

eHealth strategy and implementation activities in Ireland

Report in the framework of the eHealth ERA project

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Country Report: Ireland

1 Executive Summary

This report on eHealth, and Health RTD, in Ireland sets out the context, challenges, and approach to the transformation and health research programmes, and identifies specific applied learning aspects. Its purpose is to ensure clarity in relation to past activities and lessons, and to thereby help chart a good way forward. The focus on e-Health is mainly related to national level strategy and associated developments. Individual hospital strategies and other non-national e-health research initiatives are covered where they have a likelihood of becoming recognised as potential national projects.

2 Healthcare System Overview

The expectation of the Irish health system is very clear – the best possible standard of care available to all. The personalized vision expressed in the 2001 health strategy document “Quality and fairness for all” still applies:

- A health system that supports and empowers you, your family and community to achieve your full health potential
- A health system that is there when you need it, that is fair, and that you can trust
- A health system that encourages you to have your say, listens to you, and ensures that your views are taken into account.

Achieving this vision takes a combination of resources, planning and reform which includes more effective adoption and use of information and communications technology (ICT) for clinical and administrative purposes. These goals are being addressed in the multi-year health service transformation programme that is intended to bring about real improvements in services for patients. ICT has a major role to play in the transformation programme. Already, due to cost overruns, contract and scheduling issues there is the potential for significant learning from several major ICT enabled change programmes within the Irish health services. Many of these have been well publicised and it is critical that the learning from these projects is successfully applied to deliver real value within the health services.

Drawing on international best-practice and a series of detailed reports, the Irish Government decided in 2001 to introduce a unified health system by fundamentally reorganising the way in which the national health system is structured and managed. Since then two new organizations have been established and are operational: the Health Service Executive (HSE), and the Health Information Quality Authority (HIQA).

2.1 The Health Service Executive (HSE)

Since January 2005 the HSE (replacing the interim HSE established in 2004) is the single body responsible for ensuring that everybody can access cost effective and consistently high quality health and personal social services. Prior to the establishment of the interim HSE, health services were delivered through a complex structure of ten regional Health Boards, the Eastern Regional Health Authority and a number of other different agencies and organisations. The HSE replaces all of these organisations. It is responsible for an annual budget of 14€ billion (more than a quarter of all exchequer spending) and employs more than 110,000 – two-thirds directly and the other third through funded bodies. Services range from public health nurses treating older people in the community to caring for children with challenging behaviours, from educating people how to live healthier lives, to performing highly-complex surgery, from planning for major emergencies, to controlling the spread of infectious diseases. The HSE is also responsible for delivering a range of health promotion and public health services across the country, taking account both local needs and national strategies for the general population as well as specific groups such as Travellers, a minority community indigenous to Ireland who have existed on the margins of Irish society for centuries.

The object of the Executive is *“to use the resources available to it in the most beneficial, effective and efficient manner to improve, promote and protect the health and welfare of the public”*. The Executive is responsible to *“manage and deliver, or arrange to have delivered on its behalf, health and personal social services”*.

The HSE is headed by a Chief Executive Officer. There are national directorates dealing with:

- Primary, Community and Continuing Care
- National Hospitals Office
- Population Health
- Change Management and Organisational Development
- Shared Services
- Finance
- Information Technology
- Human Resources

The HSE has identified Information and Communications Technology (ICT) as a way to greatly enhance the way the health service operates by improving the availability of information and knowledge required to support everyone’s work. For example, it aims to provide toolsets which support significant improvements in the quality and safety of care delivery and enable integrated health care delivery through the maintenance of electronic health records and care management services across the health service.

To deliver the degree of ICT-enabling that is required, its goal is to put in place an ICT service planning and delivery capability that provides national leadership and direction coupled with local ownership, implementation and accountability. The national ICT Directorate has overall responsibility for the delivery of value-adding ICT supports across the health service. At corporate level, the Directorate is responsible for the strategic elements, working as appropriate with the DoHC and HIQA in the definition of policies and standards to underpin

ICT service delivery. The operational elements of ICT services that are common to many service units will be provided through the National Shared Services Directorate, while those elements that are unique, or must be delivered locally will be provided at local level, under the overall leadership and direction of corporate policies and standards. The national ICT Directorate will work closely with service units at all levels to ensure that the programme of ICT projects that are undertaken by the HSE is closely aligned with service needs, and that they are effectively managed to deliver speedy, high-quality results within the constraints of funding and capacity to deliver. These operational elements are proving to be extremely challenging in practice.

2.2 The Health Information and Quality Authority (HIQA)

The Health Information and Quality Authority, originally established in 2004 on an interim basis as part of the government's health reform programme, was formally established in May 2007. Its objective is the sharing of knowledge, best practice and skills across the health and social services in order to support those delivering health and social care services demonstrate the quality of care provided, undertake effective clinical audit, demonstrate value for money and better plan existing and future services. It also intends to enable clinicians to compare their standard of care against national standards. As an independent Authority, with broad ranging functions and powers reporting to the Minister for Health and Children, it is responsible for driving quality and safety in Ireland's health and social care services system, with the exception of Mental Health Services, through the following functions:

- Setting Standards in Health and Social Services
- Monitoring Healthcare Quality
- Social Services Inspectorate
- Health Technology Assessment
- Health Information.

In particular, the Health Information Function is intended to help drive health information in Irish health and social care services by:

- Developing the standards for the collection and sharing of information across the health and social services
- Developing standards for interoperability of information systems
- Identifying gaps in the collection and sharing of information and making recommendations on the corrective action to be taken
- Collaborating with key stakeholders to co-drive the development and implementation of Information and Communications Technology across the health system
- Evaluating, interpreting and publishing available information on our health and social care services and on population health.

It will also collaborate with key stakeholders on the development and implementation of Electronic Health Records and a Unique Identifier for health and social care services in Ireland. This will mean faster referrals, fewer delays in ordering tests and reduced errors

caused by handwriting. The use of modern Information Technology in clinical care and administrative functions is expected to drive improvements in quality and safety of care for service users and will support clinicians in delivering care. Better and faster information is the key to better decision making and planning. A robust health information environment will allow all stakeholders - patients and service users, health professionals, policy makers and the general public to make choices or decisions based on best available information. This is a fundamental requirement for a high reliability health care system.

2.3 The Department of Health and Children (DoHC)

As a result of the restructuring, Ireland now has a single, unified health service management organisation in place of the previous disparate regional structures. In theory there is devolved and empowered decision making at local level. In practice, decisions on ICT procurement (and extra-budgetary expenditure) is subject to central HSE control and beyond that cannot proceed without express authorization by both the DoHC and the Department of Finance. These controls have been put in place as a result of the intense political debate that accompanied the perceived PARS debacle. However, within the new structure there is definitely a clear separation of the executive and non-executive functions. The Department of Health and Children has a dual role in the new structure which includes focusing on strategic and policy issues (by reducing its involvement in day-to-day matters) and having ultimate responsibility for holding the service delivery system to account for its performance. This removes previous confusion within the broader system about the role of the Department and creates room to analyse and evaluate the performance of the service delivery system.

3 Some statistics

About 4.2 million people live in Ireland. Care funded through government funds and private health insurance may be provided within state, voluntary sector and private hospitals. Individuals take out health insurance because this guarantees more immediate access to some hospital interventions. In 2002, community-rated voluntary health insurance covered almost 50% of the population. Approximately one quarter of the population have neither a medical card nor health insurance.

General practitioners (GPs) are self-employed. The majority treat public and private patients, and enter into contract agreements to provide services for patients with full medical cards in return for capitation payments. GPs have a complex gate-keeping role: individuals who are not entitled to free primary health care may go to secondary care facilities. Multi-disciplinary primary care teams are being implemented and are intended to serve a population of between 3,000 and 7,000 depending on whether the location is urban or rural.

The public hospital sector incorporates voluntary, private and HSE hospitals. HSE hospitals are funded directly by the state and administered by the HSE. Public voluntary hospitals are financed primarily by the state but may be owned and operated by religious or lay boards of governors. In addition there is a small number of purely private hospitals. Hospital consultants are paid on a salaried basis for the treatment of public patients. Contracts permit extensive private practice reimbursed on a fee-for-service basis.

There are 52 acute hospitals, and Accident & Emergency services are provided in 35 of these hospitals. 25% of the population have a chronic disease and 60% of deaths are caused by chronic diseases. Today 11% are over 65 years old, whereas in thirty years time 40% will be over 50 years old. Changing age profiles and increased expectations relative to improvements in health technologies and pharmaceuticals are driving up health care costs: funding for the health system has increased from €3.7B in 2002, to €14 Billion in 2007, with budget overruns to the end of this year currently estimated to be almost a quarter of a billion Euro.

The HSE ICT Services enable over 800 business applications, extend to over 2500 locations on WAN, field 275,000 help desk calls per annum, cater for 76 data centres/computer rooms, and support over 50,000 users who require 24x7x365 availability.

The current fractured approach of 8 ICT departments and others in large voluntary and non-statutory bodies is unsustainable. There is huge challenge to be faced: costs are rising, the population is increasing, people are living longer and expectations and demand are increasing.

4 National ICT Projects

The reform programme arising out of the National Health strategy – “Quality and Fairness” aims to move from a regionalised structure to a single national system approach while following the health strategy principles of people-centeredness, quality, equity and accountability together with an increased focus on achieving value for money. To date several major ICT enabled change programmes within the Irish health services have fallen short when measured against these goals. These include the now stood-down Human Resources project (PPARS), the cancelled FISP project, the discontinued health portal, the uncertain Integrated Patient Management System iSOFT project. At the same time there are some good examples of more successful, albeit localized, telemedicine and clinical research projects.

The Minister for Health and Children outlined all national ICT projects underway in her Department and the HSE in response to questions in the Dáil (Irish Parliament) on 18 October 2005¹:

HSE Projects currently underway		
Project	Objective	On Time / On Budget
CIDR project	To provide a single National reference database for Public Health Management of infectious diseases	Yes / Yes
Dental System	One single National Dental System	Yes, based on revised implementation plan / Yes
FISP	Deliver enhanced performance measurement and financial accountability in the Irish Health Service	Paused / Yes

¹ Debates.oireachtas.ie/Xml/29/dal20051018A.pdf

Food Safety Lab System	To supply, install, configure, roll out and support a new Laboratory Information Management System (LIMS),	Yes / Yes
Laboratory Information System	One single National laboratory Information System	Procurement negotiations being finalised for submission to HSE Board for Approval
Patient Management System (iSOFT)	Provide Patient Administration functions and major elements of clinical support.	Yes / Yes
PORTAL	Provide a single electronic point of entry to the health services	Paused / Budget under review
PPARS	To modernise and reform payroll and personnel system	Paused / Budget under review
STARS Web	To provide a single National system for clinical Risk Management and incidence reporting	Yes / Yes
Other national projects		
System for Involuntary Admissions and Tribunals (SIAT) interface for Mental Health Commission	Interface for bespoke case management system	Yes / Yes
National Patient Treatment Register	New national database of patients waiting for admission to hospital for treatment	Yes / Yes
GRO Accenture Contract	Support, maintenance and minor enhancement for civil registration computer system	Yes / Yes
ICT Strategy for Primary Care	Development of an ICT Strategy for Primary Care	Yes / Additional work in relation to the development of an ICT Strategy for Primary Care was agreed with the contracted company during the course of the project and this involved an additional cost of €37,000 (27%) over the original contract price
National Drug Treatment Reporting System	Upgrade the System from MS Access to MS SQL.	Yes / Yes
Projects in the Department of Health and Children		
Data failover project	Project to provide access to critical information services in the event of the technology recovery plan being executed	Yes / Yes
Management Information Framework (Phase 1)	Upgrade of the Department's existing financial management system	Yes / Yes

Remote access service	To provide remote access to information technology services in the Department's main office	Yes / Yes
Social Services Information System	To facilitate and support the SSI inspection process	Yes / Additional work in relation to the development of an ICT Strategy for Primary care was agreed with the contracted company during the course of the project and this involved an additional cost of €20,000 (15%) over the original contract price

4.1 Status of the projects

Many of these projects are now operational and are excellent examples of shared national information systems delivered on time, within budget and already returning sizeable benefits. These include:

Computerised Infectious Disease Reporting The CIDR System (<http://www.ndsc.ie/hpsc/CIDR/>) is now in use to manage the surveillance and control of infectious diseases in Ireland. It also monitors organisms' ability to resist antibiotic drugs (antimicrobial resistance). CIDR is a shared national information system for - the HSE (formerly the Health Boards), the Health Protection Surveillance Centre (formerly the National Disease Surveillance Centre), the Food Safety Authority of Ireland, the Food Safety Promotion Board and the Department of Health and Children. Earlier this year a team of expert medical epidemiologists and IT Experts from Uzbekistan had a very successful 5-day visit to study the CIDR in action. This visit came about through a request by WHO Europe to HPSC following a request by the World Bank who are supporting a project by the Ministry of Health in Uzbekistan to improve maternal and child health.

Patient Treatment Register managed by the National Treatment Purchase Fund (www.ptr.ie) The PTR is a register for public in-patient and day-case hospital waiting lists.

- This website provides patients and general practitioners easy access to wait time information for surgical procedures in hospitals to assist with referral decisions.
- The PTR collates waiting list information to assist hospitals, the Health Service Executive and the Department of Health and Children to plan health care services and delivery.
- The PTR allows the National Treatment Purchase Fund (NTPF) to write directly to surgical patients greater than three months on the waiting list and offer them treatment options.

On the other hand, several of the projects such as FISP, PPARS, PORTAL and probably iSOFT have been much less successful and in general were increasingly subject to intense political and commercial scrutiny resulting finally in their being suspended and ultimately in the main discontinued. A brief summary of each of these projects follows, organized by the financial investments incurred.

PPARS. The PPARS project was conceived in 1995 and initially involved only five health boards plus St James Hospital. The system was required to support Personnel Administration, Payroll, Attendance Monitoring/Control, Rostering, Recruitment and Superannuation functions in an integrated manner and was to be capable of interfacing and integrating with existing systems in health agencies, where appropriate. The initial cost estimate for these six organisations was €9m. This covered ICT costs only, i.e. it did not cover the related change management costs (one of the problems with HR in the health boards was the very wide variety in practices and procedures, such as variations in the hours worked and the way people were paid). Procurement of the system commenced in January 1997. The system eventually chosen in 1998 was one based on SAP R/3 application software. A fixed price contract for implementation services in the initial six participating agencies was awarded to Bull Information Systems Ltd (BISL) in July 1998. The contract anticipated that implementation in those agencies would take approximately two years to complete and included all the required functionality, with the exception of Superannuation. The overall budgeted cost was €9.14m, although this did not include a provision for the hosting of the system, network infrastructural improvements or post-implementation system support. The project was led by the Chief Executive Officer (CEO) of the North Western Health Board on behalf of the CEOs of the participating agencies. He chaired a National Project Board established to oversee the project made up of representatives from all of the participating agencies. Day-to-day management was by a National Project Director assisted by a National Project Team based in Sligo. Local governance and management arrangements existed within the individual agencies. Not long into the BISL contract it became obvious that it would not be possible to have the system implemented within the anticipated two-year timeframe. The work involved in configuring the system to cater for the significant variations in terms and conditions of employment and practices and procedures, between and within the health agencies, had been seriously underestimated. Following a dispute about the basis of remuneration, the contract with BISL was brought to a conclusion. By the end of 2001, and more than three years after the commencement of the BISL agreement, only the personnel administration elements of the SAP HR system had been implemented in the initial six agencies and the former Western Health Board, which had joined the project in 2000. This cost approximately €17m. A separate version of the system, configured to meet each agency's specific requirements was the method of implementation. This gave rise to a substantial re-design and re-build when a single system strategy was later adopted. The project recommenced with an advertisement in the Official Journal of the European Communities for consultancy support in December 2000. A realisation that the cost of implementation would be far greater than envisaged caused a delay in the procurement process. In the meantime, personnel from a range of companies were procured to carry out the technical configuration of the system. The first of these was procured in November 2001. In May 2002, the Department insisted that national coverage of the project was essential. Its scope was thus extended to include the former Southern and South Eastern Health Boards as well as the Dublin Academic Teaching Hospitals and voluntary agencies in the community care area. The estimated cost of the project in February 2002 had now increased to €109m with an expected completion date in 2005. Eventually, following detailed negotiations, Deloitte Consulting Limited (Deloitte) was engaged in October 2002. Apart from an initial project 'scoping' exercise carried out for a fixed price of €400,000, their engagement as project support adviser was "time and materials" based. In November 2005 the PPARS

project was abruptly suspended amid concerns of escalating costs and inadequate functionality.

It is important to note that the concerns about PPARS cannot be solely attributed to party political differences. Some of those most active in its implementation had grave concerns. A letter from the CEO of St James Hospital to the HSE in June 2005 has been cited in national news and in Computerworld as follows:

RTE News 6 October 2005

*"Yesterday it emerged that the former chief executive of St James's Hospital, John O'Brien, who is now one of HSE chief Professor Brendan Drumm's top advisors, described the system in a letter to the HSE in June as a 'disaster'."*²

Pilot Site Seeks To Abandon Payroll System

*October 17, 2005 (Computerworld) -- A limited rollout of the controversial SAP-based Personnel, Payroll and Related Systems (PPARS) has caused significant hardship for a test user. In a letter sent on June 10 to an official of the Irish national health agency, John O'Brien, then-CEO of St James' Hospital in Dublin, said that the software has caused significant problems for some of its 3,500 employees and that the hospital no longer wants to use the system. According to O'Brien, the system "has been consistently below acceptable standards over the period of 18 months of live SAP payroll at St. James'." The hospital has been involved in the PPARS effort since 1998, and in 2003 was the first organization to go live with the payroll and time system, O'Brien wrote to Sean Hurley, national director of information and communication technology for the Health Service Executive. From the beginning of that installation, he wrote in the letter, "we experienced system configuration weaknesses, specifically in the areas of calculation of allowances, factoring, public holidays, sick leave, etc., and there were general inaccuracies and a paucity of information in the routine reports generated by the system." He went on to write that the payroll problems have become worse in recent months, in many cases due to configuration changes in an "uncontrolled fashion and without prior communication with St. James" by the PPARS team. The resulting "weakened payroll process" prompted the staff to threaten a public protest, he said. The problems also made it difficult for managers to "assure external auditors as to system integrity regarding fiduciary matters."*³

In July 2007, the HSE Board abandoned the further roll out and announced that it has selected a new different computer system, with a broader range of functions to manage payroll and human resources. The Department of Finance has been asked as a matter of urgency to conduct the required peer review of the proposed new system and see if it can give the go-ahead. No further information is available at this time.

Already a detailed case study of this failed implementation has been published in the 2007 edition of Cahier de la Recherche de l'ISC Paris. Written by two academics from University College Cork, it is essential reading. Their analysis shows that in this case, as in many others,

² <http://www.rte.ie/news/2005/1006/health.html>

³ <http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=105465>

implementing an Enterprise Resource System (ERP) should be regarded as a change management project rather than a software implementation. Failure to understand this and prepare for it has disastrous consequences for the project and even the implementing organisation.

FISP. The FISP Project aimed to build a single financial and materials management system that supports current best practice. The system would replace a mishmash of legacy systems and processes. Yet the FISP project was suspended by the HSE, as a precautionary measure, at the same time as PPARS was suspended. It has also been abandoned at the same time as the PPARS System. The reasons for this again centre on functionality, cost and value for money considerations. Both FISP and PPARS are based on the same technology and the same approach to development. Up to €30m had already been spent on the system, and it was estimated that it would cost €170m to fully put in place. A September 13, 2005 letter from the Department of Finance to the HSE referred to the €30m and observed that “*despite this level of expenditure, no element of the system has yet been rolled out*”. Overall the Department estimated that the cost of the project would be even more extreme than PPARS.

Health Portal. In May 2004 the Irish National Health portal was launched during the European Conference eHealth2004, organised by the Irish EU-Presidency and European Commission in Cork. It was announced that this ambitious multi-million Euro project would be far more than a mere website. Mirroring the NHS Direct service in the UK, the portal would provide an immediate pathway to a range of specialized services and thereby act as the first point of call for both medical professionals and the public who wished to access information about any health service in the country. The website (www.healthireland.ie) is no longer available. Based on information obtained via the Freedom of information legislation, Medicine Weekly has compiled a succinct account⁴ of various problems that beset this project from even before the putative launch.

The Electronic Patient Record (iSOFT). The 10 year €56m contract to implement the iSOFT system as the preferred National system was signed in 2005 after earlier release of the software had been in use in the former Southern Health Board region. It is intended primarily for hospitals with the intention of initially deploying it to support core administrative processes and then to evolve its use over time into clinical support areas. As such the iSOFT Lorenzo system, also chosen by the UK NHS, is seen as a future means (when the required functionality is available) of achieving electronic patient records within hospitals and between hospitals. It is also seen as a key facilitator to achievement of electronic health records as it has potential for deployment in community care services also, which the Health Service Executive plans to do over time. Following the significant re-statement of iSOFT accounts to actual earned income and not contracted income the Department of Finance and iSOFT are in discussion over the insurance and credit support guarantees in the iSOFT Contract. The iSOFT Annual Report 2007 notes:

Contingent liabilities

The Group has contracted to supply health information systems to the Health Services Executive (HSE) in Ireland over the period to 2015, with a contract value of e56 million.

⁴ http://www.medicineweekly.ie/index.php?option=com_content&task=view&id=4478&Itemid=53

To date, implementation of these systems is in accordance with the operational plans. Within the contract, however, iSOFT contracted to provide a letter of credit if the net assets shown in the consolidated accounts of iSOFT Group plc are less than e75 million and to maintain professional indemnity insurance cover at levels not currently available to the Company in the insurance markets. Following the Group's change in accounting policy for the year ended 30 April 2006 and the significant goodwill impairment charge, its consolidated net assets under the new accounting policies fell below this amount. Additionally, iSOFT contracted to make available certain software functionality which will not be available in the timescales contracted. iSOFT and the customer are engaged in discussions to resolve these matters, which the directors are hopeful will lead to a satisfactory outcome. However, were agreement not to be reached, the remedies for such breaches in contract could include termination of the contract and damages. The remainder of the HSE programme is proceeding satisfactorily. It is not possible for the Board to conclude what implications, if any, may arise from the conclusion of the ongoing discussions into these matters.

Thus uncertainty hangs over the future of the Electronic Patient Record (iSOFT) Project, not least in regard to the outcome of the HSE assessment of the revised software delivery plan submitted by iSOFT. This iSOFT contract is just a part of the €400m which the HSE confirmed in a written communication in October 2005 is required to implement a full roll-out of an integrated patient management system. This is also very clear from the Minister for Health and Children's reply to a question in the Irish parliament on 15 December 2005 which states that *"the achievement of full electronic health records in the Irish health service is a long-term goal. The concepts and design of such a system have not yet been developed and there is considerable work required over the next number of years to put the necessary foundations in place. The iSOFT system is an important element of this but there are many others"*.

The Tallaght Hospital (also known in 2005 as the Adelaide and Meath Hospital, incorporating the National Children's Hospital) is one notable exception to this proposed national plan despite, and more correctly because, it has experience of the iSOFT support over several years. In addition St James Hospital rolled out the integrated PACs and RIS system from Cerner in 2006. The private Beacon Hospital in Dublin has installed Orion's Health Rhapsody Integration Engine to allow critical data sharing between clinical and business systems including Meditech's Patient Administration System, GE Radiology and Information System and Picture Archiving and Communications System. These examples of development in both public and private hospitals can be seen as a strong argument for a national system strategy in a competitive environment which is based more directly on ensuring compatibility and interoperability between systems.

4.2 GPs and Healthlink Online

Healthlink Online (www.healthlink.ie) is a nationwide service which allows hospital staff to liaise with GPs. The groups participating in the Healthlink Project may be divided into 5 categories. These are:

- General Practitioners
- Hospitals

- Health Areas
- Other Agencies
- Practice Management System Suppliers

As at 18 June 2007, there were 497 practices registered with Healthlink which make up a total of 1061 GPs and 1054 Practice Staff. Healthlink Online is available to Primary Care Practitioners with or without a practice management system. However, those who have a practice system can benefit from the integration of Healthlink messages which reduces large amounts of administrative tasks such as scanning or manually typing in patient information.

Messages from HealthlinkOnline can be integrated with the following practice systems:

- HealthOne 3.7/5.0
- Dynamic GP V3
- GP Clinical (providing you have GP Messenger)
- GP Mac 8.02
- Socrates

Healthlink has also developed a neurology service, Neurolink, which enables virtual patient consultations with a consultant neurologist. This Neurolink service is running in St Vincent's Hospital in Dublin and allows GPs direct online access to consultant neurologists for initial diagnosis and advice as to whether their patient should attend the neurologist in person and/or what tests should be completed prior to meeting the neurologist. *"This in turn reduces the queue of people who may be waiting needlessly to attend a neurologist and reduces administrative duties for nurses and healthcare staff"*.

4.3 Consumer Health Portals

Cochrane Library. Notwithstanding the failure to deliver the planned Health Portal there are several excellent sources of information that can be used to obtain information. For instance, the Northern Ireland Minister for Health, Social Services and Public Safety, and the Irish Minister for Health and Children, have organised a unique agreement which allows anyone in Ireland with an Internet connection to access the Cochrane Library free of charge from their own computer. The Cochrane Library is **one of the world's most respected electronic health libraries**. Direct access to the Cochrane Library is at <http://www.thecochranelibrary.com>

Another portal focused on meeting customer/user demands for health and lifestyle information, and on increasing contact with its customers is available (www.vhi.ie). It is effectively an electronic gateway to a library of health and lifestyle articles, an a-z of medical matters and health headlines, but it also promotes and increases the interactivity with its customers through ask-the-experts advice, a range of interactive online tools, SMS messaging and a monthly personalised e-mail newsletter. The service was launched in May 2000. Initially, the online content was focused on providing health information, while the interactive online features were introduced subsequently. These services are constantly evolving, reflecting to a large extent consumer preferences. There is a lot of focus on healthy living and promotion of a

healthy lifestyle, and this is especially the case with the interactive features of the service, many of which are used to reinforce the message from health promotion campaigns. Communications and online features often take the form of a fun web campaign aimed to encourage young people to change to healthier lifestyle habits.

5 Telemedicine services

Telehealth currently has a low position in policy-making in the Irish health sector. It is anticipated that the proven examples of telehealth applications coupled with the current structural reforms and a number of centralized sector initiatives such as for cancer services will serve to develop a more focused policy on the value of telemedicine and how it can address the difficulties posed by limited travel options and the impact of centralization on remote patient care.

At the policy level the process of reviewing the health system over the past 5-10 years has led to the generation of a significant volume of documentation. Disappointingly, the evidence is that the awareness of telehealth as a key component in health policy-making and strategy is very low. For instance, within the key underpinning ICT strategy and action plans its treatment is surprisingly inconsistent, if not absent. The background National Development Plan 2000-06 had briefly recognized the potential role of telehealth – *‘to deliver services at the most appropriate locations, to access various centres of excellence with their professional expertise and to share diagnostic imaging and laboratory data’*. The Report (June 2001) “Consultative Forum Sub - Group on Futures” states in Appendix 7 that *‘This (comprehensive IT/IS Systems) will also facilitate telemedicine. International policy regarding telemedicine and e-health information will be developed so that the public has verification of sources’*. The health services policy document ‘Quality and Fairness: A Health System for You. Health Strategy’ contains five references to telehealth/telemedicine which, inter alia, recognised *‘telecare and telemedicine has the potential to bring specialised diagnostic and clinical expertise closer to people, especially those in remote locations, making the health service more accessible and responsive’*. ICT policy was stated as falling largely into the remit of the National Health Information Strategy, which would frame the best use of such technologies, while the follow-up Action Plan Progress Reports 2003 and 2004 on the health services policy implementation, made no further mention of telehealth. In 2004 the Dept of Health & Children published the delayed ‘Health Information: A National Strategy’. In Chapter 14 on ‘Information and Communications Technology’ it briefly recognised the potential of telehealth. Chapter 17 delineates its Action Plan to deal inter alia with ‘telehealth solutions’. This it has so far failed to deliver.

Again, telehealth is surprisingly absent from some other key component reports on health strategy, such as, primary care strategy, whereas it gets featured in limited segments of other vertical sector reports, such as, mental health policy. On the other hand, several individual statements of Government and Health Ministers are strongly supportive of telehealth, such as, the All-Ireland Cancer Consortium, the Children for Children Fund and the British-Irish Council Summit, which focused on telehealth in May 2005. Sharper focus has been provided in the recent past by the Department of Health & Children commissioned ‘Telemedicine & Telecare

Strategy' Report, which was completed in October 2005. The main purpose of the study was to put telemedicine and telecare firmly 'on-the-map' for those charged with the modernisation of the health services. Firm action is still awaited on those recommendations.

The private healthcare sector has been given new policy and fiscal incentives to fulfill a greater role in the provision of healthcare services in the reform policy context. This has resulted in a number of new hospitals opening with others under construction, as well as several private specialist clinics becoming operational. A number have international links. It can be anticipated that the new establishments equipped with latest ICT and with the opportunity to adopt fresh work practices, will embrace telehealth where clear economic advantage is evident.

In regard to the practical area of telehealth applications, while prior surveys exist, there is as yet no integrated database of up-to-date telehealth services and projects. A rough count indicates more than 50 initiatives. This confirms that real research and progress is being made on a variety of health care services, despite the absence of a strong and consistent policy focus. The following examples are presented to illustrate the spread of telehealth activities:

i) Tele-Radiology: this is the largest telehealth service in Ireland. As an emergency neurosurgical tele-radiology system it was initially installed in the mid 1990's. The National Centre for Neuroscience, Beaumont Hospital, provides the national service to 19 hospitals countrywide. The service enables distance clinicians to transfer CT scans and obtain second opinion from consultant staff at the Centre.

ii) Tele-Cardiology: St James Hospital, a major tertiary hospital in Dublin, links with Sligo General Hospital about 220 Km away, for specialist tele-consultations on the digital angiograms of cardiac patients. The synchronized playing of the patient's angiograms on workstations at both locations was identified as the key initial need. So the large files of patient data are transmitted overnight, prior to each consultation. Both audio-conferencing and data-conferencing are involved. The innovative system was implemented during 2003 and its wider roll-out is progressing.

iii) Tele-Oncology. Linking of the Medical Oncology team at Sligo General Hospital (SGH) in the northwest of Ireland commenced in 2002 to expedite patient cases on a Multi-Disciplinary Team meetings (MDT) basis with specialists in St. Luke's and St. Vincent's University Hospitals (SVUH). Multi-site conferencing with General Hospitals in Letterkenny and Mullingar followed as multi-point bridging permitted. The results of the first 35 patient cases under MDT format after an 18-month period confirmed the potential benefits of telemedicine were being realised.

iv) Tele-Primary Care-Surgical Consultations: Killybegs Community Hospital is in the northwest of Ireland. From its Telehealth Unit, regular video-consultations are carried out between (a) patients and the primary care team and (b) a general surgeon in Letterkenny hospital some 75 Km away. In reviewing the first 60 patient cases, 90% benefited from avoiding travel, reduced waiting times and faster decision-making. The GPs and other primary care providers liked it as they could speak directly to the specialist. There is distinct potential to apply this model on a national basis to community hospitals for delivering telehealthcare services.

Outlook

Telemedicine has a huge potential even for a small country like Ireland. The following observation from 'Equity of access to health services: some relevant issues in an Irish context / prepared by Anna May Harkin (May 2001) and submitted as a Background Paper prepared for the Working Group on the National Anti-Poverty Strategy (NAPS) and Health in 2001 pinpoints some difficulties *'While telemedicine holds the potential to improve access to consultation, diagnosis and monitoring/care for some medical conditions for people in remote locations, it is unlikely to be a remedy in all cases in the foreseeable future. As well as transport and telemedicine, it is also important to provide as much of the service as possible in more peripheral centres e.g. the initial diagnostic work up/treatment in the main centre, with follow-up/subsequent treatments closer to the patient's home.'* Since this was written economics is changing the perspective on centralization of limited specialist health resources and expertise. In that context service mechanisms that can reach remote locations become increasingly relevant and necessary. The implication is that research on telemedicine and its gradual introduction into mainstream healthcare is becoming of increasing importance in the Irish context. Concerted focus via the establishment of an Expert Advisory Group to study this area and encourage practical applications of telemedicine would it is believed repay significant dividends for all concerned. It would also address the expectation contained in the Health Information and Communications Technology Sub-programme of the National Development Plan 2007-2013 Transforming Ireland: a better quality of life for all *"Developments in the areas of Telemedicine and Telecare will utilise ICT to facilitate the greater delivery of health care services over considerable distances. These developments will employ advanced communications technology between doctors, other carers and hospitals and will be increasingly focused on enabling care delivery in the community and in the home, thus offering significant opportunities for improving the way in which healthcare is delivered"*.

6 General information on RTD structure

It is widely agreed that the future prosperity of Ireland as a knowledge economy is almost entirely dependent on investing more in research and development. The question of how to ensure real value and return from research-based investment, including medical research, in building the knowledge economy in Ireland is being addressed through the following Science, Technology and Innovation (STI) structures which together will help to ensure an increase in the qualifications and skills of the workforce and the added-value of economic activities carried out in the country.

- Health Research Board (HRB)
- Health Service Executive (HSE)
- Higher Education Authority (HEA)
- Advisory Council for Science, Technology and Innovation in Ireland (ACSTI)
- a dedicated Government Cabinet Committee chaired by the Minister for Enterprise Trade and Employment (ETE) supported by a high level Interdepartmental Committee

on Science, Technology and Innovation, and by the Chief Science Adviser to the Government.

- In addition all relevant agencies of the Department of Health and Children and of the Department for ETE – Forfás, Science Foundation Ireland, Enterprise Ireland and the IDA - are working with the health sector to ensure Ireland realises its full potential in health-related research.

Research has a major role to play in improving health outcomes. It is a key element of the system spanning population health, services research, translational research as well as fundamental scientific discoveries. The Department of Health and Children is central to developing policy in this area and has been strongly supported by the Health Research Board. The legislation governing the Health Service Executive and the Health Information and Quality Authority also gives these two agencies a clear role in research and this should provide a much needed boost to the health research community.

6.1 Health Research Board

The Health Research Board (HRB) is the lead agency in Ireland supporting and funding health research. It provides funding, maintains health information systems and conducts research linked to national health priorities i.e. to improve people's health, build health research capacity and make a significant contribution to Ireland's knowledge economy by working in partnership with other organisations.

The HRB aims to achieve its mission by delivering on specific strategic objectives:

- Shape the national agenda for research in health and personal social services
- Support research and health information systems linked to national health priorities, in order to improve people's health and the effectiveness of the health system
- Build capacity for world-class health research in Ireland
- Advance the contribution that health research makes to a sustainable knowledge economy
- Increase awareness and understanding of both the impact and the value of health research and information
- Establish Ireland as a significant contributor to international policy on health research.

6.2 Higher Education Authority

The HEA is committed to supporting the provision of core capacity and capability for the Irish higher-education sector to conduct research and development. An increasing emphasis of the research programmes funded by the HEA, is enabling and encouraging collaboration between institutions and between disciplines in the conduct of research for the benefit of Ireland. This emphasis in itself enhances capabilities and can lead to generation of critical mass in areas of research. The portfolio of HEA funding activities directed at generating core capacity and capability in the research system are:

- The HEA Block Grant—the combined teaching and education budget which provides the necessary floor for research funding
- The Programme for Research in Third-Level Institutions (PRTL) which provides support for institutional strategies, inter-institutional collaboration, large research programmes and infrastructure.
- The North-South Research programmes which provide support for cross-border collaboration so as to (a) enhance capabilities on the island of Ireland and (b) to contribute to peace and reconciliation on the island of Ireland.
- The Fund for Digital Research (Formerly The Fund for Collaborative Research between Irish Third-Level Institutions and Media Lab Europe) which fosters collaborative interdisciplinary research, in media, materials, and methods, is administered by the HEA on behalf of the Department of Communications, Marine and Natural Resources.
- The Programme of Strategic Cooperation between Irish Aid and Higher Education and Research Institutes 2007-2011, which seeks to promote innovative research activity across a range of subject areas in support of Irish Aid's mission to reduce poverty.

Links to Universities and nationwide collaboration between research centres and implementation units are also strongly supported and encouraged. For example, the Clinical Research Facility (CRF) in Galway is jointly governed by NUI Galway and the HSE, building upon the close ties which exist between the University and health sector in Galway. This CRF, whose aim is to provide the infrastructure – the physical space, facilities and the experts - needed to support patient-focused research studies, is funded jointly by the Health Research Board (HRB) and the Health Service Executive (HSE). Through the Irish Clinical Research Infrastructure Network (ICRIN) it also connects with the HRB / Wellcome Trust CRF at St James's Hospital Dublin and other facilities at Dublin teaching hospitals. The HRB and HSE fund ICRIN to help ensure a greater number of patients can benefit from clinical research in the most cost effective manner.

6.3 Advisory Council for Science, Technology and Innovation

The Advisory Council for Science, Technology and Innovation is the Irish Government's high-level advisory body on Science, Technology and Innovation (STI) policy issues. It was launched in May 2005 and replaces the previous Irish Council for Science, Technology and Innovation (ICSTI). Its remit includes medical research policy and in November 2006 the ACSTI published its strategic policy document on the future direction and implementation of a new national health research strategy Towards Better Health: Achieving a Step Change in Health Research in Ireland.

The composition of the Council's membership reflects the range of interests and scientific disciplines in the science, technology and innovation system, including representatives from industry, academia and the state sector. The Secretariat is provided by Forfás Ireland's national policy and advisory board for enterprise, trade, science, technology and innovation which operates under the auspices of the Department of Enterprise, Trade and Employment. In preparing its advice and carrying out its activities, the Council bears in mind the all-island,

European and international context, including the EU's Framework Programmes for Research and Technological Development (RTD), the need to contribute to the greater social awareness, understanding, and appreciation of science and to support efforts to enhance all-island co-operation on STI.

6.4 Irish Clinical Research Infrastructure Network (ICRIN)

ICRIN is intended to create a harmonised and coordinated clinical research infrastructure in Ireland. Its objective is to provide the impetus to establish a world-class clinical research infrastructure by helping to ensure sustained research funding and placing biomedical research at the heart of Ireland's healthcare delivery system. It is part of an ambitious project which will attempt to fill the gaps (human capital, physical infrastructure and information systems) needed to create a world class clinical research capacity in Ireland. It operates under a Memorandum of Understanding between All 5 Irish Medical Schools & their teaching Hospitals incorporating Clinical Research Centres. Dublin (3), Cork & Galway and the Dublin Molecular Medicine Centre. ICRIN is Ireland's representative within ECRIN (European Clinical Research Infrastructures Network, <http://www.ecrin.org/>) an effort to develop an integrated EU-wide clinical research infrastructure. Based on the connection of national networks of clinical research centres and clinical trials units, the EU-funded ECRIN programme consists of integrating national clinical research facilities into a EU-wide network, able to provide support to clinical research in any medical field, and for any type of clinical research. A first step helped identify bottlenecks to multinational cooperation. In the second step, transnational working groups are currently in charge of defining procedures and guidelines for multinational studies in the EU. The third step of the programme will consist of building an infrastructure for EU-wide clinical trials, as described in the FP7 ESFRI Roadmap (ftp://ftp.cordis.europa.eu/pub/esfri/docs/esfri-roadmap-report-26092006_en.pdf, see page 50).

6.5 Selected projects and results

1. Intel and the Irish Research Council for Science, Engineering and Technology have co-funded six PhD students to research independent living solutions for older people. The co-funding comes to €432,000 over three years and is part of Intel's commitment to the Technology Research for Independent Living Centre, established by Intel in conjunction with IDA Ireland.
2. The Irish Centre for Social Gerontology (ICSG) at NUI Galway, has also been awarded a €1.5 million grant from the Intel Corporation, with the support of the IDA. The ICSG research will inform the design, application and usability of new technologies to enhance the quality of life and independence of older people as part of the newly launched Technology and Research for Independent Living (TRIL). TRIL is a virtual centre, established as part of Intel's European Health Research and Innovation Capacity. The project involves cross-collaboration among NUI Galway, UCD and Trinity College. An ethnographic gerotechnology research team at the Centre will focus on the content and meaning of older people's lives, their need for new technologies and their experiences with that technology as part of a secure but independent home environment. The team will also examine older peoples' experiences of disability which

will provide guidance and feedback to those designing and producing new technologies in relation to falls, cognitive function and social connectedness.

Further information on the work of the Irish Centre for Social Gerontology can be found at www.icsg.ie

3. The HRB publication “A Picture of Health: a selection of Irish health research 2007” is available from the HRB website at www.hrb.ie/publications. Hard copies are also available on request. This booklet outlines, in plain English, the most recent breakthroughs in health research from a total of 48 experts in five third level institutions and eight hospitals throughout the island of Ireland. The research spans a broad range of areas from autism and heart disease to the impact of information technology on patient care and health care planning.

One of the research studies concerns the development of a web-based, epilepsy electronic record in the Beaumont Hospital, Dublin.

Patient records in Ireland are still largely paper-based and fragmented between different agencies, each of which has their own data. This leads to inefficiencies and unnecessary delays, which could perhaps be overcome by moving to an electronic system. Beaumont Hospital is the main specialist referral centre in Ireland for patients with epilepsy where Mary Fitzsimons, a medical physicist, and colleagues have begun to develop an epilepsy Electronic Patient Record (EPR). She explains that the arrival of a new consultant six years ago began a discussion about the management of patient data. ‘We did have electronic databases on the computer but they belonged to different departments and could not ‘talk’ to one another. So we talked about the need to integrate what we had and this led to our interest in an electronic patient record.’ There was no system they could purchase for their requirements, so the HRB gave them a grant to develop the infrastructure necessary to create the epilepsy EPR. They bought the necessary hardware and software, and the IT department began to build the system. ‘As well as making it easier for clinicians to share data and allowing multiple users to consult the same file simultaneously, it is expected that this will reduce errors and improve the quality of data recording. In 2006, the team was awarded a second grant for their proposal *Revolutionising Chronic Disease management with ICT: a socio-technology project applied to epilepsy care in Ireland* to study over the next 5 years how the EPR can be used to improve services. The EPR group has also been sharing information with those involved in broadly related projects in Ireland – on haemophilia at St James’s Hospital and mental health at St John of God Hospital. The hope is that the epilepsy EPR concept could be applied to other chronic diseases such as diabetes, where it also has huge potential to improve patient care and boost medical research.

6.6 Future Medical Research Policy

The Advisory Council for Science, Technology and Innovation examined the area of health-related research during 2006. For this work, the Council adopted a broad definition of health-related research, covering the full spectrum of research from basic/frontier science in a broad range of disciplines and translational research, through clinical research, clinical trials and health services/systems research, to research on the determinants and promotion of health in

the population. It also considered health-related research and its application across a range of industry sectors including pharmaceuticals, medical technologies, food and the environment.

The Council's vision is to drive a step change in the level and quality of health-related research and innovation in Ireland – both to enhance the health of the Irish population and to capture in Ireland the benefits of effective commercialisation of the intellectual property created. A key element of this vision is to equip clinicians with the knowledge, experience and environment to deliver the best possible health care, based on the latest therapies and technological developments worldwide. Involvement of the health system in research is seen as one of the most effective means of ensuring that it is open to and is applying the latest developments in health care, management and practice. A secondary benefit will be to increase the numbers of highly trained researchers and technicians who will enhance national competitiveness in attracting health care research industries to Ireland. The goal is to make Ireland the destination of choice when advanced technology for health is being conceived, tested or implemented.

Prof Timothy O'Brien, Chairman of the task force that produced the report, and also Director, Gene Therapy Programme, Regenerative Medicine Institute (REMEDI), National Centre for Biomedical Engineering Science & Prof. of Medicine and Consultant Endocrinologist, NUI Galway, said its implementation would allow Irish society recoup the benefit of health research carried out in Ireland and internationally. *There is huge potential to improve health outcomes for Irish people through health-related research in this country. There is also great potential for industry in translating the results of such research into new diagnostics, medical devices and therapies. Our ambition in this report is to suggest how Ireland might realise that potential.*

The report makes 21 recommendations on how policy makers, implementation bodies, universities, hospitals and enterprise can meet the challenges facing the health research sector. These include:

- Funding for health research to be increased to the levels in benchmarked health systems
- Funding to be allocated on the basis of excellence
- The immediate appointment of 30 extra clinical scientists with protected time for research
- Incentives to medical professionals to pursue research careers
- New centralised structures to drive national policy including an Assistant Secretary in the Department of Health with designated responsibility for health research policy, and an inter-departmental health research group
- Joint governance of teaching hospitals and universities for research purposes
- Streamlining and professionalising Ireland's ethics committees, and
- Making Ireland a hub for translational research.

Clinical Trials

The report also recommends the streamlining of the approvals process for clinical trials, which it describes as "fragmented, slow and under-resourced". Each of Ireland's 13 ethics committees has different procedures, membership is voluntary and no formal training is

provided to members. The report recommends that four regional ethics committees be established. According to Prof O'Brien: *Approval structures must be both efficient and transparent if Ireland is to develop as a centre of excellence for translational research – research that brings research results into clinical practice, 'from bench to bedside'.*

The Task Force that prepared the report engaged in wide consultation with stakeholders. It received over 80 submissions from professional bodies, patients groups, the Health Research Board, universities, clinicians, researchers and others.

Public Investment

"We estimate that about €140 million in taxpayers money will be spent on health related research in Ireland this year ", Mary Cryan Chairperson of the ACSTI said. *"This represents one per cent of the total health budget but if the ambitions in this report are to be realised this will have to be increased substantially. It is time to get a return on research spending both in terms of improving patient outcomes and capturing for this country the commercial benefits to be derived from cutting edge research. Irish research results should be applied in Irish clinical practice for the benefit of patients, and should be exploited where appropriate to the benefit of Irish-based businesses."*

Improving Health Delivery

Prof O'Brien said: "Health research is not confined to clinical and medical issues. There is considerable research that could be carried out in Ireland towards improving the health delivery system in areas such as patient records and information technology systems."

Of particular value would be the development of Unique Patient Identifiers – a system whereby every patient's detailed medical history and records are available immediately to health professionals across the health system in electronic form. *"A system such as this, with built-in safeguards preventing unauthorised use and protecting confidentiality, would contribute hugely to accurate and rapid diagnoses and treatment."*

Integrated Policy

The report says that Ireland needs *"an integrated coherent policy on health research. This needs to be developed into a national strategy that has the support and commitment of Government, the educational system, the research bodies, the hospitals, the medical and health professions and other stakeholders. Increasing the performance and exploitation of health research represents a major opportunity to contribute to the development of the knowledge economy in Ireland."*

Up to now responsibility for health research has been diffuse, with universities, hospitals and Government agencies all playing a role. *"The Council sees great value in consolidating the policy and strategy function to an Assistant Secretary designated as head of Health Research Policy within the Department of Health and Children to provide leadership in this area",* says the report.

It proposes the setting up of a Health Research Group by the Department of Health to co-ordinate the work of various Government departments and agencies and to ensure coherence in relation to health research. In addition, hospitals and universities should have joint governance structures to ensure clinically-trained academic scientists have clinical time in hospitals and also protected time for research.

The particular health research needs of the Irish population should be addressed by top quality adequately funded research, both through the budget of the Department of Health and Children and under the Government's strategy for Science, Technology and Innovation, 2006 – 2013.

Hospitals have not historically placed enough emphasis on research, and have not integrated it into their core mission. Consequently the opportunities for linking with industry and developing and translating intellectual property into new diagnostics, devices and therapies have not been taken. Hospitals must develop research strategies and integrate them into their mission

Applied Research?

Dr Ruth Barrington was the first Chief Executive of the Health Research Board. She is the author of *Health, Medicine and Politics in Ireland, 1900-1970* (1987) which analyses the forces that have shaped the Irish health services. In addition she has published a number of articles on health and research policy, one of which is 'Terrible Beauty or Celtic Mouse – the Research Agenda in Ireland' in *New Hibernia Review*, Autumn 2002. The following extract from that paper presents her plea not to over-confine and over-direct the work of health researchers in the interests of so called productivity. Creativity must be possible and encouraged.

"The first item on the research agenda for a knowledge-based society ought to be to increase understanding of research as a creative activity. It is of fundamental importance that we support creativity in research. To some extent, this means making an act of faith in the intellect, similar to the act of faith that we routinely make in the artistic creativity of our artists and authors. We do not say to our artists that they will receive funding only if they write a certain kind of poetry or novel, or compose a particular kind of music. Similarly, we should not make the mistake of saying to scientists or humanists that funding will be available only for basic research in specified areas or when the research leads to a clearly defined economic product. Funding for research ought to be available to ideas generated by creative and innovative people. Of course, research ideas must be assessed for their scientific validity, and there must be a competitive element in funding. In research, such peer review is carried out by scientists already established in their field. The process is remarkably rigorous; usually, no more than 30 to 40 percent of proposals received are recommended for funding."

7 2007-2010 Transformation programme

In a recent 2007 document addressed to HSE staff it is stressed that success of the HealthCare Transformation Programme depends on all staff being open and willing to change, not just those directly or immediately involved: *"the transformation of our health and social care services calls for a change in not only what we do, but how we do things, how we work together and how we all commit to each other. By implementing this Transformation Programme we can collectively bring about change that will fulfil our hopes and ambitions for health and social care in Ireland. Building on this commitment and the success that has already been delivered across the country, will take us to a position where we all feel proud of what has been achieved"*.

To achieve the agreed six Transformation Priorities within the next four years, the HSE will focus on 13 different Transformation Programmes. These programmes fall into two separate groups:

- A. Those that impact directly on services that patients, clients and carers receive; and
- B. Those that improve HSE infrastructure and capability to provide and support these services.

Central to the Information and Communications Technology Programme 10 is the development of a unified national ICT infrastructure and support services, and the development of clinical and administrative systems. This involves establishing national ICT governance structures, integration with shared services, ICT staff development and engagement with health professionals to drive ICT based transformation. Significant identified programmes that will be required include:

1. National ICT infrastructure
2. Clinical and administrative systems strategy
3. Structures and funding mechanism
4. ICT organisation and governance
5. Integration with corporate shared services
6. National ICT staff development
7. Establish National ICT Subject Matter Experts (SMEs) “best practice”.

7.1 3-Year ICT Operations Strategy

The HSE ICT Services Directorate is currently in the process of producing a 3-year ICT Operations Strategy. This strategy is intended to “help the business to understand what ICT is trying to achieve, and also help ICT to understand what the business requires”. It will set out a vision and practical guidelines on how ICT resources should be committed over the next three years to help deliver within the longer term objectives. That context is to aim towards the implementation of an electronic health record (EHR) for each patient and thereby support the development of a (single) view of the patient. The underlying principles are to support a unitary HSE, be based on formal standards, and support the HSE Transformation Programme.

The ICT Strategy is being developed by a small focussed team of four HSE ICT experts and an external consultancy that has worked previously with the HSE and HEBE including the successful CIDR Project. The content will be drawn up in a consultative process including interviews with key people throughout the Health Service (Department of Health, HIQA and the Centre for Management and Organisation Development (CMOD) in the Department of Finance). It will first establish the context and principles for setting ICT priorities and then present a high level plan identifying the priorities and the activities that will be supported in terms of resources, time, money and people over the 3-year timeframe. It is accepted that healthcare delivery will continue to evolve and the strategy will be kept under regular review.

7.2 Standards Strategy

Given the policy changes that have resulted from the PPARS failure, and the albeit warranted political and strategic implications, there is a real danger that a risk averse culture may have been established within Irish healthcare ICT. The issues encountered in PPARS and other projects must therefore be kept in context and mechanisms put in place to harness and utilise the expertise and good will of all stakeholders. This includes staff within and outside the HSE. In particular it is necessary that transparency be increased and full information on the requirements, specifications and use of interoperable solutions be fostered and implemented. A monolithic centralised approach to the implementation of a single common system across the entire HSE is not required, and in the context of the avowed strategy for increased mix of private acute services is certainly not a foregone conclusion.

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<http://www.healthreform.ie/pdf/leaflet.pdf>

8.2 Further information (Websites)

Department of Health and Children. <http://www.doh.ie/>

Education and training on ICT <http://www.hseland.ie/>

Forfás (Ireland's national policy and advisory board for enterprise, trade, science, technology and innovation). <http://www.forfas.ie/>

Health Information Quality Authority. <http://www.higa.ie/>

Health Research Board. <http://www.hrb.ie/>

Health Service Executive. <http://www.hse.ie/>

HSE Employers Agency www.hsea.ie

HSE Online Library & Publications Archive (1970-today)
http://213.94.192.203/uhtbin/cgiirsi.exe/93yCD0iAzC/0/0/49?user_id=GUEST

Health Service Reform <http://www.healthreform.ie>

Healthcare Informatics Society of Ireland www.hisi.ie

Healthlink project www.healthlink.ie

Higher Education Authority. <http://www.heai.ie/>

Irish Centre for Social Gerontology. www.icsg.ie

Legislation <http://www.healthreform.ie/publications/legislation.html>

Science Foundation Ireland. <http://www.sfi.ie/>

The Science Council. <http://www.sciencecouncil.ie/>