Joint Committee

on

Health

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OPENING STATEMENT

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Fran Thompson

Chief Information Officer

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Introduction

Good morning, Chairman and members.

Thank you for the invitation to meet with the joint committee on health to discuss electronic health records in healthcare.

I am joined today by my colleagues:

- Mr. Michael Redmond, Chief Operating Officer in eHealth
- Dr. Brendan Murphy, Consultant Paediatrician/Neonatologist previously Cork University Hospital now University Hospital Waterford

The HSE eHealth vision is "**eHealth provides connected and complete digital patient records across all patient pathways and care settings**"

Implementing technology and eHealth solutions and accelerating the digitisation of our health service is a key enabler to the delivery of integrated care and will support a culture of continuous improvement and innovation. It will allow for increased access, sharing, and analysis of information across the health service. Technology will enable predictive health delivery identifying where the services are needed most and support person-cantered healthcare. Our Technology and eHealth solutions need to be radically overhauled in order to provide the type of solutions required for a modern Health Service.

Today our health service is being held back with inefficient, and often paper based patient interactions, with a patient's presence required due to the lack of tools rather than the patient need.

While a patient's presence is critical in a health setting in some cases, it is not required in all settings. We need eHealth platforms that allow information to be shared across care teams with patient and service user consent, regardless of location or setting. This will optimise the efficiency of our health care staff whilst also improving the experience for the patient by delivering safe, integrated, and high-quality care. By delivering these eHealth platforms we will be enabled to leverage appropriate innovative and emerging technologies that will enable a greater proportion of care to be delivered within community settings and allow patients to access care closer to home.

Without good electronic information, there are limited insights we can derive. Data and information are integral parts of the healthcare system and are essential supports to the delivery of high quality, effective health and social care. People expect their health and care information to be available to them, and to those responsible for helping them, when and where they need it. At the same time, they want assurance that their personal information is being handled appropriately, safely, securely and in an approved and controlled way. Our current system lacks access to timely, accurate and robust data that is essential to informing decision making and assessing resource utilisation across operational, clinical and strategic departments.

In 2018/2019 the HSE sought approval for a procurement national Electronic Health Record Programme.

This work would have included an Electronic Health Record for Acute and Community services and provided a portal for patients to access their data. Approval was deferred in 2019 until a review of the outcomes of the Children's Health Ireland electronic health record, which was approved, was completed. As a result of this decision, the HSE has had to deliver multiple tactical solutions in order to digitise deliver on the eHealth agenda. The reality is however no matter how many point systems are delivered; from a holistic clinical and patient perspective this approach will always be suboptimal.

Current Solutions

There are a range of very successfully delivered digital solutions which are fundamentally changing service delivery at the front line. As an example, these would include-:

- **National Integrated Medical Imaging System** – one of the largest in the world, which has fully digitised our radiology services this reduces waiting times for reports and ensures that the service being provided is safe and efficient

- **BloodTrack** – is a clinical Bedside Transfusion Verification and Transfusion Software Solution that electronically verifies the right blood is transfused to the right patient at the bedside.

- **National Renal System** that facilitates the clinical management of all patients with kidney diseases from first presentation to renal centre right through to dialysis

- **Community Audiology** – A community Audiology solution which supports clinical teams in delivering an audiology service

- **InterRAI assessment –** Supporting assessment of needs for care and social support needs.

While the delivery and rollout of these solutions has delivered significant value the reality is that these solutions are tactical.

Investment in eHealth in the past was historically very low in compared with other countries. This manifested in an inability to keep up with technology changes and limited our ability to deploy new solutions.

However, since 2020 that investment has increased considerably, 100% growth in staffing (Over 400 ICT Professionals) and 48% increase in Capital Expenditure combined with a 230% growth in revenue expenditure. Rectifying the historic underspend will take a number, even with the additional resources, however real progress has and is being made.

Electronic Health Records

An Electronic Health Record (EHR) is a digital version of a patient's paper chart. EHRs are real-time, patient-centered records that make information available instantly and securely to the authorised user.

The benefits of an integrated EHR are well documented internationally and these would include the following: -

- **Comprehensive view of patient records** – this provides a Dynamic patient-centred records enable clinicians to track a patient's care continuum over the person's lifetime, in sickness and health. Having a single, continuous record for a patient provides a holistic view of overall health for better diagnosis and lifetime treatment.

- **Seamless care pathways** - With digital records, clinicians can more easily coordinate and track patient care across practices and facilities. Services can be coordinated and scheduled over the course of a single visit, rather than time-consuming multiple visits. Clinicians across specialties and disciplines also collaborate on patient outcomes as a team to ensure better care

- **Reduction in medical errors** - Digital records allow for better tracking and more standardized documentation of patient interactions, which has the potential to improve patient safety by reducing medical error.

With digital paper trails, illegible handwriting in notes or prescriptions is no longer a problem, and coding for procedures or billing is easier. Integrated systems can also be set to flag drug interactions and other indicators of potential harm.

- **Streamlined workflows** - EHRs increase productivity and efficiency of clinicians while cutting down on paperwork. Patients and staff have fewer forms to fill out, leaving clinicians with more time to see patients. Referrals and prescriptions can be sent quickly, cutting wait times for appointments and pickups. Automatic reminders can tell patients when it's time for annual check-ups or alert them as they approach milestones that require regular screenings. With integrated patient tracking, billing and insurance claims can be filed in a timely manner.

- **The power of data to inform health strategy** - Continuous data collection allows for greater personalization of care, allowing providers to address health issues in a preventive manner. Also, 'big data' analytics and aggregated patient data may be able to alert providers to larger health trends such as potential outbreaks and which flu strains are prominent during each flu season. On a macro level, analysis of system-wide population and health data informs the development and evolution of health strategy.

- **Greater efficiency and cost savings** - Digital records and integrated communications methods can significantly cut administrative overheads, including reducing the need for transcriptions, physical chart storage, as well as facilitating care coordination and reducing the time it takes for hard-copy communications among clinicians, labs, pharmacies, etc.

An electric healthcare record is a key requirement for the efficient enablement of integrated care, it provides us with a single north star and ultimate destination on which to Digitally Transform our health service. Our existing strategic investments and individual point solutions would require to be integrated to an Electronic Health Record.

Today there are several examples of modern electronic health records existing within the health service for example St. James's hospital has an EHR for all its patients. Four of the maternity hospitals also have an EHR, Cork Maternity hospital, the maternity unit in Kerry University Hospital, the Rotunda Hospital and the National Maternity Hospital all share a common solution. The Board of the HSE has sanctioned the expansion of the Newborn and Maternal EHR to the Coombe Hospital and to the maternity unit in Limerick University Hospital, this will start in 2023 and is scheduled complete in 2024. My colleague Dr Murphy can provide the committee with a clinical perspective on the challenges of implementing the solution and the benefits which have accrued.

The new Children's Hospital has completed a procurement for an Electronic Health Record for the hospital and the implementation of this solution is underway and on track to deliver in tandem with the opening of the main hospital.

In addition, we are deploying an electronic health record into the new facilities at the national forensic hospital and the national rehabilitation hospital.

As well as the core system each electronic healthcare record implementation requires substantial associated people and ICT infrastructure investment to complement and maximise the core EHR investment.

Deploying EHR's are challenging, complex and costly, however the benefits are substantial. These are not one-off investments they require continued sustained investment over their lifetime to ensure that they provide ongoing clinical and administrative benefits to both patients and clinicians.

Patient/Clinical Portal

A key principle for electronic health records is that the data belongs to a patient, they own their data. They must have access to their record, they must be able to view the data and in an ideal world contribute to the record with data they generate, for example home blood pressure monitors. Part of the original national EHR proposal, which was not approved, was to deploy a patient/clinical portal.

The HSE is in the process developing an updated business case and has been in discussions with the Department of Health to ensure the success of the business case approval and overall project.

The proposed portal will utilise the data from the existing HSE systems to populate the portal. Patients will have access to view their records, clinicians will have access to the portal support them in their work. Patient / Clinical portals are deployed in many European countries with considerable success. Existing electronic record data can populate the portal and if the national EHR is approved it will populate the portal. The portal can bring together any clinical data into the one location for viewing. As with all eHealth solution, a key principle will be data privacy by design.

Innovation

Innovation takes place at many levels within the HSE, locally, regionally and nationally. A definition of innovation which is used is *'the practical implementation of ideas that result in the introduction of new goods or services or improvement in offering goods or services'*.

There are many examples of innovation within the HSE, within teams, within individual clinical and non-clinical locations, within wider regions and nationally.

Innovation is a team effort, for example, clinical eHealth innovation starts with an idea and then utilises the skills of existing staff working together to bring this to completion. The proposed solution must be clinically safe, it must integrate with existing processes, it must share and receive data with other parts of the health care system, it must be funded and sustainable and must comply with existing laws including procurement and data protection. Having the idea is just the start of the process, turning the idea into a successful pilot and then scaling the idea in a sustainable way. For clinical innovations, eHealth work in partnership with the Chief Clinical Information Officer who is part of the Chief Clinical Officers team.

There are many brilliant examples of clinical innovations across the wider HSE and in particular within eHealth. For example: -

- **Video Enabled Care** – These utilise collaboration tools and enable the patient to be seen virtually, where clinically safe. Over 360,000 remote consultations have taken place in the last two years.

- **E-**Prescriptions – This enables GP's safely send prescriptions via the HSE HealthMail service to nominated pharmacies, this reduces transcription errors and allows for repeat prescriptions to be sought virtually.

- **Remote Respiratory Rate Monitoring** Live in 22 hospitals with 40 wards. Over 2000 health care professionals trained. On average, 2 patients (range 1-7) per ward are monitored with Respiratory Rate with admission diagnosis of COPD, Pneumonia, Asthma, COVID, etc.

These and many other innovations, were undertaken in partnership with the clinical community, integrate with our existing solutions and are scalable across the whole organisation.

This concludes my Opening Statement.

Thank You.