocated to the projects that are most likely to generate results, or outputs, that can lead to robust outcomes and impacts in society. The overall research funding landscape includes support for all stages from the development of a research idea to the dissemination / implementation of findings. The HSC R&D Fund, like similar funds from other UK Health Departments, supports research that is capable of being translated into innovations that can be implemented in practice.

To compile information on the benefits stimulated by research, UK health research funders are using compatible information sets that minimise the data input burden on researchers. Such systems track information on projects for many years after the funding is allocated, recognising that many outputs and most outcomes are achievable only over extended time periods. These new systems will significantly increase transparency and robustness of the evidence of return on investment for funders and Government departments.

(iv) Supporting HSC innovation

Research projects can generate intellectual property IP that may lead to potential business opportunities. HSC Innovations is supported by the HSC R&D Fund to facilitate staff who develop IP within the HSC, working closely with analogous services in universities and other economic development entities such as InvestNI and NI Science Park.

HSC Innovations aim to maximise returns on IP developed during research by ensuring that:

- Researchers are aware of the need to consider the value of their IP.
- Researchers have access to knowledgeable, experienced staff who can advise

on the correct commercialisation routes and matters associated with the legal protection of IP (normally patenting).

- Efforts can be made to source finance for the further development of any product resulting from the research.
- Life sciences businesses are aware of the existing and emerging IP.

The Life Sciences industry sector is extremely important to the UK, as reflected in the current UK Life Sciences strategy⁷. Locally, the MATRIX report that was welcomed by the NI Executive in 2008 – and currently is being updated - identified the merits of two aspects of this field: Home Based Care and Personalised Medicine⁸.

The December 2011 signing by the DHSSPS and InvestNI of a Memorandum of Understanding (MoU) on Connected Health and Prosperity has led to an action plan through which part of this agenda - Home Based Care - can be progressed for both health and economic benefits. In addition, it gave rise to the development of a Connected Health eco-system bringing together the health, academic and industry sectors to consider how connected health solutions could contribute to improved health and well-being and economic growth. Furthermore, the Department is working with DETI and InvestNI on a Project Definition phase for a Health Innovation and Life Science Hub in Northern Ireland.

(v) Ensuring patient & public involvement

The needs of patients, clients and the general public in NI must always remain fundamental reasons for undertaking HSC R&D. Over the past decade the distribution of UK government funds for research very correctly has undergone a democratisation process: the systematic involvement of patients, carers and other members of the public in all stages of research projects. For NI, for this approach is termed 'Personal and Public Involvement (PPI)'; HSC R&D has published its PPI strategy.

Every research proposal considered by HSC R&D is required to demonstrate how it will include PPI in the development, performance and dissemination phases of research. Trained PPI representatives take part in all decision-making for the allocation of research awards and participate in the management of clinical trials and other HSC Trust-based R&D activities. The HSC Patient and Client Council (PCC) is a valuable partner in the systematic introduction of PPI into NI's research base.

Annex B

Recommendation from Evaluation Report, will be taken forward through:	This strategy	Other DHSSPS
Consultations for a new HSC R&D strategy should include those responsible for policy, planning and delivering services	X	
Payback framework elements (e.g. additional funding, jobs, IP) should be referenced in the HSC R&D letter of offer of support	X	
Cost/benefit analysis should be carried out on the impact of the funding to NIHR over a five to ten year period		X
Successful leverage of the HSC R&D budget should be built upon	X	
The most appropriate mechanisms to increase translational and implementation activities should be considered	X	
Additional funding to enable policy-relevant research should be considered		X
Applications for HSC R&D funding should indicate their local policy relevance	X	
Research project funding should be balanced with maintaining the supportive research infrastructure across the province	X	
Increasing access to clinical trials across NI should be continued	X	
HSC R&D should adopt an online approach for monitoring its funded projects	X	
The profile of research should be raised in Trusts, among policy-makers, service planners in the DHSSPS and across the HSC organisations	X	X
Research should be more central to decision-making processes within HSC organisations	X	X
The profile of R&D within the HSC sector should be addressed	X	X
Trusts should capture information on R&D income and impact	X	X
Trusts should have access to evidence on the impact of their R&D	X	

Recommendation from Evaluation Report, will be taken forward through:	This strategy	Other DHSSPS
Trusts should ensure that any surplus generated from research is reinvested in further research	X	X
HSC R&D Doctoral Fellows should be supported to continue to undertake high quality research	X	
Further engagement with InvestNI should be pursued	X	X

Annex C

Research Partnerships

Some partnerships are bi-lateral, e.g. funding of the Cancer Research UK (CR-UK) Centre in Belfast involves HSC R&D with CR-UK while others involve multiple funders, e.g. the National Prevention Research Initiative (NPRI) that includes a consortium of government health departments, research councils and charities. A number of over-arching initiatives support partnership development:

- The UK Clinical Research Collaboration (UKCRC), established in 2004 to ‘Re-engineer the clinical research environment’ of the UK. Its members include research funders, academia, health services, regulatory bodies, charities, industry and patients.
- National Cancer Research Institute (NCRI) members include large and small research charities, government health departments and patients. It enables high level studies and initiatives that support the remits of its members.
- The 2007 Cooksey Review made the case for improved co-ordination of research along a translational pathway towards healthcare and economic benefits. It led to the establishment of The Office for Strategic Coordination of Health Research (OSCHR). Its vision is *“To maintain and improve the UK’s position as one of the global leaders in health research through sustained investment and the coordination of strategies across public funders”*.
- On the island of Ireland, the All Ireland Institute for Hospice and Palliative Care involves HSC R&D and the Health Research Board (HRB) with a number of health research, education and care charities.
- The Science Foundation Ireland/ Department of Employment and Learning (SFI/DEL) ‘Investigations Programme Partnership’ will support collaborative projects involving investing from both Northern Ireland and Ireland in internationally, peer reviewed, leading edge discovery and fundamental research.
- The overall goal of the US-Ireland R&D Partnership is to increase the level of collaborative R&D amongst researchers and industry professionals across the three jurisdictions – NI, RoI and USA. The Partnership achieves this through tri-partite research projects for which each of the following agencies funds

the research undertaken in its own jurisdiction: the National Institutes of Health (NIH; USA), Science Foundation Ireland (SFI), HRB, Department for Employment and Learning (DEL), InvestNI and HSC R&D.

- The Ireland-Northern Ireland-National Cancer Institute (NCI) Cancer Consortium has been in place for almost 15 years and its current purpose is that:
 - ‘..the enhanced cooperation and partnership should enable improved fundamental and clinical research programs and translation of research findings into healthcare delivery’*
- Increased attraction of competitive R&D funding from the EU Commission is a major initiative of the NI Executive and involves all of the NI Assembly Departments. With a focus on enabling HSC-based researchers to collaborate with colleagues in universities and businesses, HSC R&D is supporting the development of proposals to a wide range of funding mechanisms including Horizon 2020 and Health 2020.

