



**Health Research Board
Strategic Goals
2010–2014**

**HRB Overview and
Self-Assessment Reports**

Table of Contents

	Page
Executive summary	3
1. Background	9
2. Overview of External Environment	
2.1 Introduction	9
2.2 The Irish health system	9
2.3 Irish research system	13
2.4 The policy environment for health research and information	15
2.5 Future strategic developments	18
3. Health Research Board	
3.1 History and strategic development	20
3.2 HRB governance and reporting structures	22
3.3 Overview of HRB resources	23
4. Introduction to HRB strategic self-assessments	26
Annex A: HRB organisational chart	28
Annex B: Abbreviations and Acronyms	29
5. HRB Strategic Goals Self-Assessments	
5.1 Research Funding and Strategy (Goal 1 and Goal 2)	32
5.2 National Health Information Systems (Goal 3)	104
5.3 Evidence Generation and Knowledge Brokering (Goal 4)	134
Annex C: HRB Board Report	162

Executive summary

1. Review objectives, process and deliverables

The Health Research Board (HRB) is developing a new multi-annual corporate strategy for the period 2016-2020. In preparation for this, it is conducting an analysis of the implementation of its current strategy, the *HRB Strategic Business Plan 2010–2014*. In effect, this analysis is a ‘look back’ in order to move forward. The observations and recommendations made in assessing the implementation of the *HRB Strategic Business Plan 2010–2014* will inform the development of the next strategic plan.

The current corporate strategy contains four strategic goals:

1. Drive the development of excellent clinical research, including applied biomedical research, within a coherent health research system
2. Build capacity to conduct high-quality population health sciences research and health services research
3. Work with key partners to develop and manage high-quality national health information systems
4. Generate and synthesise evidence, and promote the application of knowledge to support decision-making by policy makers and relevant practitioners

The Panel is asked to consider two questions:

- (i) To what extent is the HRB achieving its strategic goals?
- (ii) How could the HRB improve its attainment of these goals?

In considering the above the Panel is invited to make observations and recommendations on the appropriateness of the current strategy, and to provide advice in the context of preparing a new strategic plan.

In this document the Review Panel is provided with a staff-written assessment of how the HRB has performed against its four strategic goals (Section 5). In brief, the HRB teams responsible for delivery of Goals 1/2, Goal 3 and Goal 4 have written these self-assessments using a defined template. These are presented as three individual sections and are complemented with an overview of the external environment within which the HRB works.

The Panel is also provided with a report prepared by the HRB Board on its view of the HRB’s success in delivering its strategic goals (Annex C of Section 5.)

The Panel should use this document, in conjunction with its meetings with HRB stakeholders (internal and external) and the HRB Board Report, to answer questions i) and ii) above, and to produce a report with corresponding advice/recommendations for the HRB. The findings of the Review Panel will be presented to the HRB Board in December 2014 and will serve as a key input to the organisation’s strategic deliberations in 2015.

2. The HRB and its operating environment

The HRB operates within a health system that has been struggling to balance demands with resources, exacerbated in the past five years by one of the worst recessions in living memory. The Department of Health (DoH) is responsible for policy in the health system, whereas the Health

Service Executive (HSE) is responsible for delivery of healthcare. The health service has been in a constant state of reform in recent times and can be fairly described as lacking stability. Health service expenditure is €13+ billion per annum, approximately 10% of gross national product. It is noteworthy that health service expenditure has decreased by €2-3 billion during the recession. The HRB is the primary health research funder in the country, but its budget represents just 0.3% of overall health service expenditure (as a comparison, the corresponding figure for the UK is in the region of 2-3%). The production of health-related knowledge via research, and its integration into clinical and social care, is limited in Ireland. The Irish health service does not have a strong culture of research or the utilisation of research outputs and outcomes to bring about improvements in practice and service delivery. This is the environment within which the HRB operates.

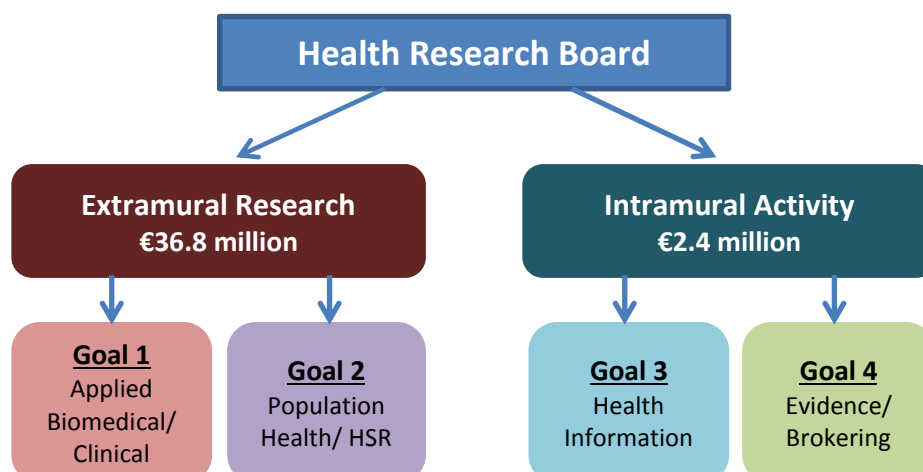
The HRB's mission is to improve people's health, patient care and health service delivery by:

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

HRB activities are concentrated in three business areas:

- 1) Funding extramural research across a broad array of health sciences. Funding initiatives are driven by strategic objectives in either clinical and applied biomedical sciences or population health sciences and health services research. Funding schemes may be focused on the generation of scientific knowledge through project and programmatic research; developing or enhancing research capacity and leadership; or the development of enabling infrastructures such as centres and networks. This activity is aligned to Strategic Goals 1 and 2.
- 2) Maintaining and developing five national health information systems that collect data on people with a disability or mental health issues, and monitor the prevalence of problem alcohol and drug use and deaths as a consequence of these behaviours. Analysis of this data is provided to the HSE, the DoH, other service delivery bodies and, more widely, at European Union (EU) and international level, in order to support service planning and policy. This activity is aligned to Strategic Goal 3.
- 3) Supporting knowledge translation and exchange via a dedicated Evidence Generation and Knowledge Exchange Unit. This Unit has built up considerable expertise in evidence synthesis and review, and provides comprehensive and up-to-date evidence on topics relevant to current policy and legislative development within the DoH. This activity is aligned to Strategic Goal 4.



3. Implementation of the four Strategic Goals at a glance

GOAL 1: Driving the development of excellent clinical and applied biomedical research within a coherent health research system

Over the last five years, the landscape for clinical research in Ireland has changed significantly. Much of this has been driven by the development of three clinical research facilities (CRFs), which are funded by the HRB and are built on hospital campuses. The CRFs support clinical research from design and regulatory compliance over the accrual and follow-up phase, to data analysis. CRFs now underpin many projects in a safe and high-quality environment that would not have been possible before. Their portfolio of investigator-led and industry clinical studies have grown from 20 in 2009 to over 150 in 2013. In the lifetime of the strategy, much energy was dedicated to moving these facilities from an idea to a successful reality. Work is underway to network the HRB-funded CRFs and two pre-existing clinical research centres to specifically facilitate multi-site trials in Ireland.

These developments are aligned with the change of focus within the HRB's portfolio towards interventions, supported by a re-defined project grant scheme, development of a funding scheme for definitive interventions, and a call for emerging clinical trials networks, which is due to make four awards by the end of 2014. None of these developments would have been possible without improving the environment for conducting clinical research. The shift in the type of project funded by the HRB has been marked and sustained over a number of years, indicating clearly pent-up demand as well as newly created interest in patient-oriented research, with nearly 200 projects supported over the lifetime of the strategy. While there are some synergies with the enterprise agenda, the primary driver for Goal 1 investment is the potential impact on health, and this focus has come under pressure at times.

In the area of research capacity and leadership enhancement, Goal 1 offers funding from PhD training level up to senior Clinician Scientist Awards. While the reduction in the HRB's budget was reflected in a reduced number of calls and awards in this area, a number of key clinical appointments were made. Eleven senior clinician scientists are currently in post; an additional 60 health professionals were supported to complete PhDs at early stage or specialist registrar level, and a further 16 health professionals were supported at post-doctoral level. Nationally, the contribution of the healthcare system to research, through direct and indirect supports, policies and culture change, has been limited. This, together with the reduction in funding and staffing in the health services, has provided the greatest challenge to implementing the strategy for Goal 1 over the last five years.

As we embark on implementing the new strategy covering the period 2016-2020, the more developed infrastructure that we now have will allow and necessitate a re-evaluation of our relative effort and funding spent on different aspects of the HRB portfolio, namely, projects and programmes, capacity and leadership enhancement, and infrastructure and network development. As the only funder in Ireland with a remit to improve health outcomes, the HRB's support for clinical research is likely to continue into the lifetime of the next strategy. However, the balance between the different strands of activity will be crucial. Scenarios could include limiting the scope of activity or concentrating on one or two of the strands; each will have advantages and disadvantages.

GOAL 2: Building capacity to conduct high-quality population health sciences research and health services research

The vision set out in the strategy for Goal 2 remains consistent with the current environment and the emerging needs and challenges of the healthcare system. Despite austerity and a national R&D policy agenda that focused largely on job creation and short-term horizons, significant progress was made, and virtually all deliverables and targets were attained. Taking time out to learn from other international funders, and taking time to develop and agree a detailed implementation plan with the HRB Board (which was communicated regularly to the research community), was critical to ensuring a mutually reinforcing coherence across activities, and for sustaining momentum and commitment for investment.

During the strategy period, the HRB reinforced its commitment to supporting early-career researchers by investing in a national structured PhD Programme in population health sciences and health services research (PH/HSR), with over 80 participating supervisors across seven higher education institutions; this will result in over 100 PhD scholars graduating in the period 2007–2017. Forty mid-career researchers were supported through the introduction of a new interdisciplinary post-doctoral scheme and this was enhanced by supporting a further 65 mid-career researchers through project-based awards. Nine new awards were made to Research Leaders in the fields of PH/HSR to develop/grow programmes of research closely aligned with the needs of the healthcare system, and these Senior Lectureship/Professorship posts will be sustained by the academic institutions once HRB funding lapses.

In addition to new schemes, changes and refinements were made to the existing HRB funding instruments, processes, assessment criteria, review panels, terms and conditions, and monitoring and evaluation tools, in order to ensure that they were fit for purpose and could better deliver Goal 2 objectives. Particular attention was paid to driving partnership and collaboration, greater levels of user involvement and more appropriate knowledge exchange and dissemination activities. More than 80 projects and four applied programme awards have been made in PH and/or HSR during this strategy period, and almost €4 million was leveraged to support applied research projects in dementia research.

While it remains an ongoing challenge that there is no R&D lead for the healthcare system, the Goal 2 team has demonstrated agility, resilience and creativity in progressing a number of actions, and in responding to opportunistic developments. This has resulted in new and innovative partnerships within the healthcare system in areas such as patient safety and quality, chronic disease management, quality improvement, health and wellbeing, evidence synthesis and guideline development, medical education, dementia, palliative care and intellectual disability.

It is reasonable to conclude at the end of this strategy period that there is greater capacity across the career continuum in PH/HSR; there are more partnerships and alliances between institutions and across sectors; there are more clinicians engaging in PH/HSR; there are greater numbers applying to design and evaluate interventions; and there is greater use/analysis of existing data and cohorts. There is much to consolidate, nurture and build on in moving to develop the next strategy.

GOAL 3: Work with key partners to develop and manage high-quality national health information systems

The HRB manages five national health information systems which were established at the request of the DoH (and the Department of Justice and Equality in the case of one system) to meet specific needs in the areas of drugs, disability and mental health. Data from these systems are routinely reported at regional, national, European and international levels. The HRB systems are specifically included in a number of national strategies and policy documents, and the impact of having data in these specialist areas has been positively viewed by policy makers, researchers and service planners.

The period before the last strategy was agreed (2009/2010) was an uncertain one for health information nationally; during this period, high-level discussions took place between the DoH, the HSE and the Health Information and Quality Authority (HIQA) as to the appropriate governance and management of health information systems. This was in recognition of the need to develop a more coordinated and standardised approach to health information nationally. The inconclusive nature of these discussions contributed to the definition of the objectives of Goal 3. These can best be regarded as holding objectives which were designed to enable the HRB to continue its work in this area while a more coherent solution to health information was sought at national policy level.

Through the period of the strategic plan, the five systems continued to provide annual and quarterly data to assist with policy and planning in the health system. Some improvements were made to the five systems in areas of quality, completeness and accuracy. This included an independent evaluation of one system, the National Psychiatric In-patient Reporting System (NPRIS), which has led to improved practice. In addition, there was a greater focus on making data more widely available through existing portals and through specialised analysis and requests for data. Specific examples of how HRB data have impacted on policy include the following: on the mental health side, NPIRS data were used to monitor children in adult units; National Drug Treatment Reporting System (NDTRS) data informed legislation banning head shop substances in 2010; and National Drug-Related Deaths Index (NDRDI) data assisted in the decision by the European Medicines Agency (EMA) to withdraw certain analgesics from the European market.

In the period 2010–2014, Goal 3 work was severely hampered by resource gaps which could not be filled because of the public service moratorium on recruitment. This impacted on the ability of systems to meet deliverables in a timely manner over this period. In response to staffing difficulties, a process of restructuring was undertaken within the Goal, so that the five systems moved from their existing silos to a team-based approach in which staff could move between systems.

Despite an uncertain health information landscape at national level, the HRB achieved major success in 2014 in securing the commitment and agreement of the DoH and the Department of Finance to proceed with the redevelopment of the ICT infrastructure for its' five systems, so that they would operate more effectively and in a more integrated way.

Goal 4: Generate and synthesise evidence, and promote the application of knowledge to support decision-making by policy makers and relevant practitioners.

The HRB's Evidence Generation and Knowledge Brokering goal aims to generate and synthesise evidence and promote the application of knowledge to support decision-making by policy makers and relevant practitioners. It achieves this through three activities: (a) as an Evidence Centre for the DoH, (b) acting as Irish Focal Point for the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), and (c) as a National Documentation Centre (NDC) on Drug Use.

The HRB's Evidence Centre is a new activity within the organisation's current strategy. It was specifically set up to work with the DoH to make relevant research information available to support decision-making by policy makers and practitioners. Accordingly, the HRB developed capacity in systematic searching, interpretation of analysis, critical appraisal, and knowledge brokering. Over the course of the last five years, Evidence Centre staff have provided the DoH with the most recent evidence on public health issues such as smoking, alcohol and nutrition, as well as reviews on professional regulation, management and funding of health services. Work of the Evidence Centre has contributed significantly to legislation in the areas of alcohol and smoking, and in addition, has contributed to a White Paper on Universal Health Insurance. Challenges remain in terms of available resources to meet growing demand coupled with a lack of skill sets in the areas of health economics, medico-legal and health policy.

The HRB in its role as Irish Focal Point for the EMCDDA has submitted data on an annual basis to Europe in a standardised format, thus allowing comparisons to be made between different EU countries. This provides policy makers with more reliable and comparable information for decision-making purposes. HRB staff have provided evidence to aid our understanding of how illicit drug markets work and how education aids addiction recovery. In addition, they have taken a lead role in developing a diagnostic tool for gauging coherency of illicit drug, alcohol and tobacco policy.

Over the last five years, the NDC has developed its role from a repository of research findings to one of disseminating research findings and models of best practice. Key achievements include an online course in evidence-based prevention, which provided participants with new evidence-finding and appraisal skills to aid their decision-making; a conference on the theme of the addiction workforce, which led directly to the preparation of a workforce development plan by HSE treatment and rehabilitation managers, and, finally, HRB staff directly assisted policy makers who were working on a new drugs information curriculum for secondary schools.

4. Conclusion

Looking ahead, in the next strategic plan it will be important to define more clearly the HRB's relationship with the healthcare system and the Department of Health, to clarify priorities for investment and disinvestment, and to consider the scope of current activities and the balance of resources across them. Specifically, there is need for a rigorous implementation plan with regular oversight of the strategy and the underlying assumptions, coupled with the flexibility to adapt to changing circumstance or take corrective action should the need arise.

1. Background

The aim of this document is to provide the HRB's International Review Panel, who will convene from 10 to 12 November 2014, with sufficient information to understand both the strategic context in which the HRB operates and its strategic drivers, to provide the self-assessments completed by each of our Goals as to how well they have delivered on their strategic objectives and an assessment by the HRB Board on our success in delivering its strategic goals. Ultimately, this document, combined with other input to the Review Panel, will enable the panel to answer the following questions:

1. To what extent has the HRB achieved its strategic objectives?
2. How could the HRB improve its attainment of these objectives?

Furthermore, it will provide a basis upon which the Review Panel can provide advice to the HRB Board and Management on the development of a new strategic business plan for the HRB, to run up to 2020.

2. Overview of external environment

2.1 Introduction

The external environment within which the Health Research Board (HRB) must work consists of a complex array of influences and challenges for health research, for example:

- a healthcare system that is struggling to deliver safe and efficient health services against a background of declining government investment, falling staff numbers, fragmentation and constant reform, and for which research is not a priority at present
- a research funding system that is fragmented and which has, in recent years, been dominated by an enterprise and job creation agenda
- a policy environment that, while rich in terms of numbers of government health strategies, does not embed research as an integral enabler of improvement and change
- a higher education system struggling to deliver both teaching and high-quality research with ever-increasing undergraduate and postgraduate numbers and decreasing resources

The following pages explore this external context and its impacts on the HRB.

2.2 The Irish health system

Healthcare in Ireland is currently a two-tier system, with both public and private sectors and a number of key actors.

- Policy and strategy for healthcare is developed by the Department of Health (DoH).
- The Health Service Executive (HSE) provides all of Ireland's public health services, in hospitals and communities across the country.
- There is also a large private healthcare market.
- The voluntary sector plays an important role in the provision of health and social care in Ireland, in both the acute hospital sector and community settings.
- A number of statutory agencies provide specialist services or regulate the quality of services.

2.2.1 Department of Health

Overall responsibility for the healthcare system lies with the DoH, under the direction of the Minister for Health (currently Dr Leo Varadkar). Specifically, the Minister is responsible for: health policy analysis and formulation; strategic development and overall organisation of the health service; legislation and regulation; monitoring the financial position of the health service; and evaluating efficiency and effectiveness of service delivery.

The Secretary-General (currently Mr Jim Breslin) is the permanent head of the DoH. A Management Advisory Committee (MAC) consisting of senior DoH officials, including the Chief Medical Officer, Assistant Secretaries and Division Directors, advises the Secretary General on the formulation of policy proposals for the Minister for Health. The HRB's revenue and capital budgets are allocated through the Corporate Affairs Division of the DoH, which manages health legislation, research and European programmes.

2.2.2 Health Service Executive

The HSE is Ireland's largest employer, with 99,959 employees in 2013 (1,500 fewer than in 2012). Of these, 2,670 were public sector consultants, 48% of staff in 2013 worked in hospitals, and 43% of staff worked in community services.

The HSE has five directorates which are responsible for different areas of healthcare provision (acute hospitals, primary care, social care, health and wellbeing, mental health) as well as three directorates with responsibility for cross-cutting functions (quality and patient safety, clinical programmes, the cancer control programme) and, finally, a number of directorates with corporate responsibility (finance, HR, transformation and change, and so on).

Underpinning these directorates, the National Clinical Care Programmes (some 31 in total) were established to improve quality, access and value for patients. Each programme is tasked with standardising patient care throughout the HSE for its particular group of diseases/conditions, by developing clinical care pathways and national practice guidelines based on international best practice. Each Clinical Care Programme has a designated Clinical Lead supported by a multidisciplinary and cross-directorate working group.

Within the HSE there is no single unit or person tasked with developing, coordinating or facilitating research or the uptake of research evidence, and no funding stream to explicitly support healthcare-driven research needs. Nor does the HSE currently have policies that might support research by clinicians and other healthcare professionals, such as protected time arrangements, research governance, protection of intellectual property, and so on. Therefore, it is challenging for the HRB and other funding agencies to engage with the HSE around health research.

HSE partnership arrangements for health service provision

In many cases, provision of acute and community-based health services in Ireland operates as a partnership arrangement between the HSE and other organisations.

The **hospital sector** incorporates voluntary and HSE-owned hospitals. Voluntary hospitals are primarily financed by the State, but may be owned and operated by religious or lay boards of governors. In 2013 the HSE provided funding of €1.58 billion to voluntary hospitals to provide acute hospital services. Beds within these hospitals may be designated for either public or private use. There is also a small, but growing, number of purely private hospitals funded entirely by the patient out of pocket or via their health insurance company.

Primary healthcare in Ireland is still provided mostly by general practitioners (GPs) who are self-employed and often work in a single-handed practice or in health centres with other GPs and practice nurses. Dentists, opticians and pharmacists also operate in independent practice. GPs generally charge on a per-consultation fee basis, but are refunded by the HSE through the General Medical Services Scheme for treating patients with Medical Cards or GP Visit Cards.

Voluntary organisations have, and will continue to play, an important role in the delivery of health and personal social care services in Ireland. In particular, there is a long and established tradition of care and service provision for people with intellectual and physical disabilities. In 2013 non-acute agencies received €1.68 billion from the HSE to provide services. While a total of 2,680 agencies were funded, many of these were small community-based groups. 90% of the HSE allocation goes to 112 agencies, with 10 agencies accounting for over 50% of the total funding. Examples of some of the larger agencies include the Irish Cancer Screening Board, Rehab Ireland and the Irish Blood Transfusion Service.

A number of statutory bodies play an important role in monitoring and regulating the health service, for example, the Health Information and Quality Authority (HIQA) and the Mental Health Commission. In total, nearly 60 statutory specialist groups with advisory and service functions were established under the terms of the 1961 Health (Corporate Bodies) Act, although many have since been merged (e.g. the Environmental Protection Agency and the Radiological Authority of Ireland), absorbed into the HSE (e.g. the Crisis Pregnancy Agency) or abolished (e.g. The Irish Council for Bioethics).

2.2.3 Financing of healthcare in Ireland

The Irish healthcare system remains predominantly tax funded. The remaining components of total health expenditure are from private sources, in particular out-of-pocket expenditure on GP visits, pharmaceuticals and private hospital stays, as well as payments by private health insurance providers. In 2013 the annual HSE budget was €13.6 billion, more than the allocation for any other public sector organisation in Ireland. It should be noted that the HRB budget on health research represents 0.3% of this amount. Government net funding of the HSE has been decreasing year on year since 2008, which has had a knock-on effect on staff numbers, the availability of services and the length of time people have to wait for treatment for non-acute conditions.

Private health insurance

Over 30% of people in Ireland have their medical expenses covered in whole or part under the General Medical Services (GMS) Scheme. Of the other 70% of Irish people, many invest in private health insurance. This allows them to avail of private health services such as medical consultants, diagnostic imaging and elective surgical procedures. In 2008, almost 51% of the Irish population had private health insurance. However, this number had dropped to 44% by March 2014, due to workers' falling salaries and rising insurance costs over that period.

Access to healthcare

Because of Ireland's two-tier system of healthcare provision, promoting equity within the health system has been a concern for successive governments and is a key component of current HSE reform (described in the next section.) Access to the primary care system is means tested, so that services are free for low-income families and individuals, while the remaining 70% of the population who do not qualify for free primary care must pay the substantial cost of GP fees out of pocket. In contrast, in the secondary care sector, those who can afford health insurance can skip the queue for privately provided services.

2.2.4 Reform of the HSE and a move to Hospital Groups

The Irish health system has been in a process of constant reform since the late 1990s. After 30 years of a relatively stable structure of 10 regional health boards and a number of other agencies and organisations, in 2005 a new agency, the Health Service Executive (HSE), took on responsibility for both the budget and management of health and personal social services as a single national entity, accountable directly to the Minister for Health.

Less than 10 years later, another major reform is underway. In 2012 the DoH launched *Future Health – A Strategic Framework for Reform of the Health Service 2012-2015*.¹ This strategy acknowledges that the existing health system has a number of serious weaknesses and challenges (reduced budget, long waiting lists etc.). It proposes fundamental reforms in the way health services are organised, financed and delivered. Central to the health reform is the creation of a single-tier health service supported by universal health insurance (UHI), in accordance with principles of social solidarity and equity of access to healthcare.

There are four pillars to the reform programme:

1. **Health and wellbeing** – Based on the premise that prevention is better than cure and a focus on keeping people healthy rather than treating them when they get ill.
2. **Service reform** – Move from a hospital-centric model of care to integrated care, treating patients as early and as close to home as possible (particularly important in the context of chronic illnesses.)
3. **Structural reform** – Reorganisation of acute care into independent, not-for-profit trusts and private hospitals within six **Hospital Groups**. There will also be significant reform of the delivery system for non-hospital primary care and social and continuing care:
 - Universal primary and social care for all, including GP care without fees, delivered through primary care networks. Each network will have a part-time GP Lead.
 - Investment to incentivise continued living at home, reduce institutionalised care and increase access to community-based services.
4. **Financial reform** – Transfer of the Health Vote (i.e. financial allocation) from the HSE to the DoH; introduction of programme-based budgeting; a new Money Follows the Patient initiative, which is intended to incentivise treating the patient at the lowest level of complexity as soon and as close to home as possible. Essentially, money will follow the patient out of the hospital setting and into primary and related care services.

These changes will be implemented in a step-by-step manner, and some progress has already been made in the first phase of the process.

- A Programme Management Office has been established in the DoH to act as a central coordinator for the reform programme.
- A comprehensive health and wellbeing policy framework (*Healthy Ireland*) was launched by the DoH in 2013 to underpin the health and wellbeing pillar of the reform.
- The six new Hospital Group CEOs have just been appointed (October 2014), and five senior health managers from the HSE have been appointed as the first National Directors of the new health service.
- The HSE has just announced (October 2014) plans to establish nine Community Healthcare Organisations across the State to replace the 17 Integrated Service Areas under which non-

¹ Department of Health (2012). *Future Health: A Strategic Framework for Reform of the Health Service 2012-2015*. Government Publications, Dublin. <http://health.gov.ie/blog/publications/future-health-a-strategic-framework-for-reform-of-the-health-service-2012-2015/>

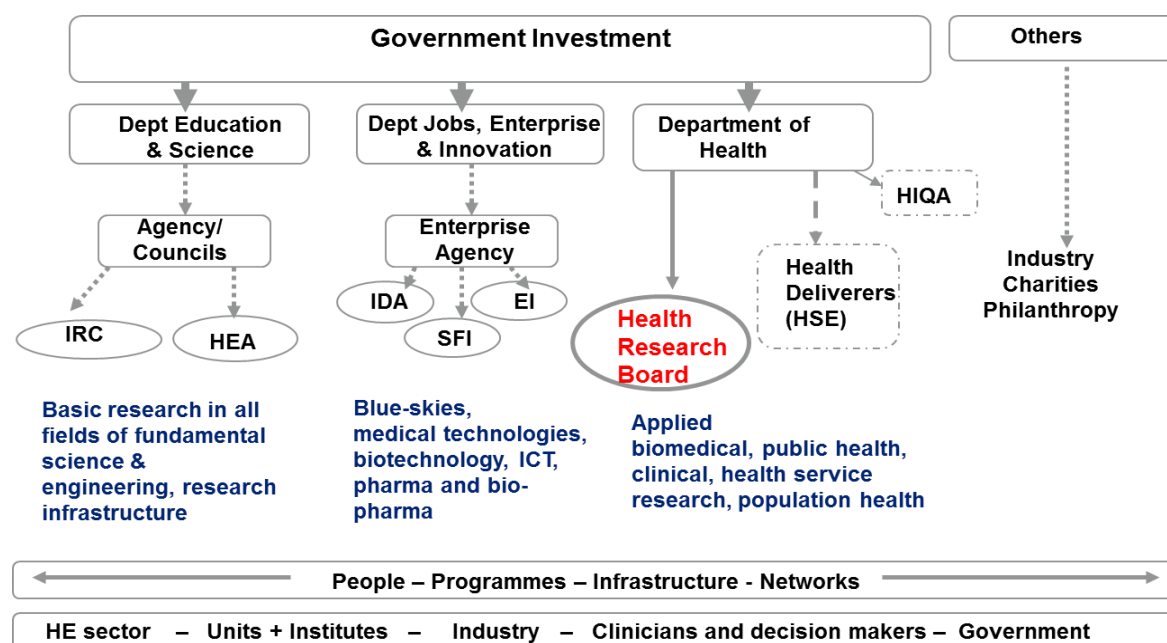
hospital services are currently grouped. Each of the nine Community Healthcare Organisations will comprise of ten Primary Care Networks.

The second phase will involve developing a formal purchaser/provider split and, effectively, dissolving the HSE. *Future Health* envisions that in the third phase Ireland will move to universal health insurance for a standard package of health services, with no difference between ‘public’ and ‘private’ patients. Progress in implementing this element of the reform is slow.

2.3 Irish research system

The funding situation for all types of research in Ireland has changed dramatically since the early 1990s. Through the Higher Education Authority (HEA) the government made significant investments in research infrastructure in the higher education institutions throughout the 2000s via five rounds of the Programme for Research in Third Level Institutions (PRTL). In addition, a number of new funding agencies came into being (Science Foundation Ireland [SFI], the Irish Research Councils[IRC], Marine Institute), and existing organisations were restructured to include or strengthen a research element (Enterprise Ireland [EI], the Industrial Development Authority [IDA], the Environmental Protection Agency [EPA]). Therefore, research funding in Ireland now operates in a ‘multi-funder’ environment. Government departments channel the majority of their research funding through their associated agencies. They may separately fund research of particular relevance to policy development within their department. Figure 1 shows the relationship between Irish government departments and the major funding agencies supported by them.

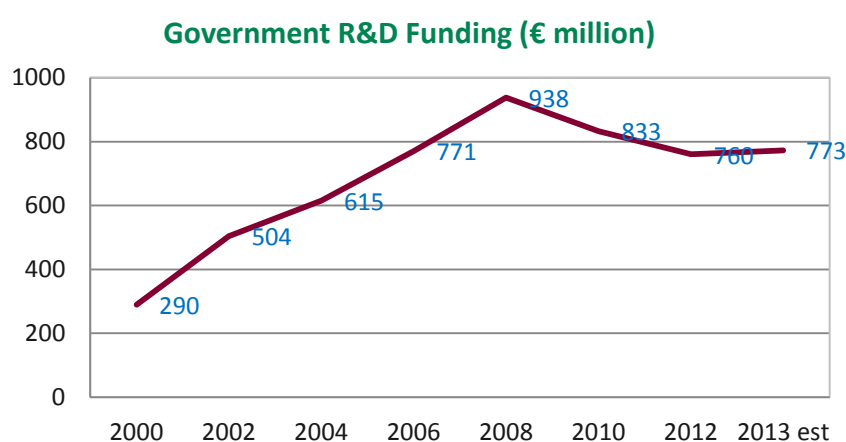
Figure 1: Government support for Irish funding agencies that support health research



The evolution of the Irish research system has been driven by a suite of governmental initiatives dating back to 1995 and a commitment to increase the share of public funding spent on research, in line with European policy. A notable feature of this development has been the steady increase in research funding during the 2000s (Figure 2). However, since its height in 2008, there has been a decrease in the government’s allocation to research funding agencies.

The relationship between the HRB and its parent department is typical of many agency/government department arrangements, in that the HRB operates in an authorising environment rather than a market one, with the DoH acting as the strategic customer on behalf of citizens for high-quality research evidence. The HRB has a clear entry point at corporate level within the DoH for governance and financial management purposes. However, for many research-driven activities, the contact is often ad hoc and initiated in a fragmented manner with individual units within the DoH (e.g. Chief Medical Officer's Office, Health and Wellbeing Programme Office, Disability Services Unit, Office for Older people, Resource Allocation Unit) creating competition for, rather than holistic planning of, investment and support from the HRB.

Figure 2: Comparison of trends in government public research funding and debt 2000–2013 (Forfás data)



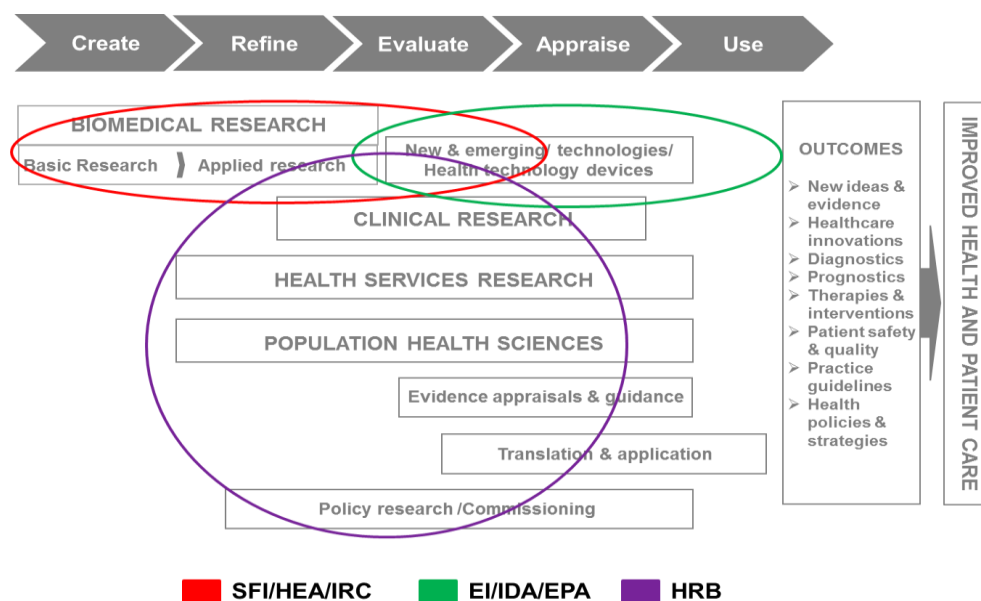
Most Irish funding agencies support some level of research activity within the broad areas of medical and health sciences, as defined by the OECD. Upwards of €200 million of the annual allocation of between €833 million and €938 million of public R&D funding was been spent annually on 'health-related research'² between 2008 and 2010 (although this figure has decreased somewhat in more recent years). The point along the research continuum at which health research investment occurs differs, depending on the remit of the funding agency and the objectives of its parent department (see Figure 3).

In its *Strategic Business Plan 2010–2014* the HRB undertook to accelerate the shift in emphasis of its funding support away from basic biomedical research and more strongly towards patient-oriented, population health sciences and health services research. This has driven much of the activity of Goals 1 and 2 in particular.

² Health-related research expenditure is defined broadly as research which benefits the health of an individual, group or population through the prevention, treatment and management of illness. Such direct interventions include the development of diagnostics, pharmaceuticals, vaccines and devices and the preservation of mental and physical wellbeing through the services offered by the medical, nursing, and allied health professions. Health-related research may also benefit health through improvement in understanding the mechanisms underlying ill health (either physical or mental) or the influences and impact of environment (physical, social, cultural or occupational) and behaviour on health status and outcomes.

Given that most agencies do not categorise their expenditure as 'health-related' or 'non-health related', totals are estimates of health-related expenditure in some instances.

Figure 3: Positioning of Irish research funding agencies along the health research continuum



2.4 The policy environment for health research and information

2.4.1 Strategic initiatives for health research

There have been a rich suite of government policies in support of health improvement since the mid-1990s, as exemplified by Figure 4. Many of these have led to substantive changes in how healthcare is delivered. For example *The National Health Promotion Strategy 2000–2005* (Department of Health and Children 2000)³ led to the establishment of Health Promotion Units in all health boards, the publication of allied strategies to support the work of these units and the initiation of the first nationally representative surveys of lifestyle practices in Ireland, the *Survey of Lifestyle, Attitudes and Nutrition* (SLÁN)⁴ and *Health Behaviours in School-aged Children* (HBSC Ireland),⁵ as inputs to national health promotion policies.

A number of government strategies have recognised the importance of research to future economic and social development in Ireland, although in the majority of cases this was not a key pillar of the strategy, nor did research feature in the implementation plans for these strategies in any significant way, if at all. That said, there have been a small number of particularly influential strategies for the HRB, including:

- the 2001 government blueprint for the reform and long-term development of the health services in Ireland up to 2010, *Quality and Fairness: A Health System for You* (Department of Health and Children, 2001)⁶

³ Department of Health and Children (2000) *The National Health Promotion Strategy 2000–2005*.

http://www.DoHC.ie/publications/national_health_promotion_strategy.html

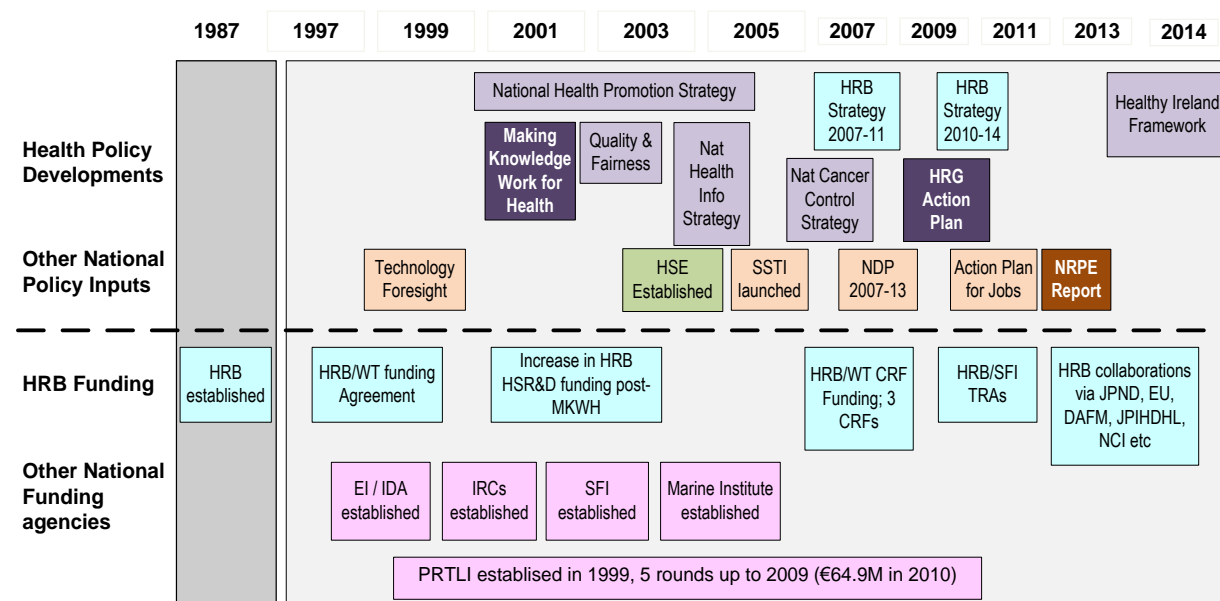
⁴ SLÁN (2006) *Survey of lifestyles, attitude and nutrition*. <http://www.slan06.ie/>

⁵ Health Behaviours in School-Aged Children. http://www.nuigalway.ie/hbsc/publications_reports.html

⁶ Department of Health and Children (2001b) *Quality and Fairness: A Health System for You*. <http://www.DoHC.ie/publications/pdf/strategy.pdf?direct=1>

- *Making Knowledge Work for Health: A strategy for health research* (Department of Health and Children, 2001)⁷
- *Towards Better Health. Achieving a Step Change in Health Research in Ireland* (Forfás and Advisory Council for Science, Technology and Innovation, 2006)⁸
- the *Strategy for Science Technology and Innovation 2006–2013* (SSTI), (Department of Enterprise, Trade and Employment, 2006)⁹
- the *Action Plan for Health Research 2009–2013* (Department of Health and Children, 2009)¹⁰
- *A Strategy for Cancer Control in Ireland* (Department of Health and Children, 2006)¹¹

Figure 4: Timeline of policy and strategy inputs to health research in Ireland



In particular, the recommendations of *Making Knowledge Work for Health: A strategy for health research* (Department of Health and Children, 2001)¹² had a profound impact on the amount and emphasis of HRB research funding in the areas of population health sciences (PH) and health services research (HSR). This strategy led to an increase in HRB research funding from €20 million to almost €50 million per year between 2002 and 2008, in order to build capacity and work to integrate these areas with the needs of the health system. A number of new schemes were developed by the HRB to

⁷ Department of Health and Children (2001a) *Making Knowledge Work for Health: A strategy for health research*. http://www.DoHC.ie/publications/making_knowledge_work_for_health.html

⁸ Advisory Council for Science, Technology and Innovation (2006) *Towards Better Health. Achieving a step change in health research in Ireland*. <http://www.sciencecouncil.ie/publication/ascSearch.jsp?ft=/publications/2006/title.3254,en.php>

⁹ Department of Enterprise, Trade and Employment (2006) *Strategy for Science, Technology and Innovation 2006–13*. <http://www.entemp.ie/science/technology/sciencestrategy.htm>

¹⁰ Health Research Group (2009) *Action Plan for Health Research 2009–2013*. http://www.DoHC.ie/publications/pdf/action_plan_health_research.pdf?direct=1

¹¹ Department of Health and Children (2006). *A Strategy for Cancer Control in Ireland*. Government Publications. <http://www.cancerscreening.ie/publications/CancerControlStrategy2006.pdf>

¹² Department of Health and Children (2001) *Making Knowledge Work for Health: A strategy for health research*. Government Publications. Dublin. http://www.DoHC.ie/publications/making_knowledge_work_for_health.html

address these objectives. Therefore, in its current strategy the HRB's activities in the areas of PH/HSR are very much in keeping with the impetus of *Making Knowledge Work for Health*.

The establishment of the Health Research Group (HRG) in 2009, to coordinate strategic engagement of all relevant organisations at national level and to address some of the fragmentation prevalent in the system, was also a significant step forward for health research. A key output of the HRG was the development of the *Action Plan for Health Research 2009–2013* (Department of Health and Children, 2009), to which the HRB closely aligned its *Strategic Business Plan 2010–2014*. In fact, both strategies were launched at the same event.

Many of the actions identified in the HRG *Action Plan for Health Research* address the challenges of creating an integrated and focused health research system that can effectively translate and apply research to the development of new diagnostics, treatments or therapies; to improving patient outcomes; to changing the way in which healthcare is practised and delivered; and, ultimately, to improving the nation's health and wellbeing. Unfortunately, the HRG has been in abeyance since 2012.

2.4.2 Strategic initiatives for healthcare data

The DoH has produced a number of important strategy documents over the last decade highlighting the importance of, and need for, high-quality health information to improve decision-making in health policy formulation and health service planning, implementation and monitoring. These include:

- *Health Information: A National Strategy* (Department of Health and Children, 2004)¹³
- *Building a Culture of Patient Safety* (Department of Health and Children, 2008)¹⁴
- *Healthy Ireland Framework* (Department of Health, 2013)
- *eHealth Strategy for Ireland* (Department of Health, 2013)¹⁵

The primary aim of the national health information strategy was to identify the necessary actions to rectify deficiencies in health information systems. It recognised the need for high-quality information to support safe and high-quality client/patient care and in planning, developing, evaluating and accrediting the quality of the health services. This strategy underpins the work of both HIQA and the HRB national health information systems.

While the value of health information has been recognised by the DoH and the HSE, in practice, the health information infrastructure in Ireland has developed largely in an *ad hoc* fashion in response to specific or emerging needs. A catalogue of information resources compiled by HIQA in 2014¹⁶ identified 108 such collections. The current approach can best be described as fragmented, and a broad range of organisations, including the HRB, are involved in the collection and management of health information. Implementation has been severely hampered by the absence of a universal personal identifier for Irish people and by a lack of leadership at a political level to drive the implementation of the strategy.

¹³ Department of Health and Children (2004). *Health Information: A National Strategy*. Government publications, Dublin.
<http://health.gov.ie/wp-content/uploads/2014/03/National-Health-Information-Strategy.pdf>

¹⁴ Department of Health and Children (2008). *Building a Culture of Patient Safety – Report of the Commission on Patient Safety and Quality Assurance*. Government publications, Dublin.
<http://www.thepsi.ie/Libraries/Pharmacy Practice/Building a Culture of Patient Safety.sflb.ashx>

¹⁵ Department of Health (2013). *eHealth Strategy for Ireland*. Government Publications, Dublin.
<http://health.gov.ie/blog/publications/ehealth-strategy-for-ireland/>

¹⁶ Health Information and Quality Authority (2014). *Catalogue of National Health and Social Care Data Collections in Ireland*
<http://www.hiqa.ie/system/files/Data-Catalogue-2014.pdf>

2.5 Future strategic developments

One of the most important recent strategic developments in Irish research has been the *Report of the Research Prioritisation Steering Group (2012)*,¹⁷ which is being implemented as a multi-agency, multi-government department steering group, the Prioritisation Action Group (PAG). The report identifies 14 priorities for public investment across all areas of research, to which funding agencies are asked to align their programmes where possible.

In health research, five priorities have been identified (Medical Devices, Connected Health, Food for Health, Formulation and Delivery of Therapeutics, Diagnostics). However, these priorities line up exclusively with existing or emerging industry sectors in Ireland and are driven by the needs of industry. Much of the health and social care research portfolio supported by the HRB, which is driven by policy and clinical practice agendas, sits outside of these priorities.

Therefore, there is still a need for clear priorities in health research that can support the needs of the Irish health system. It is unlikely that the PAG will develop such priorities, given the group's emphasis on job creation and economic development. A restructured Health Research Group or a similar grouping, with strong engagement from the HSE, could address this current gap, and is being considered by the DoH at present.

A second national strategy of importance to future HRB activity is the *Healthy Ireland Framework 2013-2015*,¹⁸ which aims to involve every part of Irish society in improving our health and wellbeing. This strategy will underpin one of the four pillars of health service reform in the coming years. The *Healthy Ireland Framework* acknowledges that research is a critical enabler of its goals. The DoH has worked closely with the HRB to develop a *Research and Data Plan* for implementation of the objectives of the *Healthy Ireland Framework*, due to be published in the near future.

In addition, the proposed appointment of a Chief Academic Officer to the management team of each Hospital Group within the reformed health service (see Section 2.2) has the potential to put research on the agenda of the health system at a high level, in a way that the HSE did not do. That, combined with a willingness by the DoH to drive a research and evidence agenda, will be important enablers of HRB ambitions to see the adoption and implementation of the outputs of the research that it supports, and the data from its health information systems, in the healthcare system, and to fund research, health information and evidence that can make a difference to people's health and wellbeing.

Finally, initiatives designed to bring greater coherence to health information management and coordination include the development, by HIQA, of a legislative framework for introducing a Health Identifiers Act in 2014. A *Health Information Bill* with provisions for data access and linkage, while much delayed, is pending. These provisions combined with more active engagement at senior levels within the DoH would greatly contribute to the existing infrastructure.

¹⁷ Department of Jobs, Enterprise and Innovation (2012). *Report of the Research Prioritisation Steering Group*. Government Publications, Dublin. http://www.djei.ie/publications/science/2012/research_prioritisation.pdf

¹⁸ Department of Health (2013). *Healthy Ireland: A framework for improved health and wellbeing 2013-2025*. Government Publications, Dublin. <http://www.hse.ie/eng/services/publications/corporate/hieng.pdf>

Table 1: Analysis of the political, economic, social and technological context of HRB activity

<p>Political</p> <ul style="list-style-type: none"> • New government and programme for government • Three ministers over lifetime of current strategy • Public sector reforms (employment control and incentivised retirement programmes, merging of agencies and ‘quangos’) • Recognition of value of evidence to inform decision-making • The National Research Prioritisation Exercise – led to focus on economic and job creation outputs from research and competition between agencies for funding • No unique patient identifier • Absence of a national health information strategy • National focus on reducing substance use through National Drug Strategy and Public Health Alcohol Bill • National strategies on drugs, mental health as well as the Value for Money review of disability services highlighted the need for robust data for decision-making • Data protection regulations may impact on both HRB-supported external research and the utility of the HRB’s health information systems 	<p>Economic</p> <ul style="list-style-type: none"> • Global recession and national economic crisis • Continuing budget cuts at DoH, health service and agency level • Public sector recruitment moratorium • Focus on short-term return from investment • Policy shifts to universal health insurance and Money Follows the Patient • More centralised decision-making by the Department of Finance around smaller amounts of spending by other government departments • Overspend in DoH: challenge as research funding demand competes with service delivery demand • Growing recognition that research can contribute to savings and efficiencies in the system • Awareness that prevention is cheaper than cure when it comes to chronic health conditions • Employment control mechanisms – incomplete data in information systems as a result of HSE staff leaving
<p>Social</p> <ul style="list-style-type: none"> • Major health inequalities • An ageing population • Increased prevalence of chronic conditions • Public versus private care – unequal access to care • New programme for government putting emphasis on primary/community care as well as quality and patient safety • Shift in approach from institutionalised care to care in the community for people with mental ill health and intellectual disability • Greater awareness of mental health as a health priority • Positive attitudes to health research • Poor awareness of how research contributes to healthcare • Increase in conditions caused by our behavioural choices (food and drink consumption, exercise, sexual practices) 	<p>Technological</p> <ul style="list-style-type: none"> • Need for a national approach to health information systems • Health Information Bill is still not published, unique patient identifier and electronic patient records still not available. • Fragmented and low-level investment to date in health information systems has led to poor coverage, lack of interoperability or ability to compare routine health data • Greater emphasis at a national level on e-government, e-health, connected health • Recognition that robust information and data are central to decision-making, service planning • Availability of online information and library services for conducting evidence reviews

3. Health Research Board

3.1 History and strategic development

The following table describes the key historical and strategic developments of the HRB that paved the way, and continue to influence the HRB's current strategic business plan.

Year	Strategic milestones	Detail
1986	Health Research Board established	<p>The Health Research Board was formed by the amalgamation of two organisations:</p> <ol style="list-style-type: none"> 1. The Medico-Social Research Board, which had a remit to 'organise and administer surveys and statistical research in relation to the incidence of human diseases, injuries, deformities and defects and in relation to the provision and operation of health services and to advise the Minister on such matters as he may refer to them relating to the incidence of human diseases, injuries, deformities and defects and the compilation and use of health and vital statistics, including the National Psychiatric Inpatient Reporting System'. 2. The Medical Research Council of Ireland, which had a remit to support and promote medical research taking the form of project grants, PhD training grants, fellowship awards and funding of special research units.
1990	National Drug Treatment Reporting System established	First ever database capturing the number of people presenting for drug treatment.
1995	National Intellectual Disability Database established	First ever information to inform service planning for people with intellectual disability.
2001	Publication of first ever Irish Health Research Strategy: <i>Making Knowledge Work for Health – A Strategy for Health Research</i>	<p>This was the first national strategy by the then DoHC addressing health research in Ireland. It provided a framework for the development of health research to enhance health and quality of life, and help ensure that our research compares favourably with the rest of the world.</p> <p>It promoted the idea of an active research community working closely with the delivery of healthcare in clinical settings, laboratories, the community, third-level institutions and the healthcare industry, which would ultimately improve the quality of health services.</p> <p>It was seen as vital for the professional development and career satisfaction of health service staff and for the translation of ideas into medical and IT products that can add value to the Irish economy.</p>
2002	Development of HRB Corporate Strategy 2002–2007	HRB Corporate Strategy developed in response to <i>Making Knowledge Work for Health</i> . Included the establishment of a new R&D for Health Division to support the commitment in the strategy to build a research and development culture in the health services.

Year	Strategic milestones	Detail
2002	Established R&D for Health Unit in the HRB	First explicit step to refocus direction of funding to facilitate the development of health services and population health research, and build the clinical research agenda in response to <i>Making Knowledge Work for Health</i> . Engagement with the health system and its needs.
2002	National Physical and Sensory Disability Database established	First ever national information to inform service planning for people with physical and sensory disability.
2003	Creation of National Documentation Centre on Drug Misuse	This is the national library on drug and alcohol use.
2005	National Drug-Related Deaths Index established	The only census of drug and alcohol related deaths in Europe.
2005	Investment Programme for Research in Health and Wealth launched	The HRB received an initial €10 million in additional capital funding for an investment programme to cover clinical research facilities, health research centres, imaging equipment, clinician scientist awards and translational research awards. The additional capital funding was to be carried through in subsequent years.
2005	Organisational Review	The expansion of the HRB and developments in funding at a national level provoked the need to review and assess the organisation.
2007	Publication of <i>HRB Corporate Strategy 2007–2011</i>	Building on the Organisational Review, the HRB published a five-year corporate strategy with an overall vision of enabling a world-class health system in Ireland through excellence in research and contributing to the knowledge economy.
2009	Publication by the DoH of the national ‘ <i>Action Plan for Health Research 2009–2013</i> ’	The DoH published the <i>Action Plan for Health Research</i> which set out the key actions for agencies and government departments to deliver a coordinated health research system in Ireland. The action plan was implemented for the first two years and then went into abeyance, following changes in the DoH.
2009	Development of a new <i>Strategic Business Plan 2010–2014</i>	A new HRB Strategic Business Plan 2010-2014 was aligned with the action plan and heralded four major changes: <ol style="list-style-type: none"> 1. Shifting the focus of HRB research funding from basic to more patient oriented, population health sciences and health service research 2. The establishment of an Evidence Generation and Knowledge Brokering Unit to provide evidence to inform government policy 3. Ceasing internal research activities (except in relation to the information systems) 4. Ceasing research into child health
2014	Review of existing HRB strategy and formulation of future strategy	The development of the strategy will have three core elements: <ul style="list-style-type: none"> • Self-assessments of HRB Goals • Board assessment of HRB objectives • International panel review

3.2 HRB governance and reporting structures

The Health Research Board (HRB) was established under **Health Research Board (Establishment) Order 1986 (S.I. NO.279 of 1986)** on 1 January 1987 as a result of the amalgamation of the Medico-Social Research Board and the Medical Research Council of Ireland.

The functions of the HRB were amended by statutory instrument in 2007 to read as follows:

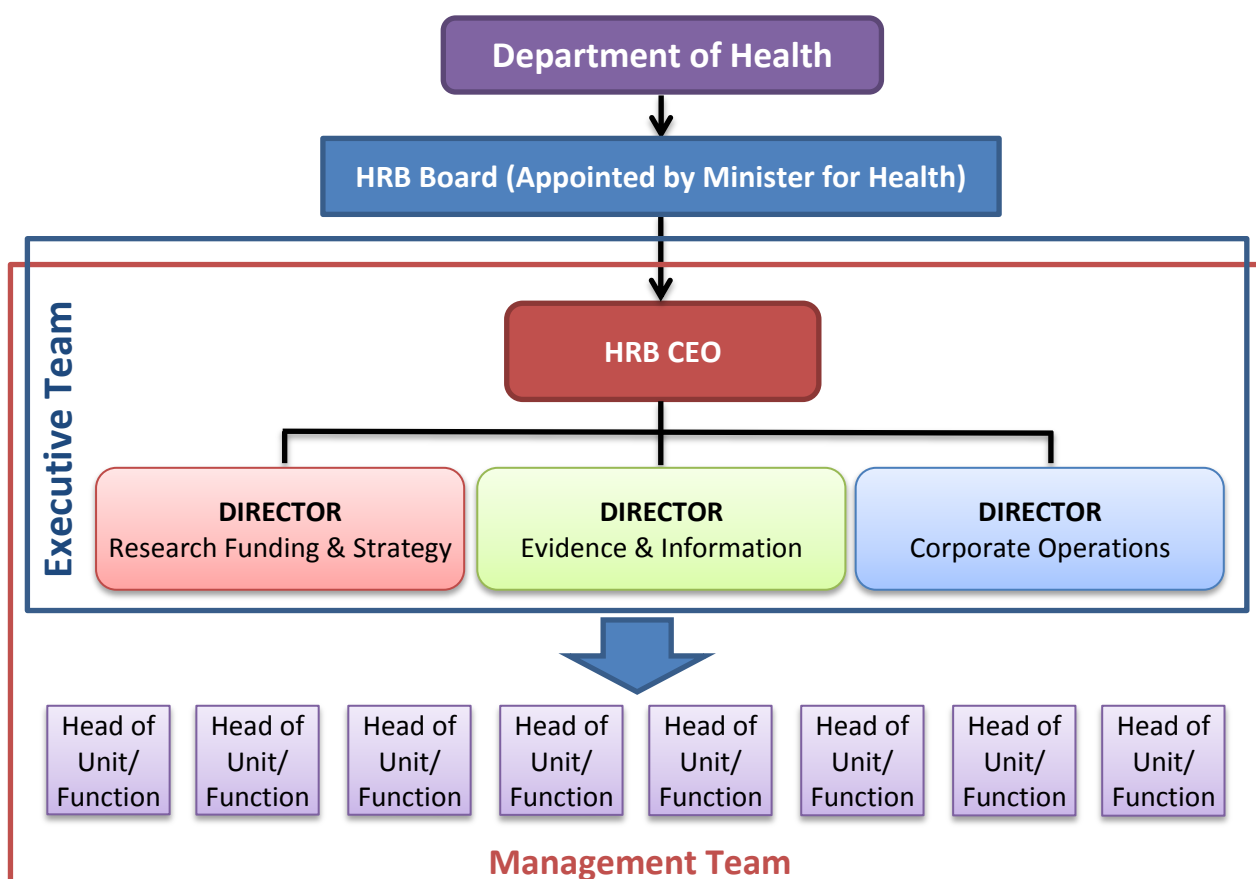
4. - (1) *The functions of the Board are as follows:-*

- (a) *to promote, assist, commission or conduct health research to improve health and increase the effectiveness of the health services;*
- (b) *to maintain, develop or support health information systems for the purposes of research and to provide the evidence for health policy and services;*
- (c) *to liaise and co-operate with other research bodies in the State and outside the State in the promotion, commissioning or conduct of relevant research;*
- (d) *to liaise with other health information bodies in the State and, where appropriate, outside the State in the development and support of health information systems;*

(2) *In the discharge of its functions, the Board shall have regard to such general research aims and objectives as the Minister may, from time to time, determine and convey to the Board.*

(3) *In discharge of its functions in relation to health research and information systems, the Board shall have regard to excellence and relevance to health and best international practice.*

Figure 5: HRB governance structure



3.3 Overview of HRB resources

The HRB is primarily funded by the DoH. Funding in 2014 is expected to amount to €42.6 million. In addition to funding received directly from the DoH, the HRB receives a small amount of funding from other sources in return for carrying out specific tasks/deliverables.

The HRB commenced the development of its *Strategic Business Plan 2010–2014* in 2008, when the HRB had a total income of €52.3 million. Therefore, HRB income has reduced since 2008 by €8.1 million (16% reduction.)

The DoH funds the HRB through both the government's current (revenue) expenditure budget and through the government's capital budget. The 'revenue' allocation is available to the HRB to carry out its statutory functions, and expenditure is largely at the discretion of the HRB Board. The 'capital' allocation is provided for specific projects. The drop in the overall value of the 'capital' allocation during the years 2011 and 2012 was due to delays in commencing work on the construction of the HRB Clinical Research Facility (CRF) at Galway University Hospital.

With the exception of the funding for the construction of the Galway CRF building the assignment of research award schemes to either the 'capital' funding stream or the 'revenue' funding stream has been done on the basis of which funding stream has the available cash flow rather than on the basis of an analysis of the objectives of the particular research award scheme.

Other sources of income include some funding from other Irish government and European Union (EU) sources, and include funding for the activities of the HRB's national health information systems, the HRB's evidence generation and knowledge brokering activities and co-funded research awards. The income figures shown in Figure 6 in respect of 2014 are taken from the HRB's budget 2014, which has been approved by the HRB Board.

Figure 6: HRB Income 2008–2015

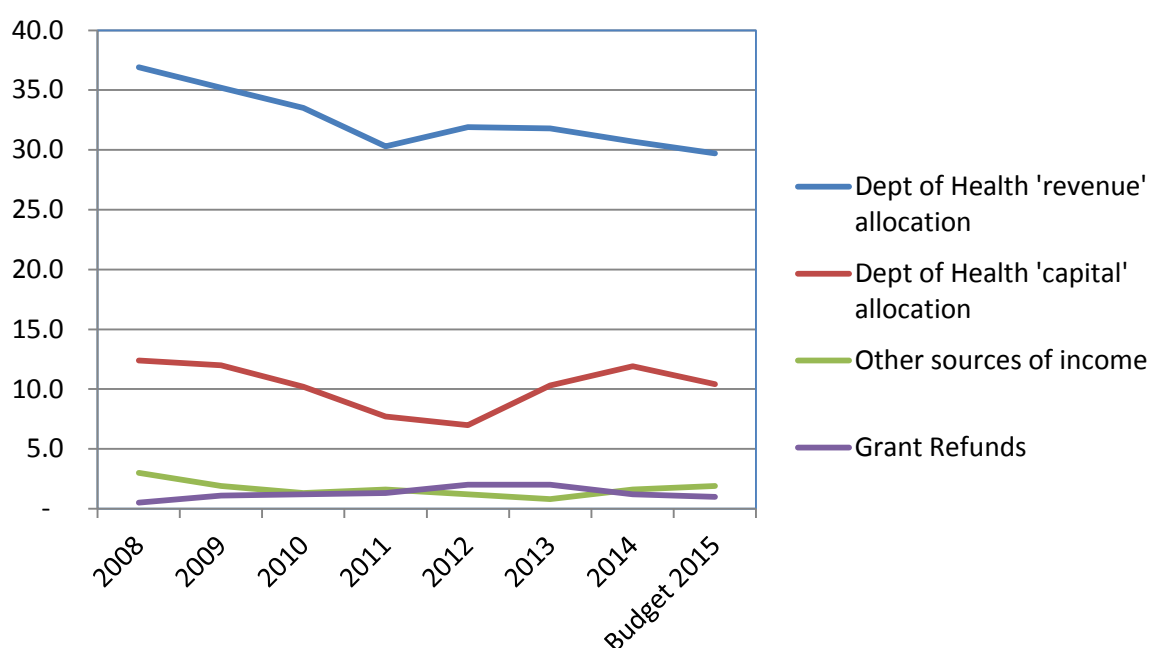
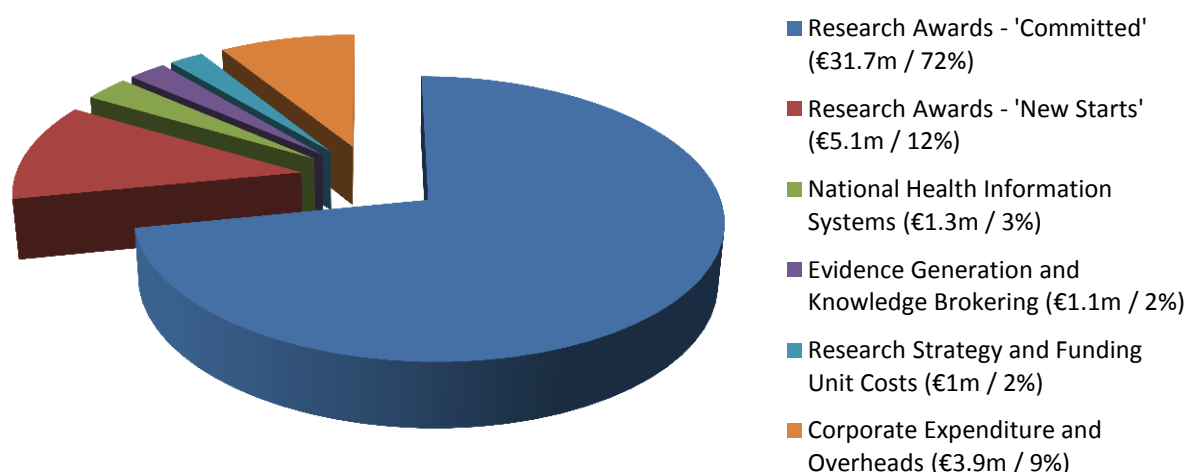


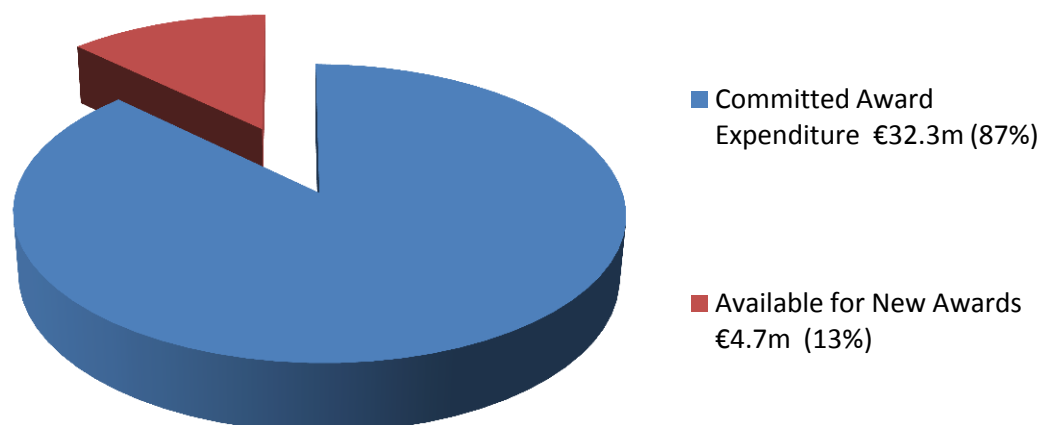
Figure 7: HRB Expenditure 2014



*Corporate expenditure and overheads includes Executive Team, centralised operational support, support for policy, evaluation and European initiatives, and the full cost of the fit-out of the new HRB's office at Grattan House (special funding for this project was provided by the DoH from the governments 'capital' budget).

It should be noted that due to the nature of the HRB's business, much of the anticipated future income has already been committed to existing active awards. Figure 8 demonstrates the level of committed and available award funding in 2015.

Figure 8: Budgeted 2015 committed and available funding



Since 2010 the HRB has been subject to a recruitment moratorium imposed on the Irish public service. Because of this any HRB staff, skills or competencies lost through natural attrition cannot be replaced through recruitment. Figures 9 and 10 demonstrate the decline in staff numbers over the strategic period across the organisation and by Goal.

Figure 9: Whole time equivalent (WTE) staffing levels in the HRB from 2009 to 2014

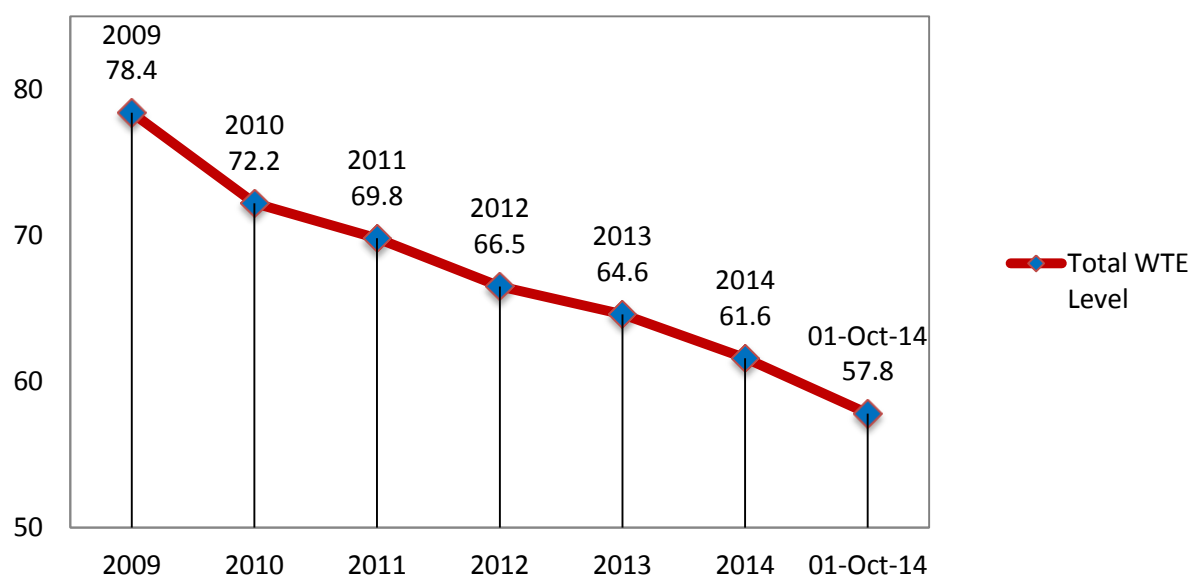
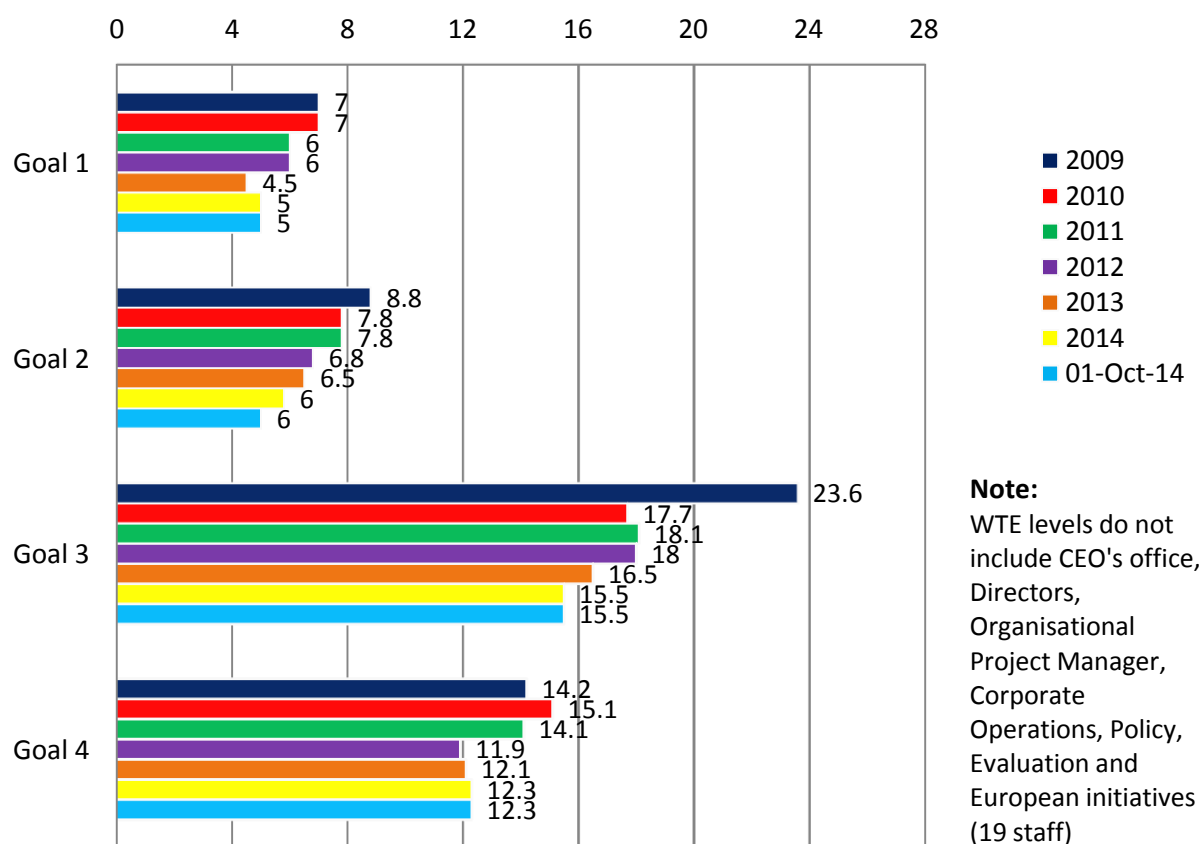


Figure 10: Whole time equivalent (WTE) staffing levels by Goal (2009–2014)



4 Introduction to HRB strategic self-assessments

4.1 Introduction

The HRB (www.hrb.ie) is the lead funding agency in Ireland for health research, and is a statutory body under the DoH. It has funding commitments of almost €100 million across hundreds of awards and a revenue budget of €31 million, a capital allocation of €11 million and 57.8 staff. In addition to its extramural research support, the HRB manages a number of national health information systems and provides an evidence generation and knowledge brokering service to the DoH.

The HRB's mission is 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 so doing, playing a key role in health system innovation and economic development.

To deliver on this mission, four Strategic Goals were identified in the *HRB Strategic Business Plan 2010–2014* as follows:

1. Drive the development of excellent clinical research, including applied biomedical research, within a coherent health research system
2. Build capacity to conduct high-quality population health sciences research and health services research
3. Work with key partners to develop and manage high-quality national health information systems
4. Generate and synthesise evidence and promote the application of knowledge to support decision-making by policy makers and relevant practitioners.

Goals 1 and 2 sit within the Research Strategy and Funding Directorate, while Goals 3 and 4 sit within the Health Information and Evidence Directorate. It is recognised that the objectives of these Goals and their implementation over the lifetime of the strategy are distinct, but also have areas of overlap and are interrelated.

4.2 HRB self-assessment of its performance over the current strategy

For the purposes of this self-assessment, HRB activities are described under three main areas of focus (henceforth referred to as Business Areas):

HRB activities are concentrated in three areas:

- 1) **Funding research across a broad array of health sciences.** Funding initiatives are driven by strategic objectives in either clinical and applied biomedical sciences or population health sciences and health services research. Funding schemes may be focused on generating scientific knowledge through project and programmatic research; developing or enhancing research capacity and leadership; or developing enabling infrastructures such as centres and networks (Goals 1 and 2).
- 2) **Maintaining and developing five national health information systems** that collect data on people with a disability or mental health issues and monitor the prevalence of problem

alcohol and drug use and deaths as a consequence of these behaviours. Analysis of this data is provided to the HSE, the DoH and more widely at EU and international level to support service planning and policy (Goal 3).

- 3) **Supporting knowledge translation and exchange** via a dedicated Evidence Generation and Knowledge Exchange Unit. This unit has built up considerable expertise in evidence synthesis and review, and provides comprehensive and up-to-date evidence on topics relevant to current policy and strategy development within the DoH (Goal 4).

Business Areas were asked to provide an honest and accurate analysis of their contribution to the current strategy, their ongoing relevance to the wider health research, health information and/or health and social care system, and the challenges/issues they have faced/continue to face in delivering their objectives. This process was managed by Directors, who worked with Heads of Unit and staff to garner their input in the preparation of the self-assessment. While a common template was used, due to the variation in the nature of the Business Areas, there is some variation in the self-assessments.

The Self-assessment Framework is divided into two sections. Section A is intended to provide a high-level overview of each Business Area while Section B is specific to each Goal and its strategic strands and the objectives/operation/performance/influences etc. associated specifically with them.

Sections B2 assesses in more detail the specific strands of activity within each Goal, as follows:

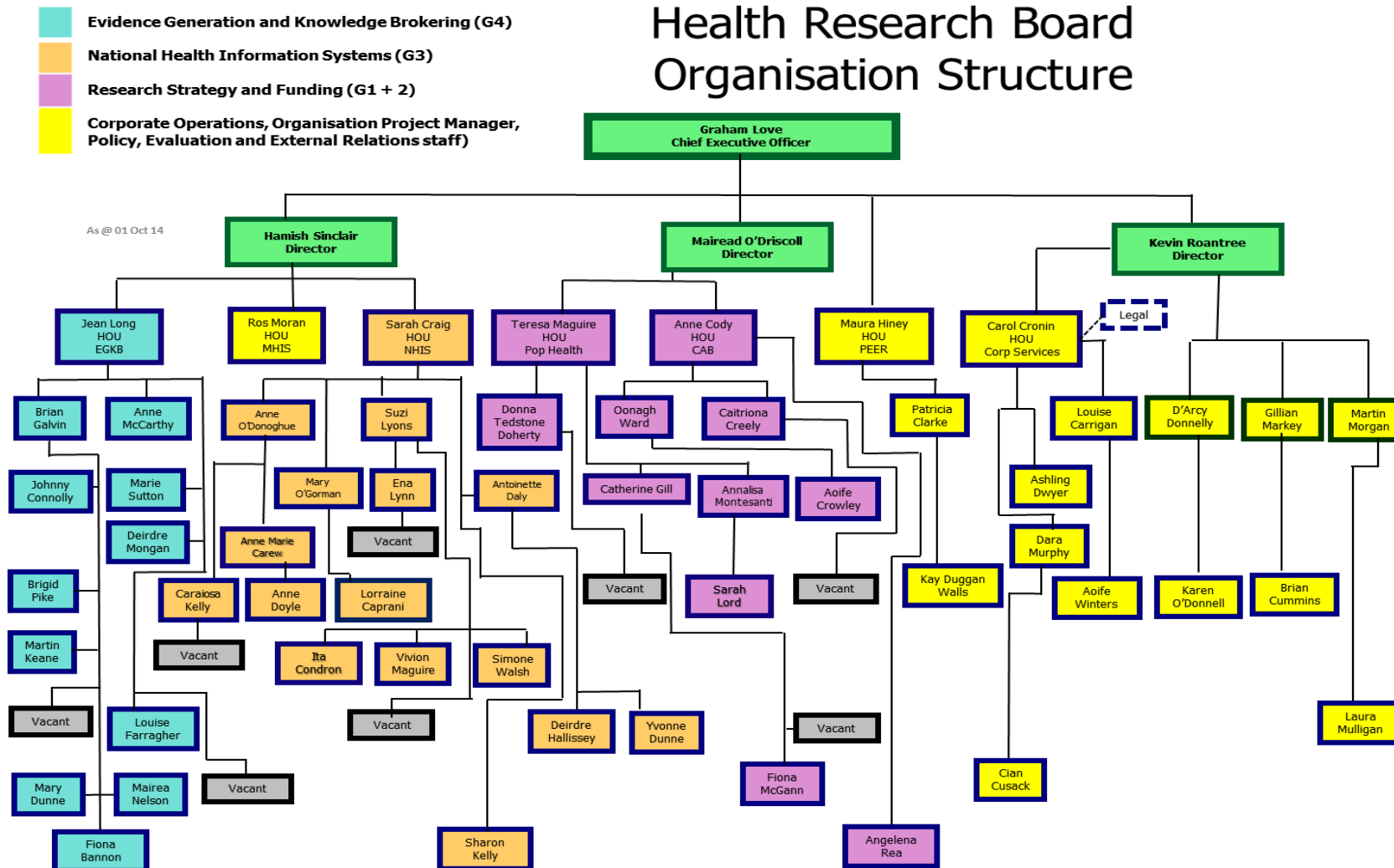
Goal	Strategic strands
Goal 1 Clinical and Applied Biomedical Research (CAB)	<ul style="list-style-type: none"> • Research capacity and leadership enhancement • Project and programme activities in clinical and applied biomedicine • Clinical infrastructure and network development
Goal 2 Population Health and Health Services Research (PH/HSR)	<ul style="list-style-type: none"> • Research capacity building and leadership development • Project and programme activities in PH/HSR • PH/HSR infrastructure and network development
Goal 3 National Health Information Systems (NHIS)	<ul style="list-style-type: none"> • National Drug-Related Deaths Index • National Drug Treatment Reporting System • National Intellectual Disability Database • National Physical and Sensory Disability Database • National Psychiatric In-patient Reporting System
Goal 4 Evidence Generation and Knowledge Brokering (EGKB)	<ul style="list-style-type: none"> • Evidence synthesis and review • National Documentation Centre • European Monitoring Centre for Drugs and Drug Addiction

Business Areas were also given the option to provide a number of appendices covering the following items:

- Schematic of staffing/structure
- Description of key processes, systems and activities to support the goal
- Stakeholder chart

The HRB Board also provided an analysis of how it viewed progress in the HRB towards delivery of its strategic goals, and this report is appended to this document as Annex C.

Annex A: HRB Organisational Structure



Annex B: Abbreviations and Acronyms

ACSTI	Advisory Council for Science, Technology and Innovation
AP	Atlantic Philanthropies
BBMRI	Biobanking and Biomolecular Resources Research Infrastructure
CAMI	Centre for Advanced Medical Imaging
CARG	Collaborative Applied Research Grants
CEO	Chief Executive Officer
CRF	Clinical Research Facility
CMO	Chief Medical Officer
CSA	Clinician Scientist Award
CSO	Central Statistics Office
DoH	Department of Health
DoHC	Department of Health and Children
DAFF	Department of Agriculture, Fisheries and Forestry
DAFM	Department of Agriculture, Food and the Marine
DES	Department of Education and Science
DJEI	Department of Jobs, Enterprise and Innovation
ECRIN	European Clinical Research Infrastructure Network
EI	Enterprise Ireland
EGKB	Evidence Generation and Knowledge Brokering
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EMA	European Medicines Agency
EPA	Environmental Protection Agency
EU	European Union
ERA	European Research Area
ESFRI	European Strategy Forum on Research Infrastructure
FP7	7 th Framework Programme of EU (2006-2013)
GEMS	Grants Electronic Management System (HRB)
GP	General Practitioner
GMS	General Medical Services scheme
HBSC	Health Behaviours in School-aged Children
HEA	Higher Education Authority
HPO	Healthcare Pricing Office
HE(I)	Higher Education (Institute)
HIPE	Hospital In-Patient Enquiry
HIQA	Health Information and Quality Authority
Horizon 2020	Horizon 2020 Framework Programme of EU (2014-2020)
HPF	Health Professional Fellowship
HRB	Health Research Board
HRCS	Health Research Classification System
HRG	Health Research Group
HSE	Health Service Executive
HSR	Health services research

HTA	Health Technology Assessment
ICE Awards	Interdisciplinary Capacity Enhancement Awards
ICORG	All-Ireland Cooperative Oncology Research Group
ICRIN	Irish Clinical Research Infrastructure Network
ICT	information and communications technology
IDA	Industrial Development Authority
IHI	Individual health Identifier
IMF/ECB	International Monetary Fund/European Central Bank
IPPOSI	Irish Platform for Patient Organisations, Science and Industry
IRC	Irish Research Councils
JPI (HDHL)	Joint Programming Initiative (Healthy Diet for a Healthy Life)
JPND	Joint Programme in Neurodegenerative Diseases
KPI	key performance indicators
LHO	Local Health Office
NCI	National Cancer Institutes (USA)
NDC	National Documentation Centre (HRB)
MAC	Management Advisory Committee (of the DoH)
MAP	Measure of activity and participation
MAST	Methodology Advisory Service for Trials
MET	Medical Education and Training Unit
MO	Member Organisation
MOU	Memorandum of Understanding
MRC	Medical Research Council (UK)
MRCG	Medical Research Charities Group
MKWH	Making Knowledge Work for Health
NCI	National Cancer Institutes
NCRF	National Clinical Research Framework
NDC	National Documentation Centre on Drug Use
NDP	National Development Plan
NDRDI	National Drug-Related Deaths Index
NDTRS	National Drug Treatment Reporting System
NHIS	national health information systems
NHS	National Health Services (UK)
NI	Northern Ireland
NIDD	National Intellectual Disability Database
NPI	national performance indicator
NPIRS	National Psychiatric In-Patient Reporting System
NRPE	National research prioritisation exercise
NPSDD	National Physical and Sensory Disability Database
NSAFP	National Specialist Academic Fellowship Programme
OECD	Organisation for Economic Cooperation and Development
PAG	Prioritisation Action Group
PEER	Policy, Evaluation and External Relations (HRB)

PEST(L)	Political, economic, societal, technological, legal
PH	Population health
PI	Principle Investigator
PPI	Public and patient involvement
PQ	Parliamentary question
PRTL	Programme for Research in Third Level Institutions
R&D	Research and development
RPO	Research Performing Organisation
RSA	Road Safety Authority
RSF	Research Strategy and Funding
SFI	Science Foundation Ireland
SLÁN	Survey of Lifestyles, Attitudes and Nutrition
SPHERE	Structured Population Health and Health Services Research Education Programme
SWOT	Strengths, weaknesses, opportunities and threats
SSTI	Strategy for Science, Technology and Innovation
TDI	Treatment Demand Indicator (EMCDDA)
TILDA	National Longitudinal Study of Ageing
TRA	Translational Research Award
UHI	Unique Health Identifier
UNODC	United Nations Office on Drugs and Crime
VFM	value for money
WTE	whole time equivalent
WT	Wellcome Trust
WHO	World Health Organization

5.1 Research Strategy and Funding (Goals 1 and 2)

SELF-ASSESSMENT REPORT

GOAL 1

‘Drive the development of excellent clinical research, including applied biomedical research, within a coherent health system’

Goal 2

‘Build capacity to conduct high-quality population health sciences research and health services research’

Table of Contents

	Page
Section A: Overview and key learning	35
Section B: Assessment of Goals	39
Goal 1 Clinical and applied biomedical research	
1.1 Strategic context of Goal 1	39
1.2 Strategic content of Goal 1	43
1.3 Strand 1: Research capacity and leadership	44
1.4 Strand 2: Project and programme activities	47
1.5 Strand 3: Infrastructure and networks	50
1.6 Key learning from self-assessment of Goal 1	53
Goal 2 Population health sciences and health services research	
2.1 Strategic context of Goal 2	55
2.2 Strategic content of Goal 2	59
2.3 Strand 1: Research capacity and leadership	60
2.4 Strand 2: Project and programme activities	62
2.5 Strand 3: Infrastructure and networks	66
2.6 Key learning from self-assessment of Goal 2	69
3. EU funding: HRB participation and key learning	70
4. Evaluation of the outputs, outcomes and impacts of Goal 1 and Goal 2 funding	73
Appendix 1: Structure, organisation and processes in RSF	76
Appendix 2: Stakeholder map	81
Appendix 3(A): Awards, expenditure and KPIs Goal 1	83
Appendix 3(B): Awards, expenditure and KPIs Goal 2	86
Appendix 4(A): List of Goal 1 award schemes	91
Appendix 4(B): List of Goal 2 award schemes	95
Appendix 5: HRCS Classification of HRB awards	100

Section A: Overview of Goals 1 and 2

Introduction

The Health Research Board (HRB) is the lead agency in Ireland supporting health research, and the only public agency that funds health and social care research for the benefit of patients and the wellbeing of the Irish population as a whole. This is done through three interlinked fields of research: patient-oriented research; health services research; and population health sciences research. The HRB is funded by the Department of Health (DoH) as a statutory agency, and thus is positioned within the health system. However, it also works closely with other funding agencies and government departments in the national research system, notably Science Foundation Ireland (SFI) and Enterprise Ireland (EI) (both funded by the Department of Jobs, Enterprise and Innovation), the Higher Education Authority (HEA) (funded by the Department of Education and Skills), the Department of Agriculture, Food and the Marine (DAFM) and the Environmental Protection Agency (EPA) (funded by the Department of the Environment, Community and Local Government).

Within the HRB, extramural funding is the responsibility of the Research Strategy and Funding Directorate (see Appendix 1 for details on Research Strategy and Funding (RSF) structure, organisation and processes). The Directorate is responsible for the delivery of the strategic objectives set out in the first two goals of the HRB's Corporate Strategy, namely:

GOAL 1: Driving the development of excellent clinical and applied biomedical research within a coherent health research system

GOAL 2: Building capacity to conduct high-quality population health sciences research and health services research

HRB funding consists predominantly of investment in projects and programmes, fellowship and career development awards, research infrastructure, and centres and networks. The annual budget for the Directorate in 2014 was €36.4 million, representing approximately 85% of the budget for the organisation, and 0.3% of the total health service budget in Ireland of €14 billion.

Context and key developments

Over the past decade, the government invested significantly in publicly funded research to support the development of a 'knowledge-based economy'. While much of the investment was targeted at research relevant to economic development, the HRB also benefited from a large increase in its budget between 2000 and 2008. The HRB's *Strategic Business Plan* was developed in 2009 with the expectation that at a minimum, funding levels would be maintained. However, with the onset of the economic crisis, funding for all public services, including research, was reduced and some of the assumptions underpinning the strategy were no longer valid. For the HRB, this manifested itself in a 16% cut in revenue income since 2008.

At the same time, several policy developments at national level influenced the environment for research. Plans to merge agencies as part of a government response to the economic situation contributed to a climate of uncertainty for the HRB, although they were later set aside. In an effort to align publicly funded research more closely with economic development, the National Research Prioritisation Exercise (NRPE) was established by the government in 2011 to identify priority research areas for investment by funding agencies. The 14 research areas identified were more relevant to enterprise than to health agencies; however the prioritisation exercise embedded a more

‘top-down’ approach to public funding at government level, and all agencies including the HRB were encouraged to focus their investment in areas most likely to have short-term economic impact.

Most relevant to the HRB has been the ongoing re-organisation and reform of the health services, from the establishment of the Health Service Executive (HSE) in 2005 and the changed role of the DoH, to an increased emphasis on primary and community care within the health system, the establishment of clinical care programmes (mostly linked to chronic disease management), and the current proposal to organise the health service on the basis of regionally based Hospital Groups linked to academic centres. Several policy documents over the years have acknowledged the need to embed research in the health system. For example, at the same time that the HRB published its *Strategic Business Plan 2010-2014*, the DoH published the *Action Plan for Health Research (2009)*¹⁹ which incorporated many of the objectives contained in the HRB strategy; however, much of the Action Plan was not implemented. Health research has not featured significantly in the health reform agenda and the absence of a strong commitment to research within the health system remains an issue for the HRB.

Prior to 2009, the HRB had already begun to broaden its investment beyond biomedical research towards a greater emphasis on clinical research, population health sciences and health services research. However, the *HRB Strategic Business Plan 2010–2014* accelerated and made more explicit the move towards research relevant to health practice and policy. The changed profile of the HRB’s grants portfolio since 2005 as a result of this strategic shift is shown in Appendix 5 using the Health Research Classification System (HRCS). In 2012/2013, the HRB conducted a comprehensive analysis of the outputs, outcomes and impact of its funding portfolio from 2000 to 2009.²⁰ A similar exercise for the period between 2009 and 2014 would help in assessing the impact of the HRB’s strategy on the health research system in Ireland.

Core issues for Goals 1 and 2

In the course of the self-assessment exercise, the Directorate identified the following core issues for the HRB in relation to its role as a funding agency.

- The HRB strategy identified a coherent health research system as a key objective. However, the capacity of the health system to engage with research remains underdeveloped. The HSE does not have a dedicated budget for research, and earlier plans to assign responsibility for research within the HSE have not been implemented.
- Within the DoH, responsibility for the HRB sits with the International and Research Policy Unit, part of a Division that includes Finance, ICT, and International Affairs. Although other Divisions within the DoH have an interest in aspects of health research, notably the Office of the Chief Medical Officer, there is no single corporate view informing health research priorities or strategy, and as a result engagement with the DoH can be fragmented.
- At national level, research policy is firmly oriented towards the enterprise agenda, with economic development and job creation identified as the main drivers for public investment in research. Research to support health and wellbeing does not receive the same level of attention or support.

¹⁹ Health Research Group (2009) *Action Plan for Health Research 2009–2013*. Government Publications, Dublin.
http://www.DoHC.ie/publications/pdf/action_plan_health_research.pdf?direct=1

²⁰ Curran B and Barrett R (2014). *Outputs, outcomes and impacts arising from the HRB’s 2000-09 grants portfolio*. Health Research Board.
http://www.hrb.ie/uploads/tx_hrbpublications/Outputs_outcomes_and_impacts_arising_from_the_HRB’s_2000-09_grants_portfolio.pdf

- The HRB's funding budget, always small relative to its remit, has decreased every year for the past five years and is insufficient to fully implement the HRB's strategy, although many objectives have been delivered on a smaller scale.
- The appropriate or ideal balance between support for people, programmes and infrastructure needs has not been agreed. Ongoing funding for infrastructure, especially in clinical research, needs to be balanced by support for people and for research programmes.
- The Board of the HRB has demonstrated a relatively low appetite for risk, meaning that the focus tends to be on maintaining the *status quo*. The expectation that certain schemes will run every year in some format means that to date precedent has been as significant as strategy in determining the pattern of HRB funding.
- Staffing levels decreased at the same time that grants became more complex, and management processes increasingly aimed to capture changes in real time, making it difficult for staff to maintain the volume of calls, ongoing monitoring, evaluation and assessment, and more widespread engagement with the national research system.
- The division of the HRB's remit into two goals, with one focused on clinical research and the other on population health/health services research, helped to set out clearly the HRB's mission, but created some gaps and inconsistencies.
- The HRB has yet to articulate expectations for its own involvement and those of the Irish health research community in EU-level research, and there remains a tension between committing a limited set of HRB resources (both financial and manpower) to work at EU level rather than national level.

Interdependencies for Goals 1 and 2

Externally, the HRB has varying degrees of interdependency with the DoH, the HSE, the universities and teaching hospitals, and the health research community. Responsibility for health research policy and for funding the HRB rests with the DoH. With no other source of research funding, the health service is dependent on the HRB to support research within the health system. However, in many areas the HRB depends on the HSE to enable delivery of its objectives. For example, although a key objective of Goals 1 and 2 was to increase the number of clinician scientists and health professionals conducting high-quality research, the question of protected time for health professionals to conduct research falls within the remit of the HSE.

A further complexity is the mixed nature of the Irish healthcare system, which has both public and private providers. In general, the HRB is dependent on good research support systems being in place in the institutions that it funds. Research support systems are well established in universities, but support for research in hospitals and other parts of the health services is underdeveloped (e.g., research governance, protected time, skills training, intellectual property management, data collection and so on).

Key learning for Goals 1 and 2

- Despite implementing the strategy in difficult economic circumstances, many of the objectives set out in the strategy were delivered, albeit on a reduced scale.
- As it prepares its strategic business plan for the period 2016 to 2020, it is important for the HRB to realistically consider what type of funding agency it aims to be and what is possible given its resources: for example, whether to focus on short- or long-term support; on support for programmes, careers or infrastructure; whether to take the lead in delivering a health research system and seek partnerships, or focus on those activities that are more firmly under its control.

- In doing so, it is important to define more clearly the HRB's relationship with the healthcare system and the DoH, and the extent to which it is able to exert influence.
- The HRB will need to consider the scope of its remit, either focusing on a narrow remit and aiming to deliver well across these areas in the knowledge that this may create new gaps; or maintaining the current broader remit and accepting that it may not be possible to address all needs within this scope.
- Clarity is needed around priorities for investment and disinvestment.
- The HRB should consider developing a set of funding priorities for a proportion of its budget.
- There is a need to consider the balance of funding across activities, while greater coherence and integration across areas within the organisation would improve effectiveness.
- Specifically, there is need for a more rigorous implementation plan with regular oversight of the strategy and the underlying assumptions, and the flexibility to adapt to changing circumstance or to take corrective action should the need arise.

SECTION B: Assessment of performance of Goals 1 and 2

This section presents an assessment of performance and progress against strategic objectives and deliverables for Goals 1 and 2. It also describes the HRB's involvement with EU funding and the results of a portfolio-wide evaluation of the outputs, outcomes and impacts of HRB-funded grants awarded between 2000 and 2009. A stakeholder diagram and map is shown in Appendix 2. A summary of awards, expenditure and KPIs for Goals 1 and 2 is provided in Appendix 3. A description of the HRB's funding schemes is provided in Appendix 4. Appendix 5 shows an analysis of HRB awards using the Health Research Classification System (HRCS).

GOAL 1: DRIVING THE DEVELOPMENT OF EXCELLENT CLINICAL AND APPLIED BIOMEDICAL RESEARCH WITHIN A COHERENT HEALTH RESEARCH SYSTEM

1.1 Strategic context of Goal 1

The strategic objectives and deliverables for Goal 1 are:

- OBJECTIVE 1.1** Fund clinical research projects of the highest quality and excellence that have been subjected to international best practice review and assessment.
- OBJECTIVE 1.2** Increase the level of investment in patient-oriented research in the clinical research areas, including applied biomedical research.
- OBJECTIVE 1.3** Fund training and development opportunities that will increase the number and diversity of health professionals involved in clinical research, and build their research skills.
- OBJECTIVE 1.4** 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.
- OBJECTIVE 1.5** Establish more clinical trials networks in targeted areas by introducing seed funding.
- OBJECTIVE 1.6** Develop strategic research clusters of academic and clinician investigators in experimental medicine and other areas, in collaboration with other funders.
- OBJECTIVE 1.7** Deliver three fully functional, co-funded clinical research facilities (CRFs) – all located on hospital grounds.
- OBJECTIVE 1.8** Work at a strategic level with the DoH, the HSE and others, both nationally and regionally within the health system, to develop appropriate clinical research governance arrangements in the Irish health system.
- OBJECTIVE 1.9** 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.

(Not specifically listed, but implied, is the continued support for existing clinical trials networks).

In 2009, investment in clinical research was not on a scale similar to that in academia or industry; it had little coherence, and was often dependent on committed individuals operating independently

within the health system. The situation was exacerbated by the dominant demands of service delivery. While the starting position for clinical research was better - than population health research; a critical mass for clinical research was lacking because of insufficient patient-oriented research, inadequate numbers of clinical researchers and a lack of support infrastructure or research governance. The ambition of Goal 1 was to address these shortcomings. During the period of the strategy, the budgetary starting assumptions for this ambition turned out to be flawed. The decrease in the total budget available and the changing balance between Goals 1 and 2 led to a dissonance between the ambition and the resources available. As a result, different perspectives can be taken on the level of success in relation to the objectives as set out in the strategy, or in relation to available resources.

Many of the ideas for the support of clinical and applied biomedical research had been identified during the previous strategy period (2005-2009), as reflected in the relatively concrete nature of the objectives for this Goal, and the 2010-2014 strategy was concerned with implementing these ideas. Some of the key infrastructure awards had been made before the start of the 2010-2014 strategy. However at the end of 2009 these existed mostly on paper. The last five years have focused on making them a reality, and developing thinking around key issues such as what Goal 1 would see as measures of success, sustainability and operations. Inevitably, initiatives involving numerous stakeholders at applicant stage, as co-funders, institutions and as others wanting to benefit, bring their own challenges, which can impact on timelines.

1.1.1 PEST (political, economic, societal, technological, legal) analysis for clinical and applied biomedical research)

The political, economic, societal and technological (PEST) analysis describing the context for and external/internal challenges faced by Goal 1 can be described as follows:

Key political/policy drivers

- There has been a significant shift in government policy from building up a basic research base (e.g. *Strategy for Science, Technology and Innovation*, 2006²¹) to applied research in the context of an economic agenda focused on job creation in the short term (e.g. *Report of the National Research Prioritisation Group*, 2012²²). The resulting attempts to leverage clinical research infrastructure for that agenda have been managed so far, with support from the DoH, but the HRB is under continuing pressure to deliver for the economic agenda as well as for the health agenda. The flip side of this pressure is that it contributes to making the case for others to input into the sustainability of research infrastructures, and builds political capital.
- The DoH currently puts a strong emphasis on population health sciences and health services research within the *Healthy Ireland Framework*,²³ with less interest in clinical and applied biomedical research outside of flagship initiatives. This leads to a potential danger that clinical research could be seen more as part of the enterprise agenda rather than a core interest for health.

²¹ Department of Enterprise, Trade and Employment (2006) *Strategy for Science, Technology and Innovation 2006–2013*. Government Publications, Dublin. <http://www.entemp.ie/science/technology/sciencestrategy.htm>

²² Department of Jobs, Enterprise and Innovation (2012). *Report of the Research Prioritisation Steering Group*. Government Publications, Dublin. http://www.djei.ie/publications/science/2012/research_prioritisation.pdf

²³ Department of Health (2013). *Healthy Ireland: A framework for improved health and wellbeing 2013-2025*. Government Publications, Dublin. <http://www.hse.ie/eng/services/publications/corporate/hieng.pdf>

Economic factors

- Over the past seven years the HRB has made a number of significant infrastructure awards. At the time, there was no clear vision of how sustainability of these infrastructures was to be achieved. The willingness of host institutions to underwrite some of the costs, as well as the ability to generate other income, may be reduced in time of fiscal constraint. These infrastructures will likely require some level of HRB commitment for a number of years in order to ensure that the previous investment continues to bear fruit. This impacts the HRB budget.
- The inability to replace experienced staff in the health services, and the emigration of mainly young, qualified people is leading to a brain drain, particularly in medicine. There are currently approximately 300 vacant consultant posts in Irish hospitals despite attempts to recruit, with a resulting knock-on effect on workloads for existing staff.
- Cuts to salary levels and increasing job insecurity for researchers are reducing the attractiveness of research as a career.

Societal and cultural aspects

- Public and patient involvement in research is underdeveloped compared to other countries, but it does represent a future opportunity. Public engagement and outreach has improved somewhat, with initiatives such as the Knowledge Exchange and Dissemination Scheme, inviting charities as observers to panel meetings, or open days in the CRFs as a first step.
- There is generally a positive public attitude towards research. Over 13,000 patients have participated in clinical research studies in HRB-funded infrastructure over the last five years. However, there is limited public awareness of the breadth of clinical research beyond drug trials.

Technological changes and innovations

- The setting up of the HRB's new online application and grant management system (GEMS) has involved significant effort. This project is now coming to an end, and it will hopefully aid HRB grant application and management processes.
- New biomaterials, sensors, devices, diagnostics and apps present opportunities for health. Multidisciplinary teams are needed in order to bring these into a clinical setting.

Current and impending legislation

- The proposed new European Clinical Trials Regulation could make obtaining ethics approval more streamlined, and will include medical devices.
- The national ethics approval process for studies not covered by the Clinical Trials Directive will move to a centralised coordination arrangement, possibly managed by HIQA; however, this is likely to be poorly resourced.
- The proposed changes to the EU Data Protection Regulation, if approved, would hinder research.

SWOT analysis for Clinical and Applied Biomedical Research (Goal 1)

<p>Strengths</p> <ul style="list-style-type: none"> • The definition of ‘patient-oriented research’ has recently been focused, and now works well. • The success rates for schemes are typically around 17-22%. HRB processes are sound. • A diverse group of healthcare professionals engage in research training programmes. • Many medics are well trained in research methodologies during time spent abroad, and expect to continue their research here. • There is an existing capacity of researchers to take on projects and programmes in Goal 1-relevant areas, which has increased over the last five years. • The HRB’s relationship with co-funders and with other agencies in Ireland is positive. Funding leveraged in co-funding arrangements increased from approx. €10.5 million to €13.3 million between 2010 and 2014. • The three CRFs are open and busy. They are increasingly seen as pillars in the health research landscape • A new online application and grant management system brings all relevant information together. 	<p>Weaknesses</p> <ul style="list-style-type: none"> • There is no contact point in the HSE with responsibility for research. Planned structures have not materialised. • There is no career path for clinicians wishing to integrate research, and no dedicated research time. • There are few opportunities for early-phase researchers (clinical and academic-based). • Co-funding is much more labour-intensive and slow than schemes run by only one agency. The resources necessary may not be best spent. • All infrastructures were delayed significantly, for various reasons. This delay and the changing landscape modified the HRB’s expectation and vision for the CRFs as well as the CRFs’ understanding of their operations • There is limited (insufficient?) capacity for business development across the infrastructure portfolio. • There is a tension between the role of the infrastructure in supporting a broad base of principal investigators (PIs) versus the ambitions of academic leadership.
<p>Opportunities</p> <ul style="list-style-type: none"> • Create a career path for clinicians integrating clinical practice and research. Given financial limitations, the balance between elements will be crucial. • A number of other organisations have indicated the potential for future co-funding (Enterprise Ireland, SFI, and National Children’s Research Centre) in addition to existing arrangements. • Giving Irish researchers access to international funding and expertise feeds back positively into the quality and quantity of Irish research. • Hospitals hosting CRFs integrate research more, as it provides a focus for patient safety, risk management and governance. • We now have a clearer idea of what the coordination framework of clinical research infrastructures can and should do in the start-up period, and it will be built on more mature infrastructure. • Influence pertinent policy, legislation, and other consultations – the DoH always asks for HRB input. 	<p>Threats</p> <ul style="list-style-type: none"> • Under-staffing is already a problem, limiting what can be done and by when. • Budget cuts have meant that a number of schemes have not been run as envisioned or have been delayed. An unrealistic ambition of the next strategy sets the HRB up for failure. • While academic officer posts for each of the new hospital groups are envisioned, these may not be filled, in the same way that previous research support roles went unfilled. • The operational interaction with the DoH is person-dependant, and planning, for example for capital expenditure, is difficult. • Co-funding arrangements may dilute the HRB’s objectives. • Infrastructure sustainability without taking up an excessive portion of the HRB’s budget, is a challenge. • Legal and regulatory developments such as the EU data protection regulations, ethics approvals may hamper research.

1.2 Strategic content of Goal 1

The HRB contributes to the clinical and applied biomedical research agenda in the national and international context in a number of ways. While there has long been an acceptance of the importance of clinical research for the health system, the HRB-funded infrastructures are now the 'go to' places for clinical research, supporting both investigator-led and industry-led studies, and dramatically changing the landscape. They have helped to leverage EU/international as well as national funding. The clinical trials networks to be funded by the end of 2014 will feed into this ecosystem and further increase the competitiveness of Irish groups for international funding. Goal 1 has provided the funding for clinicians to be trained in and engage with research. There has been a greater focus on addressing patient needs, and in particular on clinical trials, with a new, regular call for definitive interventions.

The fragmentation of the clinical research system is, although reduced, still evident. The process for putting into place a coordination mechanism for multi-site clinical trials is ongoing (panel meeting in November 2014). The impact of this process so far has been that the directors of the five CRFs nationally have established closer informal cooperation than before. The HRB is playing a key role in providing Irish researchers with access to international opportunities through a number of co-funding arrangements. We have close relations with our co-funders, particularly SFI and the Medical Research Charities Group (MRCG), and have a long-standing role on the All-Ireland Cancer Consortium. This is underpinned by a Memorandum of Understanding (MOU) between the Ministers for Health in Northern and Southern Ireland, and the National Cancer Institute in the US. The HRB has been acting on behalf of the DoH regarding research activities under the Consortium since the MOU was signed in 2001.

The HRB contributes to a variety of policy and practice documents, from the recently published *Rare Diseases Plan for Ireland* (Department of Health, 2014),²⁴ the HSE's *Consent Policy*,²⁵ relevant research prioritisation subgroups, the ESF's *Peer Review Guidelines*,²⁶ the preparatory phase of two European Strategy Fora on Research Infrastructure (ESFRI) initiatives (European Clinical Research Infrastructure Network [ECRIN] and Biobanking and Biomolecular Resources Research Infrastructure [BBMRI]), ESFRI Biomedical Sciences Group, Higher Education and Research Group subgroups on translational research and on capacity, and others.

To summarise the Goal 1 strands in the following sections: investment in clinical research capacity and leadership reduced significantly over the period of the current strategy compared with the previous five-year period, while investment in projects and programmes remained reasonably consistent. The investment in clinical research infrastructure also remained consistent (based on expenditure rather than commitments made); however, the infrastructures moved from contractual commitments to implementation, supporting the other two strands.

²⁴ <http://health.gov.ie/wp-content/uploads/2014/07/EditedFile.pdf>

²⁵ http://www.hse.ie/eng/about/Who/qualityandpatientsafety/National_Consent_Policy/consenttrainerresource/trainerfiles/NationalConsentPolicyM2014.pdf

²⁶ http://www.esf.org/fileadmin/Public_documents/Publications/European_Peer_Review_Guide_01.pdf

1.3 Strand 1 of Goal 1: Research capacity and leadership enhancement

1.3.1 Strategic context of this strand of activity for Goal 1

The specific objectives associated with this strand of activity for Goal 1 in the HRB *Strategic Business Plan 2010–2014* are:

OBJECTIVE 1.3 Fund training and development opportunities that will increase the number and diversity of health professionals involved in clinical research, and build their research skills.

OBJECTIVE 1.4 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.

OBJECTIVE 1.8 Work at a strategic level with the Department of Health and Children (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.

The HRB invested approximately €29 million in this strand during the lifetime of the strategy (2010–2014). This compared to €49 million in the previous five-year period (2005–2009).

Lack of research capacity in the clinical environment has been acknowledged in many policies and reports, from *Making Knowledge Work for Health – A Strategy for Health Research* (Department of Health and Children, 2001),²⁷ *Towards Better Health – Achieving a Step Change in Health Research in Ireland* (Forfás, 2006),²⁸ *Medical Education, Training and Research – HSE Strategy* (HSE, 2007),²⁹ the *Action Plan for Health Research* (Department of Health and Children, 2009) and the *Report of the National Research Prioritisation Steering Group* (2012). While these reports explicitly or implicitly acknowledge that clinical research is necessary to bring about improvements in healthcare and to facilitate the enterprise agenda, medics and allied health professionals in Ireland have no protected time for research. When a new consultants' contract was negotiated in 2009, this issue of protected time was expected to be addressed for medics; however, this has not been delivered. Rather than aiming to completely fill this gap, the HRB targets particularly promising clinician researchers. Importantly, the HRB's definition of 'clinician' includes all healthcare professionals in clinical practice and is not limited to medics.

Research training opportunities early in clinical careers fosters ongoing research awareness and engagement, and the HRB has continuously invested at this level. Another opportunity is presented by the fact that there is a high level of research training among consultants in Ireland, as many have worked abroad in an environment where research is the norm. On their return to Ireland, they are often overwhelmed by a high caseload and limited support for clinician investigators. Goal 1 aims to address the latter through the Clinician Scientist Awards (CSAs), research infrastructures and through project and programme funding. There is a significant reservoir of potential mid- to senior-level principle investigators (PIs) to be tapped, although many Irish clinicians have an interest in biomedical rather than clinical research.

²⁷ http://www.DoHC.ie/publications/making_knowledge_work_for_health.html

²⁸ <http://www.sciencecouncil.ie/publication/ascSearch.jsp?ft=/publications/2006/title.3254,en.php>

²⁹

http://www.hrb.ie/fileadmin/Staging/Documents/RSF/PEER/Policy_Docs/Relevant_reports/HSE_METR_Strategy_Final_October_2007.pdf

Given the scant research support provided by the healthcare system, capacity and leadership enhancement is still very relevant for clinical research. There is also an ongoing shortage of clinical researchers familiar with the language and opportunities/barriers of partnering translational disciplines. In supporting clinical research, there is an associated need to increase capacity in research design, data management and implementation science.

It is worth noting that the HRB strategy for Goal 1 did not formulate an objective regarding researchers in academic settings, and over the last five years the investment in applied biomedical research capacity and leadership was significantly reduced. Given budgetary constraints, relevant fellowship schemes were not prioritised. There is no other funder in this space that could take the HRB's place. Ideally, the HSE would allow for research time for healthcare professionals; however this is not a realistic expectation for the near future beyond the current small-scale co-funding. The Wellcome Trust clinical fellowship schemes are open to Irish applicants under a co-funding agreement with the HRB and SFI; however, their format does not suit the Irish system.

1.3.2 Key stakeholders for Strand 1 of Goal 1

The key stakeholders are:

- The universities, which are host institutions for the majority of awards. Interactions are mostly operational. The Deans of Medicine, following consultation during the design of the CSA scheme, have undertaken to maintain the research component of the CSAs after the end of HRB funding. This has just been delivered for the first grant holder in the shape of a Clinical Professorship.
- The HSE, which co-funds a small-scale fellowship scheme integrating medical training and research (NSAFP), and has provided input to the design of a number of training initiatives over the years. There is no research funding or protected research time in general. The HSE revised its consent policy in 2013 and included a chapter on research in consultation with the HRB.
- Hospitals, which enable and facilitate research, provide clinical governance and oversight (particularly where there is a CRF). Where no dedicated infrastructure is in place, local supports are variable.
- The DoH, which has received input into relevant legislation, including the Health Information Bill, Health Identifier Bill and Human Tissue Bill. It requests HRB representation on specific working groups, or comments on issues. The DoH (Cancer Policy Unit and the Chief Medical Officer), the HRB's sister funding agency in Northern Ireland, as well as the National Cancer Institutes USA (NCI) are partners in the All-Ireland Cancer Consortium training activities.
- Clinicians who wish to engage more with research.

Positive feedback for early career training comes from training bodies supporting the Health Professional Fellowship (HPF) scheme. There have been requests from specific organisations to set up training or co-funding schemes for their clientele, which the HRB occasionally facilitates if they can be rolled into existing schemes. The Deans of Medicine agreed on the strategic importance of high-profile clinician scientists for the universities, and achieved organisational sign-off for sustainability of research components of the CSAs. Relations with the DoH are weak around the training and capacity building elements, but strong with regard to relevant legislation or policy issues. Feedback from individual PIs and from our expert panels has been positive over the years. The training activities under the All-Ireland Cancer Consortium are priority driven, and leverage significant international expertise and political support.

The two big challenges in this area are firstly to increase the engagement of the HSE in research. While the new Hospital Groups over time should recruit Academic Officers, these posts have not been filled yet. There is virtually no budget for research within the HSE and no corporate vision regarding research, although there are pockets of people who recognise its value and are trying to support it.

Secondly, to embed research into the clinical environment, a career pathway for clinicians (medics and allied health professionals) which integrates research with clinical work is needed. This is challenging within the limited financial resources of the HRB, and in an environment where the health service is struggling to free up time for staff, even if funding for back-filling of posts is provided.

1.3.3 Deliverables and indicators of progress for Strand 1 of Goal 1

The key deliverables of this strand are healthcare professionals trained across a wide spectrum of research methodologies and with dedicated time to develop research programmes of relevance to policy and clinical practice. There was an underlying assumption that the revised consultant contract would include dedicated sessions for research; this in turn would have reduced the need for the HRB to buy out research time for senior clinicians. However, the fact that this did not materialise had major implications for the HRB budget.

Overall, this activity was not delivered to the level hoped for, mostly due to financial constraints and lack of strategy adaptation as circumstances changed and decisions were taken on a call-by-call basis. Overall investment in this strand has decreased from €49 million in the previous strategy period to €29 million in the current period. The numbers of awards outside of short courses decreased from 119 to 88. The PhD fellowships are running at a steady state. The post-doctoral fellowships were mostly for academic-based researchers. Marie Curie Actions co-funding of €1 million had been won for two further cohorts of post-doctoral translational medicine fellows, but the award was not taken up on the grounds of cost. The CSA call was a once-off over the strategy period, despite aspirations to increase the numbers. In 2014 there will be no National Specialist Academic Fellowship Programme (NSAFP) for registrars due to lack of co-funding from the HSE.

The HRB remains the only source of funding for PhD level training and further career development for healthcare professionals in Ireland, so the limited work done in this area is vital. From a long-term perspective, a number of previous HRB fellows have reached senior positions in the Irish health system; however the number of previous fellows with an ongoing active involvement in research is not clear. The funding for senior clinician scientists identified some very significant players in Ireland, facilitating them to step up to a much higher level of leadership and competitiveness in their area (including one who is now in the top 1% globally for citations). There is a continuing need for the HRB to provide dedicated research training and time for clinicians.

However, the HRB's efforts have been somewhat scattered. What is missing is a consistent, consecutive career path for clinicians to integrate research with clinical practice. Only the junior levels are regularly catered for; both middle (post-PhD) and senior (consultant or equivalent) levels have no opportunity to back-fill clinical commitments with the aim of becoming research leaders. The link with the Wellcome Trust (WT) does not provide this opportunity, as the schemes are not structured to work within the Irish system, e.g. post-doctoral research training fellowships for clinicians are aimed at those in training, whereas Irish medics would only complete their PhD within the Specialist Registrar training programme. Institutional support for a part-time arrangement for a non-consultant hospital doctor would be rare, due to the strong pressures on service provision. It also requires the applicant to enter a new field of research, not following on from their PhD work, which might deter other healthcare professionals. The intermediate clinical fellowships are for those

not yet in a permanent post, which does not align with the Irish career path. It may be appropriate for the HSE to play a role in addressing this gap; however this does not seem to be realistic at this point in time.

1.4 Strand 2 of Goal 1: Project and programme activities

1.4.1 Strategic context of this strand of activity for Goal 1

The specific objectives associated with this strand of activity for Goal 1 in the HRB *Strategic Business Plan 2010–2014* are:

OBJECTIVE 1.1 Fund clinical research projects of the highest quality and excellence that have been subjected to international best practice review and assessment.

OBJECTIVE 1.2 Increase the level of investment in patient-oriented research in the clinical research areas, including applied biomedical research.

OBJECTIVE 1.6 Develop strategic research clusters of academic and clinician investigators in experimental medicine and other areas, in collaboration with other funders.

The HRB invested €52 million in this strand over the lifetime of the strategy, compared to €58 million in the previous five-year period.

Clinical and biomedical research is often delivered through projects and programmes, and contributes to ongoing needs for policy and practice research internationally. While projects focus on defined pieces of research (typically over no more than three years), programmatic funding (often over five years) includes the interdependence of different work packages, leading to a sum greater than the parts. New knowledge and evidence is continuously needed to deliver benefits such as improved health, wellbeing and safety on the one hand, and broader economic and social benefits on the other hand. It can lead to new and more cost-effective services, products, methods, management practices and policies to improve health outcomes which benefit everyone.³⁰

While some other funders contribute to health research in Ireland, their focus is on economic impacts, with health impacts being incidental. Therefore, they are not in a position to replace the HRB in this space.

1.4.2 Key stakeholders for Strand 2 of Goal 1

The key stakeholders are:

- The universities, which are the host institutions for the majority of awards. The HRB consults with the universities on governance and operational issues such as Grant Terms and Conditions, reporting, and the cost of animal experimentation.
- National and international co-funders, which interact closely around the design of joint activities. The implementation of schemes can be led by one or the other partner (mostly the HRB).
- Researchers (PIs), who are the producers of research and often feel passionately about it.
- The DoH, through its support for the Medical Research Charities Group (MRCG), a co-funder.

³⁰ http://health.gov.ie/wp-content/uploads/2014/03/action_plan_health_research.pdf

Feedback for this strand comes from various sources. HRB schemes are largely oversubscribed, with success rates of approximately 17-20%. The Health Research Awards are bread and butter schemes for many research groups and are fundamental to employing post-docs in the field. When the HRB changed its strategy in 2010 (excluding basic research), there was widespread criticism from the academic community. Some researchers stopped applying to the HRB, even though they were still eligible; this also reflects the availability of other sources of funding at the time. A large number of applicants have adjusted the focus of their applications to suit the HRB direction, and maybe are now able to conduct research that they would not have been able to conduct before. We have recently refined the definition of patient-oriented research to avoid applications where this is only a component at the end of a grant, which may or may not be delivered.

There was a strong welcome for the introduction of a panel for definitive interventions, with some high-quality applications. This had long been a gap in the HRB portfolio. The level of funding per award is seen to be appropriate by panels and by international standards.

The MRCG/HRB Joint Funding Scheme was reviewed in 2013 in terms of outputs and outcomes, and to assess if it was fit for purpose. The assessment was positive. International panels over the years have commented on the uniqueness and value of the scheme for the medical research charities.

There have been only two rounds of programmatic funding for clinical and applied biomedical research over the last five years through the Translational Research Awards. Ideally, programmatic funding should be a more regular feature of the HRB portfolio. The Translational Research Awards are an attempt at milestone-based funding, bringing together different disciplines.

1.4.3 Deliverables and indicators of progress for Strand 2 of Goal 1

Key deliverables are internationally competitive and innovative research projects that create new knowledge and evidence of benefit to health; research of strategic relevance to the medical research charities; and programmes converting basic research findings into innovative strategies, devices, products or services for the diagnosis, treatment or prevention of human disease.

General objectives were set for the current strategy, as described above. The anticipated increase in funding for clinical research from funds freed up from basic research was greatly reduced by annual cuts in the HRB budget allocation. Given the increase in research costs per project for ethics approval, research design services, bench fees etc., there was no scope for reducing the amount per award, despite some reduction in salary costs. Total numbers of awards in this strand decreased from 239 (2005–2009) to 204 (2010–2014).

The existing investigator-led project grant scheme was revised in line with the new strategy, and a new grant committee in patient-oriented research was established in the newly branded Health Research Awards scheme. Panel membership was also revised, with a shift to full international membership. Approximately 90 projects in patient-oriented research are active at any point in time. A new committee was introduced to provide support for the conduct and evaluation of definitive intervention studies (funding is available for awards up to €800,000). This has encouraged interactions and collaborations between researchers and the Clinical Research Facilities.

The HRB is now co-funding through a number of initiatives, presenting an opportunity to leverage funding and build relationships with other agencies. This brings its own challenges in terms of keeping the focus on the HRB strategy. For example, the Wellcome Trust tends to fund on the more basic side of the spectrum compared with the HRB, and we are currently revisiting the split of the Irish funding component with SFI to reflect this. When entering co-funding agreements, there are also other factors at play – the wider relationship with the partner organisation, public and

stakeholder relationships, and sometimes a political push for co-funding across government departments, such as in the *Strategy for Science, Technology and Innovation 2006-2013* (Forfás, 2006).

While programmatic awards had never been annual, the MOU with SFI for the Translational Research Awards originally allowed for a third round. In 2012 neither agency would have been able to deliver on these. The objective under the SFI-HRB-Wellcome Trust Biomedical Research Partnership was to retain eligibility for Irish researchers for Wellcome Trust funding. This has been achieved in principle; however the number of awards is still low.

Regarding the MRCG/HRB Joint Funding Scheme, the scheme contributes positively to both the HRB and the charities' portfolio. There is a limit on the total annual spend on this scheme by the HRB, so there is not necessarily an annual call. This also reflects the financial burden on charities. It is a key example of building relationships and engagement in a wider sector.

Over the last five years, the HRB has invested significantly in infrastructure. While the vision for the sustainability of these infrastructures was not developed at the beginning, it has been clear for a number of years that core funding will decrease, and infrastructures are expected to generate income through competitive awards. Providing an avenue to do so is critical in ensuring that the infrastructures are put to good use, and this means investment in projects and programmes, particularly with a more clinical focus. Synergies between parts of the HRB portfolio are a cornerstone for the long-term development of the clinical research landscape. Some 40% of the holders of HRB project grants involving patients, funded in the last round, indicated that they will use HRB-funded infrastructure to deliver their project, and a further 28% expect to use other specialist infrastructure.

It is worth noting that funding panels are often risk averse, and the way in which HRB application forms have become more detailed supports this. There is a case for dedicated support for high-risk, high-gain ideas in clinical research that might flush out innovative ideas, on the understanding that a high proportion of awards will not be able to prove the underlying idea. Risk might be seen in terms of early-stage investigators and in terms of content of project. However, this has not been a priority to date. There has been no programmatic funding from the HRB for clinical and applied biomedical research since 2012. In this context programmatic funding refers to larger, typically five-year programmes of research built around research themes and comprising a number of inter-linked work packages.

1.5 Strand 3 of Goal 1: Clinical infrastructure and network development

1.5.1 Strategic context of this strand of activity for Goal 1

The specific objectives associated with this strand of activity for Goal 1 in the HRB *Strategic Business Plan 2010–2014* are:

OBJECTIVE 1.5 Establish more clinical trials networks in targeted areas by introducing seed funding.

OBJECTIVE 1.7 Deliver three fully functional co-funded clinical research facilities (CRFs) – all located on hospital grounds.

OBJECTIVE 1.8 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.

OBJECTIVE 1.9 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.

Although not explicit in the list of objectives, there was an implicit understanding that existing clinical trials networks, and particularly a large cancer network under the All-Ireland Cancer Consortium, would receive continued support.

The HRB invested €38 million in this strand over the lifetime of the strategy, compared to €69 million in the previous five years. It should be noted, however, that much of the investment in clinical research facilities (CRFs) was committed in 2007 as part of the previous strategy, with ongoing expenditure on these awards into 2017.

At the start of the strategy, there was a low level of trials activity in Ireland, and no mechanism for networking of clinicians outside of cancer, where a trials network (ICORG) had been long established and significantly funded by the HRB. This was in part attributed to the lack of supporting infrastructure, a need that has more recently been acknowledged in the *Report of the National Research Prioritisation Steering Group* (2012), which assigned the role of providing the underpinning clinical research infrastructure to the HRB. The small size of the Irish population and of Irish hospitals contributes to the need to coordinate sites. CRFs have a crucial function in facilitating safe, high-quality research, and reducing barriers for clinicians to participate in/lead clinical research studies, a key facilitator for tapping into the pool of clinicians with an interest in research. In some other countries, the remit of the HRB CRFs is covered by multiple structures (such as UK NHS Hospital Trust R&D Departments, Clinical Research Facilities, Clinical Trials Units, and the Research Design Service).

The HRB consults and inputs into any relevant clinical trials policy or regulatory development nationally and internationally.

The previous investment in the clinical research infrastructure is just beginning to mature and deliver, with some crucial new additions pending. For the next strategy 2016-2020, we need to consider how and at what level the HRB wants to support infrastructures. This applies to clinical studies as well as to biobanking, where the HRB will focus on quality and standards.

1.5.2 Key stakeholders for Strand 3 of Goal 1

The key stakeholders are:

- The DoH, which has the greatest interest in the Goal 1 portfolio in this area. All CRFs were opened by the Minister for Health or by the Taoiseach (Prime Minister.) These awards are relevant in DoH interactions with the enterprise agenda, and the DoH has repeatedly defended the HRB investment against being re-directed to that agenda. The DoH asked the HRB to provide the secretariat to a cancer biobanking expert group arising from the current *National Cancer Policy*.³¹ As outlined under strand 1, the HRB provides input into DoH policy.
- The DoH Cancer Policy Unit provides dedicated funding of approximately €4.3 million per year for the cancer clinical trials network ICORG. Activities are discussed at North/South Ministerial meetings. A new cancer strategy will be developed next year, and the HRB is due to be on its steering group.
- The Department of Jobs, Enterprise and Innovation (DJEI), which has recognised the importance of clinical research infrastructure to enterprise e.g. in the research prioritisation exercise. Enterprise finds it difficult to engage with the healthcare system, and views the CRFs in particular as a mechanism to do so, preferably at no charge. While Goal 1 supports the use of CRFs for commercial studies, the sustainability plans for the CRFs are predicated on at minimum recovering full costs for such studies.
- The leadership of infrastructure awards, who work in close partnership with the HRB, have significant influence on the HRB's thinking and understanding of opportunities and barriers.
- Hospitals where CRFs are located use them for improved risk management and research governance. Two out of the three are working towards ensuring that all research on their premises comes under the governance of their CRF. The hospitals provide significant support for their operations, and were strongly engaged in the delivery of the physical infrastructure.
- Universities are host institutions for the awards. They are providing ongoing institutional supports by e.g. underwriting a number of posts and sharing overhead income, and will be key for sustainability.
- The users of the infrastructures, who are now supported in carrying out research that would have been much harder or impossible to deliver previously.
- The enterprise agencies SFI and EI, which in the *Health Research Action Plan* (2009) were identified as partners for the HRB in developing a coordinated biobanking infrastructure. EI is engaged around the coordinating mechanism for multi-site clinical trials, and will provide a limited amount of co-funding, in contrast to SFI, which is not currently engaged.
- ICORG, as the long-established cancer clinical trials network had a portfolio of 130 trials in 2013, about a quarter of which are developed and led by ICORG investigators. They have held a succession of major HRB awards (over €50 million since 2002).

The underlying theme in all feedback is that clinical research infrastructure is critical, and that its existence has utterly changed the landscape. Most of these awards had delays due to a variety of often external factors (e.g. the need for three EU tender processes, as two selected main contractors for a CRF went into receivership). However, they are now mostly in place, giving the HRB time to develop thinking in the meantime. While the CRFs were always seen as the focal points for research, they now operate as a base for staff located across the hospital or across sites. A mixed income model to ensure sustainability has been developed, and the operations of the facilities have changed significantly as the directors have tackled issues. Two CRFs have completed very positive interim

³¹ <http://www.cancerscreening.ie/publications/CancerControlStrategy2006.pdf>

reviews. Feedback from population health researchers shows that they consider that they are not supported as well as clinical researchers by the CRFs.

While the call for Clinical Trials Networks is still progressing, there was a strong welcome for this opportunity from the research community. The HRB received 20 applications and expects to make four awards by end of 2014.

Sustainability of large infrastructure is a difficult issue, as not all costs are likely to be recouped from research grants and other income. The HRB will need to decide to what financial level, through what mechanism and for how long to provide support. The appropriate role of the academic health system in supporting infrastructures also needs to be addressed.

1.5.3 Deliverables and indicators of progress for Strand 3 of Goal 1

Overall, this strand of activity has performed well. Most infrastructures in the clinical and applied biomedical research spectrum were either awarded or conceptualised during the previous strategy cycle. All infrastructures suffered delays for various reasons. However, all three CRFs have the staff in place, while two have the physical infrastructure completed; the final building will be completed in Q1 2015. The three HRB CRFs are now acting as a focal point to enable clinical research, as confirmed by interim reviews. They had a mixed portfolio of over 150 investigator-led and industry clinical studies in 2013, as opposed to 20 in 2009.

The targets for ICORG are qualitative rather than quantitative, which is the more appropriate measure for a mature group. The qualitative targets are mostly introduced through the three-yearly renewal funding process. Ensuring stronger links with the National Cancer Control Programme and a changed governance model were part of the last cycle. HRB funding provides ICORG with a platform to bid for industry trials (approximately 40% of its portfolio; 56 out of 130 studies in 2013). The enterprise agencies (EI, IDA) 'sell' ICORG as an asset.

The availability of research nurses, previously a bottleneck, has improved significantly through HRB-supported training initiatives within infrastructures. The capacity for trials methodology, biostatistics and data management has increased, but is still low. A Development Lead for the coordination of multi-site clinical trials is now in place, working with the CRF directors to deliver a business plan for panel review in November 2014. It has been a three-year process to agree the scope of this coordination, and there is now reason to be optimistic that the proposal will deliver for all parties. A number of issues will be resolved through the emerging Clinical Trials Networks. The approach to the coordination of clinical groups will need to be revisited in a few years, learning from the current call and taking into account funding opportunities for definitive interventions.

Some national or international issues impact Goal 1 awards, such as the continuing lack of single opinion ethics approvals outside of clinical trials, the proposed EU data protection directive threatening new limits on research, and an increase in research costs, as some regulatory and quality issues are being addressed (research design, ethics approval, animal licence, potentially biobanking). The HRB comments where appropriate. Biobanking is mentioned in the *Action Plan for Jobs* (2012)³² and the *Action Plan for Health Research* (2009)³³. The original vision for biobanking depended on co-funders in the system; however it did not develop beyond a business case led by the HRB. The HRB will now focus on the capacity of host institutions to comply with emerging ISO

³² Department of Jobs, Enterprise and Innovation (2012). *Action Plan for Jobs*. Government Publications, Dublin.
<http://www.djei.ie/publications/2012APJ.pdf>

³³ Health Research Group (2009) *Action Plan for Health Research 2009–2013*.
http://www.DoHC.ie/publications/pdf/action_plan_health_research.pdf?direct=1

standards. This is more an issue for applied biomedical research and less for clinical trials, as these are covered by Good Clinical Practice.

The HRB entered infrastructure commitments in a period of growth. These are long-term commitments, and there is a resulting risk of ending up with a significant core bill for infrastructures and limited money for activity. The HRB will need to balance its overall portfolio, and the imperative to generate income from activity-based sources has been agreed with CRF Directors. However, there will be a need for ongoing core support of some level unless another entity takes over that role. In terms of managing the awards portfolio and resulting multiannual budget, there is a considerable risk in planning for capital expenditure, due to the slow and disjointed process of confirming the HRB's capital allocation.

1.6 Key learning from self-assessment of Goal 1

- The vision for Goal 1 was ambitious, given the fragmented nature of clinical research in Ireland and the lack of support for research in the health system. Despite this, progress was made especially in the development of a better infrastructure for clinical research.
- The funding for Goal 1-related activities fell significantly during the lifetime of the strategy, meaning that delivery of some objectives was not possible, particularly in career support and programmatic funding (i.e. five-year thematic research programmes such as the Translational Research Awards). Costing and staffing the next strategy accurately, and regularly reviewing underlying assumptions, would ensure more deliberate choices.
- The HRB needs to prioritise resources more effectively, accepting the need to disinvest in some areas. This has been a challenge, as it emerged during the lifetime of the strategy that the ambition of Goal 1 went beyond the resources available.
- An implementation plan for the research strategy and funding directorate, setting out the vision, anticipated calls and investment over a five-year period need to be agreed with the Board. This plan needs to be reviewed regularly in order to account for changes in the environment, opportunities, limitations and learning. Synergies between schemes and across Goals need to be highlighted.
- The balance between the different strands of activity will be crucial. Scenarios during the strategy development could include limiting the scope of activity – e.g. focusing on clinical research only, without supporting applied biomedical research – or concentrating on one or two of the strands. Leaving the full remit intact may limit the scale of what can be achieved. Each scenario will have pros and cons.
- The question of ongoing support for infrastructures such as CRFs needs to be addressed.
- In the absence of national health research priorities, the HRB has no pre-defined priority clinical areas outside of dedicated funding for the Cancer Consortium and dementia projects, and it relies on merit-based selection supported by international peer review. While specific interest groups regularly argue for dedicated funding for a particular clinical area, the HRB has avoided priorities being set by external special interests. However, consideration should be given to internally setting priorities for a proportion of the HRB's funding to enable targeted growth, balanced by bottom-up, merit-based instruments.
- The time horizon for the delivery of complex awards involving many stakeholders as co-funders, joint applicants or institutions was underestimated in this strategy and should be factored into planning in the future.
- The HRB as an organisation is quite risk-averse and comes from a background of funding mostly three-year projects or fellowships with limited risk across the portfolio. This approach

is driven by the general climate as well as the HRB and general budgeting processes. An organisational discussion with the Board to identify the level of appetite for risk, as well as the approach to long-term investments such as infrastructures would be helpful

- The HRB remains the only funder in Ireland with a remit to improve health outcomes. Where other funders do support research with health benefits, this is incidental, so maintaining a funding portfolio for clinical research addresses a national need. However, the economic agenda is real and relevant, and the challenge for Goal 1 will be to continue to find the synergies between the two agendas while avoiding scarce resources being diverted away from its own agenda.

GOAL 2: TO BUILD CAPACITY TO CONDUCT HIGH-QUALITY POPULATION HEALTH AND HEALTH SERVICES RESEARCH (PH/HSR)

2.1 Strategic context of Goal 2

To achieve this aim, a number of high-level objectives and deliverables were identified. The objectives are listed below and a discussion on the deliverables and progress in achieving these is included in Sections 2.3, 2.4 and 2.5.

- OBJECTIVE 2.1** Fund research projects of the highest quality and excellence that have been subjected to international best practice review and assessment.
- OBJECTIVE 2.2** Increase the level of investment in high-quality population health (PH) and health services research (HSR).
- OBJECTIVE 2.3** Increase the number of researchers from a variety of backgrounds (e.g., epidemiology, public health, social science, economics, biostatistics, nutrition science) engaging in PH/HSR research.
- OBJECTIVE 2.4** Establish research clusters/networks to accelerate and scale up the delivery of high-quality outcomes in targeted PH/HSR priority areas.
- OBJECTIVE 2.5** Increase the number and diversity of healthcare professionals engaged in multidisciplinary partnerships and networks focusing on PH/HSR activities.
- OBJECTIVE 2.6** Develop strategic partnerships with the HSE and others, with the support of the DoH, to build Ireland's capacity in PH/HSR.
- OBJECTIVE 2.7** Increase the level of co-funding leveraged for PH/HSR activities to meet the needs of healthcare policy and/or practice.
- OBJECTIVE 2.8** Increase the evidence base for PH/HSR 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.

Prior to this current strategy, the HRB predominantly had a reputation for supporting biomedical research and clinical research, with a small percentage of its investment portfolio going into public health, epidemiology and Health Services Research. The DoH had a 'light-touch' engagement with the HRB in terms of strategic influence, and the Board mainly comprised university-based nominees. There was no R&D Director (or equivalent) within the DoH or healthcare system, and no funding stream to explicitly support healthcare-driven research needs outside of HRB funding.

Following the establishment of the HSE in 2005 to take responsibility for the delivery of health and social care, the DoH had more time to focus on its health policy and leadership role. During 2008/2009, it engaged more in discussions with the HRB in relation to our mandate and scope, and it became more active in the broader discussions around the national R&D ecosystem. The DoH clarified that it wanted the HRB to support research more aligned with the needs of the emerging healthcare system. This culminated during 2009 in the development of the new HRB strategy, a DoH-led amendment to the HRB statutory instrument resulting in a new ministerially-appointed Board and the launch of an *Action Plan for Health Research 2009-2013* by the DoH. The latter set out a series of recommendations and deliverables for health research that aimed to address both the needs of the healthcare system and the knowledge economy. Among the key deliverables listed was the need to expand the capacity to conduct high-quality population health and HSR to inform the delivery and organisation of the health services.

The eventual selection of objectives and deliverables within Goal 2 was underpinned by a number of data and information sources. These included inputs from the DoH, findings emerging from a HRB-convened International Advisory Group charged with assisting the HRB in mapping activity and gaps in PH/HSR in Ireland (Hiney *et al.*, 2011),³⁴ a strategic analysis of the environmental context in which we were working, a review carried out by the HRB of international trends and models in PH/HSR (in particular with inputs from the UK, The Netherlands, Canada, USA and Australia), knowledge gained from previous HRB investments, analysis of FP7 and other EU activities and discussions with PH/HSR stakeholders.

Many important insights gleaned from this analysis guided much of the 'WHAT' and the 'HOW' of the Goal 2 Implementation Plan. This included advice to build on existing strengths and capabilities where possible; to develop a portfolio that includes capacity building as well as funded research activities; to invest in multi-institute collaborations and to drive collaborations across disciplines, sectors and regions; to take a strategic and coordinated approach to training initiatives; to deliver flexible and inter-disciplinary models of early-stage training; to invest in strong academic leadership (mid- to senior-level staff); to strike a balance between investing in internationally competitive research excellence, originality and creativity while supporting research that reflects the healthcare and information needs of policy makers and decision-makers in Ireland; to strike a balance between trying to get the perfect structure and encouraging innovation/risk, and to give a long enough commitment to strategic investments.

Conscious of working to a longer-term vision within this strategy period, objectives and actions were chosen that could be delivered in a staged and scalable manner and that took cognizance of the absorptive capacity for investment in the research system. The plan was predicated on a corporate assumption that HRB income would remain at least the same throughout the strategy (and ideally would increase); it was also based on a target set by the HRB Board to increase the existing spend on PH/HSR from a baseline of just under 20% to 45% by the end of the strategy period.

A PEST analysis is provided below and summarises the key political, environmental, social and technological context for Goal 2. A SWOT analysis is also included and summarises some of the main strengths, weaknesses, opportunities and threats considered for the HRB investment plan for PH/HSR. In summary, at the time the strategy was developed it was positive that the national policy environment was supportive of R&D; the DoH was more engaged as a result of the *Action Plan for Health Research 2009–2013*; the HRB had a strong reputation for its services and quality, and it had some prior experience of investing in PH/HSR.

Set against this, there were a number of constraining factors and challenges. It is more difficult to drive the necessary engagement in the absence of an R&D lead (or equivalent) in the DoH and/or the HSE, without a coordinated and structured approach for discussing and agreeing research priorities and without additional investment for research and information needs in the healthcare system. Public sector austerity and the recruitment embargo has impacted significantly on the abilities of both the education sector and the healthcare sector to respond optimally to HRB plans, and while the national policy agenda remains supportive of R&D, priority is placed on the creation of jobs and on investing in R&D which will deliver economic rather than societal benefits.

³⁴ Hiney M, Curran B and Clarke P (2011). *Review of population health research and health services research in Ireland*. Health Research Board, Dublin. Volume 1: http://www.hrb.ie/uploads/tx_hrbpublications/Review_of_population_health_research_health_services_research_in_Ireland_Vol1.pdf. Volume 2: http://www.hrb.ie/uploads/tx_hrbpublications/Review_of_population_health_research_health_services_research_in_Ireland_Vol2.pdf

PEST analysis for PH/HSR (Goal 2)

<p>Political</p> <ul style="list-style-type: none"> • New Programme for Government • New Minister for Health – healthcare reform • Public sector reform agenda – possible mergers of agencies, changes to boards, employment control frameworks • IMF/ECB dictating many changes (e.g. university staff ceilings) • Greater emphasis on job creation and short-term economic benefits • The National Research Prioritisation Exercise, led by Forfás – competition between agencies for public R&D funds 	<p>Economic</p> <ul style="list-style-type: none"> • Unprecedented national and global recession • Revenue and capital budgets decreased across departments and agencies set to continue • Greater emphasis on value for money and return on investment in the short term • Increasing challenges in terms of financing healthcare and medication provision • Policy shift to universal health insurance cover • Greater appreciation of healthcare as an economic actor
<p>Social</p> <ul style="list-style-type: none"> • Ageing population presenting new demands • Increase in people living with chronic diseases • Greater emphasis on primary/community care and self-care • Increase in conditions caused by lifestyle and behaviour choices • Greater demand from citizens for higher quality and more personalised care • Greater emphasis on patient safety and quality • Persistence of gross health inequalities • Public and patients in Ireland very positive about health research 	<p>Technological</p> <ul style="list-style-type: none"> • Greater emphasis on e-health, digital health, connected health for planning and delivery of healthcare • Publication of Health Information Bill urgently awaited, provision of unique health identifiers and electronic patient records • Increasing costs of new technologies and treatment in healthcare • Greater emphasis on information and data, best practice guidelines and care pathways in healthcare • Poor legacy investment in health information systems and poor coverage, interoperability and comparability of routine health data

SWOT Analysis PH/HSR (Goal 2)

<p>Strengths</p> <ul style="list-style-type: none"> • HRB has a strong reputation/brand for independence, objectivity and quality • Some prior experience with PH/HSR • PH/HSR maintained reasonable level of revenue and capital budget in recent years, despite austerity • Good relationships with research community, health decision-makers and other government departments • Low volume, but active senior research staff in PH/HSR with good reputations internationally • Low volume, but impact of PH/HSR publications high • Only one of a few countries in Europe with a structured PhD programme in HSR • Longitudinal studies in ageing and children 	<p>Opportunities</p> <ul style="list-style-type: none"> • Government policy supportive of R&D • Public supportive of health research • Greater emphasis on prevention and health promotion in government policy • Greater focus on health outcomes, effectiveness, quality and cost • Opportunity to influence content and mechanisms in Horizon 2020 • Opportunities to partner with other agencies (e.g. Department of Agriculture Forestry and the Marine, SFI, EI)
<p>Weaknesses</p> <ul style="list-style-type: none"> • Low legacy levels of investment in PH/HSR • Annual funding stream curbs longer-term investment planning • HRB is a risk-averse organisation • Employment control framework and public sector reform agenda affecting staff numbers and morale • Shortage of senior and mid-career staff in PH/HSR • Under-developed capacity in a range of disciplines • Poor health information systems and poor integration and comparability 	<p>Threats</p> <ul style="list-style-type: none"> • Resource-constrained environment will impact on the HRB budget, investment in health and/or education sector, the National Research Prioritisation Exercise – competition between sectors; possibility that health/societal benefits will lose out to jobs and short-term commercial gain • Absence of HSE corporate leadership for research and no ring-fenced R&D budget • Research performing organisations will be unable to recruit and/or to commit to posts • Staff shortages and increases in service delivery pressures in health system will impact on ability of researchers to respond to grant calls • Outputs of PH/HSR are often politically sensitive, so need to strike the balance between close relationship with the DoH/HSE and independence and transparency

2.2 Strategic content of Goal 2

A summary of the key stakeholders for PH/HSR is provided in Appendix 2. This includes consumers of the research outputs in the form of decision-makers in health policy and practice, research performers, funding partners, and patients and the public. The HRB operates in an authorising environment rather than a market one, with the DoH acting as the strategic customer on behalf of citizens for high-quality research evidence that can be used to underpin better healthcare decision-making and better health outcomes. To a large extent the DoH acts as a proxy customer for practitioners and managers of the healthcare system, while the patients and the public are the ultimate consumers and beneficiaries of health research. Despite being clear about the primary customer for PH/HSR, the lack of a central contact point/R&D lead within the DoH has made engagement and proactive interaction with the DoH less than optimal.

The HRB has a clear entry point corporately within the DoH for governance and financial management purposes, and this is generally who the HRB CEO engages with. However, in reality for any priority-driven activities that emerged as part of the Goal 2 plan, the contact was initiated in an ad hoc and fragmented manner with individual units within the DoH (e.g. the Chief Medical Officer's Office, Health and Wellbeing Programme Office, Disability Services Unit, Officer for Older people, Resource Allocation Unit) creating competition for, rather than planning of, investment and support from the HRB. The HRB needs to work with the DoH to find a more effective way to engage around the next strategy, in order to ensure a whole-of-DoH approach.

The HSE is clearly a key stakeholder for PH/HSR but, in the context of constant reform and restructuring, any collaborative activities that have emerged with the HSE have predominantly been driven and influenced by the DoH.

Over the lifetime of this strategy, as part of the broader government commitment to R&D the HRB has had to remain particularly cognisant of the needs of industry and the Department of Jobs, Enterprise and Innovation and its agencies. In particular, this has placed an emphasis on the need for job creation and the need to provide suitable locations, skills and infrastructure within the health system for industry to conduct trials, and to assess the effectiveness of interventions.

At the core of any discussion around stakeholders and customers are the researchers who undertake the research and those organisations who host it, as these are the producers of research and are the co-producers of value for the HRB. To incentivise researchers, and host sites to invest and engage in a new area of research (or to greater levels than before) such as PH/HSR, the HRB has to be able to provide a clear and repeated commitment to providing a substantial investment over the next decade (not just the next four years); it also has to demonstrate a willingness to assist researchers by providing regular competitive funding streams and critical research infrastructure, alone or co-funded with others. In working to incentivise the research community, it is important to be aware that the motivations and wants of researchers are often divergent from the research needs of the policy makers, with the latter wanting much shorter durations and research directed towards specific areas of need.

The HRB remains the only funding agency in Ireland investing significantly in PH/HSR. In the absence of a commissioning stream within the DoH and/or a funding stream for research within the HSE, this makes all of the HRB activities under Goal 2 critical to underpin policy and/or practice in health and social care in Ireland. Furthermore, without the capacity to perform complex modelling, evidence synthesis and appraisal, qualitative research, cost-effectiveness analysis, behavioural interventions, quality improvement research etc., there will always be a limit to the quality, delivery, reach and application of clinical research in Ireland.

2.3 Strand 1 of Goal 2: Research capacity and leadership development

The main objectives and the associated deliverables of Strand 1 of Goal 2 are listed below. The HRB invested €28 million in this strand over the lifetime of the strategy compared to €12.5 million in the previous five-year period.

OBJECTIVE 2.3 Increase the number of researchers from a variety of backgrounds (e.g., epidemiology, public health, social science, economics, biostatistics, nutrition science) engaging in PH/HSR research

- A research career framework developed for those working in PH/HSR and used to shape investments at early-career, mid-career and senior investigator levels
- A coordinated and strategic approach being taken to early-stage training in PH/HSR, with an additional 50 PhDs supported through the structured PhD programme
- Specific skill shortage gaps being addressed (health economics, biostatistics, epidemiology, intervention research, qualitative research) and researchers being drawn in from other fields (social sciences, business and management sciences, informatics and engineering)
- Funding models in place that support multidisciplinary and interdisciplinary working
- More flexible and part-time training options available
- At least 30 new post-doctoral fellows funded
- 10 senior investigator awards made to increase leadership capacity in PH/HSR.

OBJECTIVE 2.5 Increase the number and diversity of healthcare professionals engaged in multidisciplinary partnerships and networks focusing on PH/HSR activities

- An increase in the number and diversity of healthcare professionals engaged in all PH/HSR funded activities
- Greater access to PH/HSR training modules and courses for healthcare professionals.

Decision-making on the elements of this capacity and leadership strand was assisted by the findings of a *Review of population health research and health services research in Ireland* (HRB, 2011), coupled with seeking advice about models from other international funding agencies and a desire to build on existing investments where possible. Some of the key areas of progress are outlined below.

- A detailed review was completed of the existing HRB-funded structured PhD programme in HSR and yielded very positive feedback from the international panel. A contract was agreed for a further seven intakes of scholars from 2011 through to 2017; the programme was expanded to more explicitly deliver for PH and was rebranded as a national programme entitled SPHERE (**S**tructured **P**opulation Health and **H**ealth Services **R**esearch **E**ducation programme). In addition, the principal investigators and institutional base were expanded. A consultative forum was established to enable regular input from healthcare delivery and policy organisations around skills and evidence needs. A one-year diploma in HSR is being developed, and greater access to taught (including online) modules is being rolled out. SPHERE will have delivered over 100 PhDs between 2007 and 2017, but consideration now needs to be given to the extent and nature of HRB investment beyond that period. With a clear ongoing need and demand for people with these skills, and knowing that less than half of these people will remain in academia, there is a demand for continued investment. It will

be important to explore what other funding sources (e.g. the Higher Education Authority, Irish Research Council, EU funding, institutional support) might supplement potential HRB funding in the years ahead, particularly in relation to the ongoing core costs.

- A new scheme (Interdisciplinary Capacity Enhancement (ICE) Awards) was developed to provide support at post-doctoral level for those working in PH/HSR. Two calls have been completed to date and a third call is in progress. To date, 11 awards have been made, supporting 31 fellows. This scheme resulted in many new partnerships between investigators, disciplines and institutions, and between the academic and healthcare sector. To a great extent it has delivered support for early post-doctoral trainees, which is not altogether surprising considering the prior lack of funding in this area. Future focus needs to be on how this and other initiatives can best deliver senior research fellows and how to secure a commitment from the Research Performing Organisations (RPOs) to create and fill senior lecturer posts for such individuals. This is vital for succession planning and for attracting others into PH/HSR in the decades ahead. In addition to the ICE Awards scheme, the HRB has supported a further 60+ fellows through the investigator-led projects funded in PH and HSR and via the HRB Health Research Centres. Finally, four fellows have been supported to date to advance their post-doctoral training in Cancer Prevention and Control as part of the Ireland-Northern Ireland-National Cancer Institute Cancer Consortium. Similar to the ICE Awards, consideration now needs to be given as to how best to secure and sustain academic and/or joint academic posts in this field, so as to ensure that we reap the dividends of the previous investment.
- To address capacity deficits at a senior level, a Research Leader Awards in PH/HSR scheme was developed after lengthy consultation with the RPOs and healthcare partners. Six Research Leaders were awarded in the first call (five at professor level and one at senior lecturer level – in the broad thematic areas of health economics, decision science, chronic disease (public health), behavioural interventions and chronic pain). Another call is pending and will provide support for a further three awards. The HRB funding is for five years and the nominating partners, one of which must be an academic institution, must pledge a commitment to support the post permanently once HRB funding lapses (and they must commit to back-fill a ‘vacated’ post, where appropriate). Advancing this scheme is slow, and involves protracted negotiations, but further investment in such senior posts will be needed in the years ahead just for the system to maintain existing numbers of senior investigators. Again, discussions will be required between the HRB, the HEA, the RPOs and the DoH/HSE to establish the thematic areas required for further leadership investment, and the nature and scale of any HRB investment and/or alliances.
- The HRB provides some support for clinicians and healthcare professionals to complete their PhD part-time or full time through a health professional fellowship scheme. The majority of the projects supported by this scheme could be categorised as being patient oriented, but it is an important development that these individuals can now increasingly access appropriate training modules in PH/HSR via the SPHERE programme, via specialist training provided by the HRB centres and/or by engaging in the Trials Methodology Research Network. In addition to providing greater access to training in PH/HSR for healthcare professionals, there is a notable increase in the number of senior healthcare professionals interested and involved in (including leading) PH/HSR projects, programmes, centres and networks.
- Across Goal 1 and Goal 2, with no funding provided by the HSE for their staff (clinical and non-clinical) for research training and development, the scale of the ask for the HRB to build research capacity is a mammoth one, and it is difficult to reach consensus on where best and at what levels to focus the HRB investment in capacity development in clinical settings. Such decisions, however, and a coherence around these decisions, needs to be reached prior to the next corporate strategy development process. This will require engagement with the

HSE (and without a central contact point, it requires engagement with several different units, e.g. the Medical Education and Training Unit, the Allied Health Professional Unit, the Nursing Directorate and the Health and Wellbeing Office at a minimum), the HEA, the Irish Research Councils, RPOs, the DoH as well as a range of professional training bodies and their regulators.

2.4 Strand 2 of Goal 2: Projects and programmes

The main objectives and the associated deliverables of this strand of Goal 2 activity are listed below. The HRB invested €27 million in this strand over the lifetime of the strategy compared to €25.5 million in the previous five-year period.

OBJECTIVE 2.1 Fund research projects of the highest quality and excellence that have been subjected to international best practice review and assessment

- Existing funding models reviewed and new models piloted to better support PH/HSR
- Standard Operating Procedures and internal processes refined
- Membership of review panels reviewed
- Assessment and selection criteria amended, as appropriate
- Costing and funding models reviewed
- Appropriate framework in place for monitoring and evaluation.

OBJECTIVE 2.2 Increase the level of investment in high-quality population health sciences and health services research

- Mapping of current activity, investment and needs in PH/HSR conducted
- Existing investigator-led project grant scheme revised to explicitly fund projects in PH/HSR that respond to the needs of research users (practitioners, planners, policy makers and the public)
- Support streams in place for pilot, feasibility and intervention studies
- 40 investigator-led projects in PH/HSR active at any point in time
- At least 3 new applied programme grants made
- Greater multidisciplinary working, collaboration and knowledge exchange evident as a result to changes in funding practices.

OBJECTIVE 2.6 Develop strategic partnerships with the HSE and others, with the support of the DoH, to build Ireland's capacity in PH/HSR

- An increase in the number of strategic collaboration agreements with the HSE and other stakeholder organisations.

OBJECTIVE 2.7 Increase the level of co-funding leveraged for PH/HSR activities to meet the needs of healthcare policy and/or practice

- Funding leveraged for PH/HSR from strategic partners through collaboration agreements
- Funding leveraged indirectly to support PH/HSR activities through in-kind contributions

- Via collaborators in investigator-driven applications and through securing commitments from higher education institutes and other sources.

Some of the key areas of progress are outlined below.

- The existing investigator-led project grant scheme was revised in line with the new strategy, and new grant committees in PH and HSR were established in the newly branded Health Research Awards scheme. Panel membership was also revised, with a shift to international membership (prior to this, strategy grant panels comprised national experts). Forms, guidance notes and assessment criteria were all reviewed, to better align with the new strategic focus. During the strategy period, 76 projects have been supported in PH/HSR to date, with an average 20% success rate and with approximately 45 projects active at any point in time.
- Funding is now available for conducting pilot and/or feasibility studies, and a new committee was introduced to provide support for the conduct and evaluation of definitive intervention studies (funding is available for awards up to €800,000). This has proved important in the drive to broaden the existing focus of studies in PH/HSR from mostly descriptive or aetiological to intervention based, and it has proved an important mechanism to forge interactions and collaborations between researchers and HRB-funded Clinical Research Facilities and the Trials Methodology Research Network.
- A new collaborative applied programme grant scheme was announced and four awards were made (funding is available for awards up to €1.2 million, and for up to five years). The **Collaborative Applied Research Grants (CARG)** are programmatic awards to support teams of high-calibre researchers from academia, health and social services, population health and/or policy institutions who have an existing and impressive track record in applied health services and/or population health research. These programmes will be reviewed at their mid-way point during 2015, but the successful awards were well received by the system and by reviewers, and resulted in proposals in important areas of need, and with new and exciting partnerships between academia and health partners, at least on paper. Ideally, opportunities for programmatic awards would be announced every 2-3 years.
- Much greater focus has been placed in all HRB schemes on knowledge exchange and dissemination, and a new scheme was piloted where existing active award holders could seek a 10% supplement to their original award in order to drive necessary and innovative knowledge exchange activities. This resulted in a great response from researchers and some very creative ideas. Discussions are underway as to how to most effectively showcase best exemplars and to mainstream our learning from this pilot scheme. It is clear from panel meetings that Ireland has lagged behind in relation to the issue of public and patient involvement (PPI) in research, and a framework for how we wish to progress this needs to be agreed, making sure to heed the insights and learning from those countries and organisations with prior experience in this area.
- The HRB signed a collaboration agreement with the HSE (Clinical Care Directorate and Quality and Safety Directorate) valued at €1.65 million, and is focusing on quality and patient safety research. The HSE Clinical Care Programmes were established in over 20 clinical areas (mostly linked to chronic disease management), with clinical leads appointed and multidisciplinary teams convened regionally and nationally to appraise international evidence, drive the development of care pathways, draft clinical guidelines and highlight

evidence gaps. Fuelled by this and the publication of a DoH patient safety report in 2008,³⁵ the DoH approached the HRB about developing a research initiative in quality and patient safety, aligned with the work of the clinical care programmes. Under this collaboration the HRB has peer reviewed and funded five projects. In addition, it has facilitated a coordination mechanism for capturing ideas for projects; established a steering group for selecting prioritised projects; established a register where researchers can register their interest in participating in quality and safety projects and can also register their skills; hosted a series of workshops where clinicians meet and broker new partnerships and collaborations with researchers (with skills in quality improvement research, health economics, business engineering, psychology and behavioural science, mixed methods research, mathematical modelling etc.).

- The HRB was approached by the Medical Council and HSE Medical Education and Training Unit to see if we might work together to drive greater interest and engagement in medical education research. The HRB had received little/no applications in this area to date through its existing schemes, and there is a need for evidence to drive developments linked to a number of national strategies on undergraduate and postgraduate medical education (*The Fottrell Report, 2006*³⁶ and *The Buttimer Report, 2006*³⁷). A collaboration agreement was signed, and the HRB is managing a project scheme in medical education on behalf of the partners (who are providing two-thirds of the funding). The HRB hosted two workshops to bring clinicians, educationalists and other researchers (e.g. HSR) together to engage with international keynote speakers. In the longer term, such applications should come into the existing HSR panel.
- The HRB has worked with the Disability Services Unit in the DoH to co-fund the establishment of an intellectual disability supplement linked to the existing National Longitudinal Study of Ageing (TILDA). This study is the first of its type internationally and the DoH is increasingly interested in the type of evidence it is delivering for policy and planning purposes.
- The HRB recently signed a collaboration agreement with Atlantic Philanthropies (AP) and the DoH to support a programme of activities in applied dementia research linked to the pending launch of the first National Dementia Strategy. Under this agreement, the HRB will leverage €2.8 million from AP and an additional €1 million from the DoH. The programme will focus on health services, policy and care. The funding will support between five and seven applied research projects in dementia, four ring-fenced scholars in dementia via the SPHERE programme, three post-doctoral fellows via a dedicated ICE Award, and a possible Chair/Professor in Dementia via the next round of Research Leader Awards. The HRB will place a focus on knowledge exchange and PPI in all activities; in addition, it will convene a stakeholder advisory group to advise and monitor progress, and it will support the establishment of a dementia network to bring researchers and research user organisations together.
- *Healthy Ireland: A Framework for Improved Health and Wellbeing, 2013–2025*, was published by the DoH in 2013 and is a cross-government framework for action to improve the health and wellbeing of people living in Ireland over the coming generation. This

³⁵ Department of Health and Children (2008). *Building a Culture of Patient Safety – Report of the Commission on Patient Safety and Quality Assurance*. Government publications, Dublin.

http://www.thepsi.ie/Libraries/Pharmacy_Practice/Building_a_Culture_of_Patient_Safety.sflb.ashx

³⁶ Working Group on Undergraduate Medical Education and Training (2006). *Medical Education in Ireland: A New Direction* (P Fottrell Chair). Report commissioned jointly by the Departments of Health and Education and Science.

<http://health.gov.ie/wp-content/uploads/2014/05/fottrell.pdf>

³⁷ Postgraduate Medical Education and Training Group (2006). *Preparing Ireland's Doctors to meet the Needs of the 21st Century* (J Buttimer Chair). Report commissioned jointly by the Department of Health and the HSE. <http://health.gov.ie/wp-content/uploads/2014/03/buttimer.pdf>

provides an opportunity for the HRB to align its efforts in population health research, an area where Ireland is comparatively weak by international standards. The current and future activities of Goal 2 are highly relevant in this regard. The HRB has provided substantial input to the DoH to date in relation to a *Healthy Ireland Research and Data Plan* (which is to be published soon) and discussions are also underway with the Health and Wellbeing Director in the HSE. Progress in driving the implementation around Healthy Ireland by the DoH has been very slow to date, and a question for the HRB in moving towards the next strategy is the extent to which the research-related elements of *Healthy Ireland* can be progressed, and how much funding it wishes to dedicate for this purpose.

To summarise, there are a lot more projects and programmes underway in PH/HSR as a result of HRB investment. The applicant base has grown, and we are seeing exciting new partnerships and collaborations across disciplines, institutions and sectors. Our funding schemes and revised processes encourage collaborations with co-applicants outside of Ireland, where properly justified, and this is an effective mechanism for harnessing additional capacity for the benefit of Ireland. The quality of applications has improved over the lifetime of the strategy, and this has resulted from constant communication and engagement with the community via workshops and seminars, and through educating the community in relation to best practice methodologies. The projects are aligned more to the needs of policy makers and practitioners, and there is an increased focus on the knowledge exchange and transferability of findings. The introduction of a scheme to support definitive intervention studies has filled a longstanding vacuum in the national R&D ecosystem.

A number of successful opportunistic collaborations have been developed with key stakeholders in the healthcare system. Even though all are clearly aligned with health policy needs, they have arrived in an opportunistic and ad hoc fashion. This is unlikely to be an ideal mechanism for the HRB going forward, and some critical discussion needs to take place around priorities and how we respond, how we make choices, what we pursue versus what we respond to, what proportion of our budget we wish to spend on top-down research, and what models we are comfortable with.

Some of the alliances and partnerships have been created without any increase in directly leveraged funding, meaning that the HRB has been the sole funder. The HRB needs to engage with the DoH and the HSE and agree what expectations/assumptions it has in this regard as we move into the next strategy period.

2.5 Strand 3 of Goal 2: Infrastructure and network development

The main objectives and the associated deliverables of Strand 3 of Goal 2 are listed below. The HRB invested €8 million in this strand over the lifetime of the strategy, compared to €12 million in the previous five-year period.

OBJECTIVE 2.4 Establish research clusters/networks to accelerate and scale up the delivery of high-quality outcomes in targeted PH/HSR priority areas

- Governance, management and funding models (including sustainability plans) for centres and networks researched
- Board agreement reached on the need/case for second phase funding for two existing HRB centres (Diet and Health, Primary Care)
- Two/three new centres/networks supported in agreed priority areas
- A network supported for PH/HSR researchers and organisations along the lines of the UK health services research network
- Partnership with the UK Cochrane Centre strengthened, and activities directed at optimising evidence for policy and practice on the island of Ireland.

OBJECTIVE 2.8 Increase the evidence base for PH/HSR 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

- A draft national model for data access and linkage generated, following national and international engagement and consultation
- Systems and policies in place to drive open access to data and research findings
- Effective systems in place nationally for researchers to access data from longitudinal studies
- An increase in the number of HRB-funded studies utilising secondary data
- Appropriate supports in place nationally for population-based surveys and cohort studies which are vital for the evidence base for policy and/or practice.

Key success factors for a high-functioning PH/HSR system includes developing networks and collaborative endeavours that cross disciplines, sectors and regions. It also includes providing a critical infrastructure that enables and facilitates PH/HSR. Key areas of progress are outlined below.

- The HRB previously supported two centres, a Centre for Health and Diet Research and a Centre for Primary Care Research. Despite funding them previously, it was clear that HRB staff and the Board did not have a clear view on what a centre should deliver, how long it should be funded for, what appropriate indicators of success might look like, and what constitutes an appropriate business model for a centre (especially in an area like population health). To this end, HRB staff engaged with other national funding agencies and international funders of centres to explore these issues. In parallel, reviews were conducted of the existing centres. This culminated in the recent awarding of second phase funding to both centres, at a reduced level of support (€3 million as opposed to €5 million) and for a further five years. It was communicated that this is the final funding from the HRB, and clear deliverables have been outlined for this period in order to ensure an appropriate blend of internationally competitive and nationally responsive research and to optimise their chances of leveraging additional funding as HRB core funding elapses.

- There was insufficient funding available to support any additional centres during this strategy and, in reality, the insights gained through the process above have been invaluable and would indicate that the HRB needs to give more careful consideration before deciding on if, and in what areas, it wishes to support additional centres.
- The HRB entered into a collaboration with a consortium of funders to support an All-Ireland Institute for Hospice and Palliative Care (co-funders include Atlantic Philanthropies, the Irish Cancer Society, the Irish Hospice Foundation, the Health and Social Care Public Health Agency in Northern Ireland). Ireland is recognised as being in the top three countries worldwide in this area. The Institute is built around three integrated pillars of education, policy and research. The HRB has been the main contributor to the research pillar by supporting a structured research network valued at €1.25 million over five years. The total funding envelope from the consortium of funders is €6.5 million, and the collective applicant team contributed €4.4 million over the initial five years through fund raising and other means. The HRB will need to engage with the consortium of funders and the DoH to clarify what role, if any, it has in supporting this activity beyond the lifetime of the current award, and how to continue to support those involved in the network through other mainstream HRB award schemes.
- Following the shift to having international members on grant panels, we instantly noticed that Ireland was lagging behind other countries in terms of awareness of and application of best practice in research methodologies. It was also clear that there was a greater focus on descriptive/aetiological research than on intervention research. The HRB engaged with the Medical Research Council (MRC) in the UK to discuss its existing Methodology Hubs and other methodology funding streams, in order to see where Ireland might engage. The MRC engagement proved very useful and culminated in the recent HRB award to establish an All-Ireland Trials Methodology Research Network. The overarching mission is to strengthen trial methodology and reporting on the island of Ireland through a programme of work that will also impact elsewhere in the UK and internationally. This will be achieved through a focus on three high-level activities relating to the methodology of trials (i) support (ii) training and education (iii) research and innovation. As part of a suite of activities, this includes the delivery of seminars, short courses, summer schools, and internet resources. In addition, it will include the mentoring and placement of PhD candidates working on trial methodology projects, it facilitates access to the MAST (Methodology Advisory Service for Trials) offered by the MRC Network of Hubs either directly or via the MRC Hub in Northern Ireland and it involves a buddying system for Irish-based researchers. The HRB will need to review progress in relation to this network (by direct means and indirectly by assessing the nature and quality of HRB grant applications) during the next strategy period. It will also need to explore a possible collaboration with the MRC in relation to its methodology programme awards and fellowships.
- The HRB has enjoyed a long and successful collaboration with the UK Cochrane Centre. In 2002, Ireland became the first country to introduce free access by all citizens to the Cochrane Library. It was also the first country to develop a Cochrane fellowship scheme to provide funding to enable individuals to spend dedicated time conducting a systematic review on a topic of their choice for publication in the Cochrane Library. During the 2010-2014 strategy period the HRB has continued to provide training for over 600 people a year in various aspects of systematic reviews, and it has continued to support 6-8 individuals a year through the fellowship scheme. A significant and recent development has been the provision of support by the HRB for a part-time Convenor of Cochrane Ireland to work with the HRB and the UK Centre to map the needs of key decision-makers in Ireland and to ensure greater alignment with what the HRB is delivering in terms of training, support and fellowships. Through this and other HRB staff engagement, it has already resulted in a fruitful

collaboration with the National Clinical Effectiveness Committee (recently established by the DoH and equivalent to the National Institute for Health and Care Excellence and Scottish Intercollegiate Guidelines Network in England and Scotland, respectively) and guideline development groups in the HSE.

- The HRB has recently awarded supplementary funding to the SPHERE programme to develop a PH/HSR network similar to that of the UK Health Services Research Network. Work is underway in relation to a portal, a newsletter has been developed, and the first annual conference in PH/HSR will take place in January 2015. This will be an important development for the HRB as we move to the next strategy period. It could assist with generating a sense of community, with highlighting and discussing key policy priorities, and with showcasing the importance of investing in PH/HSR.
- A strategic objective that would benefit from more attention is support for initiatives designed to maximise the analysis of data from existing national longitudinal studies and other datasets. Interest in the area of data access and linkage has been gathering momentum at a national and European level, and covers a wider remit than just PH/HSR. Therefore, the work in this area originally outlined within Goal 2 now feeds into a cross-organisational project team within the HRB. The project team is gathering information in relation to open access to data and research findings at a national level and as part of EU developments. This involves engagement with key stakeholders in Ireland and further afield in relation to planned changes to the EU Data Protection Regulations, and it also involves engagement with the DoH, the Central Statistics Office and others in relation to the Health Information Bill and a possible model for supporting a system for national data linkage for research purposes.

In summary, the HRB has spent a lot of time during this strategy period gleaning valuable insights about funding instruments other than projects, programmes and fellowships, and assessing which instruments are best suited to attaining specific deliverables. It is important that we implement this learning and are clear on issues around instruments, scope, timelines, funding models, sustainability plans and appropriate metrics of success prior to proceeding with future awards for centres, units or networks. We have formed good synergies in areas such as Cochrane, and we have the requisite methodology to harness the learning, capacity and critical mass of international partners. We have spent a lot of time engaging in activities and discussions to better understand critical infrastructural barriers to conducting high-quality PH/HSR, and trying to broker solutions in partnership with other stakeholders to overcome these barriers. Close engagement with the DoH and the research community in relation to the Health information Bill, data protection legislation, data linkage, the system for research ethics approval and support for population-based surveys and cohort studies remains an urgent priority as we move into the next strategy period.

2.6 Key learning from self-assessment of Goal 2

Some over-arching points to emerge from the self-assessment process for Goal 2 are as follows:

- The vision set out for Goal 2 was clearly stated, has enhanced customer value and remains consistent with the environment and the realities of the market. Despite austerity and a predominant national R&D agenda that focuses on job creation and the short term, much progress has been made, and the vast majority of the targets set were reached.
- Taking time out to learn from other funders, and taking time to develop and agree a detailed implementation plan for Goal 2 with the HRB Board (which was communicated regularly to the research community) was critical to ensuring sustained commitment and coherence for Goal 2, especially around capacity and leadership development.
- It remains an ongoing challenge that there is no R&D lead for the healthcare system and that engagement with the DoH is often ad hoc and fragmented. That said, the HRB has responded well in order to ensure that progress was attained in a number of areas that emerged opportunistically and were aligned with the evolving healthcare system and health policy priorities (quality and patient safety, dementia strategy, guideline development groups, the National Clinical Effectiveness Committee, hospice and palliative care, health and wellbeing (Healthy Ireland)).
- Going forward, it would be helpful to reach a shared view of what type of funding agency the HRB wishes to be, as this will dictate fundamental issues such as the balance to be struck between focusing on short- and longer-term horizons, the extent to which staff feel they have a mandate for proactively engage in strategic partnerships and alliances to shape as well as support the system, and the degree of risk that the Board is comfortable with.
- In the absence of national priorities for health research, the HRB needs to adopt a framework for either:
 - making decisions where the healthcare system does not have a structured and coordinated approach to deciding on research priorities, *and/or*
 - agreeing on how it will respond (e.g. what percentage of budget to align) if the healthcare system does agree on a set of research priorities, *and/or*
 - taking a lead in setting priorities for the system if this is deemed appropriate
- It is evident that moving to fund greater levels of PH/HSR brings the HRB into more politically sensitive arenas and stresses the importance of having values such as transparency, independence, quality and objectivity. It has also challenged us to think about the differences between research that is internationally competitive/novel versus research that is high quality but responsive to national policy needs. These strands are not mutually exclusive, but more discussion is needed about the balance that the HRB wishes to attain and the realistic needs of researchers and research performing organisations in this regard. It is imperative that the HRB Board discusses issues such as evaluation research and implementation science, as it is clear that there are varying levels of comfort and appetite for a research portfolio that includes such elements. The establishment of an International Scientific Advisory Group to guide such discussions with the Board and with senior staff over the duration of the next strategy would be a useful development.
- In summary, despite many constraints and an unprecedented period of austerity in Ireland, significant progress has been made in achieving the objectives of Goal 2. It is clear that the Irish healthcare and research systems require continued investment in PH/HSR. Moreover, the deliberations and decisions reached by the HRB, as outlined above, will inevitably shape the vision for the investment, as well as shaping the scope, nature, level and focus of future investment, and will ensure appropriate indicators of success.

3. EU funding: HRB participation and key learning

To complement its national funding activities through Goals 1 and 2, the HRB supports the research system's engagement with the EU Framework Programme (FP7 [2006–2012] and Horizon 2020 [2013–2020]) through a designated National Delegate and a National Contact Point for Health, both of whom are part of the Policy, Evaluation and External Relations Unit (PEER). PEER works closely with the Research Strategy and Funding Directorate to identify funding opportunities at European level for health researchers and to develop and promote health research in Ireland. An overview of the HRB's role in EU Framework Programme funding and some of the issues arising is set out below.

The *Strategy for Science, Technology and Innovation (SSTI) 2006–2013* identified active participation in the European Union's research funding programme (Framework 7 (FP7), at that time) as key to the internationalisation of Ireland's research and therefore central to realising the vision on which it is based. Getting involved in European initiatives enables integration of Irish research with European and international activities. Such linkages allow health researchers to leverage non-exchequer funding and enhance the country's reputation by having access to expertise, international best practice and access to research facilities not available in Ireland. It maintains and increases research excellence by giving researchers opportunities to participate in high-calibre research collaborations.

International collaboration on research brings together resources and pooling of knowledge, enhancing scientific excellence, thus achieving greater success in addressing research problems as well as greater efficiencies. Since 2007, researchers in Ireland have secured €80 million in funding through FP7 for health projects, representing 1.8% of the total available budget for health. In the first call of the new Framework Programme Horizon 2020, Irish researchers have secured €4.8 million. Included in the call are ICT topics for health, clinical research on regenerative medicine, two calls on control of infectious epidemics and on vaccine development for poverty-related and neglected infectious diseases, and coordination activities, including ERANETs (European networks aimed at tackling fragmentation across the European Research Area (ERA)).

Participation can also strengthen partnership with private sector partners and thus ensure implementation of the national research prioritisation plan. This will equip researchers with entrepreneurial and innovation skills for the labour market. The Horizon 2020 programme is placing a major emphasis on bringing products to market, from research to retail, and the translation of findings into the clinic to improve health outcomes. In FP7 industry involvement included 24 companies in 35 Irish proposals worth €19.8 million.

As national funding sources across Europe decline, national research organisations, both public and private, will inevitably place more emphasis on European initiatives as a means to maintain and expand their research.

Research and innovation help deliver jobs, prosperity, quality of life and global public goods. They generate the scientific and technological breakthroughs needed to tackle the urgent challenges facing society. Investment in this area also leads to business opportunities by creating innovative products and services. Experience shows that countries and regions which invest the most in research, innovation and science secure the best economic dividends in the medium to long term.

Some of the European funding programmes, such as the Public Health Programme, assist with health research capacity building although it is not a research programme. The National Focal Point based at the HRB works closely with the DoH to implement this programme.

3.1 Clinical research

Involvement in EU projects supports the HRB strategic plan to develop excellent clinical research. Research from these funded projects will sustain the HRB-funded CRFs and the new HRB-funded clinical trials networks. Over the seven years of FP7 there had been increased involvement of Irish clinicians with the majority coordinating proposals.

Of the FP7 funding that came to Ireland between 2007 and 2013, 15.5% (i.e. a total of €12,507,398) went to six clinical trials. Five of these trials were coordinated by Irish clinicians, and most of these coordinators were first-time applicants. Four of the trials were based in the clinical trials unit of the HRB Cork CRF which provides a centralised support system for these clinicians. Another trial is supported by the Wellcome Trust-HRB CRF at St James's Hospital Dublin and is the sponsor of the trial. A number of other proposals with clinical studies as smaller components have also been supported by the CRFs in Dublin and Galway.

ICORG (HRB Clinical Research Network) is a partner on an Irish-led proposal on predictive biomarkers in colorectal cancer, Angiopredict. It is using its network to coordinate a genomic biomarker phase II clinical study and is establishing a bio resource for the study.

3.2 Opportunity to co-fund national programmes

Leverage of additional resources and co-funding opportunities is a key objective outlined in the HRB strategy. The HRB secured a contribution of €850,000 from the FP7 COFUND (Co-funding of Regional, National and International Programmes (COFUND) – Marie Curie Actions) Programme to establish a HRB/Marie Curie Post-doctoral Mobility Fellowship scheme which ran in 2009 and again in 2010. This scheme funded eight post-doctoral fellows and allowed for expansion of a HRB scheme which was already in place. Following on from this initial COFUND arrangement, an application for a COFUND-HRB post-doctoral scheme in translational medicine was submitted to FP7 by the HRB in February 2012 and was successful. The proposal scored 92%, was ranked third overall in Europe, and was awarded €1 million for six post-docs in two cohorts. In September 2012, the HRB withdrew from negotiation with the European Commission, as it could not commit to the scale of the financial commitment at the time, given the mounting pressure on its awards budget.

A second leveraging mechanism pursued by the HRB has been participation in Joint Programming Initiatives (JPIs). These initiatives are cooperative programmes between national funders across Europe and elsewhere, intended to address grand challenges that will benefit from international collaborations. Participation in JPIs increases collaboration and interaction between Irish researchers (who may not always have worked together) and researchers outside of Ireland, thus reducing unnecessary duplication of effort. The HRB has worked at management level to lead and shape the development of JPIs.

The HRB was successful in a proposal (€405,466) to support the work of the Joint Programme in Neurodegenerative Disease (JPND). It also led the activities on Dissemination and Communication between 2010 and 2014. The HRB has co-funded a number of projects under JPND and was centrally involved in organising a national workshop for Irish researchers to capture input for a national strategic research agenda in neurodegenerative disease.

The 'Healthy Diet for a Healthy Life (HDHL)' Joint Programme agenda compliments Ireland's expertise in this area. Incorporated within this programme are the HRB Health Research Centre, led by Professor Ivan Perry, and two other projects (JINGO and ELDERMET), which are co-funded by the HRB/Department of Agriculture, Food and the Marine (DAFM) as part of a wider Irish investment of

€25 million in diet and health. This theme is also aligned to one of the 14 priorities in the National Research Prioritisation Exercise.

In line with its development of clinical research infrastructure in Ireland, the HRB has participated in the development of the ESFRI Roadmap for Biomedical Sciences. Initially, this group was chaired by the HRB CEO, and the HRB has been represented on the group ever since. The HRB contributed to the preparatory phase of two infrastructures, ECRIN and BBMRI.

3.3 Policy areas

Our involvement in policy-driven member organisation (MO) fora of Science Europe, and previously of the European Science Foundation, ensures that the HRB influences and is informed by European best practice in research management and policy. The MO fora that the HRB is contributing to are directly relevant to the management of its research portfolio and include the Working Groups on Research Integrity, Career Structures, Evaluation, Data Access and Open Access to Research Publications. Participation in the Research Integrity Forum and the Open Access to Research Publications have been instrumental in driving national efforts to develop coordination in these areas.

Throughout the current strategy period the HRB has worked very successfully at EU level. As evidence of this, the DoH asked the HRB to work jointly with the European Commission during the Ireland Presidency in 2013 to deliver the European Month of the Brain policy conference.

3.4 FP7 success

Ireland was very successful during the seven years of FP7, health being the third largest income stream after the ICT Programme and Marie Curie Actions. €80.86 million came to Ireland through research projects in health, which represents 1.78% of the total funding available for FP7 health. This exceeded the ambitious national target of 1.25% set by DJEI at the beginning of FP7. The HRB has played a vital role in Ireland's success in this programme through the work of its National Contact Points for Health and the National Delegate for Health. They provide hands-on support and advice to applicants, and raise awareness of FP7 (and now H2020) nationally. Since FP7 got underway in 2007, Irish health researchers have consistently performed better than their European counterparts.

Between 2005 and 2014 approximately 438 researchers were funded by the HRB. Of these, 83 submitted proposals to the FP7 Health theme (2007–2013) and 35 (42%) were successful in getting funding, which is above the EU average for FP7 health funding. Of the 27 grant holders who applied to coordinate a project, 16 (59%) were successful. Sixty-two (14%) HRB-funded researchers applied to other areas of FP7 such as Marie Curie Actions, the ICT Programme and the European Research Council.

3.5 Key learning

The HRB is best placed to carry out the promotion of European programmes among Irish health researchers, as it is the main funding agency in health in Ireland and plays a leading role in funding and research policy in health. The HRB is very familiar with the health research community who are potential applicants for Horizon 2020 funding.

That said, the HRB has yet to articulate expectations for its own involvement in EU-level research through participation in additional JPIs, for example, or through providing support for ERANETs on

topics of relevance to its research community. There remains a tension between committing limited HRB resources (both financial and manpower) to work at EU level rather than national level.

Rather than the European and national health research agendas competing for limited resources and working in parallel, the HRB needs to develop a vision for what it is seeking to achieve in terms of health research outcomes and impacts, and then identify whether this is best achieved through investment at national, EU or both levels.

4. Evaluation of the outputs, outcomes and impacts of Goal 1 and Goal 2 funding

The HRB has adopted the principles and the five categories of the internationally used Payback Framework when assessing performance and value for money (Hanny *et al.*, 2003³⁸). The Payback Framework comprises two elements, the first being the multidimensional categorisation of the benefits of health research, which covers five main categories ranging from traditional knowledge production and research training and targeting, to impacts on policy and product development through to health and economic gains. The second element is a logic model of how best to assess these impacts.

We assess performance at an individual grant level through regular progress reporting, through interim and site reviews, by collecting end of grant reports and by conducting surveys for periods after the research is completed. We have also conducted scheme-level and portfolio-level analyses across the category headings described below. However, this area of activity has been constrained in recent years by the loss of dedicated evaluation staff in the Policy Evaluation and External Relations Unit. Each year for several years, the HRB has published a report titled *Picture of Health*, describing the outcomes of its funded research, although this is now the subject of a review to assess if there may be a more effective way of telling the story of HRB-funded research.

In 2013, the HRB conducted an analysis of the key outputs, outcomes and impacts from HRB research grants awarded in the ten-year period from 2000 to 2009,³⁹ some of which are still active, especially those awarded in later years. Among the key findings were:

Knowledge production

- Some 3,382 peer-reviewed publications associated with HRB funding were identified, predominantly arising from research funded between 2000 and 2009.
- The majority of HRB-supported papers were published in high-impact journals, and over half have been published in the world's top 10% of journals as measured by journal impact factor.

³⁸ Hanny S, Gonzalez-Block M, Buxton M and Kogan M (2003). The utilisation of health research in policy-making: concepts, examples and methods of assessment. *Health Research Policy and Systems*, 1(2): 1–28.

³⁹ Curran B and Barrett R (2014). *Outputs, outcomes and impacts arising from the HRB's 2000-09 grants portfolio*. Health Research Board.

http://www.hrb.ie/uploads/tx_hrbpublications/Outputs_outcomes_and_impacts_arising_from_the_HRB_s_2000-09_grants_portfolio.pdf

- HRB-supported clinical papers were exceptionally highly cited – over twice the world average (2.20). HRB-supported biomedical papers were very well cited (1.67). HRB-supported population health and health services papers were also well cited relative to the world average (1.40), and citation impact was increasing.

Capacity building

- A total of 2,095 researchers were supported through 867 HRB grants awarded between 2000 and 2009, including 474 PIs, 266 fellows, and 1,355 staff (including 651 PhD students and 435 post-doctoral researchers).
- 491 health professionals received research funding throughout the period, including 184 PIs, 185 fellowship holders, and 122 staff employed on projects and programmes.
- 621 follow-on grants were attained by HRB grant holders, which provided approximately €206 million of additional research funding to build on their HRB-funded research.

Informing health policy, practice and behaviour

- A total of 28% of the grants portfolio reported a policy and practice output or impact such as production of an evidence-based guideline or policy report, an advisory role or other influences on the policy-setting process, or citation of research in clinical guidelines and policy documents.
- In terms of HRB strategic pillar areas, health services research produced the largest proportion of policy and practice outputs and impacts (45%), followed by clinical research (21%), population health sciences (16%), and applied biomedical research (16%).
- In addition, 15% of the grants portfolio reported the development of a healthcare innovation such as a new therapeutic drug, vaccine or gene therapy, diagnostic tool, e-health technology, care model, and service innovation.
- The vast majority (75%) of the innovations reported were in the pre-commercial/pre-adoption stage of development. Almost 4% of innovations have been marketed, and a further 21%, which were non-commercial in nature, have either been adopted or are 'adoptable' (i.e., are validated).
- By engaging patients and the wider public in research, and by disseminating their findings to lay audiences through diverse channels, health researchers can directly influence health behaviour and help to promote the benefits of research. One-third of HRB grants reported activity in this area, most commonly coverage of research in local or national press (31% of dissemination events), followed by a talk or presentation to the public or patient groups (25%).

Research commercialisation and non-exchequer funding leveraged

- Approximately 6% of the HRB grants portfolio was linked to the generation of intellectual property (i.e., patents) and activities to commercialise research through licence agreements and the formation of spin-put companies.
- Academic-industry linkages are considered key to delivering spill-over effects and economic impacts. A total of 76 HRB grant holders reported 151 linkages to companies, associated with 103 HRB grants (or 10% of the grants portfolio). In addition, ICORG collaborated with 46 companies on cancer clinical studies.
- A further economic benefit was the €72.9 million that HRB-funded researchers leveraged from non-exchequer sources on the back of their HRB funding, including €5 million from industry sources. In addition, a total of 25 technology development grants (collectively worth €4.7 million) were secured from EI by researchers, in order to further develop technologies towards the market.

The analysis found that a wide variety of outputs and outcomes had arisen from the HRB's 2000–2009 grants portfolio. The analysis showed a sharp increase in the number of health sector outcomes such as policy and practice outputs and healthcare innovations reported from funding year 2004 onwards – the year that marked the introduction of a variety of strategic funding initiatives (including Strategic Health Service R&D Awards, Partnership Grants and Clinician Scientist Awards).

Health services research, population health sciences and clinical research produced better 'bang for the buck' in terms of production of non-commercially-oriented innovations and policy and practice outputs. The basic and applied biomedical research areas were more associated with scientific outputs, such as publications, and with enterprise sector outputs and outcomes such as patents, spin-outs, commercially-oriented innovations, and academic-industry linkages. In several cases it was observed that basic biomedical researchers funded by the HRB and other sources in the 1990s had produced discoveries and potential treatments that were now the subject of translational and clinical research. Funding schemes at the applied end of the research spectrum, and associated with multidisciplinary collaborations or strategic co-funding arrangements (e.g. with the HSE, industry or medical charities), tended to produce more outcomes in addition to scientific outputs.

Compared to outcomes produced by other health and medical research funders, the HRB figures were encouraging. The relative number of products and interventions linked to HRB grants was at a similar level to the UK MRC (the only other funder that had comparable data available on this type of outcome). Furthermore, the proportion of HRB grants that reported an influence on policy and practice compared favourably to the MRC and the Wellcome Trust.

It was anticipated that the baseline data in the report would facilitate future tracking of changing trends in the numbers and types of strategic outcomes linked to new funding initiatives under the HRB *Strategic Business Plan 2010–2014*. Further work is needed in this area.

APPENDIX 1: RSF structure/organisation/processes

a) How the Goals are structured in terms of staff WTE, grades and roles

The Research Strategy and Funding Directorate (RSF) currently has 12 staff (see organisational chart below). The Directorate is organised into two teams:

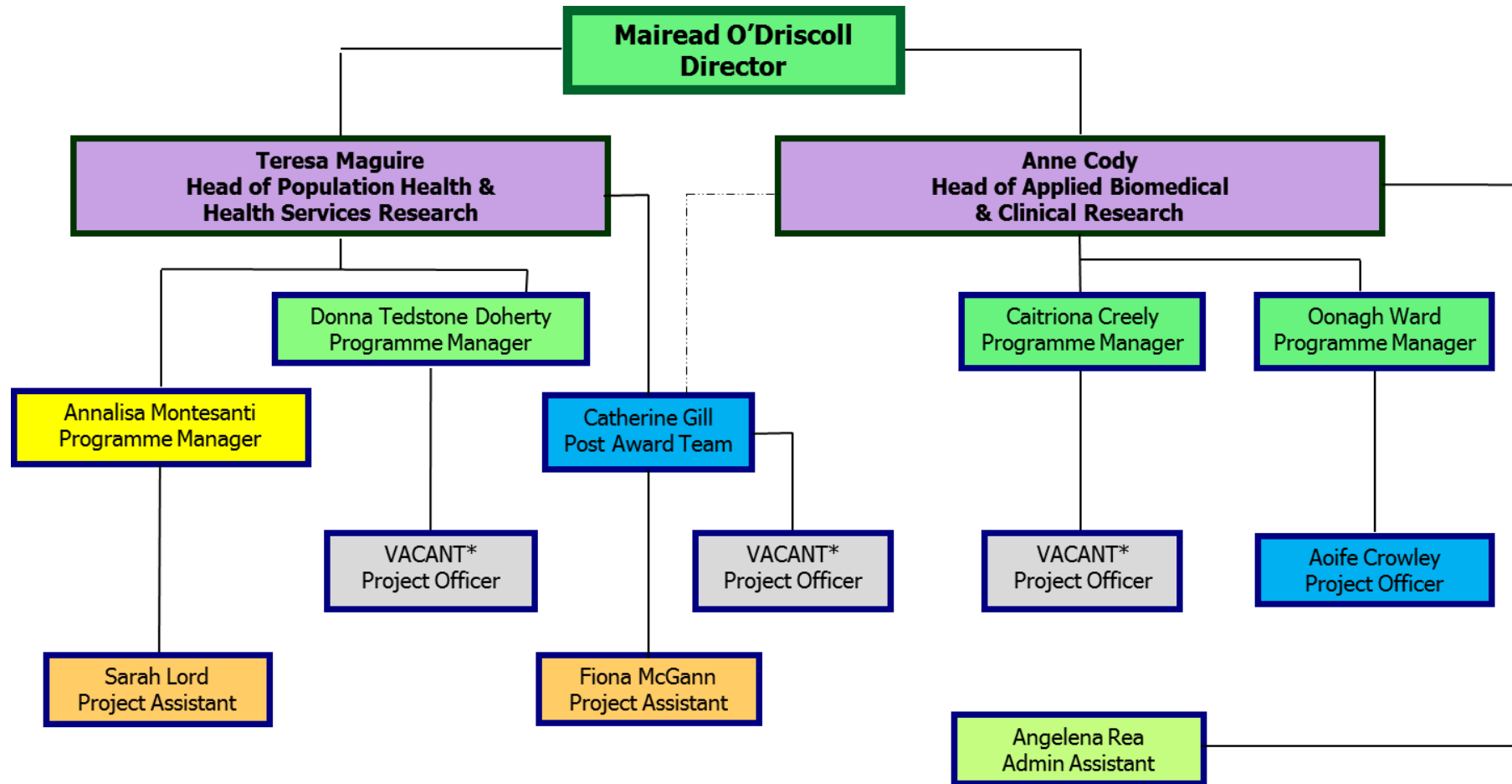
- (i) The Goal 1 team focuses mainly on clinical and applied biomedical research
- (ii) The Goal 2 team focuses mainly on population health and health services research

The Directorate is led by the Director, with a Head of Unit assigned to lead each Goal. Five Programme Managers take responsibility for specific award schemes and initiatives, with support from two project officers, a project assistant and an administrative assistant. In practice, there is a considerable amount of interaction across the teams, with a number of funding and other initiatives managed across the teams or as a Directorate. Staff in the RSF work across structural boundaries, as this was the only way to deliver results with any degree of effectiveness and flexibility. It also facilitates staff exposure to a broader spectrum of research, and is essential to combat silo thinking.

As outlined earlier in this report, since 2008, the HRB has been subject to a public sector moratorium on recruitment. Consequently, a number of posts are unfilled, as staff who leave the organisation or are absent for any reason may not be replaced. Over the lifetime of the strategy, a number of posts were vacant for significant periods of time, including the Director post. In addition, there is redeployment within the HRB, and as a result, individual Directorates must adapt continually to changing circumstance. Currently, vacancies are particularly evident at the level of Project Officer. Some gaps are filled by technical services on short-term contracts and the HRB is putting in place an intern scheme to enable early-stage researchers to spend time working in the organisation. While these measures may ease the staffing problems somewhat, it is likely that limited resources will remain a constraint for some time into the future. In particular, decisions on the number and nature of funding initiatives, and the ability of staff to engage externally with the health and research systems, have to be informed by the realities of limited staffing resources. Similarly, with staff having to adapt constantly to take on extra workload and to prioritise the urgent over the important, this has had an impact on the extent to which they can attend external meetings and events, engage in individual and collective training and development, proactively provide workshops and engage with stakeholders.

During the strategy period, it became clear that as resources became constrained, activities such as progress reporting, following up on ethical approvals and personnel forms, reviewing and approving grant variations, reviewing end of grant reports and receiving refunds were not being given sufficient attention. To that end, and building on insights from other national and international funding agencies, a small number of staff were assigned to work as a post-award management team for most schemes. The post-award team works closely with the Finance-Legal team in Corporate Services and has ensured that the HRB, even with small numbers, has refined and improved post-award processes, forms and policies, grant conditions, measurement of outputs and progress over this strategy period. Equally, handing over approved awards to a post-award team has ensured that pre-award staff have greater amounts of time to focus on scheme and cross-scheme issues. For clarity of reporting, prioritisation of actions and performance management purposes, the post-award team reports into the Head of Unit of Goal 2.

Organisational chart of Goal 1 and Goal 2



*VACANT indicates where the HRB has lost a staff member who was not replaced due to the current Recruitment Moratorium

b) Key processes to manage delivery of objectives/activities and ensure quality

i. Setting funding priorities

An annual business plan sets out the HRB's awards programme and other activities for the year, and is approved by the Board. The annual plan is informed by the strategic objectives, opportunistic development, available resources and, from time to time, specific requests from stakeholders such as the Department of Health. National funding priorities have been established and all funding agencies are expected to take account of the 14 areas identified by government. However, it is acknowledged that these priorities are focused on an economic rather than a health agenda, and many are outside the HRB's remit. The DoH and/or the healthcare system has not agreed a list of priorities for health research beyond what is included as recommended in individual and multiple health policy documents and what was outlined in the *Action Plan for Health Research* in 2009.

In practice, because awards are multiannual, most of the HRB's awards budget is already committed at the start of each year. In 2013, the awards budget was €36 million (revenue of €25 million and capital of €11 million), of which €31 million was already committed. New awards therefore accounted for approximately €5 million. Two key challenges exist in relation to funding. First, it is challenging to plan effectively in multiannual cycles when funded annually. Second, a significant portion of the HRB's budget is received as a capital allocation. The letter of allocation received in January only relates to revenue; confirmation of the capital allowance for a given year is received much later in the year.

A list of funding schemes run by the HRB is attached in Appendix 5 of this section and describes the purpose of the scheme, the typical funding available and the duration of the awards. It also shows the frequency of calls, which varies according to the objectives of the call and the availability of funding. Some of the schemes described are run annually; others are run when funding permits. Some awards are single one-off investments (for example centres or facilities) while applications to some of the international co-funded schemes may be submitted at any time. A number of schemes have been discontinued but are included because the HRB has outstanding commitments. In total, 35 different schemes have been run by the HRB over the past ten years. Every call document is approved by the Board; in case of unusual or complex calls this is often on the basis of a previous approval of a concept. Following peer review, the Board approves the recommendation of the panel to make the awards. Board meetings currently take place seven times per year.

Although the awards programme is informed by the strategy, in practice many schemes are treated as 'core' and have been in place for several years. For example, half of the HRB's revenue funding is absorbed each year by just one scheme, namely the Health Research Awards. This investigator-driven scheme, which supports three-year projects across all areas of health research within the HRB's remit, has been run every year for several decades, although significant changes were made in 2011 to focus the awards more specifically on patient-oriented research, population health and health services research, and in 2014, to introduce support for definitive interventions. The expectation that certain schemes will run every year in some format means that to date precedent has been as significant as strategy in determining the pattern of HRB funding.

ii. Peer review

As a principle, the HRB is committed to an open and competitive application process underpinned by international peer review. Call documents set out clearly the objectives of the call, selection criteria and the review process. All applications for HRB funding are subject to peer review, the exception being smaller awards such as travel grants to the National Cancer Institute (NCI) Summer Curriculum in Cancer Prevention. Peer review follows standard international best practice: between three and five written reviews from international reviewers, and then consideration by a panel of experts. Panels are typically international, but

may include national members, depending on the scheme. Since 2014, a rebuttal step has been introduced, which allows applicants to see reviewers' comments ahead of panel meetings and respond to any issues raised. Additional feedback from the panel meeting is provided to applicants at the end of the process, and feedback to the HRB is sought from panel members, so that learning from one round may be incorporated into the next.

Applications for funding are completed, submitted and processed through the HRB's online grants management system GEMS, an integrated ICT solution for all parts of the grant lifecycle from form building through to award closeout. To date, the GEMS system has gone live for application submission, peer review processes, issuing of contracts and management of payments. Two final phases are still in development and testing for progress reporting, and for handling grant variations, is due to be delivered soon. This has been a major effort led by the RSF over the past two years, with significant time diverted from other activities.

iii. National and international engagement

RSF staff are involved in a number of national and international groups to promote and support health research in a policy and practice context. As follows:

- Health Research Action Plan Group
- National Research Prioritisation Action Group
- Healthy Ireland Research and Data Plan Working Group
- Rare Diseases Plan for Ireland – expert group
- European Strategy Forum on Research Infrastructures – Strategy Working Group Health and Food
- Collaborations with SFI, Enterprise Ireland, Wellcome Trust, National Cancer Institute
- Environmental Health Agency Health Advisory Committee
- Health Information and Quality Authority HTA Scientific Advisory Committee
- Science Europe Working Group on Evaluation and Working Group on Research Careers
- UK Health Services Research Network
- International Health Data Linkage Network
- European Public Health Association
- Centre for Effective Services Implementation Network
- Office for Suicide Prevention Research Advisory Group
- All-Ireland – NCI Cancer Consortium

c) Financial resources, support services and technologies required to deliver the objectives of Goals 1 and 2

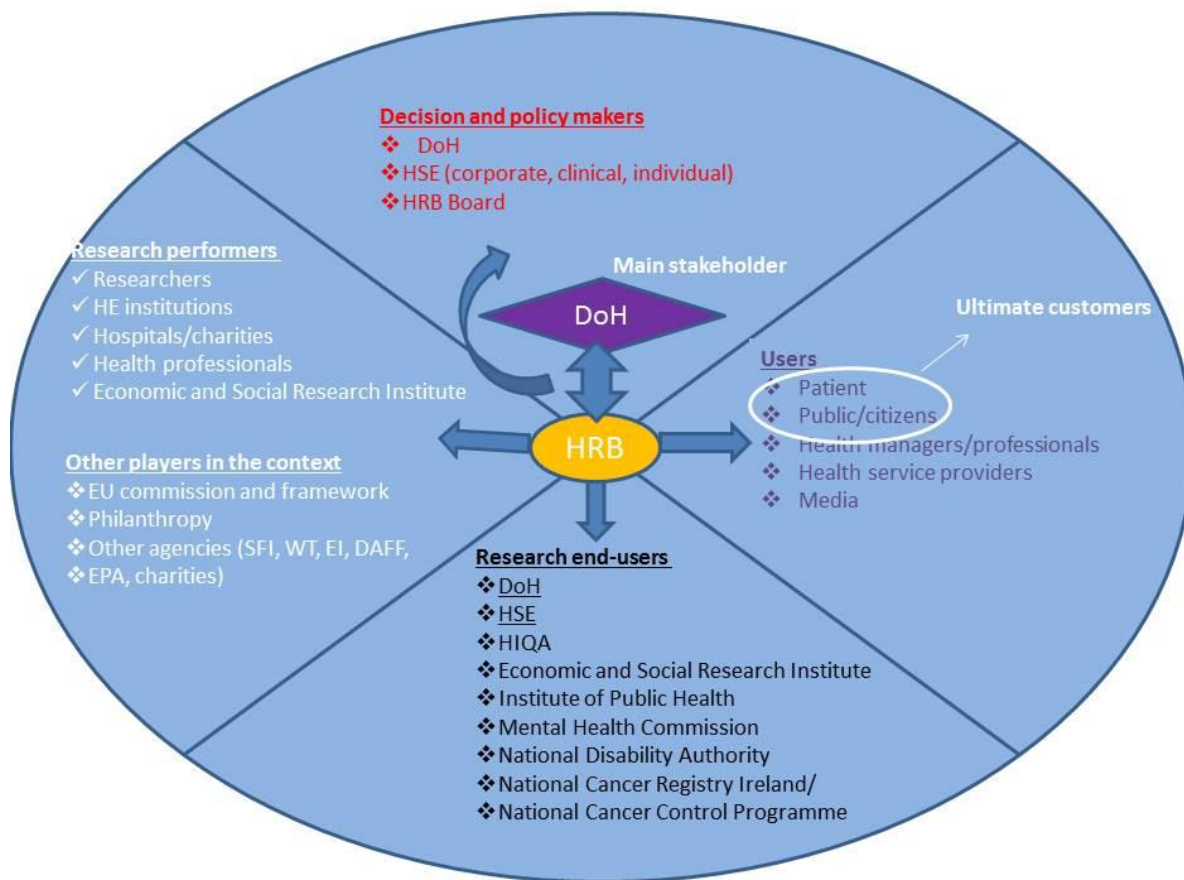
- In 2014, the awards budget for the RSF was €35.3 million and the non-awards budget was €1.09 million (salaries, operational costs, panel costs).
- The Directorate works closely with:
 - the Policy, Evaluation and External Relations Unit (PEER) on issues relating to evaluation, research policy and EU funding
 - the Finance team (specifically the Management Accountant) in relation to contracts, payments, forecasting, audit and procurement
 - the Communications team on events, workshops, publicity
- External technology provider: The GEMS application is adapted and hosted for the HRB by CC Technology.

d) Significant changes that have occurred over the life of the strategy and how these have affected the delivery of the objectives of Goals 1 and 2

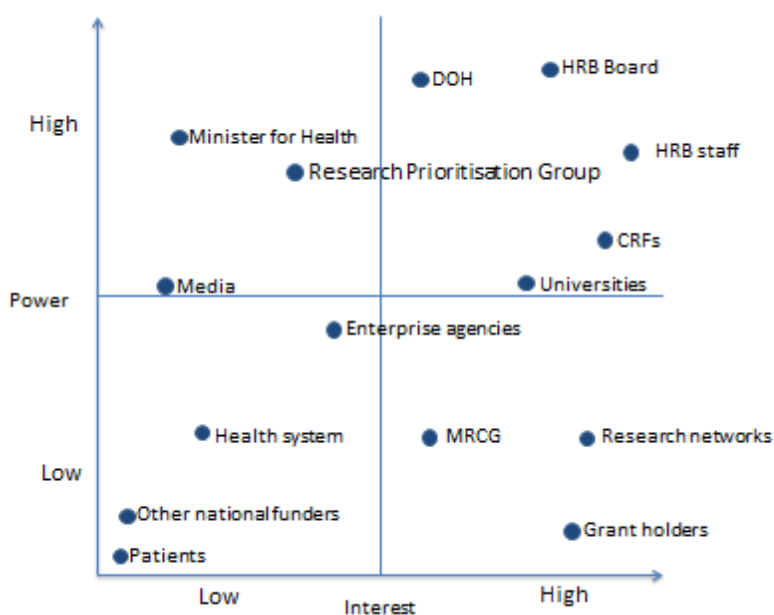
The most significant changes affecting the delivery of strategic objectives have been the pressure on resources as a result of the economic crisis and the absence of processes to continually review and revise strategy as circumstances changed. In 2014, the revenue budget for the RSF was €36.4 million (including awards and non-award costs). This represents a reduction of approximately 20% since 2008 and has meant that some objectives have not been delivered or have been delivered at a significantly reduced level. The loss of staff and posts has also had a negative impact on the delivery of objectives.

APPENDIX 2: Research Strategy and Funding Stakeholders

(i) Diagram



(ii) Map



APPENDIX 3(A): Overview of awards, expenditure and KPIs: Goal 1 Clinical and applied biomedical research

Strategy Obj. #	Scheme/ Activity	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
		Cumulative € commitment	Frequency (once-off, annual call)	Typical number of awards per call	# awards at peak saturation (if applicable)		Cumulative € commitment	Frequency (once-off, annual call)	# awards per call	# awards at peak saturation (if applicable)	
	Strand 1 Research capacity and leadership enhancement										
1.4	Clinician Scientists Awards	11.46m	3 calls	7 total	7	Increase number	11.38m	once off (2011)	11	n/a	Number increased, but not investment.
1.3	PhD fellowships - healthcare professionals	12.38m	annual	12 (61 total)	approx. 30	50 fellows	11.29	annual	10	Approx. 30	51 fellows
1.3	NSAFP awards (Integrated PhD-medics)	0.97m	once-off (2009)	4 (4 total)	n/a	12 fellows	2.0m	annual except 2012	2	Approx. 6	9 fellows
1.3	Postdoctoral fellowships in Clinical & applied biomedical research	8.6m	annual	8 (40 total)	24	None Set	4.31m	MCPD in 2009 and 2010 and PDTM in 2010	varied	n/a	16 fellows
1.2	PhD fellowships in Rare Diseases	0.46m	once off (2005)	3 total	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1.2	Structured PhD Programmes in CAB areas (2007)	14.2m	once in 2007	3 awards (72 scholars)	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Strategy Obj. #	Scheme/ Activity	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
1.1	Joint Research Fellowship/Projects in Cancer	0.92	one call each (2005, 2008)	2	n/a		n/a	n/a	n/a	n/a	
1.3	NCI Summer Curriculum	0.28	annual	20 (101 in total)	n/a	None Set	0.12	annual	9 (41 in total)	n/a	Access to NCI training in cancer prevention
1.3	Cancer nursing project development grants	n/a	n/a	n/a	n/a		0.02	annual from 2014	1	n/a	Develop cancer nursing research capacity
TOTAL		€49.27m					€29.12m				
Strand 2 Project and programme activities											
1.1, 1.2	Project Grants	39.9m	annual	25-47 (173 in total)	approx. 110	increase investment	42.2m	annual	25-33 (147 in total)	Approx. 90	Investment higher, numbers lower. More PIs applying for clinical projects
1.1, 1.2	MRCG Co-funded scheme	5.38m	3 calls in 5 years	11-33 (56 in total)	n/a	None Set	4.43	4 calls in 5 years	8-15 (43 in total)	Approx. 30	Fund research important to the charities
1.1	Wellcome-HRB-SFI Partnership	n/a	n/a	n/a	n/a	n/a	1.44m	all WT biomedical calls	varied (5 in total)	n/a	Allow Irish researchers continued access to WT funding
1.1	US-Ireland Partnership	0.15	rolling	1	n/a	None Set	0	rolling	n/a	n/a	Facilitate health-related projects in the Partnership (Irish lead is SFI)
1.1	Joint Programming Neurodegenerati	n/a	n/a	n/a	n/a	None Set	1.17m	Annual call (2011	2	5	Supported IE researchers in 5 EU collaborative grants

Strategy Obj. #	Scheme/ Activity	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
	ve Diseases							on)			
1.6	Translational Research Awards	12.6m	2 calls	4 (9 in total)	9	Invest in translational, milestone driven research	2.87m	2 calls	3 (7 in total)	7	Promote partnerships between basic and clinician investigators.
TOTAL		€58.03m					€52.11m				
	Strand 3 Clinical infrastructure and network development										
1.7	Clinical Research Facilities	29.025m	Once off call in 2005	3 awards made in 2007	3	Deliver three fully functional co-funded clinical research facilities (CRFs) – all located on hospital grounds.	8.75m additional for CRF Galway build allocated by DoH	No new call	n/a	3	All three CRFs operational as of May 2013
1.9	NCRF	n/a	n/a	n/a	n/a	Establish national co-ordinating framework for clinical research facilities in Ireland	130k (Development Lead award)	Once off	1	1	Director of 5 CRFs in Ireland agreed on approach to coordinating framework (NCRF).

Strategy Obj. #	Scheme/ Activity	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
1.5	Clinical Trials Networks	n/a	n/a	n/a	n/a	Establish Clinical Trials Networks to facilitate conduct of multi-centre clinical trials	10m	once off call	4	n/a	9 applications invited for Full Proposal
1.5, 1.7	Imaging Awards	8.4m	Once off call in 2005.	2 made (Perinatal Ireland and CAMI)	2	Not set	431k	No call - once off additional award for one centre (CAMI).	n/a	1	Targets including level of institutional support (salaries) and levels of grant income were set. On track as of July 2014.
1.8	IPPOSI	0.49m	renewal annually	1	1	1	0.15	renewal annually from 2013	1	1	1 award
1.5	ICORG	30.7m	renewal every 3 years	1	1	1	18.9m	1 grant renewal	1	1	Improved governance, strong processes; alignment with National Cancer Control Programme
TOTAL		€68.61m					€38.36m				

APPENDIX 3(B): Overview of awards, expenditure and KPIs: Goal 2 Population health and health services research

Strategy Obj. #	Scheme	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
		Cumulative € commitment	Frequency (once-off, annual call)	Typical number of awards per call	# awards level at peak saturation (if applicable)		Cumulative € commitment	Frequency (once-off, annual call)	Typical # of awards per call	# awards level at peak saturation (if applicable)	
	Strand 1 Research capacity and leadership enhancement										
2.3	Summer Student scholarships	0.51m	annual	56 (280 total)	n/a	250 studentships	0.55m	annual	n/a	n/a	277 studentships
	HSR fellowships (PhD)	3.07m	annual 2004-2008	4 (16 total)	12	move investment into structured PhD training	n/a	n/a	n/a	n/a	
	Health economics PhD fellowships (in Cancer)	0.91m	2008 and 2009	2 (4 total)	n/a	Integrate training in health economics into structured PhD training	n/a	n/a	n/a	n/a	
2.3	Structured PhD programme in PH/HSR	5.0m	once in 2007	1 award (HSR) (24 scholars)	n/a	New contract in 2013 to develop and extend PhD HSR programme	8.15m	2 extra cohorts and new contract for SPHeRE (2013 - 2021)	2 extra cohorts (12 scholars; SPHeRE (30 scholars)	n/a	31 (22 HRB; 9 other funded) scholars completed by end of 2014;

Strategy Obj. #	Scheme	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
2.3	ICE Awards (Post-doctoral and interdisciplinary) in PH/HSR	n/a	n/a	n/a	n/a	10 - 12 awards;30 Fellows	6.9m	2 calls 2011 and 2012	6 in 2011; 5 in 2012	na	11 awards; 31 Fellows
2.3	Cancer Prevention Fellowship (post-doctoral)	0.71m	2005 and 2006	1-2 (3 total)	n/a	4 fellows with scheme extended to include a funded reintegration year	0.94m	annual since 2011	1	na	4 fellows
2.4	Research Leaders Awards in PH/HSR (Professorships)	n/a	n/a	n/a	n/a	Set as 10 awards by 2014.	8.75m	once-off	na	na	6 awards made by 2013. Second call to launch October 2014 for up to 3 awards
2.3	Cochrane Training	.25m	annual	370 on one day course and 154 on 2 day course	n/a	400 on one day training and 150 on 2 day training	.25m	annual	varied	n/a	483 on one day course and 230 on 2 day course
2.3	Cochrane fellowships	2.04m	annual	5 (26 total)	n/a	25 fellowships	2.21m	annual except 2011 (conducted review)	8	n/a	35 fellows
TOTAL		€12.49m					€27.75m				

Strategy Obj. #	Scheme	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
	Strand 2 Project and programme activities										
	Partnership Awards (small grants scheme)	1.69m	annual except 2009	6 (26 total)	n/a		n/a	n/a	n/a	n/a	
2.1, 2.2	Investigator-led project awards in PH/HSR	11.65 m	annual	10 (51 total)	approx. 30	40 awards by 2014	20.32m	annual	15	45	76 awards after 2014 call
2.6	Applied Programme Grants in PH/HSR (investigator-led)	7.55m	2005 and 2006	7 total	n/a	Awards via CARG	4.7m	2012	n/a	n/a	4 awards in 2012
2.7	Medical Education Research project awards (priority driven)	n/a	n/a	n/a	n/a	None set - opportunistic development	0.15m	2014	n/a	n/a	1
2.7	Research Projects in Quality and Patient safety (priority driven)	n/a	n/a	n/a	n/a	None set- opportunistic development	1.65m	2 calls (2014 and 2015)	2	na	2 awards in 2014
	Nursing and Midwifery Research projects/programmes (priority-driven)	0.66m	2006 and 2007	2 total	n/a		n/a	n/a	n/a	n/a	
	Global Health project grants with Irish Aid	3.91m	2006 and 2007	11 total	n/a		n/a	n/a	n/a	n/a	
TOTAL		€25.46 m					€26.82m				

Strategy Obj. #	Scheme	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
	Strand 3 PH/HSR infrastructure and network development										
	Free Access to Cochrane Library	0.1m	annual contribution	0.02m per annum	n/a	Continued free access; invest in national role to build knowledge transfer function with decision makers and practitioners	0.3m	annual contribution and new part-time post created (Cochrane Ireland Convenor)	n/a	n/a	continued free access, training provided by UK Cochrane centre, Convenor of Cochrane Ireland post created 2014
	Health Information Systems Awards	1.06m	2005 only	7 awards	n/a		n/a	n/a	n/a	n/a	
2.5	Centre for Diet and Health	5m	once-off	na	na	4 HRC awards and explore second phase funding for current centres	3m	once-off	na	na	contract for second phase funding issued
2.5	Centre for Primary Care Research	5m	once-off	na	na	same as above	3m	once-off	na	na	contract negotiations underway. To be completed October 2014
	Methodology support centre (CSTAR)	0.57m	2008 only	1 award (HSR) (24 scholars	n/a	Explore UK (NI) Methodology Hubs and funders and link in (see TMRN below)	n/a	n/a	n/a	n/a	

Strategy Obj. #	Scheme	Prior Commitment/Activity (2005-2009)				Target/KPI set in this Strategy (2010-2014)	New Commitment/Activity (2010-2014)				Target/KPI attained
2.5	Trials Methodology Research Network	n/a	n/a	n/a	n/a	Award made for research methodology network and linked to UK/NI hubs	750,000	once-off	n/a	n/a	1 award made
2.5	Palliative Care Structured Research Network	n/a	n/a	n/a	n/a	1 SRN	1.25m	once-off	n/a	n/a	1 award made
2.1	EU Joint Programming Health Diet for Healthy Life (HDHL)-DEDIPAC	n/a	n/a	n/a	n/a	None set-opportunistic development	0.75m	2013	1	n/a	
TOTAL		€11.73 m					€8.05m				

APPENDIX 4(A): List of award schemes in Goal 1 (Schemes relevant to both Goals marked with*)

Strategy objective	Scheme/activity	Objectives	Mechanism
	Goal 1: Strand 1 Research capacity and leadership enhancement		
1.4	Clinician Scientists Awards	To increase the number of clinician scientists in medicine and other health professions who can (1) provide the evidence for innovative patient care and service provision in the Irish healthcare system and (2) promote the implementation of evidence into policy and practice.	Five years, up to €1.3 million. Back-fill up to 50% of time for senior clinicians at consultant level. Provide funding for a programme of research. Expect academic Host Institution to ensure sustainability of the research component after end of HRB funding
1.3	PhD fellowships – healthcare professionals*	To enable health and social care professionals of outstanding ability to undertake advanced research training leading to a research doctorate.	Three years full time, or six years on a 50% part-time basis, funding up to €200k. For individuals of outstanding potential working within healthcare delivery. Fellows complete a coherent training and development programme and require a sponsor.
1.3	NSAFP awards (Integrated PhD-medics)	To ensure that individuals who wish to pursue a career as a clinical academic can do so without having to postpone their specialist clinical training to conduct a PhD or step out of their existing training programme.	Five years, up to €70k funding. Integrated training programme for registrars/specialist registrars jointly funded by the HSE and the HRB and in collaboration with the medical training bodies. Fellows will have a mentor. Following successful completion of the programme, the trainee will be awarded with a Certificate of Satisfactory Completion of Training (CCST) and a PhD.
1.3	Post-doctoral fellowships in Goal 1 (CAB)	To develop and support future leaders, support the research careers of healthcare professionals and academics of various backgrounds and to build research capacity. It is expected that after completion of the fellowship fellows will apply for competitive research funding as lead investigators.	Three or four years, PDTM could be full or part-time (minimum 50%), salary plus €70k. Fellows complete a coherent training and development programme and must have had three years or more post-doctoral (or equivalent) research experience. Fellows will have a mentor.
1.2	PhD fellowships in rare diseases		
1.2	Structured PhD programmes in CAB areas (2007)	To improve the quality of PhD training in health research by facilitating a broader education for young researchers, and enhancing co-operation between post-graduate students in different research groups. To encourage institutions to establish a critical mass of students in a themed area	Seven years, up to €5 million funding. Each programme supports four cohorts of four to eight postgraduate scholars working in related research areas for four years. Host institutions provide a structured training programme in the first year for each scholar cohort, including project rotations.

Strategy objective	Scheme/activity	Objectives	Mechanism
1.3	Summer student scholarships*	To offer promising undergraduates studying in a health-related or other relevant area an opportunity to gain direct research experience at an early stage in their career path.	Up to eight weeks, with €250 per week.
1.1	Joint research fellowship/projects in cancer	To foster enduring relationships between Irish and US cancer researchers and research institutions through support for a shared post-doctoral research fellow working on a defined cancer research project of mutual interest.	Three years. Fellowship: salary support for the fellow only, no running costs. Project: up to €330k including salary for a post-doc and running costs
1.3	NCI summer curriculum	To provide access for Irish researchers to the NCI summer curriculum in cancer prevention programme under the All-Ireland Cancer Consortium umbrella	Travel expenses and per diem for one week or four-week course in Bethesda, Maryland
1.3	Cancer nurse clinical trials training	To provide training for nurses employed by ICORG sites through participation in a clinical/educational programme in the National Cancer Institute	Travel expenses and per diem for five-week course in Washington, DC
1.3	Cancer nursing project development grants	The build capacity in cancer nursing research. To deliver a project that proposes to impact on local and/or national care delivery and lead to a future proposal for a research fellowship or a project grant	One year, up to €20k funding. There are no salary or back-fill costs included
Goal 1: Strand 2 Project and programme activities			
1.1, 1.2	Health Research Awards/project grants*	To fund internationally competitive and innovative research that will create new knowledge and evidence of benefit to health through investment in patient-oriented research	Three years, up to €330k. For definitive interventions, five years and up to €800k (2014 only)
1.1, 1.2	MRCG co-funded scheme*	To fund internationally competitive and innovative research in areas of strategic relevance to each individual charity	Projects co-funded with members of the Medical Research Charities Group (MRCG). Three years, up to €300k funding per project (split between the HRB and the charity)
1.1	Wellcome Trust-HRB-SFI Partnership	To retain access for Irish researchers to the Wellcome Trust funding schemes in biomedical sciences	Various, depending on Wellcome Trust (WT) formats
1.1	US-Ireland Partnership	To foster an increase in research collaborations between Ireland, Northern Ireland and the US. Applications must demonstrate the added value of the collaboration.	Each jurisdiction pays for its own researchers. Not focused on health, HRB only funds where relevant with up to four years and up to €350k. SFI is a second potential funder in Ireland.

Strategy objective	Scheme/activity	Objectives	Mechanism
1.1	Joint Programme in Neurodegenerative Diseases	An EU Member States initiative to take a coordinated and coherent approach to funding research that will tackle a range of age-related neurodegenerative diseases, such as Alzheimer's and Parkinson's.	Collaborative project grant over three years, usually €300k per call allocated from the HRB for component of research carried out in Ireland. (Will fund maximum two projects.)
1.6	Translational Research Awards	To support internationally competitive and innovative research concerned with the application of basic research findings into innovative strategies, devices, products or services for the diagnosis, treatment or prevention of human disease. To promote new partnerships and strengthen existing partnerships between basic and clinical scientists and between academic and industry/charity sectors to expedite the translation of basic research outputs to the clinic and marketplace.	Up to four years, although noted throughout guidance that the typical duration of a translational research project is 2-3 years. Maximum award size €1 million. Funding is milestone based.
	Goal 1: Strand 3 Clinical infrastructure and network development		
1.7	Clinical research facilities*	Build world-class clinical research capability in Ireland to support bench-to-bedside initiatives; improve translation of biomedical research into effective clinical treatments and techniques; provide a space for collaboration between basic and clinical scientists, and training for new clinical researchers.	Three awards made in 2007 for five years initially. Original awards of €13 million, €10 million, €6 million: WT-HRB-CRF at St James's (co-funded with Wellcome Trust), HRB-CRF-Galway, HRB-CRF-Cork. Budget allowed for dedicated physical space/new buildings, equipment, core staff (including Director time, programme management and research nurses), programme of research. Due to delays (mainly involving construction) all three CRFs are still using original award.
1.9	NCRF*	Establish a national coordinating framework for clinical research (NCRF) that links the current capabilities, including the CRFs, in a coherent way for the benefit of Ireland. The collaborative infrastructure should support the design, conduct and analysis of multi-centre clinical trials.	Initial award (€130k) made in 2014 to employ a development lead for 10 months to develop a five-year business plan for the NCRF. This business plan will be reviewed by the HRB with assistance from an expert external panel, and if successfully reviewed, will lead to a full NCRF award for five years (co-funded with Enterprise Ireland).

Strategy objective	Scheme/activity	Objectives	Mechanism
1.5	ICORG	To develop a platform for investigator-led cancer clinical trials, thereby also making Ireland more attractive as a location to international cancer research groups and the pharmaceutical industry to conduct trials.	Initial award made in 2002 through All Ireland Cancer Consortium funding, renewed on a three-year basis. The total investment from 2002 to the end of the current award period in 2015 is €49.82 million directly to ICORG and its sites, with a further €3 million for the associated Statistics and Data Management Office since 2010 (previously funded by Northern Ireland HSC RDO).
1.5	Clinical trials networks	To strengthen scientific excellence in clinical trials on focused thematic areas. To support strong partnerships/networks between clinician investigators, health researchers, clinical research facilities, industry and/or the charity sector to expedite clinical trials. To support ambitious, internationally competitive multi-centre clinical trials specifically concerned with improving patients and/or healthy people's health and/or healthcare. To support national capability for a step change in the specific field of research, enhancing competitiveness for industry partnerships and for competing in European and international calls.	Five years, up to €2.5 million per award. Seed funding for creation of four clinical trials networks as judged by international peer review to conduct academic clinical trials
1.5, 1.7	Imaging Awards	To establish imaging equipment for patient-focused research to add value to existing clinical research, enhance institutional priorities, and encourage research partnerships. The absence in Ireland of biological imaging facilities had been identified as a barrier to the development of high-quality, patient-oriented research.	Two awards made in 2005: Perinatal Ireland ultrasounds research Consortium funded €4.5 million until October 2014 Centre for Advanced Medical Imaging 3T MRI and ultrasound facility at St James's Hospital funded €4.4 million until 2017 (includes award of €430k made in 2013 to fund key staff in order to support a move towards sustainability from grant income).
1.8	IPPOSI*	On behalf of the DoH, to provide a common platform for patient groups, scientists, clinicians, industry and other key decision-makers to discuss and build consensus on issues relevant to all involved in delivering treatments to people with unmet medical needs.	Block grant on instruction of DoH, currently €75K per year, with annual renewal

APPENDIX 4(B): List of award schemes in Goal 2 (Schemes relevant to both goals marked with*)

Strategy Objective	Scheme	Objectives	Mechanism
	Goal 2: Strand 1 PH/HSR Research capacity and leadership enhancement		
2.4	Research Leaders Awards	To provide funding to enable research leaders to spend dedicated time performing HSR/PHR in areas of strategic importance for Ireland and to implement the national agenda for HSR/PHR.	Five-year awards to include a contribution to salary and support package of €600k. Targeted at higher education institutions (HEIs), along with health-related partners, to nominate outstanding researchers with a track record in population health and/or health services research with the potential to make a valuable contribution to research leadership, capacity building and the translation of research into policy and/or practice. Expects Host Institution to support research leader after five-year award.
2.3	ICE Awards	The ICE Awards scheme aims to build capacity in PH/HSR at post-doctoral level. It adopts a team-based interdisciplinary approach whereby existing teams and/or newly formed teams of senior established researchers come together to apply for up to a maximum of three post-doctoral fellows to join their team to add value through their expertise and insight.	Awards cost in the region of €600k to support three post-doctoral fellows for up to three years (or part-time for up to four years).
2.3	SPHeRE	SPHeRE is a structured PhD training programme that aims to increase capacity in population health and health services research. SPHeRE builds on a HRB-funded PhD scholars programme in health services research in 2007, which resulted in over 50 PhD scholars being supported between 2007 and 2013. The programme involves a four-year structured programme with 24-weeks of taught modules, a 10-week placement with an Irish mentor in an appropriate research centre or a health decision-maker and a two-week placement in an international centre or organisation.	Total budget is €6,308,507 for the intake of five cohorts of six students over the period 2013–2017. SPHeRE is expected to leverage an additional four students per intake through additional funding. Other activities include the provision of online modules, the establishment and management of a population health and health services research network and a national consultative forum for academics and policy and practice decision-makers.

Strategy Objective	Scheme	Objectives	Mechanism
2.3	Cochrane training	In order to build capacity in the conduct of systematic reviews on the island of Ireland, the HRB and the HSC R&D Division Public Health Agency in Northern Ireland have run a series of training courses since 2002 in association with the UK Cochrane Centre training team.	The portfolio of training courses includes both a half-day Introduction to Cochrane and a more intensive two-day course for those who would like more detailed knowledge of systematic reviews.
2.3	Cochrane fellowships	To increase capacity for the production of Cochrane reviews on the island of Ireland among those working in health-related roles in academia, practice and policy settings. Also, to produce systematic reviews of relevance to the island of Ireland, and to create a cadre of policy makers and practitioners whose awareness of systematic reviews and their ability to act on their findings has been increased through their engagement with the fellows.	To provide the fellow with protected time on an indicative part-time basis of up to two days per week for up to two years. The award will be sufficiently flexible to accommodate a variety of patterns to reflect the specific working circumstances of the individual applicant. The cost varies, depending on the cost of salary buy-out for the individuals concerned. The average cost per fellow is €65k over two years
2.3	Summer student scholarships*	This scheme is open to undergraduate students working in health and social care or related disciplines (excluding those in the final year of their degree course) and offers students the experience of working with well-established researchers in high-quality research environments.	The HRB offers €250 per week (tax free) for a maximum of eight weeks. An average of €100k is spent each year for this scheme
2.3	Cancer prevention fellowship	Enables post-doctoral researchers working in Ireland with a health-related background to participate in the prestigious National Cancer Institute Prevention Fellowship Programme. Run under the auspices of the Ireland-Northern Ireland-NCI Cancer Consortium and in partnership with the Irish Cancer Society, the HRB provides funding to support candidates who complete a Masters of Public Health degree (MPH) in year one, followed by three years of mentored research at the NCI with an optional fifth year of funding to return to work in research in Ireland.	Five-year fellowship. The cost to the HRB of a typical fellow is approximately €240k over five years (NCI provides salary and research running costs for three years at the NCI and the Irish Cancer Society jointly supports the reintegration year with the HRB, year five)

Strategy Objective	Scheme	Objectives	Mechanism
	Goal 2: Strand 2 PH/HSR Project and programme activities		
2.1, 2.2	Health Research Awards*	An investigator-led scheme aimed at funding researchers and teams of researchers to conduct internationally competitive and innovative research that will create new knowledge and evidence of benefit to health. This scheme provides funding for clearly defined research projects, intervention studies and pilot, feasibility and acceptability studies in patient-oriented research, population health research and health services research.	Applications are submitted to one of the four different panels: (1) Applications submitted to the patient-oriented research panel, the population health research panel and the health services research panel should comprise clearly defined research projects (including pilot and feasibility studies) for up to 36 months and a maximum award value of €330k (inclusive of overheads). (2) Application submitted to the definitive intervention panel must provide evidence of previously conducted pilot, feasibility and acceptability studies, and should provide evidence of such as part of their application. The maximum value of awards supported through the definitive intervention panel is €800k (inclusive of overheads), and proposed project durations must be appropriate to the scale of the intervention proposed, but cannot be beyond 60 months.
2.6	Collaborative applied research grants	The collaborative applied research grants are programmatic awards to support teams of high-calibre researchers from academia, health and social services, population health and/or policy institutions who have an existing and impressive track record in applied health services and/or population health research. 'Collaborative Applied Research' is defined as 'research with an emphasis on providing evidence to improve health outcomes for individuals, communities and populations, typically thorough improved healthcare and better healthcare delivery'. Programme grants typically consist of an inter-related and inter-reliant suite of work packages and are therefore larger and more complex than project awards.	Funding of up to €1.25 million for programmes lasting up to five years. Funding covers salary-related costs, direct running costs, dissemination and knowledge exchange costs, programme management costs and a contribution to overheads.
2.7	Medical education research grants	The award is designed to both address policy needs and foster research capacity in the sector in Ireland, so as to support quality development in medical education and training delivery for the benefit of the public, the health services and the medical profession.	Co-funded scheme run in partnership with the Medical Council of Ireland and HSE-Medical Education and Training. Funding up to €150k for one project of up to two years duration (€50k from the HRB).

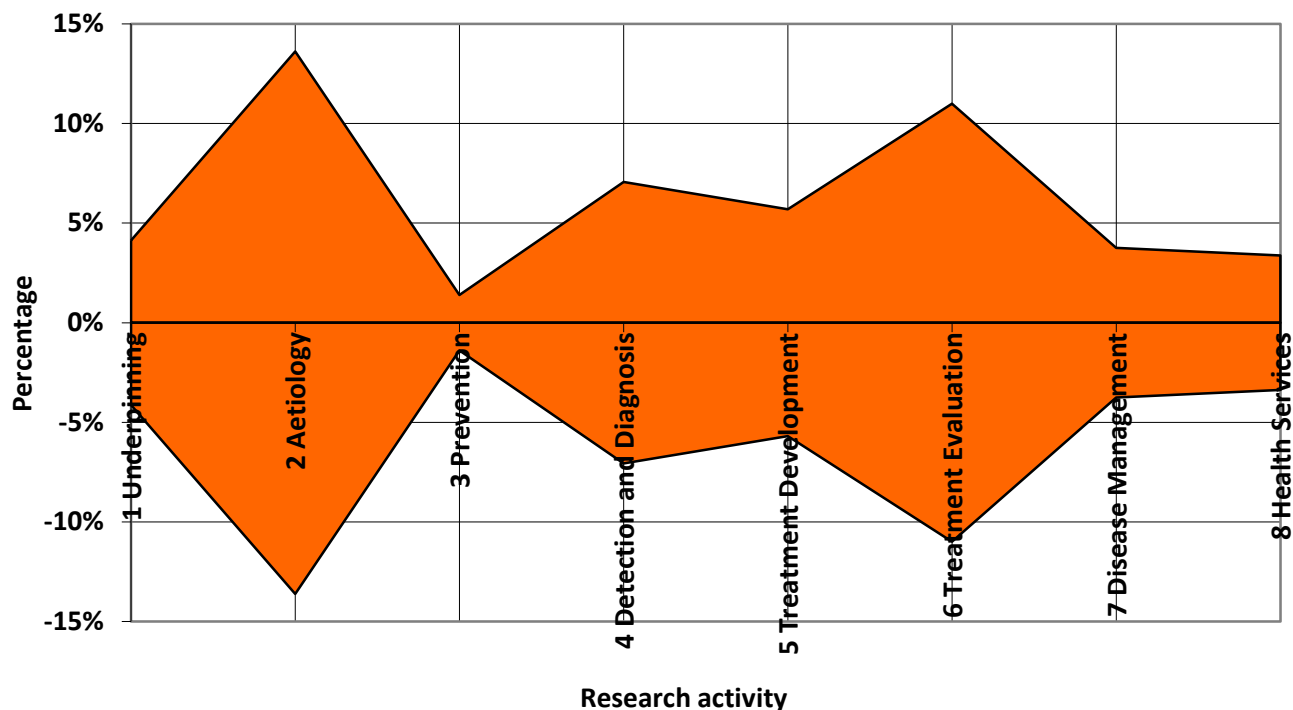
Strategy Objective	Scheme	Objectives	Mechanism
2.7	Research collaboration in quality and patient safety*	During 2012, the HRB entered into a collaborative agreement with the Director of the HSE Clinical Care Programmes, the Director of HSE Quality and Patient Safety and the Royal College of Physicians of Ireland. The HRB committed to providing funding for a small number of high-quality, prioritised, peer-reviewed projects in the area of quality and patient safety.	The HRB will provide up to €1.5 million to support projects, and up to €150k to support co-ordination of activities by the RCPI. Ends 2016.
Goal 2: Strand 3 PH/HSR infrastructure and network development			
2.5	Trials Methodology Research Network*	The HRB Trials Methodology Research Network (HRB-TMRN) seeks to promote networking and collaboration between experienced trialists and methodologists to improve the quality of trials in health and social care in Ireland, so that they become more relevant, accessible and influential for patients and other service users, practitioners, policy makers and the public. The overarching aim of this award is to strengthen trial methodology and reporting on the island of Ireland through a programme of work that will also impact elsewhere in the UK and internationally.	This award is valued at €750k over three years
2.5	Centre for Diet and Health (CDHR)	Phase I was funded in 2007, as part of the National Strategy for Science, Technology and Innovation at a cost of €5 million. The aim was to act as a focal point for public health nutrition research in the Republic of Ireland. The Centre for Diet and Health is an inter-institutional collaboration between UCC, UCD, Institute of Public Health, University of Ulster, Teagasc Food Research Centre and the Livinghealth Clinic, Mitchelstown, Co Cork. Phase II was funded in April 2014 with the emphasis on consolidating and extending the progress, achievements and outputs from the CDHR to date while broadening and deepening the expertise available to ensure that the centre has the capacity to address new issues in response to emerging national priorities, in particular to the evolving obesity epidemic in children and adults, and in relation to the Healthy Ireland Strategy.	Second phase funding is costed at €3 million over five years

Strategy Objective	Scheme	Objectives	Mechanism
2.5	Centre for Primary Care Research (CPCR)	Phase I funded in 2007, as part of the National Strategy for Science, Technology and Innovation at a cost of €5 million. During the first phase of funding, the CPCR acted as a focal point for primary care research in the Republic of Ireland. The CPCR is an inter-institutional collaboration between the RCSI, TCD and Queen's University Belfast. The centre has been successfully reviewed and Phase II will begin in November 2014. This phase builds on Phase I and will develop and implement interventions aimed at enhancing safer medicines, safer diagnosis and more effective care delivery. The second phase includes additional partnerships with NUI Galway, Irish College of General Practitioners (ICGP) and Irish Primary Care Research Network and the HSE Primary Care Lead.	Second phase funding is costed at €3 million over five years
2.5	Palliative Care Research Network	Part of the All Ireland Institute for Hospice and Palliative Care (AllHPC) established in 2010 by a consortium of funders including Atlantic Philanthropies, The Irish Hospice Foundation, the Irish Cancer Society, Northern Ireland HSC RDO Northern Ireland and the HRB. The aim is to drive forward coordinated and collaborative developments in hospice and palliative care. The HRB funds the research network which includes research activity, capacity building and networking activities. Research themes within the network include social justice and measurement and evaluation.	HRB funding is €1.25 million over four years
2.1	Joint Programming Health Diet for Healthy Life (HDHL)-DEDIPAC	The first pilot action of Joint Programme in Health Diet for Healthy Life (JPI HDHL) involved the establishment of an European trans-disciplinary research network (DEDIPAC Knowledge Hub) focusing on the determinants of dietary and physical activity behaviour and their relation to best practice implementation strategies for long-term changes. Two Irish consortia in five different institutions are involved in this programme.	
	Free access to Cochrane Library and Cochrane Ireland*		(Total funding for consortium €6.5 million)

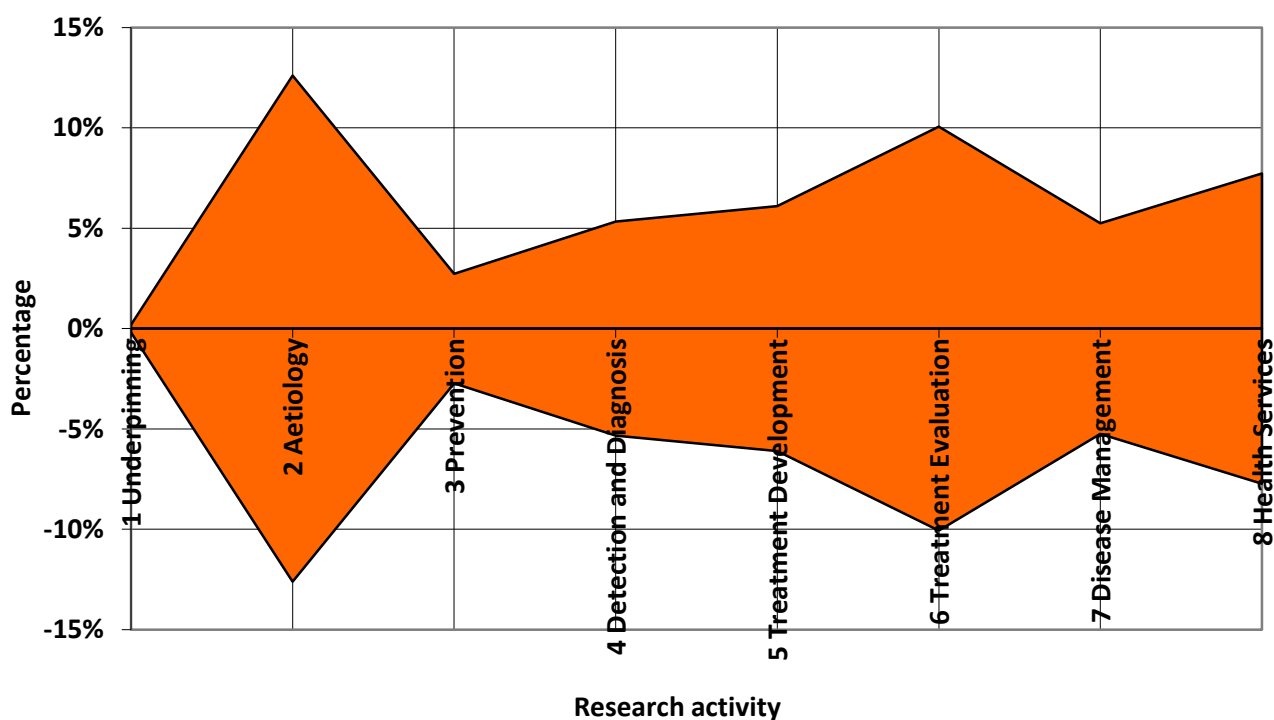
APPENDIX 5: Health research classification system (HRCS)

Classification of HRB grants: awarded 2005–2009 and 2010–2014

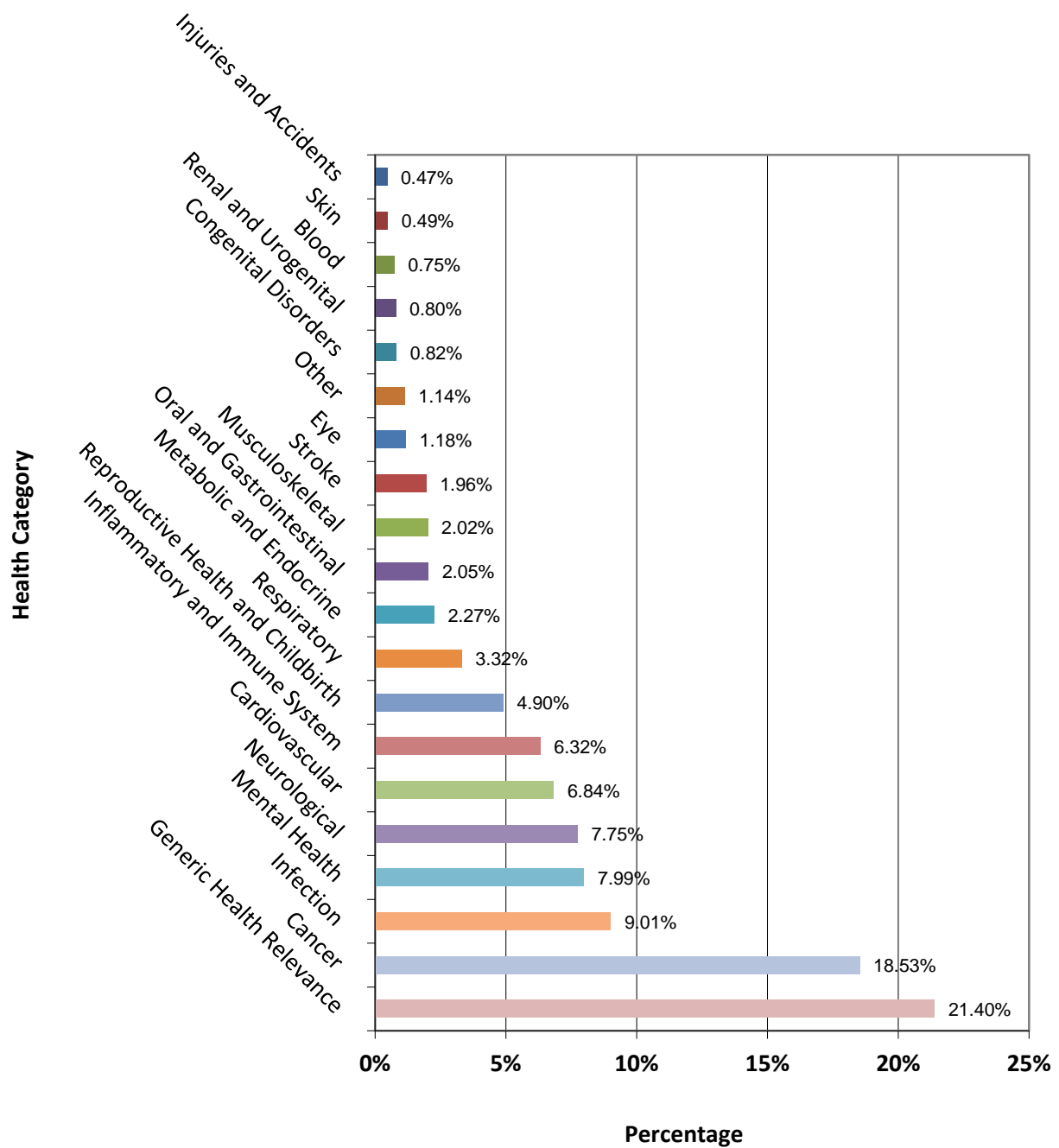
Percent total spend by research activity: 2005–2009



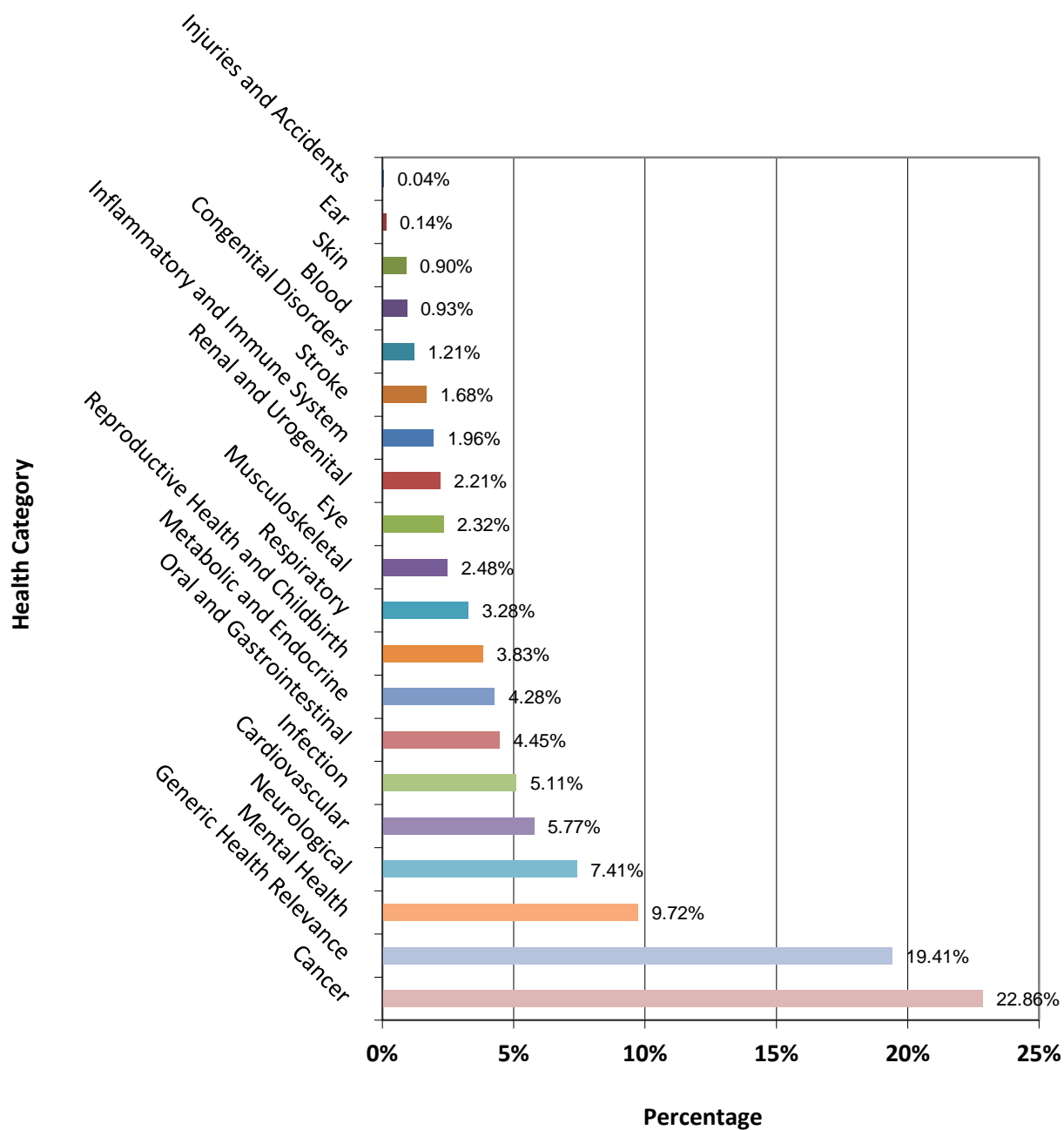
Percent total spend by research activity: 2010–2014



**Percentage of spending attributed to all health categories:
2005-2009**



**Percentage of spending attributed to all health categories:
2010-2014**



5.2 National Health Information Systems (NHIS) (Goal 3)

SELF-ASSESSMENT REPORT

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

Table of Contents

	Page
Section A: Overview of Goal 3	107
Section B1: Assessment of performance of Goal 3	
1.1 Strategic context of Goal 3	110
1.2 Strategic content of Goal 3	114
1.3 Goal 3 structure, organisation and processes	115
1.4 Key learning from self-assessment	116
Section B2: Specific strands of Goal 3's work	
2.1 National health information systems managed by the HRB	117
2.2 Description of the five health information systems	118
○ National Drug Treatment Reporting System (NDTRS)	118
○ National Drug-Related Deaths Index (NTRDI)	120
○ National intellectual disability Database (NIDD)	123
○ National Physical and Sensory Disability Database (NPSDD)	124
○ National Psychiatric In-patient Reporting System (NPIRS)	126
Appendix 1: Goal 3 SWOT analysis, Staff self-evaluation Workshop, 23 September 2014	128
Appendix 2: National Health Information System (NHIS) publications	129
Appendix 3: NHIS organisational structure	130
Appendix 4(a): NHIS structure before 2010 strategy	131
Appendix 4(b): NHIS structure and new approach, 2013	131
Appendix 5: NHIS stakeholder chart	132

Section A: Strategic Overview of Goal 3

Introduction

The HRB manages five national health information systems which were established at the request of the DoH (and the Department of Justice and Equality in the case of the National Drug-Related Deaths Index [NDRDI]) to meet specific needs in the areas of drugs, disability and mental health. Data from these systems are routinely reported at a regional, national, European and international level. In the case of the drugs databases, Goal 3 shares staff with Goal 4 and provides data for submission to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). The HRB systems are specifically actioned in a number of national strategies and policy documents, including:

- the *National Disability Strategy* (2004)⁴⁰
- *A vision for change: Report of the expert group on mental health policy* (2006)⁴¹
- *National Drugs Strategy 2009–2016*
- *National Strategy on Research and Data on Children's Lives 2011–2016*⁴²
- *Steering Group Report on a National Substance Misuse Strategy* (2012)⁴³
- *Road Safety Strategy 2013–2020*⁴⁴

National strategic context of Goal 3

The DoH has produced a number of key national strategy documents over the last decade highlighting the importance of and need for high-quality health information to improve decision-making in health policy formulation and health service planning, implementation and monitoring. These include:

- *Health Information: A National Strategy* (2004)⁴⁵
- *Building a Culture of Patient Safety – Report of the Commission on Patient Safety and Quality Assurance* (2008)⁴⁶
- *Healthy Ireland: A framework for improved health and wellbeing 2013–2025* (2013)⁴⁷
- *eHealth Strategy for Ireland* (2013)⁴⁸

While the value of health information has been recognised in these documents, in practice, the health information infrastructure in Ireland has developed largely in an ad hoc fashion in response to specific or

⁴⁰ Office of the Taoiseach (2004). *National Disability Strategy*. <http://www.justice.ie/en/JELR/NDA%20-%20POLICY%20-%202.pdf/Files/NDA%20-%20POLICY%20-%202.pdf>

⁴¹ Health Service Executive (2006). *A vision for change: Report of the expert group on mental health policy*. http://www.irishpsychiatry.ie/Libraries/External_Events_Documents/vision_for_change_full_document.sflb.ashx

⁴² Department of Children and Youth Affairs (2011). *National Strategy on Research and Data on Children's Lives 2011–2016*. http://www.dcyv.gov.ie/documents/publications/NSRD_main-report.pdf

⁴³ Department of Health (2012). *Steering Group Report on a National substance misuse strategy*. http://www.drugsandalcohol.ie/16908/2/Steering_Group_Report_on_a_National_Substance_Misuse_Strategy_-_7_Feb_11.pdf

⁴⁴ Road Safety Authority (2013). *Road Safety Strategy 2013–2020*. http://www.rsa.ie/Documents/About%20Us/RSA_STRATEGY_2013-2020%20.pdf

⁴⁵ Department of Health and Children (2004). *Health Information: A National Strategy*. Government Publications, Dublin. <http://health.gov.ie/wp-content/uploads/2014/03/National-Health-Information-Strategy.pdf>

⁴⁶ Department of Health and Children (2008). *Building a Culture of Patient Safety – Report of the Commission on Patient Safety and Quality Assurance*. Government Publications, Dublin. http://www.thepsi.ie/Libraries/Pharmacy_Practice/Building_a_Culture_of_Patient_Safety.sflb.ashx

⁴⁷ Department of Health (2013). *Healthy Ireland: A framework for improved health and wellbeing 2013–2025*. Government Publications, Dublin. <http://www.hse.ie/eng/services/publications/corporate/hieng.pdf>

⁴⁸ Department of Health (2013). *eHealth Strategy for Ireland*. Government Publications, Dublin. <http://health.gov.ie/blog/publications/ehealth-strategy-for-ireland/>

emerging needs. A catalogue of information resources compiled by HIQA (2014) identified 108 such collections. The current approach can best be described as fragmented and a broad range of organisations, including the HRB, are involved in the collection and management of health information. This, combined with a lack of leadership on health information at political level, means there is little engagement at a strategic level within the DoH in relation to its future development. Initiatives designed to bring greater coherence to this area of health include the establishment of HIQA in 2007 as a body with a role in health information governance and standards setting, and the development of a legislative framework with the introduction of a Health Identifiers Act in 2014. A Health Information Bill with provisions for data access and linkage is pending. These provisions, combined with more active engagement at senior levels within the DoH, could greatly contribute to the existing infrastructure.

In the period before the last HRB strategic plan was agreed (2009/2010), a Health Information Integration Group was established and high-level discussions took place between the DoH, the HSE and HIQA as to the appropriate governance and management of health information systems. This was in recognition of the need to develop a more coordinated and standardised approach to health information nationally as articulated in *Health Information: a National Strategy* (2004). The inconclusive nature of these discussions contributed to the definition of the objectives of Goal 3. These can best be regarded as holding objectives which were designed to enable the HRB continue its work in this area while a more coherent solution to health information was being sought at national policy level.

During the last strategic period the HRB examined its role in relation to health information with a view to improving this aspect of its work and to developing a more integrated approach to the delivery of its goal in line with developments nationally and internationally. In 2013, the five systems came under a single management structure and efforts began to replace the ICT infrastructure with a single common platform. In addition, work practice began to reflect the need for a more integrated approach.

Key developments and constraints

a) External drivers and developments

- a. National Strategies in the areas of drugs and drug deaths (*National Drugs Strategy 2001–2008*) (*National Drugs Strategy (2009–2016)*) (National Overdose Strategy (unpublished); *Road Safety Strategy (2013–2020)*), disability (*Value for Money Review and Implementation process, 2014*) and mental health (*A vision for change, 2006*)
- b. Establishment of HIQA as a body with responsibility for health information governance and standards
- c. Publication of the Individual Health Identifiers Act in July 2014
- d. HSE work on a National ICT Strategy for Health

b) Key internal and external constraints hindering delivery

- a. Staffing gaps have persisted over the last four years and are further compounded by shorter-term gaps as a result of maternity leave, sick leave and career breaks
- b. Outdated software and data processes internally have caused inefficiencies in work flow.
- c. Lack of engagement with the HSE on their information needs on the disability side and consequent loss of HSE staff to work on the disability databases has resulted in reduced quality and coverage
- d. Variety of external electronic data providers who are not fully compliant with HRB systems
- e. Internal restructuring within the HSE with consequent changes to role and responsibilities

c) Impacts on/contributions to the wider health information/health and social care system

- a. Provision of data in a timely manner to assist policy makers and service planners
- b. Provision of expertise on drugs and alcohol use, treatment and deaths, mental health and disability
- c. Engagement with HIQA to identify ways in which our systems can contribute to/improve learning on good health information governance

d) Most important strengths/competencies*

- a. Well trained and committed staff
- b. Knowledge and expertise in health information
- c. Good relationship with the DoH, HSE (addiction and mental health services), Healthcare Pricing Office (formerly HIPE) and Department of Justice and Equality
- d. Recognised as an excellent contributor of drug-related data to Europe
- e. Key role in reporting HSE quarterly KPI data on mental health and drug treatment
- f. Rich data repositories in the areas of psychiatric in-patient episodes, drug-related deaths, drug treatment episodes and disability service provision

e) Most important weaknesses/deficits*

- a. Loss of staff with key skills and expertise
- b. Short-term solutions to permanent resource gaps
- c. Reliance on external data providers that can compromise quality/completeness
- d. Information systems that have exceeded the capacity of their platform or have outlived application support timeframes
- e. DoH owns disability databases and HSE staff work on them; disconnect between the HSE and the HRB on their information requirements
- f. Voluntary nature of disability databases means that consent is sought and can be refused, and so full coverage of those receiving/needing services may not be captured
- g. Data not utilised to full potential due to lack of human resources within the HRB

*Detailed SWOT analysis compiled by Goal 3 staff is presented in Appendix 1.

Section B1: Assessment of performance of Goal 3

1.1 Strategic context of Goal 3

Goal 3 states that the HRB shall [work] with ‘key partners to develop and manage high-quality national health information systems’. The lack of strategic leadership at national level, coupled with the absence of a legislative framework and dwindling staff resources within the HRB, combined to hamper progress in the achievement of strategic objectives in the period of the strategy.

1.1.1 Strategic objectives and progress

The strategic objectives and deliverables set out for Goal 3 are presented in the table below. The column in blue records progress to date in achieving the objectives.

Objective 1: Support the development of a collaborative partnership among organisations managing national health information systems to drive the health information system agenda

KPIs	Actions	Progress
<ul style="list-style-type: none"> ○ <i>Partnership formed with agreed terms of reference</i> ○ <i>Created enablers of good practice, including unique patient identifier, electronic patient record, minimum dataset and a common framework for evaluation</i> ○ <i>National priority areas identified and HRB actively participating in solutions</i> 	<ul style="list-style-type: none"> ○ Participate in partnership of organisations managing NHIS ○ Contribute and agree terms of reference for the partnership ○ Assist in the identification of priority areas for collaboration ○ Advocate for enablers of good practice within information systems ○ Participate in the development of new high-quality health information systems in national priority areas when requested 	<ul style="list-style-type: none"> ○ Active engagement in HIQA advisory groups on messaging standards, Systematized Nomenclature of Medicine, standards for health information resources ○ Business plans for each year included contingency for work once Health Information Bill was published. Health Identifiers Bill enacted, July 2014. International best practice applied across all five systems; focus on coverage, completeness, accuracy. ○ No new systems requested, but extended remit of NDRDI in 2014 to include capture of all road traffic collisions for the Road Safety Authority. Began work in 2014 on merged disability information system in response to findings of VFM Review of Disability Services

Objective 2: Ensure HRB national health information systems are high quality and fit for purpose

KPIs	Actions	Progress
<ul style="list-style-type: none"> ○ <i>Met 100% of relevant recommendations and actions in the Health Information Bill and Health Information strategy</i> ○ <i>Updated annual processes, procedures and guidelines for managing each national health information system</i> ○ <i>Completed independent evaluation that includes quality and fit-for-purpose parameters for each information system</i> ○ <i>Quality Improvement Plan in place for each system based on evaluation recommendations</i> 	<ul style="list-style-type: none"> ○ Implement the legislative requirements identified through the Health Information Bill that relate to the HRB's information systems ○ Implement the recommendations of the revised national health information strategy and other strategies as they relate to the HRB's information systems ○ Collect, validate and analyse data from the HRB's five national health information systems in line with best practice ○ Establish a process of regular, independent evaluations of each HRB information system using the European Centre for Disease Control framework, including customer and stakeholder satisfaction surveys ○ Develop a Quality Improvement Plan for each system and update annually ○ Implement recommendations of user group to improve the utility and relevance of the systems 	<ul style="list-style-type: none"> ○ Legislation on individual health identifiers only enacted in July 2014; remainder of Health Information Bill expected end 2014 ○ Four systems updated processes and procedures annually and updated protocols and information manuals ○ All five systems collected, validated, analysed and reported data in line with requirements of stakeholders (see Appendix 2). In 2012, NDTRS unable to return HSE KPIs and EMCDDA data due to staff shortages. ○ Independent evaluation of NPIRS undertaken in 2011-2012. Lack of resources in PEER and in each of the information systems to carry out further evaluations; HRB Executive agreed to defer due to staff shortages ○ Quality Improvement Plan for NPIRS agreed in 2012 and in process of being implemented ○ User groups brought together regularly to identify areas of improvement and to test changes.

Objective 3: Ensure data from HRB national health information systems are used to inform policy and practice

KPIs	Actions	Progress
<ul style="list-style-type: none"> ○ <i>A framework in place to assess impact of dissemination and used on an ongoing basis (including requests for information to inform policy, citations in policies, service plans, working group)</i> 	<ul style="list-style-type: none"> ○ Develop an open access policy and mechanism for HRB information systems ○ Ensure representation of policy makers and practitioners on HRB steering groups and committees ○ Respond accurately and in a targeted way to requests for information from policy makers and practitioners ○ Measure the effectiveness of current dissemination strategies for each NHIS and implement any recommendations or improvements arising. 	<ul style="list-style-type: none"> ○ Access policy underway informed by cross-organisational project on data, access, sharing and linkage model. Data from NDTRS available on open access through the National Documentation Centre website. Data from NPIRS available through the CSO, and work underway to add NIDD. All requests for information recorded annually for each system. All outputs from five systems reported in HRB annual reports. Media monitoring of publications/data releases showed high levels of coverage of information systems. ○ Three of the systems have national committees; the disability database committees act as governance groups while the NDRDI Steering Committee provides an advisory role. All stakeholders fully represented on existing steering groups and committees ○ An average of 120 responses per year to requests for information and parliamentary questions from DoH and the HSE in the period 2010–2014. NDTRS unable to respond to requests in 2012/13 due to staff shortages. ○ A dissemination framework to monitor and provide evidence of relevance and importance of the NHIS data was not progressed sufficiently.

1.1.2 Rationale for identifying the strategic objectives of Goal 3

The HRB Strategy 2010–2014 recognised the important role that health information can play in making decisions concerning health. It also acknowledged that health information can have many uses: at policy level to assist policy makers with policy choices; at clinical and practice levels to ensure that individuals receive the services they require when they require them; in research, secondary use of health data can support the development of a high-performing health and social care system.

1.1.3 PEST analysis of external/internal challenges

Political/policy drivers:

- a. The national strategies on drugs, *A vision for change: Report of the expert group on mental health policy* and the *Value for Money Review of Disability Services* both emphasised the need for good data for planning and reporting.
- b. HSE need for KPI data to report quarterly on Service Plan – NDTRS and NPIRS.
- c. DoH contractual obligation to report at European level to EMCDDA on treated drug use and drug-related deaths.

Economic factors:

- a. Moratorium on public service recruitment impeded the replacement of departing NHIS staff.
- b. Retrenchment in budgets of HSE has led to permanent loss of the staff who would have provided data to the HRB systems.
- c. Change in funding mechanisms for disability services meant that two separate information systems no longer appropriate; a needs-based rather than diagnosis-led information system is now required.
- d. Cuts to operational budget of 3% per year for the last four years have reduced activities in relation to research and publication, and opportunities for staff to present and disseminate HRB data more widely.

Societal and cultural drivers:

- a. Societal attitudes to vulnerable cohorts of drug users, people with disability and people with mental health difficulties are changing, and there is greater recognition of the need to have good information about these groups.
- b. In the social care context, recognition that data for monitoring and reporting purposes are crucial for ongoing service planning.
- c. Access to data on the CSO and NDC websites broadens societal understanding of issues.
- d. Media interest in NHIS publications provides conduit to general public.

Technological changes and innovations

- a. Recognition of the need to replace ageing ICT systems in-house and externally to address performance issues
- b. NHIS review of ICT undertaken in 2011/12 and risks identified. Business case to DoH to develop a single platform for all five systems approved in 2014.
- c. Electronic case management databases within drug treatment services have to be compliant with the national NDTRS system in order to be able to return data in the format that the HRB requires.

Legislative impacts

- a. Delay in the passage of the Health Information Bill resulted in uncertainty about issues of access and linkage.
- b. Individual Health Identifiers Act passed in July 2014 – implementation plan awaited. Having unique identifiers will greatly enhance the quality of health information into the future.
- c. European Directive on Data Protection likely to impact on work of the NHIS in the future.

1.1.4 National and international contribution of the NHIS

The HRB's five national health information systems have provided timely, accurate and up-to-date data to key stakeholders at national level. Data have been used to inform key national policies referred to earlier. At international level, we contribute data to the EMCDDA (drug treatment and deaths data). The National Drug-Related Deaths Index (NDRDI) is acknowledged as one of the best methodologies for collecting drug-related deaths in Europe. Goal 3 also contributes data to the United Nations (disability data, drug treatment and deaths data) and to the OECD (mental health data). Goal 3 has played an active role in contributing research and data from the National Intellectual Disabilities Database (NIDD) to the International Association for the Scientific Study of Intellectual Disability (IASSID).

1.2 Strategic content of NHIS (Goal 3)

a) Primary customer

- a. Primary customers are the DoH, HSE and Department of Justice and Equality.

b) Elements of Goal 3 that are vitally, even uniquely, important to primary customer

- a. Producing KPI data on a quarterly basis ensures that the most up-to-date picture of services is available.
- b. Reporting to the EMCDDA on behalf of the DoH, which allows comparison with other EU countries on drug treatment and drug-related deaths.
- c. Conducting a census of psychiatric units and hospitals every three years.

c) Changes that might enhance the attainment of Goal 3

- a. Implementing a new ICT solution for the NHIS/common platform and web-based design.
- b. Drug treatment services to buy into new ICT system and enter their own data onto a web-based system, thereby reducing the volume of paper forms for the HRB.
- c. Implementing new EMCDDA protocols for NDTRS as part of new ICT solution.
- d. Clarification by the HSE on its use of and requirements for data and how the HRB can meet these.
- e. Promoting the HRB's integrity and objectivity in relation to data collection, analysis and dissemination of its information.
- f. Developing a strategic dissemination framework for our information systems in order to maximise the use and usefulness of the data.

1.3 Goal 3 structure, organisation and processes

Appendix 3 presents the staff WTE, grades and roles for Goal 3.

1.3.1 Key processes to manage delivery of objectives and activities, and ensure quality within Goal 3

At the beginning of the current HRB strategy, the five information systems operated and were managed independently within silos without much interconnection. In 2010 there were 19 posts (17.7 WTEs) within Goal 3. Over the course of the strategy this has been reduced to 16 posts (14.7 WTEs) and the manpower equivalent of 6 WTEs was lost during that period due to maternity leave and long-term sick leave. To address gaps and create efficiencies, processes have changed radically during the period 2010–2014 (see Appendix 4a and 4b). Three core approaches have been adopted to build flexibility and responsiveness to change within the Unit's workforce, and to develop a more coherent and integrated approach to our national information systems. The approaches are:

- i. moving people across systems to build their expertise and to address resource gaps
- ii. buying in key services that are needed to support resource gaps (NDRDI data collection, NDTRS data entry and database administration)
- iii. implementing a new ICT solution for all five NHIS. This work is due to commence with the NDTRS as the first system to be redeveloped in Q4 2014

Outsourced services continue to shore up the core work of the NHIS, but are procured on a short-term basis, which means that the level at which tasks can be undertaken remains relatively low. Our third approach, moving people between systems, has been difficult to implement given periods of long-term sick leave and maternity leave within the Unit. This has left the staff complement at critically low levels, e.g. by end of 2014, all dedicated staff on the NPSDD will be out on maternity leave.

1.3.2 Critical performance variables

There are a number of critical performance variables that impact the work of Goal 3, namely:

- Highly skilled staff with expertise to manage large datasets, recruit and train service providers
- Adequate levels of staffing to complete the specialised core tasks associated with each system
- Good working relationship with data providers and services that ensures data returns and adequate coverage and the ability of the HRB to respond to changes within the sectors with relevant data
- Technology to support data management and reporting requirements

1.3.3 Financial resources, support services and technologies required to deliver the objectives

The main financial resources required for Goal 3-related work are the pay costs, software support, maintenance costs and financial resources associated with our publications.

The annual budget of Goal 3 is approximately €1.3 million. The largest proportion of our budget (approximately €1.2 million) goes on staffing and this has reduced in the period of the strategy due to staff departures. To address the reduction in staffing, support services in the form of temporary contract staff have been essential in order to maintain our work on the five systems; we currently have 2.5 WTEs doing core data entry and data management work.

In relation to technology, we are in process of redeveloping the ICT platform on which our systems are based, and we have a capital allocation of €250k from the DoH to do so. The objective of this project is not only to address the risks associated with outdated software but to bring the NHIS right up to date with the

most recent technologies; to develop efficiencies across systems, including rationalisation of the software support and maintenance contracts, and to increase coherence and integration.

1.3.4 Significant changes and their impact, over the life of the strategy

The work on the NHIS suffered significant setbacks in 2011/2012 when key personnel left and were not replaced. This led to an inability to complete some deliverables, most notably on the NDTRS, as we were unable to deliver on EMCDDA data and quarterly PI data to the HSE.

An in-house audit of resources and activity was undertaken in summer 2012 and a plan for restructuring the Unit was presented to the Board in January 2013. In June 2013, Unit staff were informed of key changes and a process of change management was initiated, but has been hampered since then due to ongoing resource issues (see above).

1.4 Key learning from self-assessment of Goal 3

- The new ICT platform will help data collection processes. There is a need for staff engagement in the planning and delivery of the new system to the highest possible standard. To ensure relevance to our stakeholders, closer engagement is required on data items to be captured.
- Greater internal engagement within and across the Unit is needed, as well as external networking with stakeholders on what they need and what the HRB can provide for them by way of data, analysis, advice and expertise.
- Need for positive reflection on what has been achieved in Goal 3, given the particular resource constraints experienced by the organisation during the last strategy.
- Building on the positive experience of the NPIRS evaluation, system audit and evaluation is imperative. Overall evaluation of the NHIS area of the HRB's work could be useful. Mid-term evaluation within the strategic period is important.
- Communications both internally and externally on our role, process and structure, is important.
- Clarity about our vision for the next strategy and what we can do is needed – leadership with our stakeholders rather than waiting for them to come to us.
- Stop firefighting and plan effectively. Utilise the in-house expertise available to us and sell the particular methodologies we employ.
- Generate opportunities for the NHIS to be placed on a more equal footing with other organisation goals.
- Strategic holding position adopted by the DoH has been de-motivating and unsettling for staff.
- Work with the Communications staff of the HRB to generate a goal-specific networking, dissemination and communications strategy for our data.

Section B2: Specific strands of Goal 3's work

This section sets out the specific strands of the Unit's work. As noted earlier, the NHIS comprises five national health information systems:

- National Drug Treatment Reporting System (NDTRS)
- National Drug-Related Deaths Index (NDRDI)
- National Intellectual Disability Database (NIDD)
- National Physical and Sensory Disability Database (NPSDD)
- National Psychiatric In-patient Reporting System (NPIRS).

2.1 National health information systems managed by the HRB

Tables for Strands 1-5 in the next section set out the content of each of the five systems. In addition the NHIS Unit also has a specific strand of its work, namely strategic national initiatives that focus on our external interface with stakeholders (see Appendix 5) and our focus on providing input into the national strategic issues that impact on our work in relation to health information.

The main areas in which the HRB has contributed in relation to these strands of activity in the course of the strategic plan include:

- Engaging with HIQA on issues of information governance and the health information infrastructure. The HRB has participated in a number of working groups and provided input into a number of HIQA documents and guidelines in this area.
- Securing the commitment and agreement of the DoH and the Department of Finance to proceed with the redevelopment of the ICT infrastructure. The business case developed set out a vision for how this ICT project could enhance the capability of the HRB to deliver on its key objectives and on the value of its work in providing an integrated approach to health information. The case was approved expeditiously, suggesting a level of confidence by the DoH in the HRB's information systems and a willingness to invest in their future.
- Ongoing improvement of the five systems in areas of quality, completeness and accuracy.
- Emphasis on making data more widely available through existing portals and through specialised analysis and requests for data.
- Responding to requests for additional data items (e.g. road traffic collision data on the NDRDI.)
- Supporting the work of policy makers and service planners with the provision of relevant data.

Areas where progress has been limited include:

- Monitoring the dissemination of HRB health information. While all deliverables are recorded in the HRB's annual plans, use of data goes beyond formal publication and is frequently cited/referenced in publications of other organisations, in policy briefs and in parliamentary debates. No formal record of this usage is available on which to develop appropriate metrics of success.
- The NHIS of the HRB contain a wealth of national data going back many years – data which are not utilised to their full potential. For example, due to budgetary and staffing constraints, the Unit has not been able to publish any HRB Trends Series papers since 2011.
- Formal evaluation and audit – the strategic plan assumed that evaluations of all five systems would be undertaken. A comprehensive external audit of the NPIRS was completed, and the results were very positive. The experience demonstrates that while each system builds in a process of audit and checking on aspects of data management, a full external examination of our systems is very effective as a means of identifying where changes are needed and how they should be done.

- The assumption within the Strategy that we would provide leadership in this area. The HRB has not played a lead role in defining terms of reference for partnerships between health information organisations nor in the identification of priority areas. There were no requests for new data collections in the period 2010–2014.

2.2 Description of the five health information systems

Table 1: Strand 1: National Drug Treatment Reporting System (NDTRS)

Strand 1: National Drug Treatment Reporting System (NDTRS)	
<p>The HSE is largely responsible for the delivery of residential and community-based drug and alcohol treatment and rehabilitation services. In addition, the voluntary sector has historically played a significant role in the development and delivery of treatment and rehabilitation services nationally. Coverage is estimated at 80%.</p>	
Objectives	<p>To gather data on treated problem drug and alcohol use in Ireland that can be used by policy makers and service providers to:</p> <ul style="list-style-type: none"> • monitor patterns of problem drug use • inform local and national drugs policies • develop strategies and target resources • assess treatment demand and plan service provision • identify characteristics of those in treatment • develop appropriate treatment responses
Rationale	<p>The rationale for the National Drug Treatment Reporting System (NDTRS) is to ensure complete and accurate reporting of drug and alcohol treatment in Ireland, and to provide accurate data to enable the State and its agencies to respond in an appropriate and timely manner.</p> <p>Drug treatment data are valuable from a public health perspective, in order to assess needs and to plan and evaluate services.</p>
Relevance	<p>Annual mandatory reporting to the EMCDDA on behalf of the DoH. Quarterly KPI data are produced by HRB staff to assist the HSE with reporting on its National Service Plan. Has successfully implemented ethnic identifiers.</p>
Appropriateness of the HRB	<p>The HRB has a long history of association with drug and alcohol research and information. Reputation as one of a number of organisations involved in the collection and reporting of health information data. Following the recommendations of the government's 1991 strategy to prevent drug misuse, the Dublin Drug Treatment Reporting System was extended nationally by the HRB on a phased basis from 1995 onwards. The name was changed to the National Drug Treatment Reporting System (NDTRS) in 1995. Expanded in 2004 to include alcohol as a main problem drug.</p>
Main stakeholders	<p>Department of Health/HSE. Close links with Drug and Alcohol Task Force coordinators.</p>
Interface	<p>All known drug treatment services, Drug and Alcohol Task Force, EMCDDA, researchers, media.</p>
Feedback from customers/stakeholders	<p>Positive views of the system; ongoing requests for tailored data to meet information requests.</p>

Strand 1: National Drug Treatment Reporting System (NDTRS)

The HSE is largely responsible for the delivery of residential and community-based drug and alcohol treatment and rehabilitation services. In addition, the voluntary sector has historically played a significant role in the development and delivery of treatment and rehabilitation services nationally. Coverage is estimated at 80%.

Stakeholder issues	A number of drug treatment services moving to electronic systems. Need to ensure compliance with NDTRS.
Key deliverables	<ul style="list-style-type: none"> • Annual reporting to EMCDDA and United Nations Office on Drugs and Crime • Annual reporting on national data on drug and alcohol treatment. • Reports to all local and regional task forces • Quarterly performance indicator data to the HSE to monitor its Service Plan actions • Parliamentary question (PQ) responses and ad hoc analysis as required. • Data used in <i>Health in Ireland Key Trends</i>
Targets	<ul style="list-style-type: none"> • EMCDDA Treatment Demand Indicator (TDI) data submitted annually • Four quarterly PI reports produced annually • National data provided as web update annually • HRB Trends Series papers • Interactive tables updated annually
Progress/impact	<p>All reporting delivered in strategic plan for years 2010, 2011, 2013 and 2014. In 2012 only one quarter of PI data produced and no European data submitted, due to staff shortages. Two years of EMCDDA data produced in 2013 and all outstanding PIs provided.</p> <p>2010: Informed legislation banning head shop substances.</p> <p>2012: NDTRS data used in the <i>National Substance Misuse Strategy</i>, which has led to the Public Health (Alcohol) Bill.</p> <p>Monitoring role of the NDTRS was recognised by the government in current and previous national drugs strategies. Data used in monitoring provision of residential treatment places.</p> <p>The NDTRS team has, at the request of the EMCDDA, visited other countries to demonstrate best practice.</p> <p>The NDTRS team contributed significantly to the recent revisions of the TDI indicator, at the request of the EMCDDA.</p> <p>Open access to data – interactive tables available on NDC website.</p> <p>The NDTRS is one of the few countries in Europe that successfully collects treatment data from general practitioners.</p> <p>A recently published paper using NDTRS data provided new insights into the needs of Travellers with problem substance use, and will be useful in informing and developing policies and strategies to tackle barriers and issues faced by the Traveller community.</p> <p>An upcoming Hepatitis C paper is the first comprehensive national estimate of the incidence of injecting drug use in Ireland and the incidence and extent of the Hepatitis C epidemic in this population. The findings will inform those responsible for planning and developing healthcare service approaches.</p>

Strand 1: National Drug Treatment Reporting System (NDTRS)

The HSE is largely responsible for the delivery of residential and community-based drug and alcohol treatment and rehabilitation services. In addition, the voluntary sector has historically played a significant role in the development and delivery of treatment and rehabilitation services nationally. Coverage is estimated at 80%.

Rationale to retain	<p>Enable annual mandatory reporting to the EMCDDA on behalf of the DoH. Ireland is one of the few countries in Europe that successfully collects treatment data from general practitioners.</p> <p>The data are used to assist with policy, planning and research. <i>The National Drugs Strategy</i> (2009–2016) has as one of its strategic aims, to ensure the availability of accurate, timely, relevant and comparable data on the extent and nature of problem substance use in Ireland, and the NDTRS fulfils this function. The National Advisory Committee on Drugs and Alcohol (NACDA) advises government on problem drug and alcohol use in Ireland. Data from the NDTRS are used in informing the work of the NACDA.</p>
Challenges/difficulties associated with discontinuing this strand of activity	<p>HSE staffing, internal resource issues and replacement of expertise.</p> <p>One of the weaknesses of the NDTRS was its software infrastructure and paper-based returns of up to 40% of the data. In 2014, work began on new ICT platform for all NHIS, and the NDTRS was the first of these to be redeveloped in recognition of its strategic importance and in light of the increasing risk of system failure.</p> <p>Without the NDTRS, no national treatment data available.</p>

Table 2: Strand 2: National Drug-Related Deaths Index (NDRDI)

Strand 2: National Drug-Related Deaths Index (NDRDI)

The National Drug-Related Deaths Index (NDRDI) is an epidemiological database which records cases of death by drug and/or alcohol poisoning, and deaths among drug users and those who are alcohol dependent. The Index records data annually from four sources: the Coroner Service, the Hospital In-Patient Enquiry scheme (HIPE), the Central Treatment List (CTL) and the General Mortality Register (GMR) via the Central Statistics Office (CSO), in order to ensure that the database is complete and accurate.

Objectives	<p>To collect information on drug and alcohol-related deaths, and deaths among drug and alcohol-dependent persons in Ireland to enable the State and its agencies to respond in a timely manner, with accurate data. Also to identify and prioritise areas for intervention and prevention, and measure the effects of such interventions.</p>
Rationale	<p>Set up in response to <i>The National Drugs Strategy</i> (2009–2016) to be a census of all drug-related deaths, as research had shown that the numbers were significantly underestimated in the existing figures. The remit was further expanded in January 2006 to include alcohol-related deaths and deaths of people who were alcohol dependent.</p>

Strand 2: National Drug-Related Deaths Index (NDRDI)

The National Drug-Related Deaths Index (NDRDI) is an epidemiological database which records cases of death by drug and/or alcohol poisoning, and deaths among drug users and those who are alcohol dependent. The Index records data annually from four sources: the Coroner Service, the Hospital In-Patient Enquiry scheme (HIPE), the Central Treatment List (CTL) and the General Mortality Register (GMR) via the Central Statistics Office (CSO), in order to ensure that the database is complete and accurate.

Relevance	Comply with Action 67 of the National Drug Strategy (2001–2008). Provide a census of all drug and alcohol-related deaths. Report to the EMCDDA on behalf of the DoH.
Appropriateness of the HRB	The HRB has a long history of association with drug and alcohol research and information. Because of this, the HRB was invited to host the National Drug-Related Deaths Index (NDRDI). The NDRDI complements the HRB's other national drug database, the NDTRS.
Main stakeholders	DoH, Department of Justice and Equality, National Family Support Network, HSE, Coroner Service.
Interface	DoH and Department of Justice and Equality, Coroners' offices nationally, HSE, drugs task forces, Health Products Regulatory Authority (formerly the Irish Medicines Board), academics, Road Safety Authority (RSA).
Feedback from customers/stakeholders	<p>Excellent research methodology recognised by other state agencies, including the RSA, which has requested the NDRDI to extend its remit to collect data on all road traffic fatalities (Actions 119 and 120 of the current Road Safety Strategy).</p> <p>Recognition by stakeholders of the high quality of the database and methodology used, and recommendation to expand the NDRDI model to create a national coroners database.</p> <p>Value of data to local and regional drugs and alcohol task forces for service planning.</p>
Stakeholder issues	Steering committee comprises representatives of all stakeholders.
Key deliverables	<p>Annual reporting to the EMCDDA and United Nations (UNODC World Drugs Report).</p> <p>Provide response to PQs and other ad hoc queries.</p> <p>Research papers including HRB Trends Series papers.</p>
Targets	<p>Annual data collection – consulting all coroners' files for each year (approximately 16,000 per year.)</p> <p>Completion of up to 160 data items per record.</p>

Strand 2: National Drug-Related Deaths Index (NDRDI)

The National Drug-Related Deaths Index (NDRDI) is an epidemiological database which records cases of death by drug and/or alcohol poisoning, and deaths among drug users and those who are alcohol dependent. The Index records data annually from four sources: the Coroner Service, the Hospital In-Patient Enquiry scheme (HIPE), the Central Treatment List (CTL) and the General Mortality Register (GMR) via the Central Statistics Office (CSO), in order to ensure that the database is complete and accurate.

Progress/impact

All deliverables met during the period of the strategy

- NDRDI data assisted in the decision by the European Medicines Agency (EMA) to withdraw dextropropoxyphene from the European market
- Contributed to national policies including the overdose prevention strategy and the alcohol strategy
- Liaison with National Office for Suicide Prevention on suicide figures on recommendation of the Dublin City Coroner
- Presented NDRDI data annually to Coroners' Society
- Improved security in downloading of encrypted electronic files from individual hospitals.

Rationale to retain

- Provides census on drug and alcohol-related deaths in Ireland, as these data are not available otherwise
- Mandatory reporting on drug-related deaths to Europe on behalf of the DoH
- Adhere to actions of national drug strategies
- Measure progress of National Substance Misuse Strategy and related strategies
- Enable analysis to inform policies and research, in order to reduce and prevent drug and alcohol-related deaths.

Challenges/difficulties associated with discontinuing this strand of activity

- No complete record of drug and alcohol-related deaths
- No one nationally is in a position to respond to queries, PQs and requests from DoH/Department of Justice and Equality or HSE
- Failure to provide comparative data to EMCDDA likely to lead to decline in the HRB's reputation as an active partner
- Lack of input into national strategies in relation to drugs and alcohol-related deaths
- Loss of HRB expertise in the understanding and analysis of this data.

Table 3: Strand 3: National Intellectual Disability Database (NIDD)

Strand 3: National Intellectual Disability Database (NIDD) Intellectual disability services are provided through a partnership between the State and the voluntary sector, historically through religious orders. In the past, provision was residential in nature, but there has been a rapid growth in community-based services. The NIDD has almost complete coverage of people with intellectual disability in Ireland.	
Objectives	To capture and provide the DoH and the HSE with details of current service provision and the future service requirements of individuals with an intellectual disability, in order to assist service planning.
Rationale	To have a national picture of the service use and service need of those with an intellectual disability.
Relevance	Only national data source that profiles people with intellectual disability. Only comprehensive register of people with intellectual disability in Europe.
Appropriateness of the HRB	Carried out first census of mental handicap in 1974, and again in 1981. Long history of working in this area. Strategically placed to take on the management and administration of national register.
Main stakeholders	DoH/HSE. All stakeholders represented on a national committee set up to manage the database.
Interface	Service provider agencies, the HSE, National Federation of Voluntary Bodies, National Disability Authority.
Feedback from customers/stakeholders	Good relationship with services that supply data, and also with HSE staff who work on the system.
Stakeholder issues	Difficulty in obtaining clarity from the HSE about the future of disability information. Withdrawal of HSE staff who have been working on the database, thus leading to difficulties for the HRB in getting key data-related tasks completed.
Key deliverables	Annual report, HSE regional and local bulletins produced and disseminated annually. Provides responses to PQs and requests for data.
Targets	Ensure that a high proportion of records are reviewed and updated annually. Validate and report on annual dataset.
Progress/ impact	99% of records reviewed and updated in 2013, 2012, 2011. Annual reporting to DoH and HSE completed. <ul style="list-style-type: none"> • Recognised internationally as comprehensive national register of people with intellectual disability • Completeness of cases ensured its use as sampling frame for TILDA Intellectual Disability Supplement • Contributed data to United Nations (United Nations Convention on the Rights of the Child) for monitoring progress • Provided data bi-annually to <i>State of the Nation's Children Report</i> • Contributed data and collaborated on HRB-funded study on moving from residential care. • Presented data to HIQA in advance of its inspection of residential facilities for people with a disability

Strand 3: National Intellectual Disability Database (NIDD)

Intellectual disability services are provided through a partnership between the State and the voluntary sector, historically through religious orders. In the past, provision was residential in nature, but there has been a rapid growth in community-based services. The NIDD has almost complete coverage of people with intellectual disability in Ireland.

	<ul style="list-style-type: none"> Contributed trend data to the DoH and the Department of Finance for its <i>Value for Money Review of Disability Services</i> Open access – working with the CSO since 2012 on putting 10 years of data into its portal.
Rationale to retain	Good relationship with agencies involved in the management of their own data. Almost complete coverage of people with an intellectual disability in Ireland.
Challenges/difficulties Associated with discontinuing this strand of activity	<p>The <i>Value for Money Review of Disability Services</i> highlighted a deficiency of data on funding allocated and expended, and recommended that data on outcomes and performance indicators should be collected and aggregated at regional and national levels to allow effective monitoring of performance. There are currently four separate sources of disability data – two in the HSE and two in the HRB, and rationalisation of these resources is required. The HRB has frequently sought to engage with the HSE on its data requirements, but diminishing HSE resources at local level are impacting on data collection and validation processes. Risk of closure if the HSE sets up its own disability information system. Without the NIDD:</p> <ul style="list-style-type: none"> No one nationally is in a position to respond to queries, PQs and requests from the DoH/HSE Lack of HSE regional and local bulletins may impede disability service planning Loss of HRB expertise in the understanding and analysis of these data

Table 4: Strand 4: National Physical and Sensory Disability Database (NPSDD)

Strand 4: National Physical and Sensory Disability Database (NPSDD)

Services for people with physical/sensory disabilities are provided largely through voluntary organisations and funded by the HSE. Activities are mainly provided in the community and are based on supports needed to enable individuals to access services. Coverage is estimated at 66%.

Objectives	To capture and provide the DoH and the HSE with details of current service provision and the future service requirements of individuals with a physical/sensory disability, in order to assist service planning.
Rationale	To have a national picture of the service use and service need of those with a physical/sensory disability. To collect data on activity and participation (MAP data) to feed into outcome measures linked to services provided.
Relevance	Only national data repository that profiles service use and needs of people with physical and/or sensory disability.
Appropriateness of the HRB	Expertise in collecting and reporting disability data.

Strand 4: National Physical and Sensory Disability Database (NPSDD)

Services for people with physical/sensory disabilities are provided largely through voluntary organisations and funded by the HSE. Activities are mainly provided in the community and are based on supports needed to enable individuals to access services. Coverage is estimated at 66%.

Main stakeholders	DoH and the HSE. All stakeholders represented on a national committee set up to manage the database.
Interface	Some service provider agencies, the HSE, Disability Federation of Ireland, National Disability Authority.
Feedback from customers/stakeholders	Incomplete record of service needs of people with a physical/sensory disability. Database does not capture data on those aged over 66 years.
Stakeholder issues	Not an epidemiological record of those with physical and sensory disability. Review of records largely the responsibility of HSE staff, but not undertaken in a large number of areas due to reduced staffing levels.
Key deliverables	<ul style="list-style-type: none"> • Annual report, HSE regional and local bulletins provided annually • <i>MAP Bulletin</i> produced annually • Provides responses to PQs and ad hoc queries
Targets	To address out-of date records by supporting HSE areas to undertake reviews.
Progress/impact	<p>All deliverables achieved in the period of the strategy. Some delay in reporting due to HRB staff shortages. Proposed evaluation of MAP not undertaken due to resource gaps.</p> <ul style="list-style-type: none"> • Data used for service planning in some areas • Data contributed to <i>Value for Money Review of Disability Services</i> • Provision of data bi-annually to <i>State of the Nation's Children Report</i> • Data to United Nations (United Nation Convention on the Rights of the Child) for monitoring of progress
Rationale to retain	By merging the NPSDD with the NIDD into a singular needs-based dataset for people with disability as proposed in the ICT project, a more comprehensive system for monitoring service provision and need
Challenges/difficulties Associated with discontinuing this strand of activity	<i>Value for Money Review of Disability Services</i> highlighted a deficiency of data on funding allocated and expended, and recommended that data on outcomes and performance indicators should be collected and aggregated at regional and national levels, in order to enable effective monitoring of performance. There are currently four separate sources of disability data – two in the HSE and two in the HRB, and rationalisation of these resources is required. The HRB has frequently sought to engage with the HSE on its data requirements, but diminishing HSE resources at local level are impacting on data collection and validation processes. Risk of closure if the HSE sets up its own disability information system. Lack of confidence by the HSE in the NPSDD has led to a lack of data upload to the system, thereby leading to issues of quality and coverage.

Table 5: Strand 5: National Psychiatric In-patient Reporting System (NPIRS)

Strand 5: National Psychiatric In-patient Reporting System (NPIRS)	
In-patient psychiatric services are provided by ‘centres’ which are approved by the Mental Health Commission (MHC) under the Mental Health Act 2001. Most of the centres are operated by the HSE and six centres are operated by independent/private providers; a further six centres are part of the child and adolescent services (some of these are HSE run/owned and some are independent/private).	
Objectives	To record all admissions to, discharges from and deaths in Irish psychiatric units and hospitals on the register of approved centres under the Mental Health Act 2001. Data are returned on a quarterly basis to the HRB either electronically or manually (paper based). A number of approved centres such as those not included in performance indicator reports (e.g. private hospitals and child and adolescent units) return data on an annual basis.
Rationale	To have the only national psychiatric database in Ireland and an unbroken record of data since the 1960s.
Relevance	PI data provided to the HSE quarterly for service plan reporting. Data on records of all admissions and discharges. Audit of NPIRS (2012) found 98% accuracy rate.
Appropriateness of the HRB	Has been collecting these data since the 1960s. Ability to reflect on trends in admissions/discharges and monitor impact of policy changes over time.
Main stakeholders	Department of Health, HSE, Mental Health Commission, psychiatric units.
Interface	All centres approved under the Mental Health Act 2001, including private psychiatric hospitals and child and adolescent units, Mental Health Commission.
Feedback from customers/stakeholders	A stakeholder survey undertaken as part of the NPIRS evaluation concluded that the NPIRS was relevant and useful, and that the way in which data were analysed and presented met their needs.
Stakeholder issues	The HSE requires a database on all mental health services that would include community services.
Key deliverables	<ul style="list-style-type: none"> • PI data quarterly to the HSE, one quarter in arrears • Annual report on all activities and discharges • Census of psychiatric hospitals every three years • Response to PQs and ad hoc queries (c.40 queries p.a.)
Targets	All targets met. Evaluation undertaken. Quality improvement plan drawn up.
Progress/impact	<p>Produced all deliverables on time. National evaluation undertaken and high level of accuracy achieved.</p> <ul style="list-style-type: none"> • Contributed data to the OECD Healthcare Quality Indicators report, <i>State of the Nation’s Children</i> reports, <i>Women and Men in Ireland</i> reports • Provided data to support the development of <i>A vision for change</i> • Data fed annually into <i>State of the Nation’s Children Report</i>. Data provided for value for money review of residential services and used to monitor children in adult units • Data on deaths in general hospital psychiatric units in 2012 and 2013 were used by the HSE’s Quality and Patient Safety Directorate for an

Strand 5: National Psychiatric In-patient Reporting System (NPIRS)

In-patient psychiatric services are provided by 'centres' which are approved by the Mental Health Commission (MHC) under the Mental Health Act 2001. Most of the centres are operated by the HSE and six centres are operated by independent/private providers; a further six centres are part of the child and adolescent services (some of these are HSE run/owned and some are independent/private).

investigation/review of patient deaths in psychiatric hospitals in the South of Ireland

- Interactive tables from NPIRS now available through the CSO web interface
- Data on children and adolescents cross-checked annually with the Mental Health Commission for deviations/anomalies

Rationale to retain

Continue unbroken record of reporting NPIRS data to DoH/HSE.

Challenges/difficulties Associated with discontinuing this strand of activity

- No quarterly PI data for the HSE
- No one nationally in a position to respond to queries, PQs and requests from DoH/HSE
- Likely to lead to decline in reputation as an active data provider in the mental health area
- Lack of input into research and policy in the mental health area

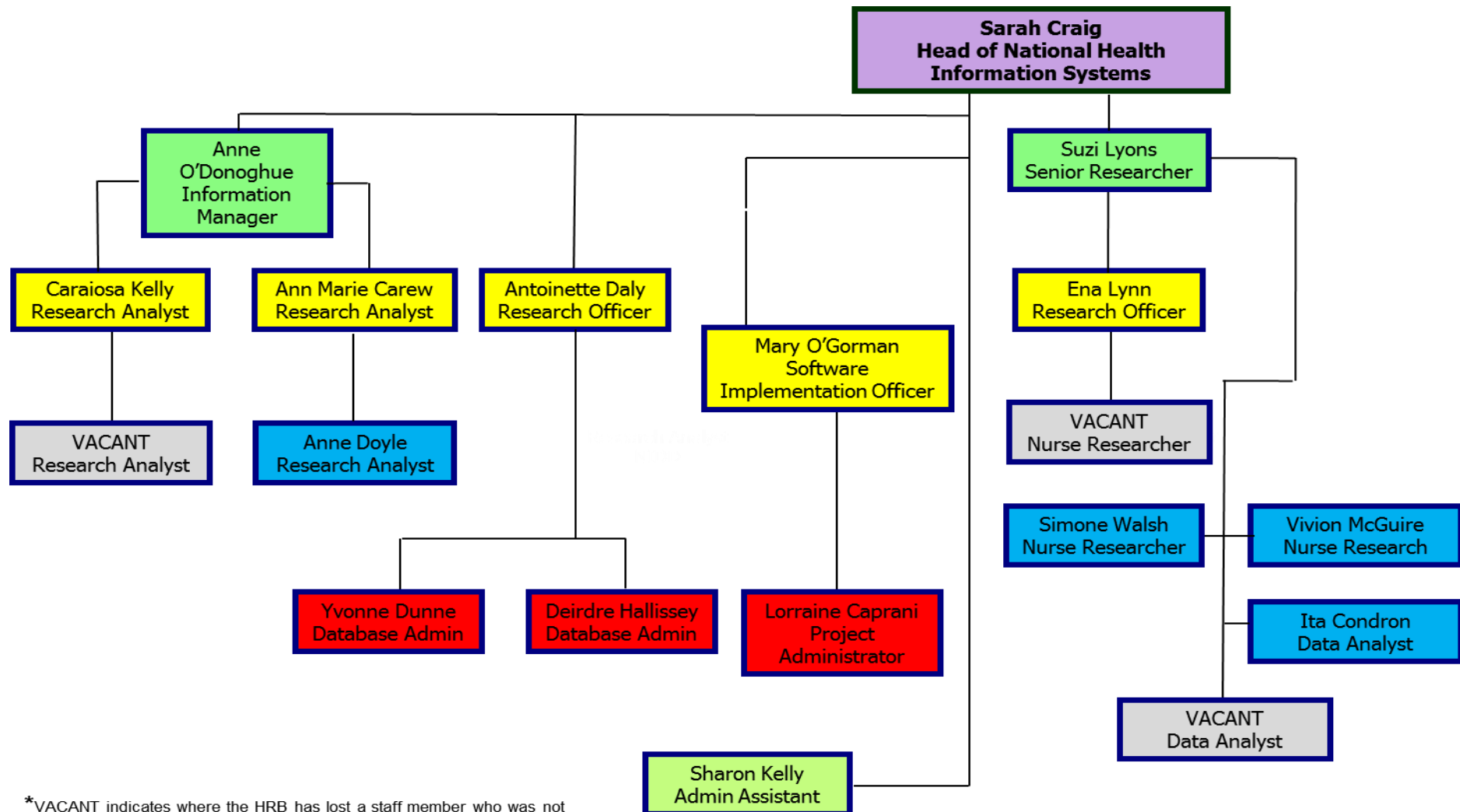
Appendix 1: Goal 3: SWOT analysis, Staff Self-evaluation Workshop, 23 September 2014

Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> • Evidence-based knowledge • Skilled staff • Willingness to help each other and good communication • Good engagement with stakeholders • Quality • Intelligent workforce • Excellent knowledge • Lots of good suggestions and ideas • External relationships • Respect for HRB data • High-quality information systems • Long-standing databases • Educated experts in our field • Team works very well together/team players • Educated experts in our field/expertise • Commitment to work • Power of data that are robust, reliable and valid • Skills and expertise of staff • Extensive knowledge in specialised area • Contribute to policy 	<ul style="list-style-type: none"> • Lack of opportunities • We don't have a big team, so maybe not enough ideas to push forward • Resource gaps • Firefighting approach • Loss of staff • Lack of vision and decision-making • Communication • Indecision • Lack of universal system/one system and mandatory requirement for reporting • No communication to develop staff • Work separately, not as a unit • Poor dissemination of appropriate data • Insufficient staff • Lack of stakeholder buy-in • Poor leadership 	<ul style="list-style-type: none"> • Lead by employing best practice • We have the opportunity to see what is going on at ground level • Obtain reputation for objective data and analysis • Expand remit of databases • New CEO, new vision, new leadership • New strategy to give clarity to goals • New ICT system • Increasing need for information • To lead, influence DoH – not wait to be told • Opportunity to expand and improve systems • Could put data to more use • Develop databases • Engage with stakeholders • Tap into staff strengths • NHIS ICT project • To become internationally recognised as the leading unit for information • Time and budget may not allow us to make more use of good data on our database • Vision of staff members 	<ul style="list-style-type: none"> • Unsettled stakeholders (HSE etc.) • Maintaining staff • Lack of national strategy • Adequate supports • Cutbacks/lack of funding and resources • ICT system not delivering • Department of Health • Staffing issues • Stakeholders' lack of resources • Staffing issues (internal and external) • Policy/strategy – not knowing what we have done/or could do, if decisions are based on the last couple of years • Very poor links with some key stakeholders • Poor communication • Rely heavily on agency staff

Appendix 2: National Health Information System Unit publications

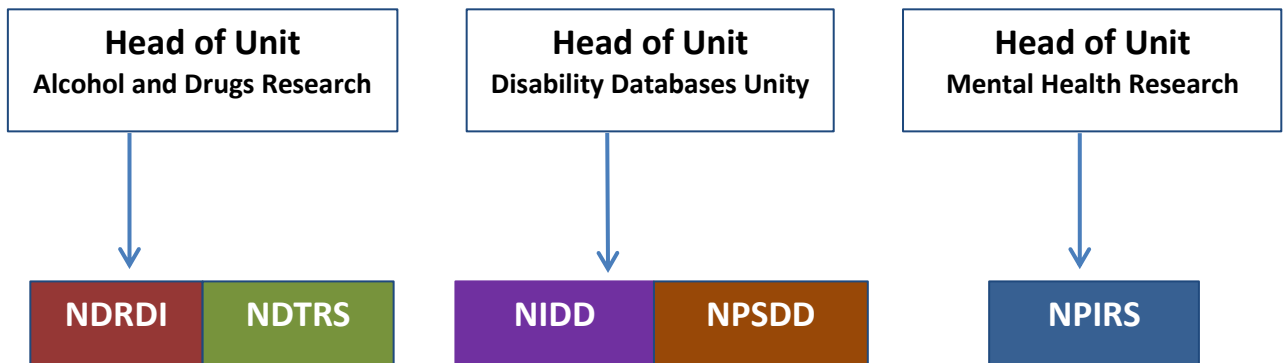
Table 1: Publications of the NHIS Unit, 2010–2013					
Publication type	Year				Total
	2010	2011	2012	2013	
HRB Annual Report/other reports (Statistics/Research series)	4	4	3	3	14
Bulletins	5	6	7	8	26
HRB Trends Series papers	1	3	-	-	4
Peer-reviewed journal articles	9	2	4	3	18
Total	19	15	14	14	62

Appendix 3: NHIS organisational structure

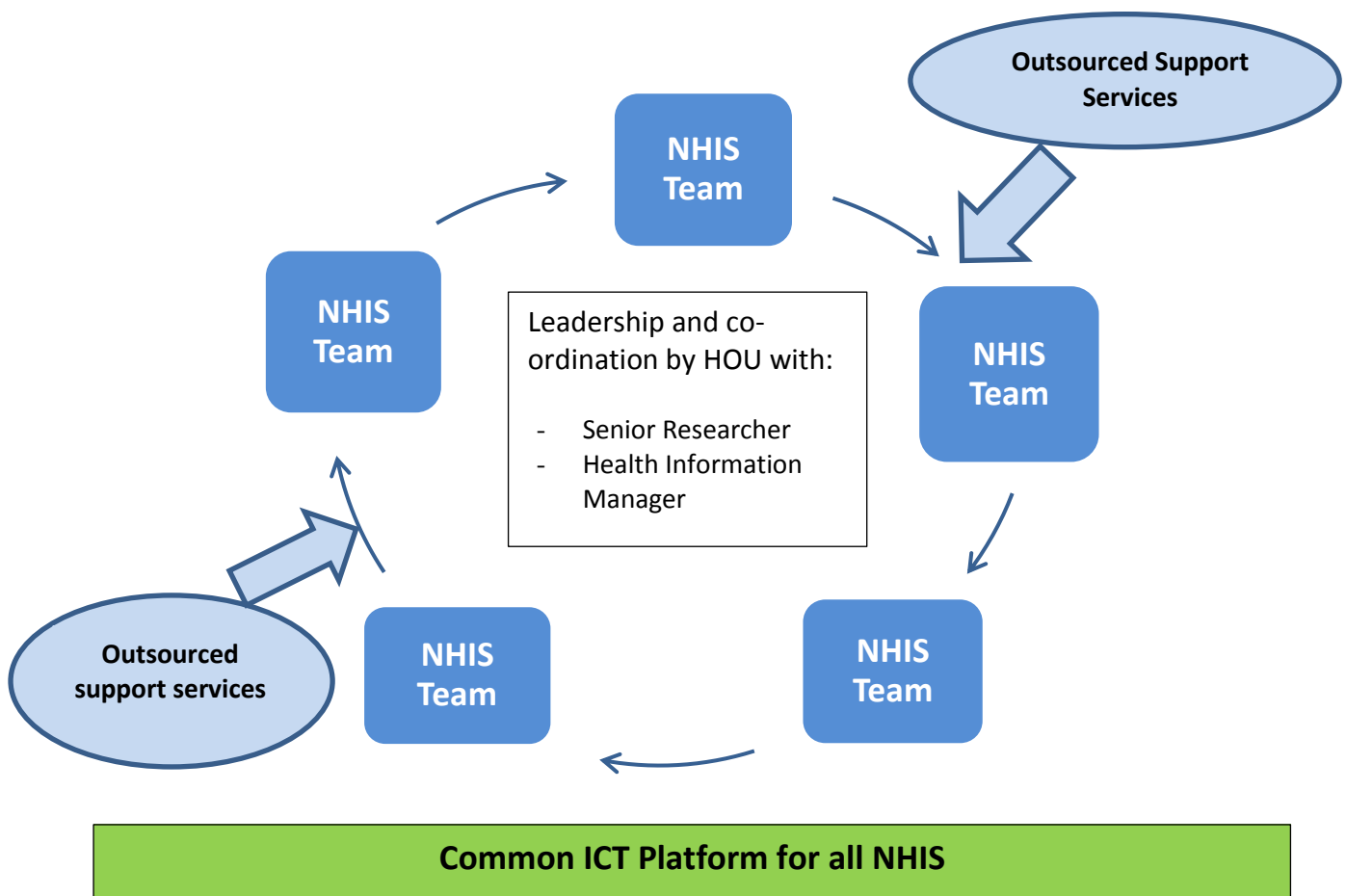


*VACANT indicates where the HRB has lost a staff member who was not replaced due to the current Recruitment Moratorium

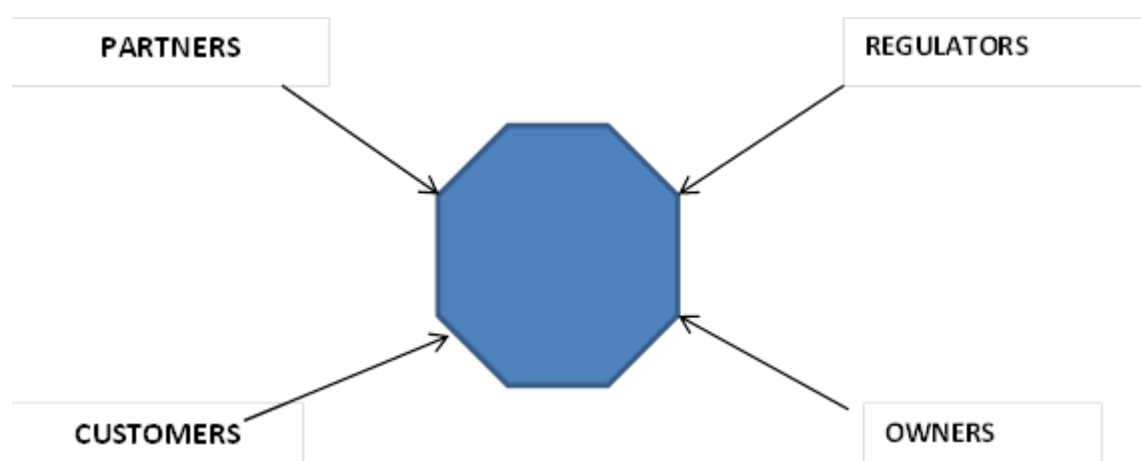
Appendix 4(a): NHIS structure before 2010 strategy



Appendix 4(b): NHIS structure and new approach, 2013



Appendix 5: NHIS stakeholder chart



Stakeholder type	Organisation/entity
Partners	Mental Health Commission
	Disability Federation of Ireland
	Federation of Voluntary Bodies
	HSE: Mental Health
	HSE: Child and Adolescent Mental Health Services
	HSE: Disability
	HSE: Addiction Services
	HSE Disability Database personnel
	Drug treatment services
	HSE drug treatment coordinators
	Drug treatment task forces
	Irish Prison Service
	General practitioners
	Irish College of General Practitioners
	EMCDDA
	Coroners
	Family Support Network
	CSO
	In-patient psychiatric units
	Independent providers (private hospitals, private/charitable and private centres)
	Service user groups (National Service Users Executive (NSUE), SHINE etc.)
	HSE Clinical Strategy and Programmes Directorate
	HSE Quality and Patient Safety Directorate
	HSE Business Information Unit – Mental Health

Stakeholder type	Organisation/entity
Regulators	HIQA
	Data Protection Commissioner
	HSE: ICT
	DoH: ICT Unit
Owners/governing bodies	DoH: Mental Health Unit
	DoH: Disability Unit
	DoH: Drugs Policy Unit
	Department of Justice and Equality
	NIDD/NPSDD Committee
	NDRDI Steering Committee
Customers	Service users/service providers
	DoH/HSE
	General public
	Academia/researchers
	Health Products Regulatory Authority
	Road Safety Authority

5.3 Evidence Generation and Knowledge Brokering (Goal 4)

SELF-ASSESSMENT REPORT

‘Generate and synthesise evidence and promote the application of knowledge to support decision-making by policy makers and relevant practitioners’

Table of Contents

	Page
Section A: Overview of Goal 4	137
Section B: Assessment of overall performance of Goal 4	
1.1 Strategic context of Goal 4	141
1.2 Strategic content of Goal 4	143
1.3 Goal 4 structure, organisation and processes	143
1.4 Key learning from self-assessment	144
Section B2: Specific activities within Goal 4	
2.1 Evidence Centre	146
2.2 European Monitoring Centre for Drugs and Drug Addiction	149
2.3 The National Documentation Centre on Drug Use (NDC)	152
Appendix 1: Goal 4 Organisational structure	155
Appendix 2: List of reviews, surveys and other work completed or ongoing by the Evidence Centre for the DoH	156

Section A: Overview of Goal 4

Introduction

The overall strategic goal of the Evidence Generation and Knowledge Brokering Unit is to *generate and synthesise evidence and promote the application of knowledge to support decision-making by policy makers and relevant practitioners*.

The Unit achieves this goal through six strategic objectives:

1. Develop a framework to agree priorities and to define appropriate methodologies and approaches to agreed research questions
2. Provide skills to search, interpret, synthesise and use evidence through training and mentoring
3. Establish a knowledge centre to deliver high-quality health information and research evidence and manage the organisation's knowledge resources
4. Meet the evidence requirements of stakeholders in line with agreed priorities
5. Ensure the quality of the data used in and delivered by evidence compilation, synthesis, systematic review and commissioning
6. Investigate and develop new initiatives and mechanisms to incentivise and broker the transfer of evidence into policy and practice

The Unit is structured into three business areas. These are listed below with their relevant strategic objectives:

1. Evidence Centre (Objectives 1-6)
2. Irish Focal Point for the European Monitoring Centre for Drugs and Drug Addiction (Objectives 4 and 6)
3. National Documentation Centre on Drug Use (Objectives 4 and 6)

A short background to each business area is given below.

(i) Evidence Centre

The HRB's Evidence Centre was set up in 2010 as a new activity within the *Strategic Business Plan 2010–2014*. Its main role is to work with the DoH to make relevant information available, in the form of evidence reviews, to support evidence-based policy. Evidence reviews are carried out by a multi-disciplinary team of HRB researchers and an information specialist who provide comprehensive and up-to-date reviews on topics specified by the DoH.

During the development of the Strategic Business Plan in 2009, the DoH acknowledged the need for an independent resource to meet their evidence needs in the area of health policy formulation. To meet this need, the HRB agreed with the DoH to cease a number of its internal research activities and to use these resources to create an Evidence Centre within the HRB. The HRB was subsequently incorporated into the DoH *Action Plan for Health Research 2009–2013* to 'develop targeted knowledge transfer and knowledge brokering initiatives to promote the use of evidence to support decision-making and to inform the research agenda'.

(ii) Irish Focal Point for the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

The HRB has been designated by the DoH as the Irish Focal Point for the EMCDDA since 1993. The EMCDDA is the central reference point for drug information in the European Union. Set up in 1993, and based in Lisbon, its role is to provide objective, reliable and comparable information on drugs and drug addiction and

its consequences at a European level. The EMCDDA obtains its information primarily from Focal Points in each EU Member State, Norway, and candidate countries.

Under the European Commission's Council Regulation No 302/93, each EU Member State is required to designate or establish a specialised centre to act as a Focal Point to the EMCDDA. The HRB was chosen by the DoH because of its existing work in the drugs area, including the development of the National Drug Treatment Reporting System – drug treatment data being one of the key indicators used to monitor drug misuse trends nationally and internationally. Annual funding is provided to the HRB from both the DoH and the EMCDDA to maintain and develop the Irish Focal Point. The work of the Irish Focal Point is actioned in the *National Drugs Strategy 2009–2016*.

(iii) National Documentation Centre on Drug Use (NDC)

Arising from a recommendation of the Interim Advisory Committee on Drugs in 2000, the government designated the HRB as the central repository for all Irish research and information on illicit drug use. In addition to existing data, all future research and information would be channelled or, as appropriate, its existence notified and recorded in a way that would facilitate ease of retrieval by policy makers and other interested parties. The aim was to achieve a more focused and integrated approach to the collection and assimilation of data in the drugs area.

The HRB was chosen for this role because of its existing work in the drugs area, including its position as the Irish Focal Point for the EMCDDA. Annual funding was provided to the HRB to establish and maintain a National Documentation Centre on Drug Use. The development of the NDC was acknowledged in the *National Drugs Strategy 2001–2008*. In the current drugs strategy (*National Drugs Strategy 2009–2016*) the NDC is actioned with disseminating research findings and models of best practice.

Context and key developments

Main external drivers, developments and changes that have influenced/will influence Goal 4 activities

The activities of Goal 4 are driven by the requirements of the DoH, the *National Drug Strategy 2009–2016*, the European Commission's Council Regulation No 302/93, and an annual legal contract with the EMCDDA.

Currently, demand on the resources of the Evidence Centre by the DoH exceeds supply. Evidence reviews are prioritised by the Department's high-level Management Advisory Committee (MAC). Notwithstanding this, additional competing demands for evidence needs are made on the HRB by different actors within the DoH. This demand has to be carefully monitored and managed.

The work of the Evidence Centre has, up to now, been solely for policy makers and not service providers. It was originally envisaged (and stated) in the HRB Strategy 2010-14 that the Evidence Centre would '*support decision-making by policy makers and relevant practitioners*'. Due to resource constraints, requests for evidence reviews by '*relevant practitioners*', such as the HSE, have had to be commissioned externally.

There is a quid pro quo between the EMCDDA team and national providers of data for EMCDDA requirements. Data providers increasingly expect the EMCDDA team to help them understand and critique information and research required to achieve the national and European drugs strategies through face-to-face meetings, membership of committees, and engagement in research projects; this in turn encourages the use of evidence-based practice and original thinking.

Key internal and external constraints hindering delivery of the objectives

- Limited overall staff skill set. Specifically, we lack skills in international medico-legal, health policy and health economics.
- Limited resources available to replace staff who go on maternity leave, leave of absence, or resign.
- EMCDDA data providers in Ireland increasingly expect the EMCDDA team to help them understand and critique information and research required to achieve the national and European drugs strategies through face-to-face meetings, membership of committees, and engagement in research projects in return for their data. This is time consuming, and may be considered outside the remit of a strict interpretation of the contract.
- More than half of the Evidence Generation and Knowledge Brokering Unit team had to learn a completely new set of skills at the start of the current strategy period.
- Limited resources in relation to buying in resources.
- Limited time to build expertise and learning as we go.

Impacts/contributions made on the wider health and social care system

(i) Evidence Centre impacts

- Three pieces of work on tobacco by the Evidence Centre contributed to the Public Health Smoking Bill.
- A number of interventions in the alcohol area contributed to the Public Health Alcohol Bill.
- Four evidence reviews and membership of a working group contributed to a white paper on universal health insurance.

(ii) EMCDDA impacts

- *The National Drugs Strategy 2009–2016* recognises the HRB as a centre of excellence in drug situation monitoring and reporting, and identifies the HRB as one its two key research agencies, tasking them to ‘Continue to implement and develop, as appropriate, the five key EMCDDA epidemiological indicators and the associated data collection systems’ and to ‘Develop, in association with the EMCDDA, and implement new indicators at national level’.
- Significant gaps in understanding of how illicit drug markets work and how education aids addiction recovery have been filled through ground-breaking research by EMCDDA staff.
- EMCDDA management consistently cite HRB’s drug newsletter *Drugnet Ireland* as the best example of information dissemination by any national focal point.
- Lead role in the Pompidou Group Expert Group, comprising representatives from eight EU Member States, in developing a diagnostic tool for gauging coherency of illicit drug, alcohol and tobacco policies.

(iii) NDC impacts

- The current *National Drugs Strategy 2009–2016* underlines the importance of the NDC to research work in the drugs area stating that: ‘The National Documentation Centre is a significant information resource for researchers, policy makers and people working in the areas of drug or alcohol use and addiction, or related fields’.
- The NDC’s impact study showed that it was used extensively in continuing professional development, as a source of evidence to share with colleagues and in the development of particular service projects.

- Participants on the NDC's online course in evidence-based prevention used their new evidence-finding and appraisal skills in their practice and in decision-making.
- An NDC conference on the theme of the addiction workforce led directly to the preparation of a workforce development plan by HSE treatment and rehabilitation managers.
- Policy makers, working on a new drugs information curriculum for secondary schools, made extensive use of NDC staff's expert search and information management skills.

HRB strengths/competencies that support/will support the delivery of the current and future strategies

- Independence and/or no agenda for or against topics requested by DoH.
- Good network of data providers with goodwill towards the EMCDDA.
- Increasing ability to assess the needs of policy makers and able to turn policy makers' issues into research questions.
- Trust between policy makers and researchers, and availability of policy makers through email or attendance at meetings.
- Availability of training through the HRB's Individual Development Plans.
- Continuous support for systematic searching, and easy access to resources through information specialists and health portal.
- The NDC is used extensively, with 400 unique visitors every day and 729 requests for assistance in 2013.
- NDC staff are able to take large amounts of information and present them in a variety of more usable formats, taking account of the different profiles among library users.
- Systematic methods to deal with large number of search results and extract data.
- Draft protocol for reviewing evidence in place.
- Independence and strong leadership to resist policy makers' changing results.
- Peer review to ensure quality products.

Most important weaknesses/deficits that need improvement or better capacity/expertise

- Limited overall staff skill set. Specifically, we lack skills in international medico-legal, health policy and health economics.
- Limited time allocated to build expertise and rethink approaches and learning as we go.
- Have not penetrated the HSE (service providers) with evidence reviews.
- Interpretation of the EMCDDA objectives meets minimum contractual requirements only. The inability of the EMCDDA team to participate in primary research with their data providers limits their capacity to influence, to encourage evidence-based approaches or introduce new thinking. We are less able to add value and reciprocate the contributions of data providers. This may affect the provision of data in the long term.
- Inability to bring in outside funding for research projects and use research students to complete aspects of research projects leads to missed opportunities in advancing the evidence base.

Section B1: Assessment of overall performance of Goal 4

1.1 Strategic context of Goal 4

1.1.1 Objectives of Goal 4

Goal 4 sets out an overall strategic goal to:

Generate and synthesise evidence and promote the application of knowledge to support decision-making by policy makers and relevant practitioners

The six strategic objectives under Goal 4 are to:

1. Develop a framework to agree priorities and to define appropriate methodologies and approaches to agreed research questions
2. Provide skills to search, interpret, synthesise and use evidence through training and mentoring
3. Establish a knowledge centre to deliver high-quality health information and research evidence and manage the organisation's knowledge resources
4. Meet the evidence requirements of stakeholders in line with agreed priorities
5. Ensure the quality of the data used in and delivered by evidence compilation, synthesis, systematic review and commissioning
6. Investigate and develop new initiatives and mechanisms to incentivise and broker the transfer of evidence into policy and practice

1.1.2 Rationale for identifying the strategic objectives of Goal 4

The increasing emphasis on evidence-based approaches to policy formation in recent decades has highlighted the information gap between researchers and policy makers. A particular challenge to those who wish to see health policy soundly based on research evidence is its enormous volume. The evidence is highly technical, the quality of the research on which it is based varies widely, and the sources from which evidence is drawn are very fragmented. At the time that the HRB strategy was being prepared a number of countries had already developed highly sophisticated models of communication between research and policy. These involved specialised teams working with policy makers to identify where the gaps in information were, design research questions to answer them and prepare timely, accessible and relevant syntheses of the best available research to fill these gaps.

The DoH identified the need for this service in Ireland and agreed with the HRB that the knowledge brokering model of supporting evidence-informed policy was appropriate. The Evidence Centre was established to provide this service directly to the DoH. While there are different models of knowledge brokering, they have in common an emphasis on creating knowledge for use in policy, improving communication between researchers and policy makers, and developing the capacity of policy makers to find and use knowledge themselves.

The HRB's knowledge brokering service was to be created from the organisation's existing resources and we were asked to develop a team with the searching, critical appraisal, synthesis and reporting skills required. Through its work in monitoring and reporting on the drugs situation in Ireland and disseminating research to stakeholders in the drugs and alcohol field, the HRB already had many years' experience in knowledge brokering-type activities. The HRB managed two major drug-related surveillance systems and the data from these systems had informed service provision and policy for many years. The *National Drugs Strategy 2009–2016* recognised the HRB as a centre of excellence and identified the HRB as one of its two key research

agencies, tasking them to: *'Continue to implement and develop, as appropriate, the five key EMCDDA epidemiological indicators and the associated data collection systems'* and to *'Develop, in association with the EMCDDA, and implement new indicators at national level'*. The strategy also underlined the importance of the NDC to research work in the drugs area stating that *'The National Documentation Centre is a significant information resource for researchers, policy makers and people working in the areas of drug or alcohol use and addiction, or related fields'*. An action in the strategy assigns the HRB the task of promoting and enabling research-informed policy and practice for relevant stakeholders through the dissemination of evidence. So, EMCDDA and NDC staff had been involved for many years in the knowledge brokering work which the Evidence Centre was asked to undertake. In addition the HRB was able to use the skills of librarians experienced in the information retrieval and knowledge management work that is so essential for systematic research synthesis.

1.1.3 PESTL analysis for Goal 4 (policy, economic, societal, technological, legislative factors)

- The key political/policy drivers of relevance are the Minister for Health, the DoH, the National Substance Misuse Strategy (Alcohol), the National Drugs Strategy, and the European Drugs Action Plan.
- The economic factors of relevance are the HRB funding through the DoH, and the DoH and the HSE's ability and willingness to fund additional or exceptional activities. The expectation by the DoH that additional activities can be funded within the HRB's existing budget has to be negotiated each time the Department has an additional request. In addition, the HRB budget has been cut by 3% annually each year since 2009.
- The societal and cultural aspect of most relevance to the Goal is whether or not a serious research question can be answered within a short timeframe using 'quick and dirty' processes.
- There are numerous technological innovations used in the delivery of the Goal including Evidence for Policy and Practice Information (EPPI) reviewer; Libguides for the internal health portal; Sharepoint for the EMCDDA national report; the Fonte web application through which data can be uploaded and stored in a central pool across Europe; Eprints repository software for the NDC library collection; Respond customer relations system to manage the NDC's information query service; Newsweaver e-newsletter software to present and deliver all of our web-based newsletters (*eolas*, *Drugnet Ireland* and the *NDC newsletter*).
- The main legislation that impacts on our Goal are the various European directives on psychoactive substances and Council Regulation (EEC) No 302/39 on the establishment of the EMCDDA.

1.1.4 National and International contributions of Goal 4

- Goal 4 has provided the DoH with evidence from the health services and health policy environments of a number of countries whose policy frameworks are relevant to the planned changes in Irish legislation, strategy or practice. This evidence or information enables a better informed and more rigorous approach to decision-making.
- Following requests from the DoH, we have presented the most recent evidence on public health issues such as smoking, alcohol and nutrition as well as reviews on professional regulation, management of health services and other topics. These are valuable supports in the drafting of legislation around these issues and in assessing the need for policy changes.
- Our status as a national monitoring centre on the illicit drugs situation means that we contribute directly to the building of the knowledge base supporting policy decision-making at both national and European levels, and we help to ensure that information is used more effectively by service providers.

1.2 Strategic content of Goal 4

1.2.1 Primary customer of Goal 4

Our primary customer for all activities under Goal 4 is the DoH and our secondary customers are the EMCDDA, Pompidou Group, HSE, drugs task forces and people working in or interested in drugs and alcohol-related topics.

1.2.2 Activities of vital importance to Goal 4 customers

We provide information answering an exact question within a six-month period, and the methods and answer are peer reviewed and independent of the DoH or stakeholders. We complete the requirements of a legal contract from the EMCDDA each year on behalf of the DoH, and, as per requirements of the *National Drugs Strategy*, we provide a publicly accessible comprehensive collection of drug and alcohol research and related information services.

1.2.3 Changes that might enhance the attainment of Goal 4

The Evidence Centre requires a six-month time period for one person to revise our protocol based on our learning over the past three years. The Evidence Centre requires medico-legal, health economics and health policy expertise and an increase in the number of information specialists. While some of this expertise can be bought in on an ad hoc basis, there is an ongoing need for economic expertise in most evidence reviews. The Evidence Centre team are of the view that the evidence review service could be extended to the HSE if resources to do this can be provided. The forthcoming HRB strategy needs to recognise the national alcohol and drugs strategies and the roles of EMCDDA and NDC within them.

1.3 Goal structure/organisation/processes of Goal 4

1.3.1 Goal 4 structure in terms of staff WTE, grades and roles

The Goal was assigned 14.5 WTEs in 2010 and currently has 10.1 WTEs (72% of original capacity) and two contracted services to replace one research officer who is on maternity leave. The EMCDDA team includes a contracted epidemiologist working on a number of key epidemiological indicators, which had been the responsibility of the Head of Unit prior to the restructuring of the organisation. The Goal 4 organisational structure is shown in Appendix 1.

1.3.2 Key processes to manage delivery of Goal 4 objectives and activities

- Memorandum of Understanding between the DoH and the HRB with respect to the Evidence Centre
- Evidence Centre staff select systematic reviews for inclusion in the quarterly newsletter *eolas* (*EOLAS: Evidence Updates for Policy*)
- Evidence review process, protocol and peer review procedure
- EMCDDA legal contract, reporting guidelines, process chart and quality assessment
- NDC strategic plan, marketing plan and process chart, and 2012 evaluation
- *Drugnet Ireland* process chart and guidelines to authors

1.3.3 Critical performance variables that are monitored and tracked across Goal 4

- Compliance with the Memorandum of Understanding with the DoH
- Completion of EMCDDA annual legal contract and activity reports
- Implementation of the NDC strategic plan in line with the expectations of the drugs strategy
- Quarterly service plan deliverables

1.3.4 Financial resources, support services, and technologies required by Goal 4

The annual budget for Goal 4 was: €1.09 million in 2014, of which €521,242 was spent on the Evidence Centre, €284,968 was spent on the EMCDDA, *Drugnet Ireland* and Pompidou Group combined, and €279,000 was spent on the NDC.

Goal 4 staff would also like to acknowledge the assistance of the HRB's Policy, Evaluation and External Relations Unit; the Procurement Manager and our legal services Team, who helped us commission four research projects and procure services on nine occasions; the communications team, who have worked with us to disseminate research findings with respect to alcohol and other drugs on numerous occasions. The ICT Manager has been particularly helpful to the NDC staff whose main library work is web dependent.

1.3.5 Significant changes that have affected the delivery of Goal 4 objectives

The work of the Evidence Centre has, up to now, been solely for policy makers and not service providers. It was originally envisaged (and stated) in the *Strategic Business Plan 2010–2014* that the Evidence Centre would 'support decision-making by policy makers and relevant practitioners'. Due to resource constraints, requests for evidence reviews by 'relevant practitioners', such as the HSE, have had to be commissioned externally.

1.4 Key learning from self-assessment

1.4.1 Evidence Centre key learning

- A protocol and common understanding of what is required is essential, and significant blocks of time are required each year to review the protocol.
- Completing evidence searches and reviews in teams rather than as a sole individual produces a higher quality piece of work and introduces a more standardised approach.
- An information specialist for developing search strategies, ensuring systematic screening, and considering the best approach for quality assessment, is essential.
- The DoH is not able to attend 'search' and 'research training' sessions in large numbers, and we need to enhance analytic capacity within the DoH in an opportunistic manner associated with each evidence review.
- The translation of a policy issue into a research question is an area that we have done some work on, but it requires further work and may require the assistance of a subject expert and a minimum of two meetings with the DoH. In addition, we need a minimum of two progress meetings with the policy makers.
- More internal meetings are required to solve problems and share experiences.
- The Evidence Centre requires medico-legal, health economics and health policy expertise as well as an increase in the number of information specialists.
- The Evidence Centre team feel that the evidence review service could be extended to the HSE if resources to do this can be provided.
- Need to publish evidence reviews and make them widely available.
- Need to develop methods to inform the DoH of the complexity of doing reviews.

2.1.1 EMCDDA key learning

- Promoting evidence-based approaches among stakeholders is a key part of the EMCDDA Focal Point's information network building. As the culture of evidence-based practice strengthens, the demand from stakeholders for this type of support has increased and is bound to grow further.
- The Focal Point's experience in monitoring and reporting, and in working with policy makers, has proved very relevant to the evidence generating and synthesis work of the Evidence Centre, and the work of both strands has benefited from this.
- The EMCDDA has a wide range of stakeholders, and benefits from regular feedback in a variety of forms – the EMCDDA quality reports, regular meetings with the DoH and requests for assistance from several government departments, statutory agencies and NGOs. The variety and range of this feedback has been very helpful.
- One of Goal 3's staff is a key member of the EMCDDA team and the two units have worked together to ensure that data from the National Drug Treatment Reporting System and the National Drug-Related Deaths Index are available for inclusion in tables and for the national report. *Drugnet Ireland* is very useful in helping to compile the national report and make information available to stakeholders. Nevertheless, its future development needs to be informed by outcome-focused evaluation, which can confirm what its impact is or could be.
- The type of data available in the drug responses area are not adequate to answer the type of questions the EMCDDA ask. The quality of this information, and the value of the Focal Point's reporting, could be increased if a coherent evaluation system were to be developed. From our experience in best practice promotion work over the past few years, we believe there is a role for the Focal Point in helping to bring this about.

2.1.2 NDC key learning

- The NDC is integral to the monitoring, reporting and dissemination work of the EMCDDA Focal Point. Nevertheless, the NDC has a distinct information management focus. In setting, and reaching, ambitious targets in this area it brings a different and very valuable perspective to the work of the whole unit.
- The remit of Goal 4 to bring evidence to policy has given an additional dimension to NDC interaction with stakeholders. Being part of a unit with a clearly defined knowledge brokering function has been helpful in developing innovative evidence-to-practice projects.
- Developing and managing an accessible information resource is central to the work of the NDC. Ensuring that these resources are used effectively and can impact on practice requires substantial additional work with stakeholders. Balancing this work with our core information management and dissemination work will be one of the key challenges for us in the new strategy from 2016-2020.
- We know from our evaluation study that we are acknowledged as experts in the sector, but in order to consolidate our profile, we will need to change our name to one that is more recognisable and descriptive of what we do. This will necessarily involve careful consideration of our position within the overall organisation and our contribution to its profile.

Section B2: Specific activities within Goal 4

2.1 Evidence Centre

2.1.1 Strategic context of the Evidence Centre

Specific objectives associated with this strand of activity

The specific strategic objectives associated with the Evidence Centre activity are:

1. Develop a framework to agree priorities and to define appropriate methodologies and approaches to agreed research questions
2. Provide skills to search, interpret, synthesise and use evidence through training and mentoring
3. Establish a knowledge centre to deliver high-quality health information and research evidence and manage the organisation's knowledge resources
4. Meet the evidence requirements of stakeholders in line with agreed priorities
5. Ensure the quality of the data used in and delivered by evidence compilation, synthesis, systematic review and commissioning
6. Investigate and develop new initiatives and mechanisms to incentivise and broker the transfer of evidence into policy and practice

Rationale for the objectives associated with the Evidence Centre strand

These are the deliverables that the DoH required in order to enhance the use of evidence among its staff.

Continuing relevance of the Evidence Centre

These are the requirements developed and agreed with the stakeholders in the DoH to achieve Goal 4, considering existing HRB resources. As far as we know from the DoH, the objectives listed above are appropriate to its need for current information and objective evidence to inform policy and strategy. This is supported by the fact that demand for the service exceeds what we can supply and that the DoH Management Advisory Committee has to prioritise which evidence reviews are completed, from the list of requests received from the DoH. In addition, the Mental Health Unit at the DoH recommended that the HRB would complete the evidence review for the forthcoming suicide strategy based on its experience of working with the Evidence Centre. *eolas*, the DoH quarterly research newsletter, is now produced in partnership with the DoH rather than by the HRB for the DoH.

Appropriateness of the HRB as a location for the Evidence Centre

The DoH requested the HRB to provide these services, as there was no other organisation in Ireland providing such a service to the Department. There is no reason why another organisation could not provide such a service, but it would need to develop knowledge brokering and evidence synthesis skills and gain the DoH's respect and trust in the service, as we have done over the past four years.

2.1.2 Key stakeholders of the Evidence Centre

Key stakeholders

Our key stakeholders are the DoH and the HSE, and this year (2014) we are completing our first review for the HSE.

Interactions with Evidence Centre customers and stakeholders

The interactions with the DoH are managed using a two-pronged approach. One prong is the overall management of the service and the other is the management of individual evidence reviews. The overall

management of the service is achieved through: a memorandum of understanding between the HRB and the DoH; a call for evidence reviews each October; a prioritisation exercise to rank applications by the DoH Management Advisory Committee; an appendix for each year is attached to the Memorandum of Understanding to summarise the service activities and their deadlines; and quarterly progress meetings are held to discuss achievements.

The management of individual reviews is through: the completion of a needs assessment form by the DoH; one to two meetings and a number of email exchanges to agree the research requirements and finalise the needs assessment form; and one or two meetings to follow up on progress during the review period; a presentation of the review findings and comments on the draft report by the policy maker on the review.

Feedback from Evidence Centre customers and stakeholders

The DoH provides comments as to whether each review answered the questions posed and whether any clarifications are required. Two international peer reviewers provide comments pertaining to the completeness and accuracy of each evidence-based review. A survey of *eolas* readers was completed in 2012 by the DoH with technical assistance from the HRB.

Remaining stakeholder issues for the Evidence Centre

The policy problems posed, and the questions developed to address these, are often very difficult to answer, and this is an area where the DoH and the HRB need to develop better skills through a mix of training, experience and listening to each other. The timescale for some of the reviews limits the completeness of the review, and the resources required for the review are not always available within the timescale set by the DoH. The subject matter of some of the reviews is outside the skill set of the Evidence Centre team, in particular in relation to legislation, health economics and health policy.

2.1.3 Deliverables and indicators of progress of the Evidence Centre

Key deliverables of the Evidence Centre

- Memorandum of Understanding (MOU), including updated annual appendix (signed in 2013, completed appendix for 2013 and 2014).
- Programme of training for HRB staff (including knowledge broker training, writing skills, systematic searching, interpretation of systematic analysis, critical appraisal and use of a databases to document methods, as well as searching and continual support from an information specialist and the HOU) (completed training and support ongoing).
- Programme of training for DoH staff (not completed: a knowledge brokering seminar training was provided; a commissioning research protocol was developed for the DoH, but it was decided by the Department not to introduce widespread training for this; the Department's own information specialist provides search skills training, but notes that there is low attendance at such seminars).
- The Cochrane database licence is purchased by Goal 4 and the training programmes are delivered by Goal 2 (completed annually).
- Functioning health portal (an internal resource) and knowledge centre (with information specialist) to facilitate evidence gathering requirements and nationally accessible Cochrane Library (completed and updated annually).
- The evidence is produced through:
 - i. Review of knowledge brokering literature
 - ii. Four issues of *eolas* each year (One issue in 2010 and four in 2011, 2012 and 2013, and two to date in 2014)
 - iii. Five evidence reviews each year. A full list of the evidence reviews conducted on behalf of the DoH since 2010 is provided in Appendix 2

- iv. Up to three searches annually
- v. Commissioned studies where evidence did not exist (Public knowledge, attitude and behaviours towards alcohol, National Alcohol Diary Survey) or where expertise did not exist (Independent hospital trusts in Norway and New Zealand)
- The evidence is brokered through:
 - i. Provision of up-to-date happenings in research through *eolas*
 - ii. Provision of evidence and information through presentations (of evidence reviews) and their summaries
 - iii. Assistance in the use of evidence through membership of working groups (such as alcohol, universal health insurance, and tobacco)
- The quality of the reviews is ensured internally through the development and updating of a process and protocol for completing evidence reviews, taking account of types of reviews and externally through peer review.
- Pilot initiatives in relation to Goal 4 only include those described above. However, Goals 1 and 2 have introduced some knowledge brokering initiatives through funding schemes.

KPIs and progress made by the Evidence Centre

Targets are set based on the staff whole time equivalents and other resources available to complete the work. Deadlines for the reviews are set by the DoH, with some input from the HRB.

- MOU including updated annual appendix available on 1 February each year
- Programme of training for HRB staff as part of their Individual Development Plan
- Information specialist support, functioning health portal on HRB intranet and nationally accessible Cochrane Library
- Four issues of *eolas* published quarterly since the winter of 2011
- Five evidence reviews per year delivered in accordance with deadlines
- Up to three searches delivered within requested timeframe
- Membership of working groups: meetings attended and requested input completed
- Internal quality control (Performance Management Development System, protocol and support) and external quality controls (DoH comments and peer review).

These targets have been achieved, and while we may not have had the time, resources or expertise to ensure that the work was always of the highest quality, on the other hand, we have gained a lot of experience on the job and the quality of evidence reviews is improving all the time.

Rationale for retaining/further developing the Evidence Centre under a new strategy

The HRB has invested in this process, for example the Evidence Centre staff completed training on knowledge broker training, writing skills, systematic searching, interpretation of systematic analysis, critical appraisal and use of a database to document methods. The Evidence Centre staff also developed a draft protocol for evidence reviews; however, this requires further work on an annual basis and is not a finished product. The Evidence Centre team can for the most part provide adequate evidence reviews on a variety of issues in a timely manner. It appears that the DoH finds these activities useful and continues to read *eolas*, request reviews, searches, as well as request Evidence Centre staff members to join working groups.

Outstanding issues for the Evidence Centre

When the timeframe for a review is less than six months, or when the research questions are unclear or the questions are too broad, it is very difficult to complete a high-quality piece of work.

As already stated, there are no other groups in Ireland doing this work, so the DoH may be very disappointed if it loses the service.

These activities were achieved in the context of two non-replaced staff members who are on maternity leave, one staff member who is on three-year leave of absence, and one staff member who has a long-term illness. The activities were facilitated by the co-operation and assistance of colleagues from the EMCDDA team (through researchers completing reviews) and the NDC team (through assistance with searches and inter-library loans).

We would also like to acknowledge the assistance of PEER for managing commissioning projects; the Procurement Manager; our legal services team and the communications team, who provide significant assistance to the Evidence Centre team.

2.2 European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

2.2.1 Strategic context of the EMCDDA

Specific objectives associated with the EMCDDA

The specific strategic objectives associated with the EMCDDA activity are:

- Meet the evidence requirements of stakeholders in line with agreed priorities
- Investigate and develop new initiatives and mechanisms to incentivise and broker the transfer of evidence into policy and practice.

The EMCDDA business area supports these objectives by managing the Irish Focal Point for the European Monitoring Centre on Drugs and Drug Addiction (EMCDDA) and fulfilling our contractual obligations with regard to monitoring, reporting on and disseminating information on the Irish drugs situation and responses to it. Our quarterly research and policy bulletin, *Drugnet Ireland*, is used to both collate data required by our reporting function and to add value to our contract by disseminating evidence to stakeholders. Goal 4 staff also contribute to Ireland's obligation as a member of the Council of Europe's Pompidou Group.

Rationale for the objectives associated with the EMCDDA

The control of illicit drugs in Europe is an EU-wide task and requires a coordinated response from the European Commission, Member States and several agencies. The EMCDDA provides the EU and its Member States with information on the nature, extent, consequences of, and responses to, illicit drug use. This is the evidence base supporting the formation of policy. It works in close cooperation with other agencies such as Interpol on supply issues and with the European Centre for Disease Control on drug-related infections.

Each Member State is obliged under European law to establish a Focal Point in their country and report to the EMCDDA. The DoH has designated the HRB as the Irish Focal Point to the EMCDDA, and the Focal Point's contribution to the implementation of the EMCDDA's annual work plan is detailed in an annual contract. *Drugnet Ireland* is one of the methodologies we use to prepare content for our EMCDDA national report throughout the year. It fulfils a key part of the Focal Point's information dissemination responsibilities to our local audience and effectively adds value to our EMCDDA role as a source of relevant, timely and reliable information on drugs and alcohol policy and research. As a member state of the Council of Europe, the Minister for Health requires that Ireland contribute to the Pompidou Group's multidisciplinary forum on drugs. The Focal Point has the information required to fulfil this role on behalf of Ireland.

Continuing relevance of the EMCDDA

The EMCDDA is a central knowledge hub and an authoritative source of evidence on illicit drugs in Europe. This role is clearly acknowledged in all the relevant EU policy documents. It is dependent on the 30 Focal Points to supply national data to fulfil this role and Member States' obligations are unlikely to change in the near future. *Drugnet Ireland* is the only periodical in Ireland dedicated to drugs and alcohol research and policy matters, and will remain an important source of information in this area for service providers and

policy makers. The DoH has maintained membership of the Pompidou Group and continues to request that the HRB be actively involved in Pompidou Group activities.

Appropriateness of HRB as the location of the EMCDDA

The HRB's designation as Irish Focal Point was a logical outcome of its development as a centre of drug and alcohol research in Ireland. EMCDDA Focal Point work demands expertise in monitoring and reporting and the meticulous building of a network of information providers among service providers and policy makers. Currently, this knowledge is concentrated in the HRB, and the Focal Point is the hub for both providers and users of the information that is gathered and reported to the EMCDDA. The Focal Point's work aligns with the unit's overall objective of generating and synthesising evidence to support decision-making. The locations of national Focal Points do change and it would be possible for another agency to carry out this work. However, this would involve a sustained period of capacity and reputation building and would necessarily mean a significant reduction in Ireland's reporting capacity for several years.

2.2.2 Key stakeholders of the EMCDDA

Key stakeholders of the EMCDDA

Our key stakeholders are the EMCDDA, the DoH, drugs and alcohol task forces, and the HSE.

Interactions with customers and stakeholders of the EMCDDA

The DoH has designated the HRB as Ireland's National Focal Point and our work for the EMCDDA is defined by an annual contract. This role gives the HRB the authority and status to collect data and to use the evidence we gather to inform practitioners and policy makers. Focal Point staff attend regular meetings in the EMCDDA and work with the EMCDDA and with national partners to develop standards for the collection and analysis of data. The Head of Focal Point meets frequently with the Principal Officer responsible for drugs policy in the DoH. We develop a network of information providers in government, health services, security services, the public service, community and voluntary sector, and NGOs. These networks are essential for gathering data but are also very valuable for ensuring that evidence is made available where it is needed. The Focal Point also disseminates EMCDDA publications and research outputs. *Drugnet Ireland* keeps policy makers, educators and practitioners abreast of current happenings in their area. It is written in a consistent style (using plain English and content editing). We update our mailing list annually. There are 970 people on our hard copy mailing list and 680 people on our soft copy mailing list.

Feedback from customers and stakeholders of the EMCDDA

The EMCDDA prepares a quality report for each Focal Point based on the content of its national report and tables and questionnaires submitted. These reports always rate the quality of the reports provided by the Irish Focal Point highly, and we know from the EMCDDA that we are among the higher performing Focal Points. We meet regularly with the DoH and we advise our national representative prior to management board meetings. Recognition of our contribution is evident from support for our work, which is recorded in correspondence. EMCDDA staff are regularly asked by stakeholders to sit on advisory or working groups and their input is highly valued. We provide expertise on prevalence studies and other research work commissioned by the National Advisory Committee on Drugs and Alcohol (NACDA) and Focal Point staff are members of all NACDA committees and subcommittees. Senior EMCDDA staff frequently cite *Drugnet Ireland* as a good example of adding value to monitoring and reporting work. We know from colleagues that it is read widely and is seen as a reliable and value source of information. At least three out of four respondents to the 2012 NDC survey found *Drugnet Ireland* useful or very useful. Our Pompidou Group representative has had very positive feedback on staff participation in the expert group on Coherent Drug, Alcohol and Tobacco Policies, and she has been joint author of two of its reports.

Remaining stakeholder issues for the EMCDDA

EMCDDA staff have effectively a dual role; when dealing with the EMCDDA they are identified exclusively with the Irish Focal Point. In their research dissemination and education work they are seen as representatives of the HRB. Generally, this is manageable and relations with all stakeholders are good. We need to evaluate *Drugnet Ireland* and get up-to-date information on how it is being used and how it is perceived. The HRB and the Permanent Correspondent in the DoH do not plan how to make the best use of the potential that is represented by the skills and resources contained within the Pompidou Group.

2.2.3 Deliverables and indicators of progress of the EMCDDA

Key deliverables of the EMCDDA

- Fulfil terms of annual contract with the EMCDDA
- Publish four issues of *Drugnet Ireland* per year
- Comply with DoH requests for contributions to Pompidou Group projects

KPIs and progress made by the EMCDDA

- (EMCDDA) *Internal content and quality checks*: Check coverage in the ten chapters of national report against the NDC database; edit all chapters following submission by authors; check tables and structured questionnaires; final edits of *Drugnet Ireland* articles are used in national report chapters
- (EMCDDA) *External content and quality checks*: Assessment of structured tables and standard questionnaires (approximately 20 per year); quality report on national report; submit final and interim activity reports
- (EMCDDA) *Audit*: External auditors of Focal Point accounts – submitted to EMCDDA prior to grant application
- (*Drugnet Ireland*) All articles are copy edited by a professional editor; quarterly service plan
- (Pompidou Group) Quarterly service plan

Rationale for retaining and developing the EMCDDA under a new strategy

The EMCDDA uses a number of indicators to provide reliable and comparable information and to report on trends and developments. Ireland can provide data for almost all of these indicators, and this information is available to the Focal Point through its extensive network of information providers. Ireland is regarded as a high-performing Focal Point, and HRB staff contribute extensively to indicator development work led by the EMCDDA. Our evidence dissemination activities are frequently commended by the EMCDDA and referred to as a good example of the type of value-added work that helps to embed Focal Points in their research environment. Policy makers regard us a reliable source of information and advice on all the indicators and, increasingly, on new drugs through our participation in the EMCDDA's early warning system. The Focal Point's monitoring and best practice work is highly compatible with the other strands in Goal 4, and the atmosphere in the unit is strongly collegiate and supportive. *Drugnet Ireland* is an integral part of the Focal Point's reporting process and an invaluable tool in both informing practice and raising the profile of the HRB in the sector. Participation in the Pompidou Group provides exposure to ideas/developments in other jurisdictions, an opportunity to promote Irish policy and practice developments, and contribute to the goals and objectives of the Council of Europe.

Outstanding issues for the EMCDDA

As a result of the organisational realignment in 2010, the number of staff working full time on EMCDDA work was substantially reduced. The solution has involved partial reassignment of staff from other strands and covering some indicators through external service contracts. This has involved a period of familiarisation and training and has put pressure on the unit's resources. The EMCDDA has a strong epidemiological focus with an emphasis on situation reporting. Within the Irish Focal Point there is considerable expertise in the area of

responses and interventions, and this knowledge could be used much more effectively by the EMCDDA if the organisation were to devote more resources to developing responses indicators.

There is one Focal Point per country. Recognition of the importance of holding a major EU contract in the new strategy would indicate the importance of the strand to the HRB and would strengthen the Focal Point's status among stakeholders, particularly the DoH. Ireland is obliged to support a Focal Point, and a new one would need to be established if the HRB were not involved. Links with data providers, built over many years, would be strained and the HRB's profile among the EMCDDA's main stakeholders in the EU and the UN would be lost. Our profile in an important sector of the public health field would be significantly diminished. Knowledge, which has been so instrumental to the creation of the organisation's evidence generation function, would be lost to the HRB and would weaken its knowledge brokering capacity.

2.3 The National Documentation Centre on Drug Use (NDC)

2.3.1 Strategic context of the NDC

Specific objectives associated with the NDC

The specific strategic objectives associated with the National Documentation Centre (NDC) activity are:

- Meet the evidence requirements of stakeholders in line with agreed priorities
- Investigate and develop new initiatives and mechanisms to incentivise and broker the transfer of evidence into policy and practice

The NDC contributes to these objectives by working to meet the information needs of policy makers, practitioners and researchers in the alcohol and other drugs area. The *National Drugs Strategy 2009–2016* describes the NDC as a 'significant information resource for researchers, policy makers and people working in the areas of drug or alcohol use and addiction, or related fields'. NDC staff provide one point of access to research, and also contribute to the effective use and transfer of this research evidence into practice. Our website and online repository and our library information services are used extensively in continuing professional development and as a source of evidence for practitioners and policy makers.

Relevance of strategic activity of the NDC

The *National Drugs Strategy 2009–2016* acknowledges the importance of the NDC as a knowledge resource in the drugs and alcohol area, stating that '*The National Documentation Centre is a significant information resource for researchers, policy makers and people working in the areas of drug or alcohol use and addiction, or related fields*'. Given the increasing recognition that policy and practice needs to be more informed by high-quality evidence, the role of the NDC is highly relevant.

Appropriateness of HRB as location for the NDC

The HRB is the right organisation to host the NDC given its track record in the drugs and alcohol area, coupled with the fact that it hosts the Irish Focal Point for the EMCDDA. The NDC staff have the specialist skills and knowledge required to manage this unique resource (such as finding and cataloguing literature, creating resources, maintaining and developing repository systems and copyright law).

2.3.2 Key stakeholders of the NDC

Key stakeholders of the NDC

Our key stakeholders are the Department of Health, HSE, healthcare practitioners, students, educators, and researchers in the drugs and alcohol field.

Interactions with customers and stakeholders of the NDC

Our online repository provides access to more than 11,000 research and policy documents. Our library in the HRB is open to the public, who are free to use our book and journal collections as well as our online bibliographic databases. HRB staff have access to all library material through a special library portal. We operate an online and telephone information query service. We maintain a customer query system (Respond) where we log queries and our responses. We also record monthly statistics (from Respond, repository software, and Google Analytics). We have developed a network of key contacts from diverse backgrounds in the alcohol and other drugs area. Examples of some initiatives we have undertaken are as follows:

- We have provided library instruction and outreach work with third-level courses and task forces
- We attended and presented at both internal and external conferences and events
- We distribute a monthly newsletter providing access to recent library acquisitions
- We prepare an annual directory of training and education courses in the drugs and alcohol area
- We hosted a networking conference (*Putting knowledge to work through education: substance use workforce development*).
- We regularly update the DoH on our activities
- We commission evidence reviews supporting the use of evidence in decision-making by stakeholders

Feedback from customers and stakeholders of the NDC

The NDC staff consistently collect data on the use of our services and resources and seek to establish the extent to which these have met the information needs of our users. During 2012 we undertook two studies to find out what our stakeholders think of our resources and services, and to see how using the NDC had affected their work and study. Results of this research provided an overview of the types of users accessing the NDC, their views on the quality and usefulness of resources and services, and our scope for future development. We have recently developed a marketing plan which sets out activities to identify the unfulfilled needs of customers and develop solutions, and this will ensure a more consistent and effective approach to promotion.

Remaining stakeholder issues for the NDC

We have identified that we need to better communicate the value of our services to potential stakeholders. We also need to develop resources to suit the specific needs of target customers. A change of name (e.g., National Drugs and Alcohol Library) may be more recognisable by stakeholders.

2.3.3 Deliverables and indicators of progress of the NDC

Key deliverables of the NDC

- Ensure 100% coverage of all published reports and research on drug use that relates to Ireland since 2000, as measured by annual survey of existing documentation sources
- Be the leading source of grey literature for documents issued after 2000, as measured by comparison with appropriate Irish academic collections including Lenus, the National Research Repository (RIAN) and university repositories
- Develop the reputation of the NDC through publishing the findings of research and evaluations, and presenting at national and international conferences and other events
- Provide an efficient and responsive query service to all NDC users
- Identify opportunities for cooperative and collaborative working both within the HRB and with other organisations and networks
- Augment the Irish collection with a substantial collection of internationally published research

- Support staff in acquiring and maintaining the skills and knowledge needed to contribute to the achievement of the strategic goals of both the NDC and the HRB
- Develop information resources which increase the knowledge of research-based evidence and the use of this evidence
- Determine level of user satisfaction with services
- Establish a leading role for the NDC in the conversion of research-based knowledge into substance use practice in Ireland
- Increase levels of research literacy through structured and targeted education programmes and training
- Seek to inform policy in this area through contributions to the debate around evidence and knowledge-to-practice issues.
- Assess the impact that using NDC resources and services has on stakeholders.

KPIs and progress made by the NDC

Each deliverable has a number of actions associated with it and progress under each action is recorded in our *Framework for strategic development* document. Examples of progress made during the term of the strategy are as follows:

- Audit of all information sources on published material and grey literature for 2011–2013 completed
- Published three articles, based on studies of NDC activities, in peer-reviewed journals
- Presented papers at national and international conferences
- Organised conference on substance use workforce planning
- Completed impact study of NDC resources and information services
- Published updated directory of training and education courses annually
- Published two online instruction tutorials for NDC repository users.

Rationale for retaining and developing the NDC under a new strategy

We have a close working relationship with our colleagues in the HRB, particularly the EMCDDA and drug information systems teams, and with the DoH. We have set ambitious goals, which we have largely achieved. Our evaluation study shows our value and impact on stakeholders.

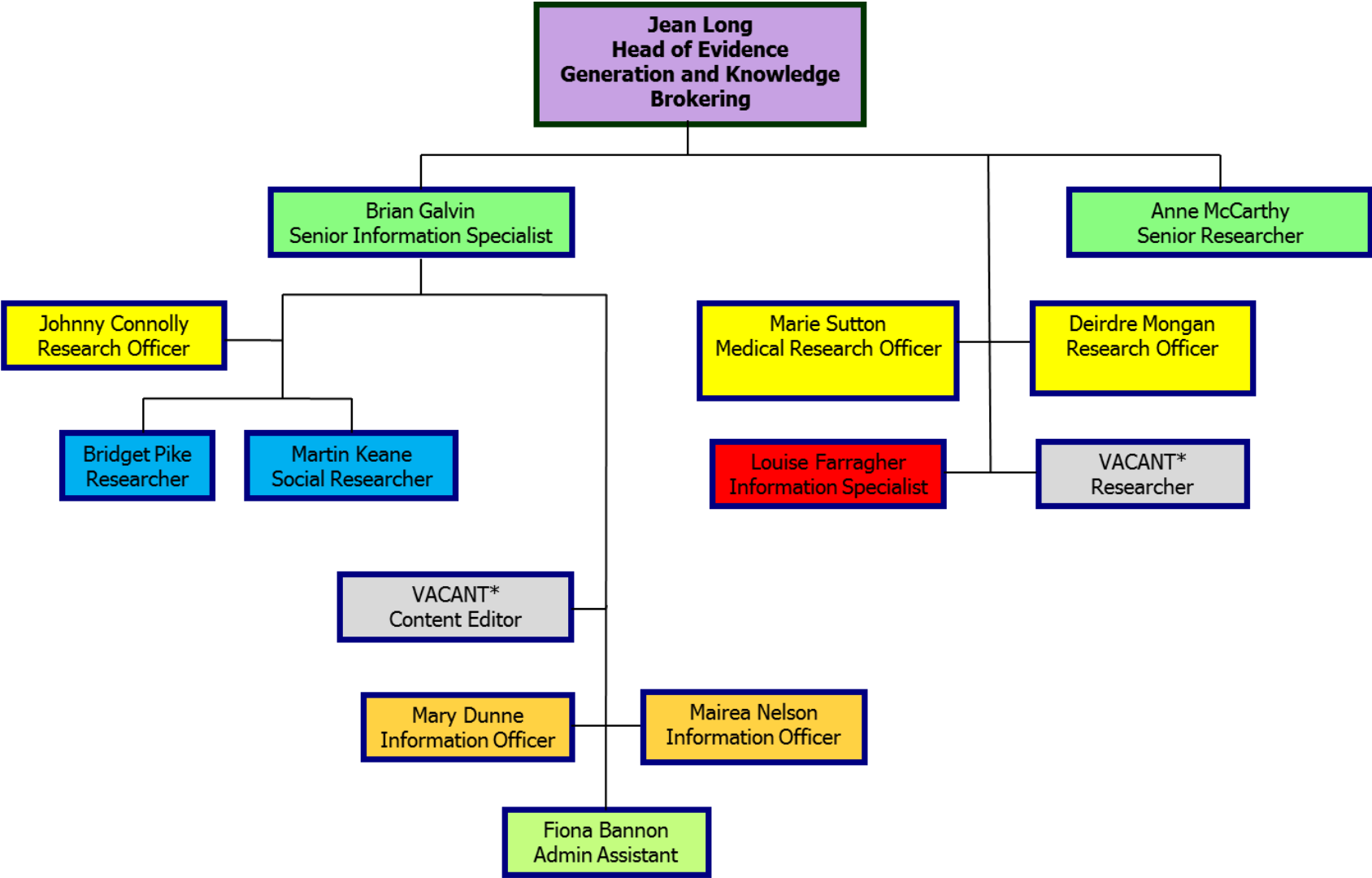
The NDC is an integral part of Goal 4. We fulfil much of its mandate to enable evidence to be used in policy and practice. Our leading role in knowledge transfer, and the DoH support of this work, strengthens our opportunity to contribute to the upcoming drugs strategy.

Outstanding issues for the NDC

If the NDC were discontinued, the ensuing negative internal and external effects would include:

- Reporting and dissemination work of other HRB strands in the drugs and alcohol area would be adversely affected
- Loss of a special and unique collection and related resources for everyone working in the drugs and alcohol area
- Loss of specialist staff skills and knowledge
- Significant reduction in the HRB's profile among an important sector in the public health area
- Significant reduction in the HRB's ability to achieve its goal to inform decision-making by healthcare practitioners and policy makers

Appendix 1: Goal 4 organisational structure



*VACANT indicates where the HRB has lost a staff member who was not replaced due to the current Recruitment Moratorium

Appendix 2: List of reviews, surveys and other work completed or ongoing by the Evidence Centre for the DoH

Year		Review title	Use
2010-2014	1	15 issues of <i>eolas</i>	The DoH in collaboration with the HRB issues a newsletter, titled <i>eolas</i> to staff. The purpose of this quarterly newsletter is to increase awareness of and use of health research at the DoH. Contents include relevant systematic reviews published in the preceding three months, relevant peer-review publications by Irish authors, international organisation publications and links to DoH, HIQA and HSE publications. The newsletter is produced in PDF format and is delivered by email, is available on the DoH intranet and also in printed format.
2010-2014	2	Membership of alcohol strategy working group and three evidence reviews (minimum unit price, regulating marketing, social responsibility levies), two national surveys (peoples' perceptions of alcohol and National Alcohol Diary Survey) and assisted in the completion of an impact analysis	Develop a national substance misuse strategy, write a briefing note for government on the strategy, and prepare a public health alcohol bill.
2011 reviews and searches	3	Mental health: a rights-based approach (search and presentation only)	The DoH Mental Health Unit was undertaking a review of the Mental Health Act 2001 with a view of updating it in line with current international approaches and best practice. The presentation and brief scoping document identified definitions, concepts and issues relevant for a more detailed scoping or consideration of a rights-based approach to mental health with relevant links to literature, and provided a starting point for reviewing the Mental Health Act 2001.
	4	Mental health: community treatment orders	The DoH was undertaking a review of the Mental Health Act 2001. To inform this review, the DoH requested the HRB to undertake a review of the practice and evidence for Community Treatment Orders (CTOs) in other jurisdictions, and provided evidence that they are not more effective than treatment as usual and they are less respectful.
	5	Older population: measures of positive ageing	The DoH wished to develop a national set of wellbeing indicators for older people known as 'positive ageing indicators' already in use internationally, in order to: <ul style="list-style-type: none"> • assess and describe older people's situation in Ireland • monitor outcomes for older people • monitor the implementation of policies, services and/or programmes that seek to

Year		Review title	Use
			<p>improve older people's lives</p> <p>This review provided a description of indicators used and their effectiveness.</p>
	6	Older population: measures of non-restraint in older people in nursing homes	<p>The DoH was developing a non-restraint policy document for nursing homes to raise awareness of the use of restraints and to move towards a restraint-free environment.</p> <p>The review identified indicators of restraint that have been developed internationally to verify the effectiveness of the policy.</p>
	7	Quality standards in disability services	<p>The terms of reference for the Value for Money and Policy Review that was undertaken by the DoH required an assessment of outcomes and effectiveness, and the identification of performance indicators to monitor and evaluate disability services. The review identified the three quality systems that are available both in Ireland and internationally and the evidence of their effectiveness.</p>
	8	Legislation for vetting of people working with children and vulnerable adults	<p>In Ireland, legislation was required to place the vetting of people working with children and vulnerable adults under a statutory rather than an administrative remit. The Department of Justice and Law Reform, (now the Department of Justice and Equality) with assistance from the Department of Children and Youth Affairs, intended to draft such legislation. At the time, people working with children and vulnerable adults were vetted through the Garda Vetting Office using 'hard' criteria (such as successfully prosecuted for a crime).</p> <p>The HRB reviewed the experience of enacted legislation for vetting of people working with children and vulnerable adults in selected countries. The review was completed through a review of literature and websites.</p>
	9	Golden hour (search)	<p>The DoH wished to analyse the relationship between patient volume and patient outcome, i.e., does increased patient volume lead to better outcomes and vice versa. More specifically, the DoH requires information on outcomes for the following three conditions:</p> <ul style="list-style-type: none"> • Stroke/cerebrovascular accident • Myocardial infarction • Major accidental trauma. <p>The HRB completed a systematic search for relevant literature and delivered the papers to the relevant policy maker.</p>
2012 & 2013	10	Membership of UHI working group	
2012 reviews and searches	11	Evidence-base for undergraduate nurse and midwifery education	<p>This evidence review provided the DoH with the best available evidence on the effectiveness of undergraduate nursing and midwifery curricula, so that the Department could improve the evidence base for the current curricula.</p>
	12	Exposure to secondhand	<p>This review provided the DoH with an overview of the</p>

Year		Review title	Use
		smoke in cars carrying children: Epidemiology and measurement	epidemiology of passive smoking exposure for children and its measurement, so as to provide background evidence for the proposed legislation to ban smoking in cars carrying children.
	13	Exposure to secondhand smoke in cars carrying children: Responses	This review provided the DoH with a review of the experience from other jurisdictions that have implemented legislation to ban smoking in cars carrying children, so as to provide background evidence for the proposed legislation.
	14	Review of independent hospital entities	This review provided the regulatory framework in which 'independent hospital trusts' are created and operate in the UK; the timeline from conception to full implementation to help the DoH prepare for independent hospital groups.
	15	Review of health insurance system: Czech Republic	This review described the health insurance system in the Czech Republic as part of the white paper on universal health insurance.
	16	Review of methods to award means tested subsidies	The review provided an overview of methods to award means tested subsidies in Ireland so that the DoH would have a basic briefing on process and criteria that could be used to subsidise universal health insurance (UHI).
	17	Professional regulation: medical practitioners	The Professional Regulation Unit at the DoH wished to amend medical practitioner legislation with respect to registration. The review provided a description of the registration of medical practitioners in specific countries and any concerns that those countries had in relation to such legislation.
2013 reviews and searches	18	Professional regulation: dental practitioners	The Professional Regulation Unit at the DoH wished to amend dental practitioner legislation with respect to registration. The review provided a description of the registration of dental practitioners in specific countries and any concerns that those countries had in relation to such legislation.
	19	Professional regulation: other practitioners who work with dentists	The Professional Regulation Unit at the DoH draws up legislation for health and social care professions. The purpose of this review was to document regulation processes for dentists and dental auxiliaries. The countries included in the review were Ireland, United Kingdom (UK), Australia, New Zealand, Canada, France and Sweden.
	20	Clinical audit: criteria for selecting topics and criteria for evaluation	The National Clinical Effectiveness Committee's required the international criteria for the prioritisation of clinical audit and the global criteria for quality assurance of clinical audit for use in the Irish health system.
	21	Integration of health and social care and medical care (paid for through universal health insurance) and social care services	The government is committed to the introduction of a single-tier health service, supported by UHI. Under UHI, everyone will be insured for a standard package of primary and hospital care services, including mental health services. It is understood that primary and hospital care will be funded mainly via the UHI system, and social care services and public health

Year		Review title	Use
			services will be funded by general taxation. While funded separately, these services will need to be delivered in an integrated manner around the needs of the person. This review presented the international evidence in relation to mechanisms and structures used to integrate health services provided under UHI and social care services provided through public funding.
	22	Economic regulation and governance in healthcare	The DoH asked the HRB to define economic regulation, governance and sustainability as used in the healthcare setting, and outline the development of economic regulation and healthcare governance in three settings: England, The Netherlands and the United States of America. This is being used as part of the information required to establish hospital groups.
	23	Standardised packaging for tobacco products (search and membership of working group only)	This information was used as part of the background evidence for drafting of the Public Health Bill on Tobacco.
2014 reviews and searches	24	Mentoring supports for doctors in postgraduate training programmes	This review was completed to inform the deliberations of the committee tasked with completing a strategic review of medical training and the associated career structure.
	25	Career structures for publicly funded tenured medical posts	This review was completed to inform the deliberations of the committee tasked with completing a strategic review of medical training and the associated career structure.
	26	Methods of GP remuneration for chronic disease management	The programme for government provides for the introduction of a new General Medical Services GP contract with an increased emphasis on the management of chronic conditions. This review explored mechanisms for remunerating general practitioners and practice nurses for such work.
	27	Food pyramid: review of carbohydrate and fat content (ongoing)	This review examined the recommended number of servings, portion sizes and calorie content for carbohydrates and fats in terms of food as part of the DoH process to review Ireland's food pyramid. It also examined the relationship between fats and carbohydrates.
	28	Review of the health effects of community water fluoridation (ongoing)	This evidence review will be a core component of definitive intelligence to inform the DoH and thus inform future fluoridation policy.
	29	Review of independent hospital trusts in Norway and New Zealand (ongoing)	The DoH has asked the HRB to commission an expert or team of experts in health sector reform to complete an evidence-based review of the experience of creating independent hospital entities from state-owned or partly owned infrastructure in Norway and New Zealand. This will be used to guide the development of independent hospital groups.
	30	Review of standard drink recommendations in partnership with the HSE and the DoH: evidence	This was a request from the DoH Secretary General, and is part of a European Commission research project titled RARHA.

Year		Review title	Use
		review and survey findings (ongoing)	
	31	HSE suicide review	Identify and describe the evidence for population-, individual- and therapeutic-based interventions that reduce the incidence of suicide and suicidal behaviour, and comment on the strength of the evidence for each intervention.

Annex C: HRB Board Report

Health Research Board

Strategic Assessment Board Review



3 October 2014

Table of Contents

Executive Summary	166
1. Introduction.....	167
1.1Report Context	167
1.2Objectives of the Review	168
2. Methodology	169
2.1Review Approach	169
2.1.1 Plenary Meeting Facilitation	169
3. Findings.....	170
3.1Overview	170
3.2By Goal	171
3.3By Goals and Key Actions	173
3.3.1 Goal 1	173
3.3.2 Goal 2	175
3.3.3 Goal 3	177
3.3.4 Goal 4	178
4. Conclusion	180
4.1 Conclusion	180
4.2Lessons Learned	180
4.2.1 Cluster and Network Formation	180
4.2.2 Funding	180
4.2.3 Developmental role for Health Research Board	180
4.2.4 Assumptions	180
4.2.5 Strategic review	181
4.2.6 Health Research Board Mission/Vision	181
4.2.7 Engagement with Department of Health/Health Service Executive	181
4.2.8 Board make-up	181
5. Appendices	182
5.1Participants	182

Executive Summary

This review provides an analysis and assessment by the Board of the HRB of the implementation of *The HRB Strategic Business Plan 2010-2014 (The future of Irish health research)*. The primary method of analysis was a qualitative assessment of each objective and key action to judge the overall success/failure of each aspect of the strategy. Each objective and key action was discussed and appraised by the Board to give a rounded view of the overall success of the strategy.

The review found that there had been varying success with the implementation of the strategy but overall it had achieved the majority of what it had set out to do. It was noted that the HRB had been operating in a difficult environment since the strategy was prepared and that the quality of the agency's work had remained consistently high throughout the life cycle of the strategy.

It was acknowledged by the Board that the HRB had remained highly visible and regarded by the academic community, but that it had been unable to fully convince the Health Service Executive (HSE) of the benefits of engaging in and supporting health research. The Department of Health (DOH) had been supportive of the HRB but it is the perception of the Board that the DOH does not understand why the HRB cannot respond to strategic priorities more quickly.

Whilst the Board are aware of the economic and job creation opportunities provided by research, it should be a priority of the next strategy to ensure that the HRB ensures alignment of its funding to support national health or HSE priorities and that it cannot just continue to conduct excellent research alone.

The HRB needs to be absolutely clear whom it is targeting in terms of influence and visibility. In the next strategy, more emphasis should be placed on improving awareness of the HRB amongst the academic community, the DOH and the HSE. This will help to make the case for additional funding through the DoH and may persuade the HSE to engage more in research

It should be stated that the central focus of the last strategy which was to move the HRB away from laboratory based research and more into a clinical/ population health/ health services research portfolio of funded research. This was a new and significant departure. It should be acknowledged the significant progress made in effecting this change (as noted in Goal 2) at a time when HRB funding was cut.

It is acknowledged that HRB resources (headcount and budget) have decreased significantly over the course of the strategy. Whilst some operational efficiency was achieved, a strategic response to the reduction in resources was not elicited. Such a capacity/mechanism should be a feature of the next strategy

Finally, it is imperative to get the message across to government that from a health research perspective 'today's research is tomorrow's healthcare'.

Included in the conclusion of this review are the lessons that should be learnt from the 2010 – 2014 strategy, which should ultimately guide the development of the next HRB strategy.

1. Introduction

1.1 Report Context

The Health Research Board (HRB) is an Irish statutory body with three primary functions:

- Aiming to promote, commission and conduct patient oriented, population health sciences and health services research in Ireland.
- Maintaining five national health information systems.
- Influencing health research policy in Ireland by engaging with numerous stakeholders including the Department of Health, Health Service Executive, Science Foundation Ireland, Enterprise Ireland, HIQA and industry partners.

The HRB Board is chaired by Dr Declan Bedford who had been in the post since 2012. Dr Graham Love was appointed as the agency's new CEO in early 2014.

The involvement of the public health sector with research, and its capacity to do so, is not as established as it should be in Ireland. However, the case studies reported annually in *'Picture of Health'* demonstrate the integral position research had in the future development of healthcare innovation in the Irish health system and the HRB's role in shaping and promoting it.

The HRB is currently faced with a changing economy and a rapidly evolving healthcare landscape both nationally and internationally. The Irish environment in particular had seen significant recent developments. The key sources and triggers of change impacting on the HRB include:

- The healthcare priorities of the current Government, including the introduction of Universal Healthcare Insurance are fluid, and subject to change.
- A shift in the balance between the Department of Health and the Health Service Executive, with the Department increasingly focused on policy and control.
- The planned emergence of new entities such as the Healthcare Commissioning Agency, the Patient Safety Agency and the establishment of the Healthcare Pricing Office, whose functions in particular could affect the HRB's role in national health information systems.
- The move to Hospital Groups with the eventual goal of independent not-for-profit hospital trusts. Each Group has an academic partner and their development will affect the HRB's existing relationships with academic stakeholders in health research as well as the research landscape in Ireland. This will happen as the Groups begin to develop research strategies and conduct and commission research accordingly.
- Severe and sustained reductions in resources restricting the capacity and means within the health system to carry out research initiatives.
- Demand for much improved health analytics across the health system as providers seek to understand the cost of care and the outcomes it delivers, supported by the introduction of Individual Health Identifiers.
- The emergence of new stakeholders and decision makers including a new Minister for Health.

It should be stated that the central focus of the last strategy which was to move the HRB away from laboratory based research and more into a clinical/ population health/ health services

research portfolio of funded research. This was a new and significant departure. It should be acknowledged the significant progress made in effecting this change (as noted in Goal 2) at a time when our funding was cut.

1.2 Objectives of the Review

The objectives of the review were to prepare for the development of a new Strategic Plan by conducting an analysis of the current strategy through three main mechanisms:

- 1) A self-assessment by staff from the three business areas that outlines how they believe the HRB is performing against its current strategic objectives.
- 2) An assessment by the Board of the HRB of how it perceives the HRB is performing against its current strategic objectives.
- 3) Convening an International Review Panel to:
 - Review the staff and environmental assessments.
 - Conduct detailed meetings with key HRB stakeholders.
 - Consider the extent to which the HRB is achieving its strategic objectives and what it could do to improve.
 - Provide recommendations and advice to the HRB and its Board to assist it in the development of a new strategy.

2. Methodology

2.1 Review Approach

The following section outlines the approach taken by Prospectus when providing the facilitation to assess the strategy of the HRB.

2.2 Plenary Meeting Facilitation

The Chair of the Board, Dr Declan Bedford introduced Prospectus to the Board and explained the rationale for holding the plenary meeting, which was to review and evaluate the HRB's previous four-year strategy.

David W Duffy of Prospectus conducted the facilitation of the Board working session. The meeting began by agreeing the purpose of the plenary session and illustrating the context in which the session was being held. This included informing the Board of the previous working sessions held with the Directors and Heads of the three Business areas, to complete the self-assessment framework for their areas. The Board was also informed of the comprehensive review that the International Panel would carry out of the HRB.

The strategy review process was conducted by reading out an objective and its related key actions. The Board then engaged in discussions regarding the successful achievement of objectives and key actions, or the failure to achieve them. After an exchange of views took place, the Board would agree a collective and consensus rating (out of ten) to assign to an objective or key action before moving on.

David W Duffy facilitated the strategy review process by engaging with all Board members and by requesting their views / assessment of each objective, and associated key actions.

Finally, the working session examined the extent to which the HRB had achieved its objectives, and how it could improve the achievement of its objectives in a future strategy. The results of these learning outcomes are catalogued in the conclusion section of this report.

3. Findings

3.1 Overview

The strategy review found that there had been varying degrees of success in achieving the objectives and key actions of the *HRB's Strategic Business Plan 2010-2014*.

It was agreed that the HRB strategy was very ambitious given that it was being implemented within an environment where it's budget was falling and rising political pressure on non-essential spending was forcing the HRB to justify its continued existence.

Given that the strategy was developed in those circumstances, it is to the HRB's credit that many of the actions have actually been delivered, or are in the process of being delivered. The Board noted this achievement.

In the wider sense, some actions were scored low because they hadn't been achieved within the timeframe, but others were judged to have made significant enough progress to be considered a success.

The Board agreed that the HRB was a successful funder of high quality research, which had consistently delivered a high-end product. However it was also agreed that the HRB had failed to act strongly enough as a promoter or advocate of collaboration, networks and clusters. While this may be seen as a core failing of the agency, the Board acknowledged that these targets were very difficult to achieve given the general uncertainty over the period and its budgets in particular.

The Board acknowledged that unrealistic time frames and dependencies on external supports, and stakeholders have meant that certain actions were not achieved to the extent planned.

The Board also agreed that the next strategy should have objectives, which can be measured and monitored, so that progress can be determined over the lifetime of the strategy. It was also recognised that objectives might need to be more action-oriented, and that many objectives will take more than one strategic cycle to achieve the next strategy needs to have realistic time frames for completion of the work packages, with some time lines that go beyond 2020 where appropriate.

3.2 By Goal

Board Assessment of Strategic Goals		
ID	Goal:	Assessments:
Goal 1: Clinical and Applied Biomedical		
	<i>Driving the development of excellent clinical research, including applied biomedical research, within a coherent health research system.</i>	<ul style="list-style-type: none"> ▪ This goal was achieved to a high degree based on the completion of the actions. For example: <ul style="list-style-type: none"> ○ It had been successful in driving forward high quality research validated through international peer review. ○ It had increased investment in patient-oriented research, with a greater emphasis on clinical research areas, including applied biomedical research. ○ However, the HRB had been unsuccessful in creating clusters. ○ It was agreed that a national coordinating framework for clinical research facilities in Ireland was still in its infancy, and had not been delivered during the lifetime of the 2010-2014 strategy.
Goal 2: Population Health and HSR		
	<i>Building capacity to conduct high-quality population health sciences and health services research.</i>	<ul style="list-style-type: none"> ▪ The overall objectives of this goal were also achieved to a high degree with: <ul style="list-style-type: none"> ○ HRB had successes in increasing investment in and the quality of population health sciences and health services research, but had been unsuccessful when developing clusters and networks. ○ It was agreed that these developments would take more than one strategic cycle for HRB to achieve.

Goal 3: National Health Information Systems		
	<i>Working with key partners to develop and manage high-quality national health information systems.</i>	<ul style="list-style-type: none"> ▪ Progress on this goal was somewhat limited due, in part, to the lack of a clear national policy/strategy in relation to health information systems. <ul style="list-style-type: none"> ○ It was agreed that the limitations in building collaborative partnerships, and the variability in the quality of existing Health Information Systems had held HRB back in the progression of this objective.
Goal 4: Evidence Synthesis and Knowledge Brokering		
	<i>Generating and synthesizing research evidence and promoting the application of knowledge to support decision-making by policy makers and relevant practitioners.</i>	<ul style="list-style-type: none"> ▪ The actions on this goal were mainly achieved. <ul style="list-style-type: none"> ○ It was agreed that HRB had achieved reasonable success in the use of knowledge in policy development (DOH) but had less success in the use of knowledge in practice (HSE).

3.3 By Goals and Key Actions

3.3.1 Goal 1

Board Assessment GOAL And Key Actions		
ID	Key Action:	Assessment:
Goal 1: <i>Driving the development of excellent clinical research, including applied biomedical research, within a coherent health research system.</i>		
Key Action 1:	<ul style="list-style-type: none"> Fund clinical research projects of the highest quality and excellence that have been subjected to international best practice review and assessment. 	<ul style="list-style-type: none"> HRB had succeeded in continuing its mission of funding high quality clinical research projects, validated through international peer review.
Key Action 2:	<ul style="list-style-type: none"> Increase the level of investment in patient-oriented research in the clinical research areas, including applied biomedical research. 	<ul style="list-style-type: none"> HRB had effectively increased investment in patient-oriented research, with a greater emphasis on clinical research areas, including applied biomedical research. HRB needs to advocate externally for patient-oriented research.
Key Action 3:	<ul style="list-style-type: none"> Fund training and development opportunities that will increase the number and diversity of health professionals involved in clinical research, and build their research skills. 	<ul style="list-style-type: none"> HRB had increased the number, diversity and skills of health professionals involved in clinical research, but needs to continue to prioritize training and development support.
Key Action 4:	<ul style="list-style-type: none"> Increase the number of clinician scientists. Extend the clinician scientist programme to other health professionals and help ensure that they can secure dedicated time to actively pursue research in their specialist areas. 	<ul style="list-style-type: none"> It was noted that there was an (small) increase in the numbers of clinician scientists. HRB needs to consider mechanisms (direct and indirect) to support dedicated research time for clinician scientists, both medical and other health professionals, to increase their numbers.

Key Action 5:	<ul style="list-style-type: none"> ▪ <i>Establish more clinical trial networks in targeted areas by introducing seed funding.</i> 	<ul style="list-style-type: none"> ▪ In the life cycle of the 2010-2014 strategy, there had been an inadequate development of trial networks in targeted areas, but a call had been made very late in the strategy to incentivise network development through seed funding.
Key Action 6:	<ul style="list-style-type: none"> ▪ <i>Develop strategic research clusters of academic and clinician investigators in experimental medicine and other areas, in collaboration with other funders.</i> 	<ul style="list-style-type: none"> ▪ HRB had been unsuccessful in creating clusters. ▪ HRB should develop a strategy to assist with developing strategic research clusters.
Key Action 7:	<ul style="list-style-type: none"> ▪ <i>Deliver three fully functional co-funded clinical research facilities (CRFs) – all located on hospital grounds.</i> 	<ul style="list-style-type: none"> ▪ It was acknowledged that all CRF's are operational, however, not all designated buildings had been completed in NUI Galway facility.
Key Action 8:	<ul style="list-style-type: none"> ▪ <i>Work at strategic level with DOH, the HSE and others, both nationally and regionally within the health system, to develop appropriate clinical research governance arrangements in the Irish health system.</i> 	<ul style="list-style-type: none"> • It was noted that HRB engaged significant time and effort but there was a significant body of work outstanding, which was outside the HRB's control.
Key Action 9:	<ul style="list-style-type: none"> ▪ <i>Establish a national coordinating framework for clinical research facilities in Ireland specifically designed to facilitate networking and coordination efforts across a range of health research issues.</i> 	<ul style="list-style-type: none"> ▪ It was agreed that a national coordinating framework for clinical research facilities in Ireland was still in its infancy, and had not been delivered during the lifetime of the 2010-2014 strategy.

1.

3.3.2 Goal 2

Board Assessment Goal And Key Actions		
ID	Key Action:	Assessment:
Goal 2: <i>Building capacity to conduct high-quality population health sciences and health services research.</i>		
Key Action 1:	<ul style="list-style-type: none"> ▪ <i>Fund research projects of the highest quality and excellence that have been subjected to international best practice review and assessment.</i> 	<ul style="list-style-type: none"> ▪ It was agreed that the HRB had succeeded in delivering high quality research projects and that these have been subjected to international best practice review and assessment.
Key Action 2:	<ul style="list-style-type: none"> ▪ <i>Increase the level of investment in high-quality population health sciences and health service research.</i> 	<ul style="list-style-type: none"> ▪ There was acknowledgement that a profiled target had been reached during the 2010-2014 strategy. It was agreed that there was work still to be done towards achievement of this key action.
Key Action 3:	<ul style="list-style-type: none"> ▪ <i>Fund training and development opportunities that will increase the number of researchers from a variety of backgrounds engaged in population health sciences and health sciences research (e.g. epidemiology, social science, economics, public health, nursing, nutritional science, biostatistics).</i> 	<ul style="list-style-type: none"> ▪ It was recognised that significant progress had been achieved in this area to increase and maintain capacity, but that because HRB had begun funding training and development opportunities from a low base meant that further development in this area was required.
Key Action 4:	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ It was agreed that clusters have been formed with the intention of developing networks, but that a lack of follow-through had held back cluster development. ▪ It was noted that no network had been able to deliver any large-scale interventions to date.
Key Action 5:	<ul style="list-style-type: none"> ▪ <i>Increase the number and diversity of health professionals involved in multidisciplinary partnerships and networks focusing on</i> 	<ul style="list-style-type: none"> ▪ It was noted that progress had been made on the involvement of health professionals in multidisciplinary partnerships, but that the

	<i>population science and health services research programmes.</i>	timeline towards full implementation of the key action would span the life cycle of more than one strategy.
Key Action 6:	<ul style="list-style-type: none"> ▪ <i>Develop strategic partnerships with the HSE and others, with support from the DOH, aimed at growing and developing Ireland's capacity in population health sciences research and health services research.</i> 	<ul style="list-style-type: none"> ▪ Between 2010-2014 there had been difficulty in establishing strategic partnerships with the HSE ▪ It was also noted that multi-disciplinary partnerships and networks often require considerable developmental assistance and inputs to make them effective in their joint enterprise. ▪ It was noted that the HSE still does not have a research strategy; something the HRB needs to address in the development of the strategic partnership.
Key Action 7:	<ul style="list-style-type: none"> ▪ <i>Increase the levels of co-funded research, with research funding partners to meet the strategic needs of the health system.</i> 	<ul style="list-style-type: none"> ▪ It was acknowledged that progress towards co-funded research had been disappointing during the strategy life cycle. ▪ It was also noted that during 2010-14 the HSE and DOH have been under considerable funding pressures making it difficult for them to bring focus to research, which is often perceived, not least by the wider public, as a peripheral activity. ▪ With many new initiatives occurring, it was agreed that the HRB needed to define areas of specified activity to focus development.
Key Action 8:	<ul style="list-style-type: none"> ▪ <i>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.</i> 	<ul style="list-style-type: none"> ▪ It was agreed that there had been an insufficient level of analytical activity progression during 2010-2014. ▪ It was agreed that HRB must advocate for more data analysis of existing datasets.

3.3.3 Goal 3

Board Assessment Goal And Key Actions		
ID	Key Action:	Assessment:
Goal 3: <i>Working with key partners to develop and manage high-quality national health information systems.</i>		
Key Action 1:	<ul style="list-style-type: none"> Support the development of a collaborative partnership among organizations that are managing national health information systems to drive the health information system agenda. 	<ul style="list-style-type: none"> It was recognised that collaborative partnerships had not developed to the degree anticipated It was agreed that this key action would need to be prioritized and addressed in the next strategy.
Key Action 2:	<ul style="list-style-type: none"> Ensure that HRB national health information systems are high quality and fit-for-purpose. 	<ul style="list-style-type: none"> It was agreed that the HRB Health Information Systems were variable in quality, consistency and suitability. It was noted that some of the existing Health Information Systems collected only limited datasets and that their scope were narrowly defined.
Key Action 3:	<ul style="list-style-type: none"> Ensure data from HRB national health information systems are used to inform policy and practice. 	<ul style="list-style-type: none"> It was recognised that variability in quality of existing Health Information Systems rendered some systems less useful, with a consequential lost opportunity to inform policy and practice. It was agreed that this is driven, in part, by the (lack of) quality of input from partner organisations

3.3.4 Goal 4

Board Assessment Goal And Key Actions		
ID	Key Action:	Assessment:
Goal 4: <i>Generate and synthesise research evidence and promote the application of knowledge to support decision-making by policy makers and relevant practitioners.</i>		
Key Action 1:	<ul style="list-style-type: none"> Develop a framework to agree priorities and to define appropriate methodologies and approaches to agreed research questions. 	<ul style="list-style-type: none"> It was recognised that significant progress had been made within the existing MOU framework.
Key Action 2:	<ul style="list-style-type: none"> Provide skills to search, interpret, synthesise and use evidence through training and mentoring. 	<ul style="list-style-type: none"> It was recognised that the HRB had extensive experience and is well renowned in the provision of training and mentoring, which the HRB continued to deliver throughout 2010-2014. It was noted that the HRB was restricted in the scope of what it could support by the resources aligned to this initiative e.g. extension to Practice
Key Action 3:	<ul style="list-style-type: none"> Establish a knowledge centre to deliver high-quality health information and research evidence and manage the organisation's knowledge resources. 	<ul style="list-style-type: none"> It was agreed that the journals and online access to research reports and documentation that HRB produce act as a sufficient knowledge centre for the HRB.
Key Action 4:	<ul style="list-style-type: none"> Meet the evidence requirements of stakeholders in line with agreed priorities. 	<ul style="list-style-type: none"> It was acknowledged that the HRB had failed to engage substantively with the HSE. It was agreed that engagement with other stakeholders, including the academic and health professional's communities had been of a satisfactory level. It was noted that more recently the National Office of Suicide Prevention had commissioned an evidence review from the HRB,

	outside of the Department of Health MOU, indicative of the growth potential of this area, particularly in Practice (as opposed to Policy)
Key Action 5: <ul style="list-style-type: none"> ▪ <i>Ensure the quality of the data used in and delivered by evidence compilation, synthesis, systematic review and commissioning.</i> 	<ul style="list-style-type: none"> ▪ It was noted that adequate progress towards quality control of data had been achieved during 2010-2014. ▪ It was noted that the HRB and associated researchers should be encouraged to publish more often in peer review journals to ensure the quality of their evidence reviews are examined.
Key Action 6: <ul style="list-style-type: none"> ▪ <i>Investigate and develop new initiatives and mechanisms to incentivise and broker the transfer of evidence into policy and practice.</i> 	<ul style="list-style-type: none"> ▪ It was accepted that new initiatives and mechanisms to incentivise and broker the transfer of evidence into policy and practice had yet to be started.

4. Conclusion

4.1 Conclusion

The following are the key conclusions drawn from the plenary Board meeting. It is hoped that the lessons learned will improve and advance the HRB's current strategy.

4.2 Lessons Learned

4.2.1 Cluster and Network Formation

- Cluster and Network Formation require significant investment and support in order to be created and developed on a sustainable basis. This requires money, time, and support structures, such as a clinical coordinator to encourage collaboration and partnership events.
- Networks also need training and instruction on the direction of their research. Mentoring, informative seminars and programmes can support people when establishing clusters and networks e.g. systems engineers, implementation scientists etc.
- It was acknowledged that there is currently a significant skills deficit in the health system to develop successful networks and clusters. A policy on how to encourage people with the requisite skills to move over into health research is required.

4.2.2 Funding

- The HRB needs to build a business case to present to the Department of Health for additional funding.
- Additional funding could also be leveraged from collaborations with other research organisations.
- It was agreed that the HRB could look to industry and philanthropy for collaborative opportunities.

4.2.3 Developmental role for Health Research Board

- The HRB should have a stronger developmental function, especially in terms of knowledge transfer. The KEDS initiative was an interesting example of this ambition. Further investigation is required to understand the potential of developing in-house expertise.
- The HRB should focus on the implementation of research into practice and how this might be achieved in the future. The HRB should set up an Implementation Science Group with systems people on it to further understand the phases of implementation.
- The Board believed that Goals 1 and 2 could be merged at this point, but that there may be a need for an additional function that drives the dissemination/uptake of outputs.
- The HRB should concentrate on building a constructive relationship with the Department of Health, based on a more equal partnership. This partnership would enable significant advocacy within political circles.
- The HRB should nurture advocates who would make the case in the media and in other fora, and also contribute, where appropriate, to Dáil, Seanad and Oireachtas committee debates, in support of publicly-funded health research, thereby ensuring its strategic value becomes more widely understood and appreciated..

4.2.4 Assumptions

- The HRB needs to understand the assumptions on which the strategy is based, when it is producing its future strategy.
- These assumptions need to be clearly articulated to both internal and external stakeholders and the general public.

4.2.5 Strategic review

- The current strategy should have been evaluated on an on-going basis, in order to allow for changes in strategic direction and resource availability. This will ensure that objectives and goals are still realistic and achievable and to ensure that annual progress is evaluated.

4.2.6 Health Research Board Mission/Vision

- The HRB needs to become a niche player in the global health research market in order to allow for specialised networks to develop and flourish.
- Prospective and current projects should be asked to state how they are addressing the Mission of the HRB.
- The Board believed that the scope of HRB activities is too broad to achieve its mission. The HRB needs to align and narrow its scope to reflect its Mission.
- The four goals, as stated, don't make it clear what the HRB's 'core business' is.
- The HRB needs to include a contingency component built into the new strategy.

4.2.7 Engagement with Department of Health/Health Service Executive

- The HRB needs to create a forum to facilitate engagement with the Health Service Executive.
- The HRB needs to look at how it can increase its impact with the Department of Health and Health Service Executive. Goal Four should move beyond the Department of Health to engage more with the Health Service Executive.
- The HRB needs to focus on building a good working relationship with the Health Service Executive, although it is acknowledged that this is a challenge.

4.2.8 Board make-up

- It was acknowledged that the current HRB Board is very clinically oriented. In order to successfully develop and implement a comprehensive strategy the HRB requires an expanded Board, which includes legal and financial expertise.
- The Board needs to ensure clarity on what risk they are willing to take within their budgetary envelope.
- It was agreed that the Board's risk appetite (which is linked to the Department of Health's overall risk appetite) is currently low.

Finally, it is acknowledged that HRB resources (headcount and budget) have decreased significantly over the course of the strategy. Whilst some operational efficiencies were achieved, a strategic response to the reduction in resources was not elicited. Such a capacity/mechanism should be a feature of the next strategy

5. Appendices

5.1 Participants

Health Research Board Members:

- Dr Declan Bedford Chairman of the Board
- Dr Colin Doherty
- Professor Michael J. Duffy
- Mr. John McCormack
- Dr Tom O’Callaghan
- Professor Prem Puri
- Dr Marion Rowland
- Dr Barry Cullen

Health Research Board Executives in Attendance:

- Dr Graham Love CEO
- Mr. Kevin Roantree Director of Corporate Services
- Dr Maura Hiney Head of Policy, Evaluation and External Relations

Prospectus Management Consultants:

- Mr. David W Duffy Director (acting as rapporteur)
- Mr. Patrick Lynn Consultant

Absent with apologies:

- Professor Conor Burke