



HRB Strategic Business Plan 2010 – 2014

The future of Irish health research

HRB STRATEGIC BUSINESS PLAN 2010 – 2014

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Published by:

Health Research Board, Dublin
©Health Research Board 2009
ISBN 978-1-903699-15-0

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Acknowledgements

An all-encompassing strategic plan needs input, collaboration and engagement at a number of levels. The encouragement and support for this strategic business plan from Minister for Health and Children, Mary Harney TD, is greatly appreciated. Senior management in the Department of Health and Children must be acknowledged for their insights and direction in the plans development. This input was essential and ensured that it appropriately underpins the *Action Plan for Health Research* for the Government's *Building Ireland's Smart Economy* strategy.

Advice and input from funding and development agencies in the realms of health, enterprise, education and science has also helped to ensure that this strategic plan is well placed, not just to deliver better healthcare and services, but contribute to the wider agenda for economic development and further education.

The health research community, HSE, HIQA and a large number of health professionals and academics also participated in direct consultation with us. Many of their insights and recommendations are reflected in the plan.

Finally, this plan would not have come together if it had not been for the ideas, hard work and co-operation of staff throughout the organisation and the strong, guiding hand of an innovative Board.



Foreword

In a climate of ongoing change and economic uncertainty, this strategic business plan presents a clear direction, highlights the need for a collaborative approach and defines key steps that need to be taken to address challenges for health research in Ireland.

The government has highlighted their ongoing commitment to supporting research, development and innovation, in spite of the economic challenges facing the country. They firmly believe that by investing in research, we are investing in our future. We welcome that belief and would echo the sentiment.

Research is a strong catalyst for change. This health research plan demonstrates how we can bridge the gap between research and health outcomes. If implemented successfully, this strategic business plan will deliver improved health outcomes, support the transformation of the health services, turn discoveries into treatments and underpin a vibrant life sciences sector for the economy.

In developing the plan, the HRB has secured the support and backing of a wide range of stakeholders across the health, science, education and enterprise sectors. The plan forms the backbone of the Health Action Plan for Government and has been endorsed by the inter-departmental committee on Science, Technology and Innovation.

We recognise that, at a national level, the government faces considerable constraints with regard to availability of finances for investment. This plan has been developed in the full knowledge of those challenges and has reflected this in a number of ways. Careful attention has been paid to ensuring that the proposed areas of funding are not overlapping, or duplicating, with other research funders. A particular focus is placed not only on ensuring value for money, but on patient-oriented research and its application and translation into real benefits. Through this strategy we are committed to optimising the use of current resources and to working in close collaboration with others, in order to achieve our vision of healthy people through excellent research and applied knowledge.

A handwritten signature in black ink, appearing to read 'Reg Shaw', with a stylized, cursive flourish at the end.

Reg Shaw PhD
Chairman

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Introduction

The World Health Organization describes health as *'a state of complete physical, mental and social well-being and not merely the absence of disease'*. As the lead agency in Ireland funding health research, we want to ensure that research efforts in Ireland are targeted and co-ordinated to help achieve this state of health for Irish people. We have identified a clear vision, mission and goals to help us make this happen.

Research underpins development and progress in every industry, and healthcare is no different. The HRB's strategic business plan recognises the importance of establishing a co-ordinated approach so as to achieve the highest quality health research and developing the right skills, conditions and capacity in the Irish health system, in order to accelerate the translation of research discoveries into real benefits for people.

The four goals identified overleaf will support the scope and capacity of research within the health system to deliver better healthcare. These goals emphasise not only the importance of conducting excellent research, but of establishing a coherent research system at the heart of our health service.

Summary

Our Vision: Healthy people through excellent research and applied knowledge.

Our Mission: To improve people's health, patient care and health service delivery by:

- leading and supporting excellent research by outstanding people within a coherent health research system;
- generating knowledge and promoting its application in policy and practice;

and, in doing so, play a key role in health system innovation and economic development.

Our Goals: Over the five years of this plan, we will focus on four strategic goals to achieve our vision and execute our mission:

- 1 Driving the development of excellent clinical research, including applied biomedical research, within a coherent health research system.**
- 2 Building capacity to conduct high-quality population health sciences research and health services research.**
- 3 Working with key partners to develop and manage high-quality national health information systems.**
- 4 Generating and synthesising evidence, and promoting the application of knowledge to support decision-making by policy makers and relevant practitioners.**

Overarching Principles: In pursuit of our mission, the core principles that will consistently shape our thinking and our approach in everything we do are:

- **Commitment to a culture of excellence in research and evaluation.**
- **Leadership of health research through partnership and collaboration.**
- **Determination to have knowledge translated and applied.**
- **Commitment to having research at the core of the health system.**
- **Focus on good governance, high performance and value for money.**

By 2014, we will have:

- Research of the highest quality, conducted across the health research spectrum, delivering patient and public health benefits.
- A culture of excellent clinical research embedded coherently in the health system.
- More clinicians and health professionals conducting top quality research.
- An expanded capacity to conduct high-quality population health sciences research and health services research.
- Additional health research networks delivering quality outcomes in priority areas.
- Coherence in Irish health research through national co-ordination frameworks, embedded clinical research facilities and appropriate research governance.
- Enhanced partnerships between the health system, academia and industry, mutually beneficial, contributing to the 'smart economy' and supporting commercialisation.
- A recognised track record for generating high-quality evidence and knowledge used by practitioners and policy makers.
- National health information systems that are fit-for-purpose and are embedded within the national health information systems framework.
- Innovative knowledge transfer initiatives that are leading the way in turning research evidence into policy and practice.

Once established, a strong research culture, based on excellence, across our health services will also position Ireland as a leader in health-related industries. This will be best achieved when the infrastructure is in place, the professionals are trained, and both existing and new research discoveries and research evidence have been translated into policy and are being put into practice.

It is essential that Ireland increases the pace of development in health research if it is to succeed in transforming its health services and delivering on its 'smart economy' objectives. This strategy shows how we will bridge the gap between research and better health outcomes and help create the best conditions for the delivery of healthcare for Irish people in the future. This will be achieved by working in partnership with the Department of Health and Children (DoHC), the Health Service Executive (HSE), the Health Information and Quality Authority (HIQA) and other funding agencies. We are committed to bringing research and development to life.

2. Strategic context

This strategic business plan is being developed in a climate of ongoing change, both nationally and internationally. Some of the important factors that have been taken into consideration include:

- 2.1 Government economic and research strategies.
- 2.2 Changes in the Irish health system.
- 2.3 The health research landscape.
- 2.4 National health information systems.
- 2.5 Commercialisation of health research.
- 2.6 The EU health research agenda.
- 2.7 Looking to the future.

2.1 Government economic and research strategies

In recent years the government has demonstrated strong support for Research, Development and Innovation (RDI) across all sectors through its commitment to the *Strategy for Science, Technology and Innovation*. Most recently, this has been reinforced in the Irish government's strategy for economic recovery and growth: *Building Ireland's Smart Economy: a Framework for Sustainable Economic Renewal*, which declares a clear commitment to continued investment in RDI into the future. Research and development in all its facets is clearly seen by government as the driver of innovation throughout our economy.

The HRB's strategic business plan builds on the government's original National Health Strategy, *Making knowledge work for health (2001)*. It also reflects the findings of the recent Advisory Council for Science, Technology and Innovation report, *Towards better health: achieving a step change in health research in Ireland*.

While progress has been made in implementing the recommendations in both of these reports, it has become clear that the capacity of the health sector to participate as an equal partner in the national research system is not as developed as it should be. Similarly, the absence of a coherent approach to research and development within the health system means that the service is not reaching its full potential as a driver of innovation for the benefit of people's health, the service itself, or the economy.

The HRB's strategic business plan aims to address these issues. The goals and objectives set out in the plan are designed to provide a clear direction and focus, not only in addressing the current health research deficits, but, more importantly in addressing future health research needs. As a result, over the next five years, we will work closely with the DoHC, the HSE and HIQA to place health research at the core of the health system. This will deliver improvements in people's health and the health service, and in the process will make a real contribution to the economy.

In parallel with the HRB Strategic Business Plan 2010–2014, the DoHC is publishing the *Action Plan for Health Research*, which is an integral part of the Smart Economy Strategy Framework. This is significant because it clearly shows that health research is not only crucial to improving patient outcomes and developing quality health services, but that it also has a broader economic role to play through generating efficiencies in the health service and creating a stimulus for the healthcare industry in Ireland.

While the DoHC action plan is not a new strategy for health research, it is being designed as an instrument to engage all stakeholders with an interest in health research agenda and ensure actions are implemented. As such, it incorporates all the key goals and objectives contained in the HRB Strategic Business Plan 2010–2014, and it will act as a major support mechanism for many of the collaborative actions outlined in this plan.

2.2 Changes in the Irish health system

Since 2003 there have been significant changes in the health system, not least the establishment of the HSE and HIQA. This resulted in a change of mandate, priorities and people. The DoHC role has become focused on policy in relation to health, and the HSE has taken responsibility for the delivery of healthcare services at a national and regional level.

New approaches are being taken in relation to the delivery of care; these include an increased focus on care in the community and the introduction of a clinical care directorate at management level within the HSE nationally, regionally and locally. Features of the reform agenda include specific goals of a modern, integrated, quality-based and patient-centred health system; it is only through excellent health research that these goals can be achieved.

Throughout the health service reform process there was no remit at a national level to lead and drive Ireland's health research agenda, a requirement which was highlighted in two earlier documents; *Making knowledge work for health*, the first National health research strategy and the Advisory Council for Science Technology and Innovation's *Towards better health: achieving a step change in health research in Ireland*. Lack of national leadership and ongoing change has inhibited progress on the establishment of the requisite structures and systems within the health services to carry out research and act on the outcomes of research. By implementing this strategic business plan and the *Action Plan for Health Research*, the HRB, the DoHC and the HSE propose to work together to tackle these issues.

The HRB will play a lead role in closing the gap between new health research discoveries and the effective translation and implementation of these discoveries into policy and practice in order to achieve specific health service goals. We plan to work with others to build the capacity for health research; create opportunities for researchers; drive the translation of research discoveries into delivering improved healthcare; and provide solid evidence to support health research policy. This, in turn, will achieve better outcomes for patients and realise efficiencies in the health service. If successful, it should also protect people's health and help them avoid the need to enter the health system in the first place.

The importance of health research in the context of patient safety, quality and risk is one of the key considerations highlighted in the *Report of the Commission on Patient Safety and Quality Assurance (2008)*. The HRB will play its role in ensuring that research and evidence are provided to support the delivery of a safe environment for patients and a high-quality health system.

2.3 The health research landscape

2.3.1 Health research funding in Ireland

Ireland's research landscape has changed significantly over the past decade. These changes have been driven by a very substantial increase in public-funded research, coupled with policies aimed at growing the levels of business expenditure on RDI. The Government's *Strategy for Science, Technology and Innovation (SSTI)* introduced a level of coherence for research nationally, clearly identifying research areas of strategic importance and establishing the parameters for the level of national investment in Science, Technology and Innovation (STI) required up to 2013.

Health research has benefited from the increase in public funding through the SSTI, but it nevertheless remains below the Organisation for Economic Co-operation and Development (OECD) average. When spend on health-related research in Ireland is compared with health-related research spend in other countries, the latest available figures from the 2007 OECD Science, Technology and Innovation scoreboard show that Ireland is well behind the OECD average of 0.12% in terms of investment in health research as a percentage of GDP. In 2005, Ireland's spend on health research was just 0.06% of GDP. In contrast, during the same period, the equivalent spend for the UK was 0.14%, Sweden 0.16%, and the USA 0.26%.



Figure 1 A comparison of health-related research spend relative to OECD average 2005.

Ireland also lags behind in terms of expenditure on health research by the health system as a percentage of the overall health services budget. In Ireland, health research, funded through the HRB, accounts for just 0.26% (€40m) of the overall health services budget (€15bn). In contrast, in England, health research funding through the National Institute of Health Research, accounts for 0.8% (£720m) of the overall health services budget (£90bn).

2.3.2 Health research pathway

The pathway of health research stretches from the creation of an innovation through to its use in a patient care setting. It covers a very wide range of interventions, including pharmaceuticals, biologics, diagnostics, procedures, therapies and practices. It ranges across the complete spectrum of health and healthcare delivery activities such as prevention, detection, diagnosis, prognosis, treatment and care. It also extends across a variety of research streams including patient-oriented research, epidemiological and behavioural studies, and health outcomes and services research.

Figure 2 below maps this pathway and includes an indication of the areas where current Irish research funding bodies primarily focus their investments. It indicates the current position of the four largest funders of public health research: the Health Research Board, Science Foundation Ireland, the Higher Education Authority and Enterprise Ireland.

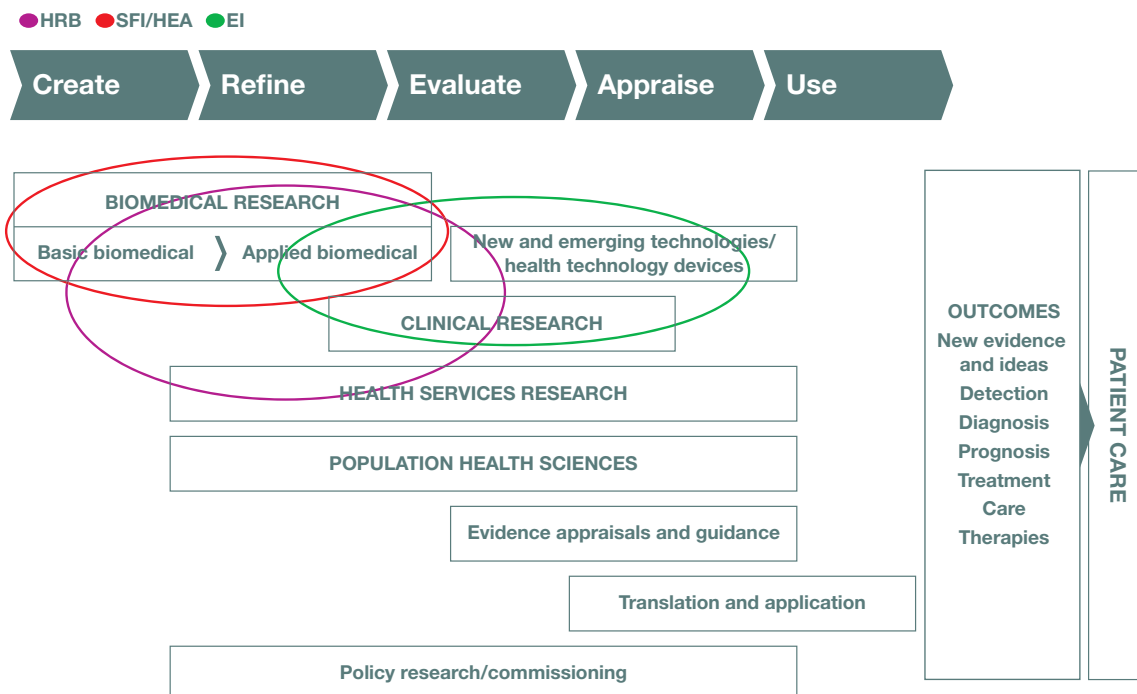


Figure 2* Health research pathway highlighting current funding focus of the Health Research Board, Science Foundation Ireland, the Higher Education Authority and Enterprise Ireland.

*This diagram is an adaptation based on the National Institute of Health Research model of the role of health research in innovation.

Clearly, a number of major gaps still exist, with low levels of funding for research in the clinical, health services, population sciences and policy research, as well as, in technology assessment. These gaps are further compounded by the lack of sufficient focus on translational research, evidence appraisal, and the application of knowledge and findings into practice, either for direct health system gain or for commercial exploitation. When these are added to the lack of research capacity or coherence within the health services, the scale of the challenge can be seen.

If Ireland is going to exploit the opportunities that quality research presents in order to turn new discoveries into benefits for patient care, health service transformation as well as new products and services, these gaps must be filled. This requires an appropriate balance of investment throughout the health research pathway; and in the process, the creation of capacity within the health system to enable effective research partnerships with industry and academia for mutual benefit.

2.4 National health information systems

Reliable, high-quality information is central to effective decision-making about health. The HRB is cited as a key manager of national health information systems in the DoHC *National Health Information Strategy (2004)*, which includes plans to establish a legislative and information governance framework that will safeguard the confidentiality and privacy of health information while optimising the appropriate use of such information. It also intends to establish health information standards that will ensure the quality and comparability of health information and will enable appropriate sharing of health information within the health sector.

The Health Act 2007 established the Health Information Quality Authority (HIQA) which is responsible for health information standards. The HRB will work with HIQA to assist in the setting of standards and to ensure that the standards, once specified, are implemented across the HRB's national health information systems. The forthcoming Health Information Bill will set out a framework for a unique identifier which will increase the utility of national health information systems and will facilitate linkages between systems while at the same time protecting patient confidentiality.

2.5 Commercialisation of health research

The HRB's primary focus is to improve people's health, patient care and health service delivery, and the research outcomes from HRB funding lead to real economic savings, efficiencies and benefits to the State's largest business enterprise, the health service. However, health research has an equally important role to play in the delivery of new commercially viable products, therapies, drugs and medical devices; and it is critical that HRB funding also supports this agenda and contributes to Ireland's economic and enterprise development goals.

Commercial opportunities in health and life sciences can best be exploited when:

- a) Clinical practice is engaged with, and informs, the discovery and development process.
- b) A coherent health research system is functioning, within which research is led by world-class clinician scientists.
- c) Networks are in place through which patients can participate in the latest research and clinical trials.
- d) The mechanisms exist to encourage the collaboration of clinicians with academic and industry research.
- e) The support infrastructure exists to carry out research within the health system.

Within this strategic business plan, the HRB will address these issues and consequently contribute a key strategic component for business commercialisation in the life science sector. In implementing this plan, we will not only create a functioning health research environment which supports the development of ideas and their commercialisation, but we will also work with relevant enterprise agencies to ensure synergy and coherence between the health research environment and the needs of the enterprise agencies and the economic agenda. In addition, we will create opportunities for information and ideas exchange and will enter into co-funding opportunities, where possible, in order to support this.

2.6 The EU health research agenda

Health is a major strategic focus of the EU research agenda. The main scheme for funding collaborative research in Europe, the Seventh Framework Programme (FP7), has a budget of over €50 billion. It highlights health as a priority area and has dedicated 12% (€6.1 billion) to support health research.

Other key EU Health Research Programmes in the health area include the Innovative Medicines Initiative, the Executive Agency for Health and Consumers (EAHC) Public Health Programme, which is the main instrument for implementing the EU's health strategy and Joint Programming, a new initiative which aims to address 'grand challenges' to EU society.

In developing Ireland's health research system it is important to ensure that Ireland is well positioned to exploit this and that Irish researchers build their expertise, test their international competitiveness through these substantial funding opportunities and most importantly, compete for research funding.

Within the context of this strategic business plan, we will continue to act as the Irish focal point for EU health research programmes and to drive further engagement of Irish researchers with EU health research activities. The HRB also recognises the importance of participating in EU-wide initiatives aimed at improving European research competitiveness and encouraging cross-European research collaboration.

2.7 Looking to the future

This context briefly reviews the environment and some of the opportunities, issues, gaps and challenges facing health research in Ireland. Not least of the challenges will be the severe constraint on resources that will be available within the economy to invest in research. This strategic business plan aims take account of all of these factors and to present a reasoned, practical and achievable way forward over the next five years, and in the process, bring about substantive benefits and significant strategic change to an underdeveloped sector.

Over the next five years the HRB will continue to support research of the highest quality and excellence. During this time we will gradually concentrate resources into research that offers the most potential for translation into impacts and benefits for people’s health. Into the future our investment will increasingly focus on patient-oriented research, clinical, including applied biomedical research, as well as health services and population health sciences research. Our aim is to speed up the translation of research discoveries into real benefits for patients and the public, closing the gap between research outcomes and their application in policy and practice. We propose to fund the development of the infrastructure to support health research, and in doing so, introduce coherence to the oversight, management and development of research within the Irish health system.

We believe the four strategic goals at the core of this strategy, along with the detailed objectives supporting these goals, will go a long way to delivering a strong and vibrant health research environment in Ireland spanning the health research pathway and delivering benefits to the various health system and economic needs.

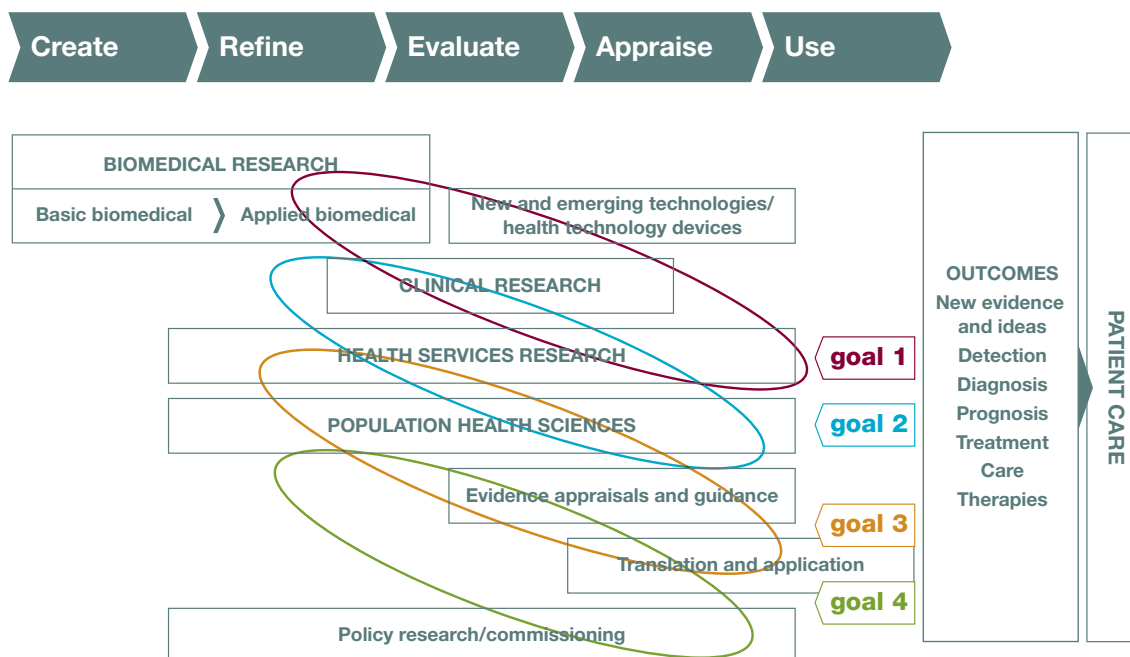


Figure 3 The future focus of the HRB; spanning the health research pathway.

3. Vision, mission, goals and overarching principles

The plan outlined here covers the period 2010–2014. During this period we will endeavour to maintain constant progress towards the achievement of our strategic goals while regularly reviewing and modifying actions in response to changes in the research environment, the economy and other influencing factors. We must ensure that we stay relevant, but we are aware of the need to be flexible and responsive in light of changing economic circumstances.

Our Vision: **Healthy people through excellent research and applied knowledge.**

Our Mission: **To improve people's health, patient care and health service delivery by:**

- **leading and supporting excellent research by outstanding people within a coherent health research system;**
- **generating knowledge and promoting its application in policy and practice;**

and, in doing so, play a key role in health system innovation and economic development.

Our Goals: During the course of implementing this five-year plan, we will focus on four strategic goals in order to achieve our vision and execute our mission. We will do this by:

- 1 Driving the development of excellent clinical research, including applied biomedical research, within a coherent health research system.**
- 2 Building capacity to conduct high-quality population health sciences research and health services research.**
- 3 Working with key partners to develop and manage high-quality national health information systems.**
- 4 Generating and synthesising evidence, and promoting the application of knowledge to support decision-making by policy makers and relevant practitioners.**

Overarching Principles

goal 1

goal 2

goal 3

goal 4

Commitment to a culture of excellence in research and innovation

Leadership of health research through partnership and collaboration

Determination to have knowledge translated and applied

Commitment to having research at the core of the health system

Focus on good governance, high performance and value for money



Our goals

Over the five years of this plan, we will focus on four strategic goals to achieve our vision and execute our mission.

goal 1

Driving the development of excellent clinical research, including applied biomedical research, within a coherent health research system

Over the past decade, Ireland has invested in building a national research system. This has led to a substantial increase in the level of health-related research, especially in academia and industry. However, because much of this funding is focused on basic biomedical or translational research aimed at meeting enterprise or education goals, health and/or patient outcomes have been a by-product rather than a primary objective of the investment process.

Investment in clinical research has not been on a scale similar to that in academia or industry; it has little coherence, and is often dependent on committed individuals operating independently within the health system. The situation is exacerbated by the dominant demands of service delivery, despite widespread acknowledgement within the system that research should be an integral part of a high-performing health system.

The HRB has funded programmes of high-quality, internationally peer-reviewed research which have delivered many outcomes of real benefit to patients and the health system. These programmes have brought about a substantial increase in research capability, including the first dedicated clinician scientists, a cohort of trained clinical researchers, clinical research support facilities, and the first large-scale national clinical trial network focused on cancer. However, at a clinical level critical mass has not been achieved due to insufficient patient-oriented research, inadequate numbers of researchers and a lack of support infrastructure or research governance.

Undertaking research of the highest quality and creating a vibrant clinical research system in Ireland is necessary both for the development of a high-performing health service and for the success of the national research agenda. Best international practice clearly demonstrates that successful health service transformation embeds research and quality at the centre of the new system. By the same token, an active, innovative environment is essential in



order to absorb innovations and deliver the evidence and knowledge required to underpin change. Equally, at a national level the investment and discoveries emanating from basic medical sciences and life sciences industry research will only reach their full potential when supported by excellent clinical research and a coherent support for that research.

Ireland has an international reputation for delivering excellent quality clinical research. Over the next five years, the HRB, working with a range of stakeholders, will assume a strategic leadership role in driving the growth of clinical research and developing coherence within the Irish health system to support that growth.

In order to achieve this, the HRB will:

- 1 Fund clinical research projects of the highest quality and excellence that have been subjected to international best practice review and assessment.
- 2 Increase the level of investment in patient-oriented research in the clinical research areas, including applied biomedical research.
- 3 Fund training and development opportunities that will increase the number and diversity of health professionals involved in clinical research, and build their research skills.
- 4 Increase the number of clinician scientists. Extend the clinician scientist programme to other expert health professionals and help ensure that they can secure dedicated time to actively pursue research in their specialist areas.
- 5 Establish more clinical trial networks in targeted areas by introducing seed funding.
- 6 Develop strategic research clusters of academic and clinician investigators in experimental medicine and other areas, in collaboration with other funders.
- 7 Deliver three fully functional co-funded clinical research facilities (CRFs) – all located on hospital grounds.
- 8 Work at a strategic level with the DoHC, the HSE and others, both nationally and regionally within the health system, to develop appropriate clinical research governance arrangements in the Irish health system.
- 9 Establish a national co-ordinating framework for clinical research facilities in Ireland specifically designed to facilitate networking and co-ordination efforts across a range of health research issues.

goal 2

Building capacity to conduct high-quality population health sciences and health services research

Over the past decade, Irish health research has focused on understanding the causes of disease and creating innovations in therapeutic and diagnostic interventions. The level of investment in many other areas of health research has been both insufficient and very fragmented. As a result, there are many gaps in, for example, the understanding of the factors that create healthy people and societies; of prevention and patient safety practices; treatment and care outcomes; health delivery models; epidemiology and behavioural studies, and technology assessment and services research.

This imbalance has led to inadequate capacity to develop the evidence and knowledge required to prevent ill health, to adapt clinical practices and models of patient care, and to transform them into a high-performing health service. The level of available expertise and research skills in the academic community and amongst clinical care and healthcare professionals within Population Health Sciences and Health Services Research is in short supply when compared with other areas of science. This presents a substantial challenge to the HRB's overall ambition of ensuring that health research becomes an integral part of healthcare provision in Ireland. The benefits of discoveries in medical science and other sciences will only achieve their full potential when partnered with population health sciences research and health services research.

Due to relative under investment and development in these research areas, this strategic business plan proposes to focus and target a substantial portion of our resources and effort specifically on developing capacity in population health sciences research and health services research for a period of time. The plan lays out a series of objectives and actions to achieve this.

However, these research areas are expected to rapidly evolve and develop over the lifetime of the plan. We believe that the challenges of development are such that they may provide opportunities for, or even require, novel and/or innovative approaches, methodologies or even funding mechanisms. We propose to continually review, amend and adjust our approach and reflect best international practice. We anticipate a significant emphasis on multidisciplinary teams and networks. Our initial concentration will be to address skills gaps, develop capacity building initiatives, support leading practitioners, and invest in specific priority research areas. The HRB will need to work with a range of stakeholders and the HSE in particular, to successfully address these issues, develop an agreed development framework and, in time, agree research priority areas.



In order to achieve this goal, the HRB will:

- 1 Fund research projects of the highest quality and excellence that have been subjected to international best practice review and assessment.
- 2 Increase the level of investment in high-quality population health sciences and health services research.
- 3 Fund training and development opportunities that will increase the number of researchers from a variety of backgrounds engaged in population health sciences and health services research (e.g. epidemiology, social science, economics, public health, nursing, nutritional science, biostatistics).
- 4 Establish research clusters and/or networks to accelerate and scale up the delivery of high-quality outcomes in targeted population health sciences and health services research priority areas.
- 5 Increase the number and diversity of health professionals involved in multidisciplinary partnerships and networks focusing on population science and health services research programmes.
- 6 Develop strategic partnerships with the HSE and others, with support from the DoHC, aimed at growing and developing Ireland's capacity in population health sciences research and health services research.
- 7 Increase the levels of co-funded research, with research funding partners to meet the strategic needs of the health system.
- 8 Increase the evidence base for population health sciences research by advocating for and facilitating the optimum use of existing data and by funding initiatives designed to maximise the analysis of existing national longitudinal and other datasets.

goal 3

Working with key partners to develop and manage high-quality national health information systems

High-quality information lies at the heart of all good decisions relating to health. Previous strategies for health system development in Ireland have recognised that appropriate high-performing healthcare delivery can only be planned, supported and evaluated through the effective use of information.

Strategies for the development and expansion of national health information systems are under consideration by the DoHC, the HSE and HIQA. A legislative framework for key enablers such as unique patient identifiers is being developed in the forthcoming Health Information Bill.

The HRB manages five key national health information systems in the areas of alcohol and drugs, disability and mental health. These are:

- The National Drug Treatment Reporting System.
- The National Drug-Related Death Index.
- The National Psychiatric In-Patient Reporting System.
- The National Intellectual Disability Database.
- The National Physical and Sensory Disability Database.



A number of other organisations, including the HSE Health Protection Surveillance Centre (HPSC), HSE Health Intelligence, Economic and Social Research Institute (ESRI), Cancer Registry and the Suicide Foundation, also play a role in the management of health information systems in Ireland. There is a need to develop a more co-ordinated and standardised approach to developing and managing high-quality national health information systems among the various organisations working in this area. During the course of implementing the 2010–2014 strategic business plan, the HRB will work with partners to develop high standards for information systems and ensure that the best solutions are in place to grow Ireland’s national information systems.

In order to achieve this goal, the HRB will:

- 1 Support the development of a collaborative partnership among organisations that are managing national health information systems. Work with these organisations to ensure that good practice is created – for example through the development of unique patient identifiers, electronic patient records and datasets.
- 2 Ensure that HRB national health information systems are high quality and fit-for-purpose. This will be achieved by conducting independent evaluations; introducing quality improvement plans; updating annual processes, procedures and guidelines.
- 3 Put a framework in place to ensure that data from HRB national health information systems are used to inform decision-making by policy makers and service planners.

goal 4

Generating and synthesising research evidence and promoting the application of knowledge to support decision-making by policy makers and relevant practitioners

Ireland has a strong track record in publishing findings from research studies and health information systems. While many of these provide compelling evidence for a need to implement changes in policy and practice, often these changes do not take place, creating what has been described as the ‘research-to-practice gap’.

One of the HRB’s major goals is to build and develop models designed to help establish evidence-based healthcare in Ireland. Evidence-based healthcare takes place when decisions are made based on due weight having been given to all valid, relevant, national and international research or information available at that time. This approach helps to ensure that health professionals, supported by policy makers and service planners, provide the most effective healthcare possible. In order to achieve this, several key steps are required; these can be viewed as a cycle (see figure 4 on opposite page).



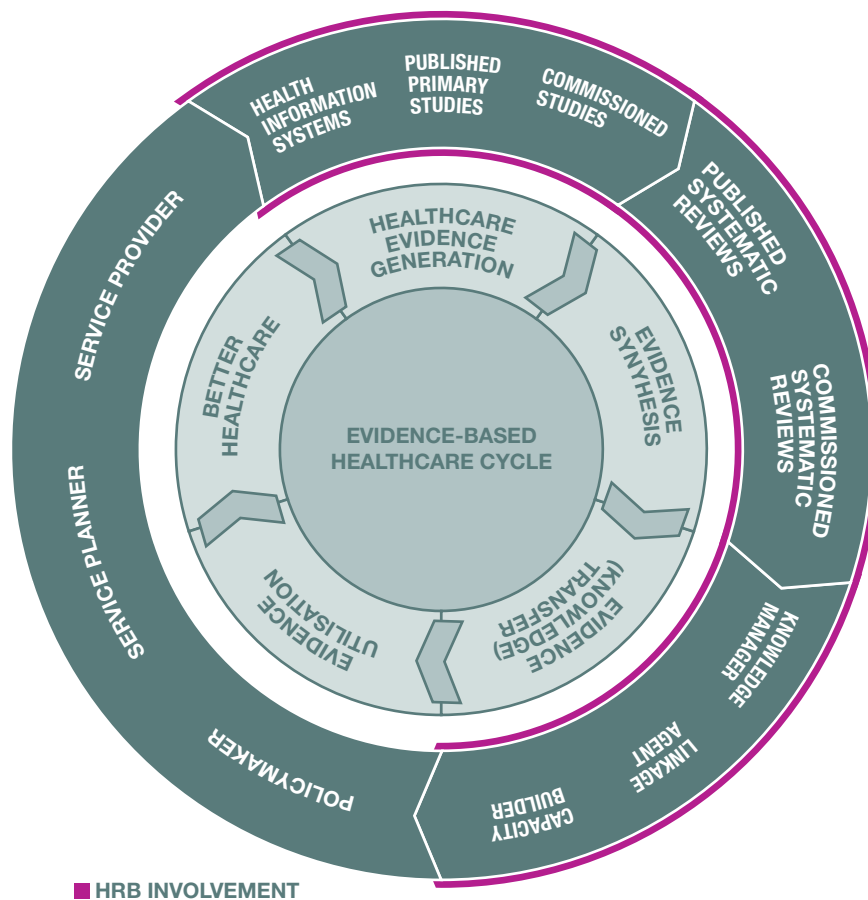


Figure 4 Evidence-based healthcare cycle

The key steps involved in the cycle are:

- 1 Creation of knowledge and the synthesis of existing research and information.
- 2 Commissioning of research where reliable evidence does not already exist.
- 3 Transfer of new knowledge to people who need to use it.
- 4 Brokering of information between the people who have the new knowledge and the practitioners who use or apply it in policy or practice in order to deliver better healthcare for individuals and populations.

In approaching this goal, the HRB will start by identifying a priorities and methodologies framework with key stakeholders which will be used to agree areas of research to be undertaken. To meet the needs identified, the HRB will then use and access the full extent of evidence and knowledge available nationally and internationally; this will include both knowledge generated from within its own information systems and funded research outcomes. This will be supplemented by commissioned research designed to fill gaps as required.

In collaboration with policy-makers and practitioners, the HRB will establish a resource that will help to; identify specific research evidence requirements, determine the best methods of responding to these requirements, fulfil these requirements, disseminate the synthesised information and help ensure that the research evidence is translated into clinical practice as effectively as possible. The HRB will use a structured and targeted approach to ensure that high-quality research evidence is sufficiently accessible to policy-makers, service planners and service providers to inform their decision-making.

This goal offers an exciting opportunity to examine and explore new and innovative ways of ensuring the evidence is translated into clinical practice and policy. It will help to support the decision-making that will drive innovation and the application of new ideas in the health sector; it will also be a key component in developing a coherent health research system.

In order to achieve this goal, the HRB will:

- 1 Develop a framework designed to establish priorities and define appropriate methodologies and approaches for addressing agreed research evidence requirements.
- 2 Provide internal and external training and mentoring aimed at developing the requisite skills to search, interpret, synthesise and use research evidence.
- 3 Establish a knowledge centre and online portal which will deliver high-quality health information and research evidence to HRB research staff. Simultaneously, manage the HRB's expanding information and knowledge resources.
- 4 Fulfil the evidence requirements of stakeholders in line with priorities outlined in memorandums of understanding and meet these requirements by compiling and synthesising existing research evidence, and by commissioning new studies as needed.
- 5 Develop procedures and processes for peer review of evidence in order to ensure that the data and research evidence compiled, synthesised or commissioned is delivered in line with best practice.
- 6 Investigate and develop mechanisms which will incentivise the translation of research evidence into policy and practice. We will achieve this by developing skills internally and using these skills to drive new and innovative knowledge brokering and exchange initiatives which will be evaluated on an ongoing basis.

Enabling and developing the HRB to deliver its strategic goals

In addition to the four goals outlined above, a number of key enabling objectives must be addressed if the strategic business plan is to be successful. We will pursue the following objectives in order to support the delivery of our goals and the development of our organisation over the period of the plan:

- 1 Actively promote the impact and benefits of health research.
- 2 Work and collaborate with national, European and international partners to develop and promote health research in Ireland.
- 3 Leverage additional resources and co-funding opportunities in order to support the HRB's strategic goals and increase levels of co-funded health research.
- 4 Develop the HRB as an adaptable, flexible and innovative organisation with the appropriate structure, leadership, skills and competencies.
- 5 Ensure that review and management processes for HRB-funded research are in line with the highest standards of best practice and governance.
- 6 Equip the HRB with the requisite corporate governance, management controls, and financial controls in order to achieve the highest standards of transparency and accountability.
- 7 Ensure that the strategic business plan remains relevant and is delivered in the context of changes in the research environment and the economy.

4. Glossary

Biomedical research

Biomedical research is the broad area of science that involves the investigation of the biologic process and the causes of disease through careful experimentation, observation, laboratory work, analysis and testing. Research with the goal of understanding normal and abnormal human functioning at the molecular, cellular, organ system and whole body levels which includes the development of tools and techniques to be applied for this purpose and the development of new therapies or devices up to the point where they are to be tested on human subjects. It includes basic biomedical and applied biomedical research.

– Basic biomedical research

Research conducted to increase the knowledge base and understanding of the physical, chemical and functional mechanisms of life processes and disease. It is often called fundamental or 'pure' research and is not directed at solving any particular biomedical problem in humans or animals. It provides the building blocks upon which other types of biomedical research are based.

– Applied biomedical research

In contrast to basic biomedical research, applied biomedical research seeks to understand specific diseases in terms of their characteristics, manifestations, management, treatment, and their relationship with predisposing factors. It includes research that is directed at specific goals and discoveries such as the development of new drugs, therapies, devices or surgical procedures. It involves using existing knowledge (gained from basic research) and methodically expanding this knowledge to address a specific clinical issue. Applied biomedical research includes research conducted with animal and non-animal model systems, computer models, and may even include studies on human subjects or samples that do not have a diagnostic or therapeutic orientation.

Clinical research

Research with the goal of improving the diagnosis and treatment (including rehabilitation and palliation) of disease and injury; improving the health and quality of life of individuals as they pass through normal life stages. It involves research on, or for, the treatment of patients.

Clinical Research Facility (CRF)

CRFs provide the infrastructure – the physical space, facilities and the experts – needed to support patient-oriented research studies.

Clinical research system

A clinical research system is one where a whole-system approach is taken to ensuring that Ireland has a world class infrastructure to support clinical research. This encompasses strategic co-ordination of all aspects of clinical research including the networking of facilities, technologies and personnel; a supportive environment for the recruitment and retention of clinician scientists and clinical researchers; centralised provision of advice and support; a co-ordinated approach to study development and portfolios; an increased number of high-quality studies (commercial and investigator-led); an increased profile internationally and, ultimately, increased benefits for patients.

Clinician scientist

The term clinician scientist refers to those whose primary training is clinical in nature, but who have also received research training and experience and continue to pursue a career that heavily combines research with clinical work. They perform research across the health-related spectrum and come from a range of health and social care professional backgrounds and a number of settings (e.g. physicians, nurses, midwives, dentists, physiotherapists, dieticians, clinical psychologists etc.). Their background provides them with an understanding in both basic mechanism and human disease; supports them in translating basic sciences to clinical practice and in testing hypotheses made at the bedside in the laboratory. They have the advantage of being well placed to study complex models of human disease that cannot be controlled as precisely as those dealt with by basic scientists in a laboratory environment.

Clinical trial

These are trials which use human volunteers to evaluate prospectively the effectiveness and safety, and optimum dosage schedule (where appropriate) of medications or medical devices by monitoring their effects on large groups of people.

Experimental medicine

This is often described as a sub-set of patient-oriented research, focusing on the effectiveness of new therapies and treatments. It is concerned with translating basic scientific discoveries into clinical applications and/or using clinical observations to generate new research topics. It promotes endeavours that go back and forth from the clinic to the laboratory and from the laboratory to the clinic.

Health research

The pathway of health research stretches from the creation of an innovation through to its use in a patient care setting. It covers a very wide range of interventions, including pharmaceuticals, biologics, diagnostics, procedures, therapies and practices. It ranges

across the complete spectrum of health and healthcare delivery activities such as prevention, detection, diagnosis, prognosis, treatment and care. It also extends across a variety of research streams including patient-oriented research, epidemiological and behavioural studies, and health outcomes and services research.

Health research system

A system for planning, co-ordinating, monitoring and managing health research resources and activities; and for promoting research for effective and equitable national health development. A concept that integrates and co-ordinates the objectives, structures, stakeholders processes, cultures and outcomes of health research towards the development of equity in health and in the national health system.

Health services research

Research with the goal of improving the efficiency and effectiveness of health professionals and the healthcare system, through changes to practice and policy. Health services research is a multidisciplinary field of scientific investigation that studies how social factors, financing systems, organisational structures and processes, health technologies, and personal behaviours affect access to healthcare, the quality and cost of healthcare and, ultimately, health and well-being.

Key Performance Indicator (KPI)

Key Performance Indicators, also known as KPIs or Key Success Indicators (KSIs), help an organisation define and measure progress against an organisational goal. The indicator is usually either a numerical target to be achieved, a milestone to be reached, or a qualitative measure which indicates the level of success in achieving the goal or objective.

Knowledge brokerage and exchange

Creating linkages between decision-makers and researchers; facilitating their interaction so that they are able to better understand each other's goals and professional cultures, influence each other's work, forge new partnerships, and promote the use of research-based evidence in decision-making. Knowledge brokering activities include finding the right players to influence research use in decision making, bringing these players together, creating and helping to sustain relationships among them, and helping them to engage in collaborative problem-solving. Knowledge brokering in this context is ultimately about increasing evidence-based decision-making in the organisation, management and delivery of health services.

Longitudinal study

A study that involves the repeated observation of a set of subjects over time with respect to one or more study variables.

National health information system

A national health information system is the ongoing, systematic collection, analysis, interpretation and dissemination of data regarding a health-related event to support decision-making in management, policy formulation, and to facilitate research.

Patient-oriented research

Keeps the patient at the centre of the research goals and generates clinically relevant results. Defined as research conducted with human subjects, or on material of human origin, such as tissues, specimens and cognitive phenomena. Projects in this space often include components of applied biomedical work and/or components of health services research in addition to clinical research. Research studies involving *in vivo* or other appropriate pre-clinical models are eligible, as are computational or bio-informatics studies with an emphasis on yielding clinically relevant results. Research should focus on (i) mechanisms of human disease (ii) therapeutic interventions (iii) clinical trials (iv) use of new technologies for the diagnosis, treatment and prevention of disease (v) emotional, social, behavioural and developmental mechanisms of health and disease.

Population health sciences

Research with the goal of improving the health of the population, or of defined sub-populations, through a better understanding of the ways in which social, cultural, environmental, occupational and economic factors determine health status or through the identification of effective interventions for improving health status and reducing health inequalities.

Randomised Controlled Trials (RCT)

RCTs are quantitative, controlled experiments in which investigators compare two or more interventions, possibly including a control intervention or no intervention, by randomly allocating them to participants. They allow for participant groups to be more equivalent when comparing the effects of an intervention and they are a powerful tool in assessing the effectiveness of healthcare strategies and interventions.

Translation

Encompasses any or all of the steps necessary to ensure that the full social value of new basic biomedical and behavioural science is realised to improve the nation's health.

Translational research

Research that is specifically concerned with the application of basic research findings into innovative strategies, devices, products or services for the diagnosis, treatment or prevention of human disease.



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