Health Service Executive

Chief Executive Officer's Report

HSE Board Meeting
17 December 2021


CHIEF EXECUTIVE
OFFICER'S
END OF YEAR REPORT

CHAPTER 1

CEO INTRODUCTION

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1. CHIEF EXECUTIVE OFFICER'S REPORT

I have submitted my final CEO Report for 2021 to the Board on 13 December, just under three weeks following the November Board meeting. Given the shorter interval, the Chairman and I agreed that it would be useful for the HSE's Executive Management Team and the Board to discuss the year that has been, and to give some consideration to our priorities for the year ahead.

To that end each member of my executive management team was asked to prepare a short chapter of the report in respect of their role, in which they were asked to outline the following:

- core mandate and responsibilities;
- key activities and achievements during 2021;
- challenges for the year ahead;
- causes for optimism and/or concern about the future.

1.1 It is my hope that the Board will find these contributions insightful (as I certainly have) and that they will provide a basis for a rich and mutually beneficial discussion about making the best possible progress in the year ahead.

1.2 The National Service Plan 2022 (NSP 2022) was adopted by the HSE Board and submitted for the Minister's approval on 22 November. The Minister's priorities, together with those identified during the Estimates process are reflected within the document. Operational plans are now being prepared in anticipation of the NSP's approval.

1.3 When the year-end financial position for 2021 is finally settled my CFO and EMT colleagues will turn their attention to preparing the annual report, annual financial statements, and the statement of internal control. The Audit and Risk and the Performance and Delivery Committees will oversee progress, and a final draft will come to the Board for approval sometime in April 2022.

1.4 The annual planning and reporting cycle that I have described above will be very familiar to Board members at this stage in your tenure. Undoubtedly, these reports are important elements of the HSE's corporate governance architecture. However, the consistency of format, coupled with a certain predictability of content, obscures the considerable effort that goes into these reports. They also generate little interest or excitement amongst our stakeholders.

1.5 In relation to the NSP in particular, it is probably true to say that the compressed timeframe between receipt of the Minister's 'letter of determination' and the NSP submission deadline means that the priority becomes getting the NSP done. There is not enough time to concentrate on how to describe our priorities in a way that resonates with our staff, or indeed with the public.

1.6 I think that the Board might agree that we need to look again at the NSP next year. We should do so well in advance of receiving the letter of determination, so that our shared desire for fresh thinking, complemented by a refreshed format is not stymied by the pressures of a looming deadline. In the final event however, substance takes precedence over form in healthcare, and the benchmark by which we will be measured is how much of what was promised has actually been delivered.

1.7 Last year, due to the prevailing environment, we faced significant challenges in delivering our NSP targets. A number of factors contributed to this, but most notably

the third wave of COVID-19 infection which emerged in December 2020 and dominated well into the first half of 2021.

1.8 Our response required a more sustained diversion of resources from other areas of healthcare that we had anticipated, just when "normal" services were beginning to get back on their feet. Secondly, the funding assumptions of the NSP 2021 did take account of the financial and staff resources that would be necessary to stand up and then sustain a mass-vaccination programme. Thirdly, the impact of the cyberattack caused a serious disturbance to health and personal social services, which compounded the pressures we were already experiencing within acute and our community services.

1.9 I am very conscious in adopting the NSP for 2022, that the Board has by necessary implication expressed confidence to the Minister that the HSE has the requisite systems, procedures and practices in place to achieve the objectives contained therein. The Board Strategic Score Card, coupled with the Operational Services Report (reviewed by Performance and Delivery Committee), were developed with a view to providing the Board with both high-level and operational-level insights into the HSE's performance.

1.10 We intend to make further improvements to both reports over the course of next year to ensure that the Board as the HSE's governing body is at all times in a position to act a fully informed basis. As CEO I acknowledge that it is the Board's function to hold me and my executive management team to account for the delivery of the activity that we have set out.

1.11 Almost every planning document that the HSE prepared during 2021 is replete with references to COVID-19. This is entirely understandable when one considers the chaos that it has caused to our health system and to our way of life over the past two years. Like everyone else, I am keen to for the discourse to move on. We have plenty of other matters to talk about and there are many seemingly intractable difficulties within healthcare that that we simply must tackle and finally resolve.

1.12 **Getting Back to Core Business**

1.12.1 Although we may be tired of talking about COVID-19 it is clear to me that it would be unwise to wager that the pandemic will be coming to an end any time soon. Just as people are getting their heads around living with the disease, we in the health service must similarly prepare ourselves to operate all of our services in a Covid environment. In tackling this important issue, language plays an important part. I would like to try,

over the course of 2022, to progressively reorient our public discourse back towards the core business of healthcare.

Although the climate in which we provide services has changed markedly, our mandate to safeguard the health and welfare of the public has not changed. We cannot in truth contend that we are discharging that all-important mandate for as long as "normal" healthcare resources are being diverted in order to sustain our COVID-19 response.

1.12.2 Achieving this is of course another huge ask of our health system, and as I have said on many occasions, we simply cannot achieve this on our own. Returning to something resembling the core business of healthcare is contingent on a combination of inputs, including:

- maintaining a stable level of infection within the community (which is itself contingent upon the continued social solidarity of the people living in Ireland);
- sustained resources to support the ongoing and rapid expansion of our workforce, our infrastructure and our clinical equipment;
- careful planning at hospital and CHO level to facilitate the permanent reordering of clinical care pathways, and in particular the diversion of care to the community whenever deemed clinically appropriate;
- utilisation of all available channels (public, private, voluntary, primary care, etc.), with mutual understanding of what each of these channels will contribute both individually and through partnership working;
- a motivated, engaged and expanded workforce, whose contribution is valued, and who, just like ordinary human beings, are afforded the time to rest and recuperate between physically and emotionally demanding shifts.

1.12.3 We are well on the way to achieving much of the foregoing already, and for that reason I have great optimism about the future holds for our health system. The planning for Regional Health Areas in 2022 will also do much to facilitate decision-making as close as possible to where care is delivered will further advance matters.

1.12.4 There are of course a number of challenges which must be confronted next year, and they are as follows:

- Addressing the historically high waiting lists and improve the quality of life for those who have been impacted by deferred or delayed care.

- Restoring, securing, segmenting and generally improving our ICT infrastructure (without compromising functionality) to ensure safeguard the HSE from any future cyber-attacks.
- Progressing our development projects – i.e. the build, fit-out and launch of primary care centres, the provision of additional acute and ICU beds, progressing the new Children's Hospital.
- Recruiting and maintaining a highly skilled workforce to deliver these expanded services and supporting opportunity further education and specialisation for all staff.
- Preparing for and responding (both clinically and operationally) to the threat posed by new pathogens and more virulent COVID-19 variants of concern.

1.13 **The Future is Bright**

1.13.1 I have said many times that *"it always seems impossible until it's done."* Yes, these are the words of the great Nelson Mandela. A man who offered inspiration, hope and change in a time when such things seemed impossible.

1.13.2 The last two years have seen highs and many lows. We have faced many battles and overcome difficult times. I am certain that our workforce is the equal of any challenges that we may face in the year ahead. There will always be fresh challenges in healthcare as the pandemic, the cyber-attack has demonstrated. It is our capacity to come together that both drives and determines the successes that we have experienced.

1.13.3 We have built trust and confidence with the public, who have relied on the Health Service to help navigate these most difficult of times. Our government has stood firm supporting us in the provision of the immediate support needed to address COVID-19 but also to bring about the ongoing fundamental investments needed to ensure the safe and effective delivery of health and social care, for all our citizens for future generations.

Signed:

Paul Reid

Paul Reid
Chief Executive Officer

Date: **13 December 2021**

CHAPTER 2

Chief Financial Officer

2. CHIEF FINANCIAL OFFICER

2.1 CFO MANDATE AND AREA OF RESPONSIBILITY

2.1.1 The core mandate of the CFO and his team is to support EMT colleagues, their teams, and by extension the wider health system, to deliver effective and efficient services, and to secure appropriate and sustainable investment in those services. This includes promoting strengthened financial management, best practice procurement, a robust governance and control environment and ongoing improvement in financial and procurement systems, planning, reporting, costing and budgeting in order to drive and demonstrate value.

2.1.2 A significant part of the CFO role involves engaging with key stakeholders in relation to the financial performance and funding needs of the health service. This includes the Department of Health (DOH) and The Department of Public Expenditure and Reform (DPER), including through what is referred to as the Health Budget Oversight Group (HBOG) chaired by DPER.

2.1.3 The key areas of responsibility under the CFO, corresponding to the roles of his direct reports are as follows: -

(a) **Assistant Chief Financial Officer (ACFO)** - Planning and Performance – includes co-ordination of overall HSE consolidated financial reporting including analysis, forecasting, planning (including NSP), pay costing and budgeting, managing key relationship with DOH Finance and DPER, and providing business partnering services to EMT areas not covered by Acute or Community Finance.

(b) **ACFO - Acute Finance** – embedded expert business partnering support to National Director of Acute Operations and his team including all aspects of financial management and reporting and managing key relationships with Hospital Group Chief Financial Officers.

(c) **ACFO - Community Finance** – embedded expert business partnering support to National Director of Community Operations and her team including all aspects of financial management and reporting and managing key relationships with CHO Heads of Finance.

(d) **ACFO - Finance Specialists** – includes statutory reporting (AFS), Audit Liaison with C&AG, Governance and Compliance, Tax, Insurance, liaison with SCA, support to CFO in relation to Audit & Risk Committee and management of regional financial accounting teams who support legacy financial systems/processes.

(e) **ACFO - IFMS & Finance Reform** – programme director for IFMS which will deliver a single integrated financial management and procurement system for the Irish health service, including all s.38 voluntaries and larger s.39 voluntaries.

(f) **ACFO - Pricing and Costing (Healthcare Pricing Office)** – includes responsibility for Hospital ABF (Activity Based funding), support and co-ordination around coded hospital activity data via the Hospital In-Patient Enquiry System (HIPE) and the costing of hospital activity. New responsibility added in 2021 for further development of community costing.

(g) **ACFO - Financial Shared Services** – transferred to CFO in June as part of Corporate Centre Review (CCR) includes Payroll, Payment Services (AP), Income Services (AR), General Accounting including Asset Accounting), Financial Reporting and Business Support Services.

(h) **National Director - Procurement** – transferred to CFO in June as part of Corporate Centre Review (CCR). This is a significant function in its own right with 4 Assistant National Directors covering:

- **Sourcing** – putting in place and supporting the management and utilisation of contracts and frameworks for all health specific procurable goods and services via a structured corporate procurement planning process, including enabling voluntary organisation access to same and liaising with / supporting the Office of Government Procurement in relation to areas they have responsibility for sourcing on behalf of HSE.
- **Compliance** - supporting services to maintain and increase compliance with procurement rules including comprehensive toolkit and process around assessing expenditure, linking it to relevant contracts and mitigating contract risk pending new contracts / frameworks being available.

- **Inventory and Logistics** – provision of a National Distribution Service via a central warehouse and 9 regional hubs that substantially reduces the need for local services to operate local storage facilities. Also includes support for local ward-based point of use / Kanban arrangements as well as support for local inventory management arrangements.

- **Business Support** – representing the procurement function on IFMS including the development of procurement shared services and the provision of Ariba supplier and catalogue enablement services, and the maintenance of procurement support on legacy SAP systems.

2.2 2021 ACHIEVEMENTS

2.2.1 Over the course of 2021 the main strategic or large operational work areas have included:

- Financial reporting, including analysis and forecasting, and interim improvements pending IFMS;
- Progressing the design and build of IFMS;
- Development and implementation of a 3-year Controls Improvement Plan;
- Development and implementation of a 3-year Activity Based Funding Implementation Plan;
- Responding to Cyber-Attack, particularly in relation to Payroll, Payment Services (AP), income services and Inventory / Logistics;
- Responding to COVID-19 and the significant complexity and uncertainty it has brought to our work, particularly to our business partnering and financial reporting work;
- Progressing development of a future operating model, location and payroll strategies for financial shared services;
- Significant focus on general procurement compliance and also on re-integrating PPE into mainstream procurement governance and supporting KPMG PPE Audit;
- Advancing key projects across of number of finance and procurement areas

- Maintaining the substantial range of "business as usual" activities in addition to the above.

2.2.2 There has been a significant additional focus on financial reporting, including analysis and forecasting, and related ongoing interim improvements in the areas of COVID, Working Capital and Cash pending the implementation of IFMS. This has in part been influenced by ongoing engagement, with DOH and DPER, some of it challenging, around the consequences of a vote (cash) based entity (DOH) funding an accrual-based entity (HSE) and the inevitable lag between accrual-based expenditure and cash, and the resultant build-up of significant cash balances related to accrued liabilities that remain unpaid at year end.

2.2.3 A very significant amount of energy and focus has gone into progressing IFMS in the current year and into a number of key related programmes of work including planning for the expansion of shared services, integration with the NISRP (SAP HR) programme, engagement with the voluntary sector around IFMS adoption and laying the foundation for progressing the reporting strategy which is a key chapter within the Financial Management Framework that underpins IFMS. The 3-year controls improvement plan is being aligned in so far as practical with related IFMS work given the potential synergies.

2.2.4 In terms of achievements during 2021 that I am particularly proud of, I would highlight the following: -

- The **dedication and professionalism** shown by our finance and procurement staff in continuing to respond effectively to the challenge represented by the second year of the COVID pandemic, while continuing with improvement focused work, is truly impressive. This is in spite of the exceptional level of added complexity and uncertainty that the pandemic continues to bring to many aspects of our financial and procurement workload, in addition to the adjustments that everyone has had to make to their personal and work arrangements.

- The **very focused and resourceful approach to ensuring maximum continuity** and a structured approach to recovery around financial and procurement services, including payroll and AP, hugely supported by our OoCIO colleagues, was great to see.

- **Completion and approval of IFMS design**, despite multiple challenges, coupled with significant progress on future pay budgeting and reporting via IFMS and NISRP. These achievements reflect real commitment from our team and very significant collaboration with operations and other service colleagues, including voluntary partners, represented at the different governance levels within IFMS, as well as huge support from our HR and OoCIO colleagues.

- The completion for the first time of a very **comprehensive and structured assessment of the level of compliant and competitive procurement** across the HSE's full range of directly provided services.

- The very effective **financial support, including financial modelling**, provided to a number of key COVID initiatives including the Vaccination Programme, Test and Trace, Private Hospital's agreement and PPE.

- The completion of **statutory financial reporting within legislative timeframes** and with a clean audit certificate was challenging in both the context of the impact of COVID-19 and the Cyber-attack

2.3 KEY CHALLENGES FOR 2022

2.3.1 It would be important to progress, and where relevant and practical, make up some ground lost in 2021 due to COVID and the cyberattack, including in relation to IFMS, Controls Improvement Plan, ABF Implementation Plan, Corporate Procurement Plan and the Payroll Strategy.

2.3.2 We have laid some good foundations over 2020 and 2021 on which we can build in 2022 to ensure improved interim financial reporting (including analysis and forecasting), pending IFMS, and consequently better decision support for our service colleagues, and assurance for our key external stakeholders, including DOH and DOER, around:

- Cash, Working Capital, Accruals and the link to I/E;

- Tracking and reporting on COVID expenditure including separating out relevant core and COVID costs in support of wider efforts to address the sustainable funding of elements of the latter;

- New Measure funding and linking same to additional outputs beyond an agreed baseline;

- Support for transfer of Disability Vote from DOH to DCEDIY

2.3.3 We will progress with the outstanding longer-term changes mandated by the Corporate Centre Review i.e. as we move towards IFMS deployment, the additional ACFO approved to lead out on the reporting strategy, will be recruited and engagement with staff around the best practice separation of the production of financial reports from their utilisation, will be completed.

2.3.4 Supporting the range of key programmes and actions identified in the Finance chapter of NSP 2022 to mitigate the financial issues and risks including but not limited to COVID response costs embedded in Acute and Community Services, Public Long-Term Care costs, unfunded Increments and FEMPI costs, Private Maintenance Income, High Cost Residential Placements and Home Support.

2.4 CONCERNS AND OPTIMISM

2.4.1 Causes for concern

2022 is the third year of COVID and the uncertainty, complexity and general fatigue it brings is a drain on staff energy and resilience. This includes the fact that it has not yet been practical to achieve a sustainable balance between on-site, remote and home working. We will focus on acknowledging the efforts of our staff, and the challenges they face, as well as providing as much practical support and encouragement as possible, including around management of their work life balance.

The capacity to recruit sufficient numbers of appropriately experienced and qualified finance and procurement staff to address normal attrition levels and also deal with the very significant volume of BAU and improvement focused work that is ongoing and is expected to grow in the year(s) ahead, is a concern. We will engage with recruitment colleagues to establish what potential improvements we can make to our recruitment efforts to maximise the potential pool of suitable candidates for key posts.

Pressure from markets due to the Pandemic and Brexit, leading to significant price increases being presented to the HSE and forecast would be that efforts from the market will be to increase prices in 2022.

2.4.2 Causes for Optimism

It seems plausible that the science, in terms of vaccines and anti-viral medications, will sufficiently subdue the virus in the course of 2022 to allow for that shift from pandemic to endemic. This should allow for a consequent move to a more normal set of working arrangements, reflecting a new policy of structured hybrid working between office, remote and home. It should diminish the uncertainty and complexity that COVID brings to our financial reporting and other efforts. It will give us back an element of that essential face-to-face aspect of our work which is necessary, for example, in certain change management and complex problem-solving situations.

We have very able and committed staff who have an interest in ongoing improvement and change provided it is practical and based on appropriate engagement.

The IFMS and other key projects referenced above, many of which are key enablers for Sláintecare, bring real hope that sustainable improvements in how finance and procurement can support our health services are only a short number of years from being fully in place with 2022 seeing critical progress being targeted.

CHAPTER 3

Chief Operations Officer

3

3. CHIEF OPERATIONS OFFICE

3.1 CORE MANDATE AND AREAS OF RESPONSIBILITY

3.1.1 As Chief Operations Officer I am responsible for the operational oversight of the delivery system. This includes many of the health service's public facing roles across many areas including community and acute services and the National Ambulance Service. In addition, Emergency Management, Environmental Health, the North/South Unit, the Health Identifier Service, service user experience and schemes and reimbursement (e.g. medical cards, Treatment Abroad Scheme) come under my remit.

3.1.2 In overseeing these areas, support from EMT colleagues, in particular the CCO, HR and Finance is essential. There are often times when, in order to support the delivery system to achieve their targets, engagement at a high-level is required. I have regular engagements with EMT colleagues either on a one to one basis or as part of the overall performance oversight process.

3.2 AREAS OF RESPONSIBILITY

3.2.1 Acute Operations

- Acute Hospital services (Hospital Groups)
- National Ambulance Service
- Renal Office
- Organ Donation and Transplant Ireland
- Treatment Abroad and Cross border Directive schemes

3.2.2 Integrated Operations

- **Service Planning**

  A new service planning function added following the Corporate Centre Review. This new function will improve our overall planning approach and assure, from a population and whole-service perspective, service area plans are evidence based, integrated, deliverable and aligned to strategic objectives.

3.2.3 **CHO and Community Operations Services:**

- Primary Care (therapies, public health nursing (including child health), Enhanced Community Care, vaccinations, links with General Practice)
- Mental health services (CAMHS, Adults, Older People, Community and Inpatient)
- Disabilities (Assessment and case management, home support, respite, day services, therapeutic supports, residential, partner delivery organisations)
- Older People (Home care, Community Nursing Units)
- Health and Wellbeing (Healthy Communities Programme, Healthy Ireland, Flu vaccinations)
- Social Inclusion (Homelessness, Addiction; LGBTI+; Domestic, Sexual and Gender Based Violence; Intercultural health; Prison Health)
- Performance, planning, service improvement and digital developments

3.2.4 **Operational Performance and Integration**

- Performance reporting,
- National compliance with Service Arrangements (section 38 and 39 agencies)
- Emergency Management activities
- Operation of the Health Identifier Service
- Environmental Health
- Service user feedback and partnering with patients activities at a national level

In addition, acute and community services have provided integrated responses to the requirements of COVID-19 testing and vaccination programmes.

3.3 **KEY ACTIVITIES THROUGHOUT THE YEAR**

3.3.1 It is difficult to summarise the scale of activity across the delivery system throughout 2021 while doing justice to the breadth of services provided and the sheer volume of work undertaken by a committed and dedicated workforce in the face of multiple

pressures including; an ongoing and ever-changing pandemic; a crippling cyber-attack; increased demands on normal services and higher complexity of presentations to our services.

3.3.2 While much regular work was deferred, for reasons referred to above, this is being recovered somewhat in the latter part of the year. The challenge is to use the "access to care" funds to address waiting times in both acute and community services. This work has progressed throughout 2021 in collaboration with Strategy and DoH colleagues and will continue into 2022.

3.3.3 In 2021 an enhanced bereavement support and communications programme was developed in response to impact of the COVID-19 pandemic on experiences of death, bereavement and grieving.

3.3.4 Community services are implementing Community Healthcare Networks and associated models of care. The Enhanced Community Care Programme has begun implementation and good progress is being made in line with Phase 1 objectives.

3.3.5 The implementation of the recommendations of the Nursing Home Expert Panel has also made good progress in 2021.

3.3.6 In addition to managing day to day operations in line with National, Winter, Pandemic and Service Recovery plans, engaging with DoH and stakeholders on pandemic response and associated staffing and service implications, work also commenced, following the Corporate Centre Review, on designing the new Integrated Operations function.

3.4 KEY ACHIEVEMENTS

3.4.1 Overall for the delivery system, one of the key achievements has been in continuing to respond to patient needs in the face of significant challenges in the face of the pandemic and cyberattack. New services have been developed and improvements to existing services have been achieved, which is a testament to our teams and staff on the ground who have persevered through another unimaginably difficult year.

3.4.2 The establishment of acute and community COVID Vaccination Centres for staff and the public respectively and the continuation and enhancement of community testing. These services were undertaken in an integrated way by acute and community services in collaboration with state, voluntary and private agencies on a level far exceeding what has been done before.

(1) **Vaccination** - An entire management and operational delivery system set up from scratch that has delivered several million vaccines across Hospitals, Vaccination Centres, pop ups, Prisons, Long Term Care etc

(2) **Covid Testing Service** - which has delivered hundreds of thousands of test per month right throughout the year.

3.4.3 Partnership working has been a significant theme of 2021 with strengthened relationships with colleagues across a number of sectors including GPs and their teams, Section 38 and 39 organisations, other parts of the public sector, independent health and care providers, technology partners and universities and colleges. Partnerships have also grown between CHO areas and Hospital Groups with increased integrated working across leadership and operational teams.

3.4.4 The ongoing implementation of the ECC programme as it relates to Community Healthcare Networks and Specialist Teams for Older Persons and those with Chronic Diseases. Through the allocation of additional funding via Sláintecare, the numbers of people waiting Assessments of Need under the Disability Act 2005 has been significantly reduced.

3.5 CHALLENGES FOR 2022

3.5.1 Many of the challenges experienced in 2021 are likely to continue into 2022, including responding to the ever-evolving COVID-19 situation while continuing to delivery normal services, reducing waiting lists in both acute and community services as a result of the pandemic and implementing new service developments.

3.5.2 Ensuring the wellbeing of our workforce, is a key concern into 2022. The burden of the pandemic response has taken its toll on staff across the health service. The ability to support and retain our experienced, dedicated staff is essential for our services in 2022. In addition, the ability to expand our skilled workforce at a sufficient pace and scale to increase service capacity and deliver reform programmes remains very challenging given workforce supply and availability constraints both nationally and internationally.

3.6 CAUSES FOR OPTIMISM AND CONCERN

3.6.1 Despite the challenges above there are a number of areas that Integrated Options feel optimistic about for 2022. The further implementation of integrated models of care such as Enhanced Community Care and support for people with chronic diseases,

the Children's Disability Network Teams and the rolling out of learnings from Sláintecare projects. The use of advanced analytics and modelling capability to support operational preparedness and operational management of services will also be further developed in 2022, building on the work commenced in 2020 and continued in 2021.

3.6.2 There will be a targeted focus in 2022 in reducing the numbers of people waiting for services through the investment of the Access to Care Fund through capacity in the private sector, new models of care in the public sector as well as more medium to longer term actions to improve our operating processes and efficiency.

CHAPTER 4

National Director

Vaccination / Testing & Contact Tracing

4

4. NATIONAL DIRECTOR VACINATION / TESTING & CONTACT TRACING

4.1 VACCINATION PROGRAMME

4.1.1 Ensure the safe, effective and efficient administration of a COVID-19 primary course and booster vaccines to all eligible residents of Ireland in line with the COVID-19 Vaccination Programme Strategy and guidance from NIAC.

4.1.2 Currently all those aged 5 and above are eligible for primary dose vaccinations, while all those aged 16 and above are eligible for booster doses after a minimum of 5 month interval from dose 2.

4.1.3 **Key Activities**

The COVID-19 Vaccination Programme is responsible for the end-to-end management and distribution of the COVID-19 vaccines:

- Liaising and communication with the public and with all relevant stakeholders, including the Government and NIAC, on matters related to the roll-out of the programme
- Provision of an end-to-end cold chain service that manages storage and distribution of vaccines to all channels
- Identification and maintenance of licences for appropriate COVID-19 vaccination centre locations
- Provision of a qualified workforce
- Provision and ongoing assessment and upgrading of the ICT system to allow for the safe and efficient administration of the vaccines as the programme evolves
- Monitoring and remediation of any risks, including data quality issues, to the successful delivery of the programme
- Provision of data to support production of digital COVID-19 certificates.

A National programme team is in place with Programme Leads for specific activities, supported by a Programme Management Office (PMO).

4.1.4 **Key Achievements**

- 94.9% of the total adult population (18+) are at least partially vaccinated and 93.6% are fully vaccinated.
- 93% of the total eligible population (12+) are at least partially vaccinated and 91.5% are fully vaccinated.
- Over 1 million booster doses have been administered which is ca. 20% of the total population.

4.1.5 **Key Challenges**

- Complexity surrounding eligibility for booster doses makes it challenging to effectively develop an operational plan and communicate the plan.
- Maintaining appropriate workforce levels in order to meet the changing needs of the programme given the wider pressures on our healthcare system.
- There is a need for a sustainable operational structure to maintain the programme.

4.1.6 **Looking forward to 2022**

In spite of more complex programme criteria, Ireland is performing well against other EU countries, currently 4th in terms of percentage of population to receive a booster vaccination, this is a positive indicator that we may replicate the success of the first phase. In addition, those countries ahead of Ireland all received their clinical advice on commencement earlier.

While adolescent vaccinations (12-17 yrs. old) were initially slow, 72% of this cohort are now fully vaccinated. Hopefully this level of uptake can be repeated when the rollout of primary vaccinations to the paediatric cohort (5-11 yrs. old) begins.

The uptake has been more complex for the booster programme as the programme criteria are more complex and NIAC advice has been issued at different stages. Despite good performance in EU terms there have been some take up challenges, with society in a very different place to last summer. We are currently trying alternative scheduling processes such as walk in clinics and enabling all vaccination channels to operate through cohorts in parallel.

In parallel to the ongoing rollout, work is already underway to design and implement a long-term operating model that will allow the HSE to replicate as required a full

population vaccination programme either for future COVID-19 boosters or in case of future pandemics. This is a significant challenge given the uncertainty as to what the future requirement will be.

4.2 TESTING & TRACING

4.2.1 Test and Trace core mandates and areas of responsibility

The COVID-19 pandemic resulted the establishment of a national Test and Trace function in 2020. The current Testing and Tracing model delivers widespread testing for active case-finding in order to detect the maximum number of infectious cases and to engage the public in measures to prevent onward spread through contact identification and case management. The National Lead for Test and Trace is responsible for the core pillars of Test and Trace which include:

- Referral service for testing (Self-referral, International travel, General Practitioner referrals).
- Swabbing delivered via 35 dedicated community test centres and 6 pop-up fleets.
- Outbreak Testing, and Serial Testing Programmes in response to National Public Health Emergency Team (NPHET) recommendations.
- Laboratory testing for COVID-19.
- Result communication (to individuals tested, GPs / referring clinician, residential care facility or other facility managers).
- Contact tracing (for all COVID-positive complex and non-complex cases).
- Provision of timely information to support policy making and public health measures.

4.2.2 A summary of key activities undertaken throughout the year

- One of the key activities this year was to continue to implement the National Operating Model for COVID-19 Test and Trace including the required workforce, infrastructure and service enhancements to deliver an initial weekly capacity of 100,000 tests with surge capacity up to 175,000. One of the overall aims was to enhance service user access to community referral and swabbing

services along with implementing a sustainable and trained community referral, swabbing and contact tracing workforce.

- Over the past 22 months, Test and Trace capacity has been significantly increased to respond to the surges in demand for services. Testing capacity is currently at 224,000 per week. The service was enhanced in 2021 to deliver multi-channel access (with specific appointments) through GPs, a self-referral portal and through walk-in appointments across the country. The Test and Trace function continued to implement a permanent and flexible community test centre infrastructure and to enhance the acute laboratory workforce and equipment to support additional testing capacity. This operating model has served the country well and has adapted to changes in the disease profile, the vaccination programme and changes in Government policy.

- The focus of the Testing and Tracing function over the last year was to manage the surge in demand resulting from the changes in disease profile and the impact of variants of concern. The Testing and Tracing Surge Strategy (July 2021) is currently activated, with a number of escalation initiatives in place to increase capacity and control demand across the four pillars. Ongoing demand forecasting is taking place, with the service adapting to changes in demand projections as required.

- In November 2021, all parts of the testing pathway were operating at close to maximum surge capacity. This level of activity was unprecedented, from the beginning of the pandemic to date. On Monday, 29th November 2021 reported the single highest day for testing referrals to date. Over 38,705 referrals were recorded in total, with 17,113 of these being self-referrals.

4.2.3 A statement of key achievements within your area of responsibility

The continuous improvement and ongoing enhancements that have been built into each function across the National Test and Trace service has significantly contributed to the effective management of the COVID-19 pandemic in Ireland. In line with Government policy and direction, public health advice and ongoing review of the overall efficiency of the service pathways, several improvement initiatives in Test and Trace have been designed and implemented in 2021. Some of these key achievements include:

- **Enhanced Referral Pathways** - Over 90% of referrals (GPs and Contact Management Programme close contacts) received a test within 24 hours consistently throughout the past year in line with our KPIs. Rapid access to testing centres through online appointment booking commenced in June 2021 which allows people to book appointments at HSE test centres.

- **Test Centre Network** – A network of 41 test centres and 5-6 mobile test units (operating Monday to Saturday, with 4 operating on Sunday) are in place to support swabbing for laboratory testing. This was supplemented in 2021 through partnerships to enhance capacity further.

- **Laboratory Testing Network** – Laboratory capacity has been increased to 225,000 PCR testing capacity per week and 100,000 antigen testing capacity per week. A laboratory taskforce oversees these important clinical service to ensure a timely and quality service. Our Laboratories have completed over 9 million tests up to the end of November 2021. The service utilises over 50 laboratories across the public and private service to deliver this capacity.

- **Enhanced Contact Tracing Services** - The Contact Management Programme (CMP) continued to develop a sustainable, flexible and trained contact tracing workforce within the four contact tracing locations. The CMP responded to regular changes in public health advice by adapting contact tracing systems and processes throughout the year. Enhanced Public Health measures and investigations were implemented to ensure that all efforts were being taken to trace and contain transmission for any case which has a suspicion of being a variant of concern. To date this year, Contact Tracing have completed over two and a half million calls. The service now employs over 1,000 people.

- **Antigen Testing Service** - A programme of Antigen testing for vaccinated asymptomatic close contacts and school pods have been implemented. Public health antigen screening programmes were also implemented across a range of sectors including education, agriculture and healthcare settings. In addition a public information system has been implemented to support further use of antigen testing.

- **Surge Planning** – The Test and Trace function designed and developed a surge plan to respond to the increased demand on services. Existing standing capacity was regularly reviewed and surge capacity updated on an ongoing basis for all aspects of the Test and Trace function to respond and prepare for additional waves throughout the year. Additional plans to further increase the

volume of COVID-19 testing provided to communities, were put in place this month.

- **Ongoing Recruitment** - The Test and Trace function has successfully continued to maintain and grow the workforce, including management of ongoing recruitment for community swabbers and contact tracers as well as implementing measures to retain existing staff

- **Managing operations during the cyberattack** - Following the decision to shut-down HSE servers and hardware due to the HSE cyber-attack, the Test and Trace function maintained services throughout this time with minimal disruptions to service delivery.

- **IIS Support to Test and Trace** - The HSE Office of the CIO and the Integrated Information Systems have been integral in supporting the Test and Trace operations leading key IT development initiatives and automated solutions to reduce the impact on resources and ensure process improvements are implemented.

4.2.4 A statement of key challenges within your area of responsibility

- There is a considerable level of uncertainty about demand levels and service requirements, including potential future surges of COVID-19 in 2022 with particular emphasis on new variants of concern.

- Preparing for future demand scenarios to enable financial and operational planning for the Test and Trace programme will remain challenging in 2022.

- Demand on the Contact Management Programme has been high, sustained and more complex with the introduction of changes in public health advice and variants of concern.

- Recruitment and retention of staff remains a challenge throughout the year with limited certainty for our staff.

4.2.5 **Causes for Optimism and Concern in 2022**

- The Test and Trace function has proven our agility and collective responsiveness to the current changing scenarios, through a truly collaborative approach. It has constantly delivered through a period of very rapid change. The capacity that has been put in place in 2021 will provide a solid foundation for 2022.

- Workforce remains a concern with increasing turnover and short-term contracts for staff. In addition, the staff have had to operate in a very pressurised environment for a sustained period of time. This combined with the peaks and troughs of demand make workforce planning one of the programmes major challenges.

- Policy changes remain a constant challenge for the test and trace programme. Close working relationships with the Department of Health and formal coordination with public health will mitigate this risk. If new variants cause even greater pressure on testing and tracing it may necessitate policy changes to the case definition. No test and trace system is infinite, particularly when the health system is under sustained pressure.

- Looking ahead to 2022 we are confident in our ability to continue to support the management of the COVID-19 pandemic and to respond rapidly to the changing and unpredictable landscape we operate in.

CHAPTER 5

Chief Clinical Officer

5. CHIEF CLINICAL OFFICER

5.1 CORE MANDATE AND AREAS OF RESPONSIBILITY

5.1.1 The Chief Clinical Officer (CCO) is responsible for connecting, aligning and integrating clinical leadership across the healthcare system from service and policy design, to planning and implementation, placing clinicians at the heart of decision making. CCO functions collaborate extensively with operations and strategy to align clinical priorities and the principles of Sláintecare. The CCO has led the structural reform in Public Health to implement a new, consultant-delivered service delivery model aligned to international best practice and to address the recommendations of the Crowe Horwath Report.

5.1.2 The Corporate Centre Review brought about significant changes within the CCO division:

- The establishment of the **National Quality and Patient Safety Directorate** integrates quality and patient safety to ensure a patient-centred, high quality health service reducing leading causes of harm. Patient safety demands good governance and accountability, safe systems of care, a just culture, and sustainable improvements as well as an active culture of service user and staff engagement with supported opportunities for continual learning;
- The **Clinical Programme Implementation and Professional Development** function of the CCO division was established to provide effective oversight, management and delivery of the Enhanced Community Care and Trauma strategic programmes. This function leads the national negotiation and development of contractual arrangements with independent primary care contractors for the provision of public services. In addition, the function ensures that there is a joined-up approach across Doctors and Consultants, Nurses and Midwives, and Health and Social Care Professionals.
- The **Medicines Management Programme** also transitioned under the Office of the CCO.
- **Public Health** remains within the domain of the Office in recognition of the current important reform programme underway (see below).

5.2 Summary of CCO functions:

- Strategic programmes;
- National Screening Services (NSS);
- National Cancer Control Programme (NCCP);

- Clinical Programme Implementation and Professional Development;
- National Quality and Patient Safety, inclusive of National Antimicrobial Resistance and Infection Control (AMRIC)) (NQPS);
- National Women and Infants Health Programme (NWIHP);
- Integrated Clinical Care Design and Innovation;
- Public Health (PH);
- Medicines Management Programme;
- Chief Clinical Information Officer.

5.3 **Key Activities**	
Strategic programmes	• Strategic programmes function to implement the Public Health Reform Programme in 2022, reconfiguring the ten Departments of Public Health into six Public Health Areas, as well as established and lead the Vaccine Programme Management Office to support integrated planning of the Covid-19 Vaccine Roll-out
NSS	• BreastCheck continues to work to replace an existing legacy client and radiology information system launched in 2000. The new solution CRIS (Client & Radiology Information System) will support the client's journey through a range of clinical, operational and management process and procurement is now in the final stages with implementation is due to begin early in 2022. • CervicalCheck marked Global Cervical Cancer Elimination Day of action on 17th November with the launch of their collaborative project with our key stakeholders to bring us closer to the day when cervical cancer will be eliminated in Ireland. Continued progress on the development of a new bespoke national laboratory designed as a national 'Centre of Excellence' for cervical screening, and building works began in January 2021 with the operational timeframe Q3 2022
NCCP	• Continued rollout of the Cancer Strategy and continued work with the Irish Cancer Prevention Network (Marie Keating, Breakthrough cancer and the Irish cancer Society) progressing cancer prevention initiatives targeting modifiable risk factors. Hereditary cancer projects progressed, including BRCA needs assessment. Initiatives to address patient backlogs in rapid access clinics arising from COVID-19 and the cyber-attack have been undertaken. • Significant progress has been made to; improve patient access to new cancer treatments, including SABR, CAR-T and systemic anti-cancer therapy; address

	and improve the quality of life of cancer patients and survivors, including information and support programmes, patient passports and implementation of the Psycho-Oncology Model of Care; implement the National Cancer Information System which was live in three sites and installation projects were progressed in a further 10 hospital sites
Clinical Programme Implementation and Professional Development	• The Enhanced Community Care Programme leads the re-orientation of services delivery towards General Practice, Primary Care and Community based services with clinical and operational colleagues • Expanded Community Intervention Teams were implemented to provide national coverage for Community Intervention Teams/OPAT services (5 new teams and 3 enhanced teams). ALONE Model to co-ordinate volunteer and community supports across CHNs was commenced leveraging in a structured way the informal supports and volunteerism within local communities linked to CommunityCall. • Increased GP access to radiology services was rolled out with over 110,000 Radiology tests provided including ultrasound, MRI, CT, ECHO and spirometry • ONMSD, NDTP, NOHSCP and the CDP undertook a range to initiatives of a sustainable clinical workforce by addressing key challenges around education, professional development, specialist and advanced practice recruitment and retention of staff
NQPS	• Establishment of an integrated quality and safety function and progressing an integrated approach with implementation of the Patient Safety Strategy (PSS) reflected in operational plans in 2022. This will be supported further by the establishment of the National Centre for Clinical Audit and development of new education and training function inclusive of a 'Level 2 Improvement in Practice' learning programme, and building internal e- learning design capability. Preparations are underway for the implementation of the revised Open Disclosure Policy, the Patient Safety Bill and Civil Liabilities Act. • Development and launch of National Guidance on the Introduction to Human Factors of Health Care Workers and expansion of the National Incident Management System (NIMS) generating reports, and improved data capture to correspond with the Incident Management Framework (IMF) are also underway.
AMRIC	• AMRIC published the 2022-2025 HSE AMRIC Action Plan, aligned to Irelands National Action Plan (iNAP2). Updated guidelines on www.antibioticprescribing.ie to encourage appropriate prescribing of antimicrobials. Updated guidance on preferred antibiotics in community (Red/Green GP antibiotic prescribing reports). • Developed position statement on surgical antibiotic prophylaxis duration accompanied by a suite of resources to assist quality improvement in this area; audit tool, presentation, patient information leaflet and an eLearning module

	on all aspects of surgical antibiotic prophylaxis. Progressed planning for National Clinical Surveillance Infection Control System.
NWIHP	• NWIHP continued the rollout of the National Maternity Strategy, with 87% of actions complete or ongoing (Nov 21) as well as establish and roll out phase one of the Obstetric Event Support Team and the model of care for ambulatory gynaecology.
Integrated Clinical Care Design and Innovation	• Clinical oversight and input into Scheduled Care Transformation Programme (SCTP) to which includes clinical pathway solutions to address waiting lists and development interim Models of Care. Preliminary pre-policy work to develop Advanced Practice for Health and Social Care Professionals to enhance the delivery of National Clinical Programmes and other national strategies-there is currently no policy in Ireland for Advanced Practice for HSCPs. Project to increase the Strategic Value of the National Clinical Programmes using high-value impact data to model future facing service requirements. • Embedding good governance and standardisation of all National Clinical Programmes documents, including publications on central CDI register/Masterfile. • Establish Forum with postgraduate training colleges and NDTP enabling strategic collaboration, with particular focus on aligning training and service needs. Leading and coordinating feedback on behalf of CCO/HSE in several stakeholder consultations, such as e.g., RCPI Strategy, HIQA HTAs EOI, Medical Council Ethics Guide, Draft State Report under United Nations Convention on the Rights of Persons with Disabilities, ADMA Act for commencement June 2022. • Appointment of NCAGL Children and Young Adults, resulting in integrated approach to care for Children and Young Adults across multiple clinical domains-primary care, GP, disability and acute services; development of strategy for approach to Young Adults.
Public Health	• Surveillance and reporting across all notifiable infectious diseases has been maintained and developed, with additions to CIDR and to the robotic assisted transfer of data from the CMP and Covax IT systems to CIDR. • A dedicated Health Protection Guidance Development Team and unit has been established. • Health Threats and Preparedness Programme established in July 2021, with appointment of an interim Clinical Lead. • Whole Genome Sequencing Programme established and significant EU funding (€4.8M) secured for ongoing work in this area for the next two years.

	• Implementation of pandemic workforce operating model. 83% of posts recruited as of 1st Dec. 2021. A Seroprevalence Epidemiology Unit and Programme in the HPSC.
Medicines Management Programme	• New IPHA Framework Agreement on the Supply and Pricing of Medicines established (HSE working with DoH/DPER/Stakeholders) • Continued provision of governance and expertise including cost effectiveness over the drugs approval process.
Chief Clinical Information Officer	• Digital capability framework is being developed • Digital governance structure being developed with ICT, Ops and Clinical

5.4 **Achievements**	
Strategic programmes	**In reference to Public Health Workforce Plan and consultant recruitment:** • As of 1st December 2021, 207.8 WTE permanent posts have been accepted (83% Completion), with 161.6 WTE permanent posts on boarded. • 34 WTE priority Phase 1 Consultant in Public Health Medicine posts have progressed through the approvals pipeline and campaigns for these posts have launched in Q3/ Q4 2021, to have posts in place by June 2022 in line with agreed timelines. • Completed comprehensive As-Is analysis of Public Health workforce to inform planning for the reconfiguration to 6 Public Health Areas. • Defined the implementation approach and selection criteria for the first phase of delivery for the reconfiguration of ten Departments of Public Health to six Public Health Areas aligned to Slaintecare. Defined requirements • Identified options for an Outbreak Management System.
NSS	• BowelScreen media campaign in Q2 in tandem with Bowel Cancer Awareness Month in April. BowelScreen test 36.8% above expected targets for that time period. BowelScreen has enhanced delivery of the full screening pathway by opening screening colonoscopy services at University Hospital Waterford • BreastCheck introduced a new text message appointment system to maximise uptake and ensure that as far as was possible all appointment slots were filled. The first of three mobile screening units became operational in October which has had a positive impact on increasing capacity. Provisional data indicates that the programme screened 24.6% more participants than expected as of 31st October 2021. • CervicalCheck saw an unprecedented increase in screening uptake in primary care with participation exceeding expectations by over 25%. CervicalCheck marked Global Cervical Elimination Day of action on 17th November with the

	launch of their collaborative project with our key stakeholders to bring us closer to the day when cervical cancer will be eliminated in Ireland. • Diabetic RetinaScreen introduced a 2-yearly screening interval for suitable participants in February to reduce the period of time a specific eligible cohort spends in screening. To date, of those screened 85% will remain on the 2-yearly pathway.
NCCP	• The first dedicated oncologist for adolescent and young adult cancer in Ireland was appointed. In cancer treatment, stereotactic ablative radiotherapy service (SABR) commenced and will be further rolled out in 2022. • CAR-T treatment, previously only accessible through treatment abroad, is commencing in Ireland from the end of 2021 and a similar repatriation of peptide receptor radionuclide therapy (PRRT) was well advanced. • Significant progress was also made in patient access to systemic anti-cancer therapy with ring-fenced funding and the approval for reimbursement of 14 drugs/ 22 additional drug indications. • Supply of systemic anti-cancer therapy and medical radioisotopes was maintained through a targeted response to the challenges of Brexit. Cancer survivorship programmes were rolled out, including the "Life After Cancer Emphasising Survivorship" (LACES) programme
Clinical Programme Implementation and Professional Development	• The ECC Programme saw the commencement of establishing 96 Community Health Networks, together 30 community specialist teams for Older People and 30 community specialist teams Chronic Disease supporting 26 Acute Hospitals. The appointment of circa 1,200 additional staff in 2021 has laid the groundwork, in 2022 there will be an additional 2,300 WTE recruited bringing the overall to 3,500 additional WTE delivering the programme. • The work of the Trauma Programme saw assignment of Major Trauma Centre for the Central Trauma Network for The Mater Hospital as well as the South Trauma Centre CUH to improve patients' experience and reduce time spent in hospital • The new model of GP Training has commenced with transfer of responsibility from the HSE to the ICGP who are now responsible for delivering training as well as overseeing the standards of training which will enhance quality and standardization across the country.
NQPS	• National Centre for Clinical Audit established; HSE National Steering Group for Clinical Audit (Chaired by CCO) in place and HSE National Centre for Clinical Audit Operations Plan operationalised. • Designed, developed and published a QI Knowledge and Skills Guide, an 'Introduction to QI' and a 'Foundation in Quality Improvement' e-learning programme.

	• Co-designed and enabled the delivery of five Human Factors Master Classes in collaboration with Trinity College Dublin and HSC Northern Ireland (CAWT funded), delivered 15 Person-centred healing workshops and learning sets; RCPI Diploma in Leadership and Quality in Healthcare cohorts 19, 20, 21 completed, Cohorts 22, 23 commenced.
AMRIC	• Designed, implemented and evaluated annual IPC awareness campaigns. Published approx. 280 AMRIC COVID guidance materials. 55 AMRIC educational webinars delivered. 11 eLearning modules published - 97,000 eLearning modules completed.
NWIHP	• Universal anomaly scanning provided in all 19 maternity units. • Development of the Obstetric Event Support Team phase 1 launched. • The first specialist menopause clinic opened. Regional perinatal pathology services established, involving 3 Hospital Groups. • Bereavement specialists function in all 19 units. • A further 11 Ambulatory Gynaecology clinics planned and funded with the rollout out of phase 2 of ambulatory gynaecology services.
Integrated Clinical Care Design and Innovation	• Coordination of consent for vaccination programme, provided through the National Consent Steering Group, working with NIO, HSE Office of Human Rights, HSE Office of Legal Services. • Developed guidance and support for multiple demographics and sectors, including LTRC, Disability Sector, MH, under 16s and 5-11year olds. • Engagement with HSE legally contracted legal firms to arrange for swearing of Affadavits for High Court. • Scheduled Care Transformation Pathways-Developed key cross-divisional working group to ensure clinical pathways are fit for purpose, implementable and supported by the operational system. Work with Acute Ops to support implementation locally and nationally and ensure 'loop is closed' from design to implementation. • Long Covid: Interim Model of Care for Long Covid-funding secured and supporting implementation, oversight and evaluation of the Model • Health Service Excellence Awards 2021 Finalist – Category: Service Development & Innovation in Responding to COVID; Title: Equipping the Clinical Community with Easily Accessible COVID-19 Clinical Guidance at Point-of-Care
Public Health	• PH will have inputted into the management over 11,000 outbreaks across a wide range of sectors.

	• Control of STIs and HIV has been prioritised as well as surveillance and prevention of Healthcare Associated Infections and reduction of antimicrobial consumption (AMR). • The Prevalence of Antibodies to SARS-CoV-2 in Irish Hospital Healthcare Workers (PRECISE) Study a cross-sectional study carried out twice to date in two distinct parts of the country. October 2020 (PRECISE-1) repeated in April 2021 (PRECISE-2).
Medicines Management Programme	• 40 new drugs approved at EMT to date, 37 of which are included in the spend for 2021 is estimated at €37.63m this year and €487.6m over 5 years • Programme provided timely expert analysis on safety, efficacy and cost-effectiveness.
Chief Clinical Information Officer	• Launched the National Evaluation of Video Enhanced Care in Ireland

5.5 **Challenges for 2022**

(a) The most significant concern is ongoing impact of the COVID-19 pandemic and the uncertainty surrounding its future trajectory. Beyond the consequences in terms of illness and healthcare pressures, the sustained pressure has led to fatigue among the workforce and will have impact in progressing a reform agenda;

(b) Competitive recruitment environment for expertise for healthcare workers in a variety of pandemic related settings and for new programmes of work;

(c) Public health reform involves the transition from a specialist to consultant-delivered service, with recruitment progressing on a phased basis, whilst maintaining staff morale and service continuity. This reform programme is huge and unprecedented in scale, and happening at a time when public health teams are engaged for the greater part with the COVID-19 pandemic;

(d) Public health is required to deliver an Outbreak Management System in 2022, together with delivering revised strategies for a National Immunisation System and to consolidate other Public Health ICT infrastructure;

(e) Capacity across the system to deal with demand, including GP services, diagnostics, rapid access clinics, treatment services, including chemotherapy day wards, and support services for people living with and beyond cancer;

(f) Addressing the patient backlogs arising from COVID-19 and the cyber-attack and the likelihood of later stage diagnosis of cancer and stage migration (provisional data that 10-14% fewer cancers detected during 2020; impact on stage at presentation and patient outcomes as yet unknown).

(g) Access to, and funding for, new cancer drugs/indications and molecular and genetic tests required as companion diagnostics for treatment.

(h) Requirement for assurance at national level around compliance with Open Disclosure and Patient Safety Bill;

(i) Protection of clinical audit and other learning activities remain unclear under current draft Patient Safety Bill;

(j) Clear messages about screening to help increase public trust, confidence and understanding;

(k) Volume of legal claims including non-audit/review related claims continue to be the highest risk to the long-term viability of screening;

(l) Brexit has been a challenge for BreastCheck in relation to the timely delivery of mobile screening units.

(m) Potential loss of momentum on cancer prevention and early detection resulting in higher cancer morbidity and mortality and treatment costs. Protection of capacity to deliver cancer care within a broader strategic planning context for acute services.

(n) Continued access to new cancer drugs in a timely manner remains challenging, a dedicated budget has enabled our response in 2021 but a multiannual funding programme would be beneficial.

5.6 **Causes for Optimism**

5.6.1 In summary, clinical entities and programmes under the Office of the CCO are enabled through substantial funding to drive and implement national programmes including Cancer, Screening, Women's Health and Trauma. One of the outcomes of the pandemic has been the implementation of models of care aligned to the Sláintecare principle of providing care at the lowest level of complexity. This is exemplified in the ECC Programme which achieved significant funding for developments in the National Service Plan 2021 and 2022. The reform of public health along with the granting of consultant status will see a greatly strengthened public health workforce and capacity.

5.6.2 The Enhanced Community Care Programme will be sustained throughout 2022 notwithstanding the COVID-19 Pandemic and the accelerated workforce plan agreed with Community Health Organisations is paying dividends.

The key elements of the GP agreement 2019 will be implemented as planned in 2022 with an acceptance by the three parties (DoH, IMO & HSE) with some elements rolling into 2023.

5.6.3 The delivery of the Public health new model and the 6 new Public Health Areas, led by Consultant Area Directors and supported by robust multidisciplinary teams, will deliver significant improvements in addressing local public health needs and preventative strategies, including addressing health inequalities.

5.6.4 The NWIHP will fund the remaining number of ambulatory gynaecology clinics in 2022 to implement the model of care, which will impact on waiting lists. This will also provide an opportunity to develop a similar model of care for general gynaecology services in Ireland. The development of post-natal hubs will commence in coming year, supporting the wellbeing of women and babies in the time after birth. The next year will see the advancement of shared learning processes which are supported by the National Neonatal Encephalopathy Action Group founded in 2019 as well as the Obstetric Event Support Team founded in August 2021. The Programme will focus on strengthening community links via the NWIHP GP lead which will function to integrate obstetrics and gynaecology pathways between primary and tertiary care settings. An executive manager will be appointed support the NWIHP and Department's Women's Health Taskforce.

5.6.5 Allocated funding will support the implementation of key elements of the Cancer Strategy, inclusive of 200 new staff to bolster the cancer workforce across all disciplines. The NCCP will work on the publication of the first National Cancer Awareness Survey to inform priorities and programmes in relation to risk factors and symptom awareness and the implementation of NCCP Early Detection of Cancer Plan 2022-2025. In addition, the streamlining and expansion of rapid access clinics are most welcome developments. Additional causes for optimism include the completion of build for new radiotherapy treatment centre in Galway. Further centralisation of cancer surgery. The coming year will see the implementation of the Systemic Anti-Cancer Therapy Model of Care and the roll-out of new treatment options; including CAR-T, PRRT, SABR and drug treatment; the expansion of cancer survivorship programmes as well as the development and implementation of services for those with hereditary cancer syndromes. The Programme will establish a new family history referral service for breast cancer. The opportunities presented by telehealth, including for psycho-oncology and other cancer support services will further the reach of cancer care in Ireland.

5.6.6 The NQPS will work with staff involved in quality & patient safety across the HSE, QPS Community and Acute services and Public Health Professionals, with a view to integrating the wider HSE strategic approach to addressing quality & patient safety and implementation of the Patient Safety Strategy. Transition of clinical leadership for AMRIC Team scheduled for end of April 2022.

Working with key stakeholders to progress strategic objectives (and their aligned actions/projects) set out in Published 2022-2025 HSE AMRIC Action Plan, this plan is aligned to iNAP2.

CHAPTER 6

Chief Strategy Officer

6

6. CHIEF STRATEGY OFFICER

6.1 CSO MANDATE AND AREA OF RESPONSIBILITY

6.1.1 The Healthcare Strategy function is responsible for developing strategy and driving transformation across the HSE. Working with the CEO and EMT, and the HSE Board, the function gathers and interprets global research / trends, supports the development of the strategic direction and develops associated corporate deliverables. The function plays a key role in the transformation agenda, leading the delivery and reporting of large-scale transformation programmes, including Sláintecare. The function oversees enterprise-level risk management and business continuity arrangements and has responsibility for the HSE's physical infrastructure and equipment.

6.1.2 The sub-functions under Healthcare Strategy are as follows:

(a) **The Governance and Risk** function was established as part of the Centre Review and includes the new Enterprise Risk and Business Continuity Management function which oversees the development and implementation of Enterprise Risk and Business Continuity / Operational Resilience frameworks. It is also responsible for monitoring compliance against statutory and regulatory requirements and associated reporting to governance committees and oversight groups. This function also includes the Legal Services team which oversees and manages the HSE's legal services and advises the HSE on how to strategically manage litigation which has the potential to impact policy and practices in the provision of health services. The function also has responsibility for the Children First National Office, the National Appeals service, the Protected Disclosures National Office and the Office of the Confidential Recipient.

(b) **The Strategy and Research** function is responsible for defining the strategic direction for the HSE, in close consultation with the CEO, EMT and the Board, informed by policy, evidence, future needs, trends and leading practice. This includes the development of the Corporate Plan, Annual Report and the National Service Plan. The directorate is also accountable for reporting on reform programmes, strategies and service developments, and other key organisational priorities to EMT, the Board, and the Department of Health through the Board Strategic Scorecard.

The research and evidence team leads the development of governance strategies to create a consolidated and coordinated national research system and the use of health Intelligence to inform service planning. The Health and Wellbeing team develop and implement strategies to deliver on the DoH Healthy Ireland policy and national Health and Wellbeing priority programmes.

(c) **The Change and Innovation** function is accountable for the planning and delivery of priority strategic change programmes across the HSE, aligned with strategic objectives. The function also supports the implementation of programmes more generally by providing change and readiness capabilities and delivers a systemic approach to improving change capacity across the whole organisation and drives interventions, optimisation, and innovation for the HSE. The major reform programmes include Sláintecare Implementation, Scheduled Care Transformation, Reform of Older Persons, Disability, Mental Health services and digital transformation and innovation.

(d) **The Capital and Estates** function oversees the development and delivery of key strategic priorities in line with the Capital Plan including a number of large-scale capital programmes. The function ensures compliance with Environmental, Safety and Welfare legislation and policies. It advises on governance, design and planning for procurement, construction, equipping, commissioning and maintenance of HSE facilities and assets. The Capital and Estates function is also committed to fulfilling a leadership role in the public sector by playing its part in Ireland's decarbonisation journey and taking on an evolving role in helping to address the health impacts of climate change.

In addition, supported by the Capital and Estates team and other HSE functions, the Chief Strategy Officer has responsibility for oversight of the **New Children's Hospital** Project and Programme, encompassing the construction, equipping and commissioning of two outpatient and urgent care centres at Connolly and Tallaght, and the New Children's Hospital at St James's.

6.2 2021 ACHIEVEMENTS

6.2.1 Governance and Risk

- Maintenance of the corporate risk register, implementing the 'critical path' recommendations set out in the Moody Report, appointing a Chief Risk Officer, approval by the Board of the HSE's first Risk Appetite Statement, progressing

the establishment of the national Enterprise Risk Management Team, progressing the full annual review of the Corporate Risk Register and development of a new Risk Information System.

- Oversight of the Post-Incident Review into the Conti cyber-attack on behalf of the Board and EMT.
- Provision of legal advices on a number of aspects of the response to the pandemic in particular on vaccine consent issues and the Cyber Attack Worldwide Injunction which was the first Super Injunction in Irish legal history.
- Maintenance of compliance services for former Health Business Services functions, with a focus on monitoring compliance with relevant policies and legislation, risk and audit management, controls assurance, record retention and GDPR frameworks.

6.2.2 **Strategy & Research**

- Completion of the Annual Report for 2020 and the National Service Plan 2022 in line with legislative timelines.
- Monthly preparation of the Board Strategic Scorecard for consideration by EMT, the HSE Board, and thereafter the Minister and DoH.
- Coordination of the donation of respiratory equipment, PPE and drugs to India, Nepal, Brazil and Zambia and provision of on-line technical assistance to Mozambique, Ethiopia and Zambia in quality improvement, mental well-being of COVID-19 health workers, and post-graduate medical training.
- Design and initial implementation of the Sláintecare Healthy Communities Programme in 19 areas of highest deprivation nationally.
- Finalisation of the Unplanned Pregnancy and Abortion Care Study evaluating the provision of abortion services in Ireland, which will support the planned review of current legislation. Also, finalisation of Guidance for Healthcare workers on Wardship; the Standard Code of Practice, Governance and Management for the HSE Research Ethics Committees, and publication of the HSE National Framework for the Governance, Management and Support of Research.
- Development of the Integrated Service Data Model as a unique mathematical modelling tool to support decision making and enable the Sláintecare reform.

6.2.3 Change and Innovation

- Implementation of a range of initiatives to improve access to scheduled care services and reduce waiting lists and waiting times through building capacity and reforming scheduled care – PillCam, care-redesign initiatives, 70 modernised care pathways, Advanced Clinical Prioritisation etc. Development and agreement of Waiting List targets for 2022 and the development of a 2021 Waiting List Action Plan. Development of a Multi-Annual Waiting list plan progressed with DoH and NTPF colleagues.
- Development and implementation of a Health Performance Visualisation Platform commenced in 28 acute hospitals.
- Completion of a comprehensive demand and capacity analysis of scheduled care at hospital, speciality and doctor level to identify service delivery gaps and improvement opportunities.
- Implementation of the process to identify and meet the needs of Rehabilitative Training/School Leavers requiring a HSE funded day service including profile training, allocation of placers and tracking of funding and outcomes.
- Enhancement of Community Mental Health Teams through investment in staffing in CHO areas and the initial development of pilot sites for CAMHs Telehubs and Crisis Resolution Services with associated Models of Care was progressed.
- Roll out of respiratory digital innovation technology to over 50 wards in 22 hospitals which played a key role in COVID-19 and Chronic Respiratory Response. Establishment and management of over 30 Digital Living Labs and achievement of multiple awards for digital innovations within the health services.

6.2.4 Capital and Estates

- Delivery of the 2021 HSE Capital Plan and successful implementation of Phase 1 of the National Estates Information System.
- Delivery of facilities in support of the HSE COVID-19 response including Community Vaccination Centres and Testing Centres.

- Restructuring of the National Health Sustainability Office into the Climate Action and Sustainability Office to support the delivery of the HSE Climate Action Strategy. Commencement of a deep energy and carbon retrofit programme for existing buildings.

- Commencement of the HSE Property and Asset Strategy and development of a Preliminary Infrastructure Decarbonisation Strategy and Implementation Plan.

- Oversight of the continued construction and commissioning of the New Children's Hospital whereby the structure of the new hospital building is now largely weather-tight, with significant mechanical and electrical fit-out works underway. Approval of new governance arrangements by Government for early implementation with project stakeholders.

- Opening of the CHI ambulatory and urgent care centre at Tallaght in November 2021.

6.3 **KEY CHALLENGES FOR 2022**

6.3.1 The next 12 months will present a range of significant challenges and opportunities for the Healthcare Strategy Team. As we seek to bed down the new structures, teams and working arrangements – including the recruitment of a number of staff to fill vacancies in line with the Centre Review – we must at the same time ensure continued momentum with existing and new priorities.

- The Independent Post Incident Review of the cyber-attack envisages a significant change to the HSE's approach to operational resilience, business continuity, crisis and incident management. Programme structures, governance and resourcing will need to be urgently scoped.

- New Protected Disclosures legislation is due to be introduced in 2021 (17 Dec) which will expand the scope of disclosures that can be made and will require a dedicated programme of work to implement. Increased demands are also expected due to revised consent policy and commencement of the Assisted Decision-Making Capacity Act in June 2022.

- In 2022, we will commence the design and development of the specification for RHAs, including completion of a comprehensive implementation plan. These will ultimately provide for greater integration of care: equity of access, improving patient outcomes and experiences, as well as transparency and

accountability, however, it may be challenging to implement in the current environment.

- The approval of the Final Business Case for the relocation of the National Maternity Hospital to the St Vincent University Campus and completion and execution of the legal framework documents to enable the project to proceed will be both a challenge and a key priority for 2022.
- Continued oversight of the delivery of key reform programmes of work which will enable people with a disability, mental health issues and older people to live valued lives within their communities.
- In striving to achieve the above reforms, we will continue to explore new and innovative ways of working in everything we do and the development of an Innovation Strategy for the HSE in 2022 will be an important factor in this regard.

The HSE is also committed to fulfilling a leadership role in the public sector by playing its part in Ireland's decarbonisation journey and taking on an evolving role in helping to address the health impacts of climate change.

6.4 CONCERNS AND OPTIMISM

6.4.1 Causes of Concern

- Recruitment and retention of staff with the required skillsets due to competitive external environment will continue to be a challenge.
- In the absence of a unique identifier, data sharing issue may cause delays in demand and capacity and HPVP milestones. Work continues with the Voluntary Hospitals to overcome this challenge. The availability of integrated ICT systems across the system continues to be challenging.

6.4.2 Causes of Optimism

- 2022 will be the first year of active waiting time target management, including chronological scheduling of routine patients, which provides a platform to help progress year on year incremental achievement of Sláintecare targets and set the scene for coming years. The newly introduced HPVP system will allow real-time insights to scheduled care delivery and assist hospitals deliver on new

targets and quality improvements. 2022 will also see us a step closer to the establishment of stand-alone electives hospitals in Cork, Galway and Dublin.

- As part of the measures to tackle waiting lists, limited capacity in the private sector due to competition for that capacity from Safety Net and the NTPF can be challenging. We will continue to progress with Integrated Operations colleagues a single procurement vehicle in 2022, reducing internal competition for private capacity and streamlining processes to improve buy-in/uptake.

CHAPTER 7

National Director of Human Resources

7

7. NATIONAL HUMAN RESOURCES

7.1 MANDATE AND AREA OF RESPONSIBILITY

7.1.1 The role of the National Director of HR is to manage and professionally lead the human resource management services for the HSE – developing best practice HR management capability and capacity across the HSE system. The essence of the role is: -

- to drive a culture of learning,
- to foster a values-based culture across the HSE,
- to ensure strong Employee Relations and Industrial Relations across the health services and
- to support the EMT and HSE Leadership to deliver year on year improvement in the quality of working life for staff.
- to drive evidence-based workforce planning processes to build a sustainable workforce supported and enabled to deliver on future service needs.
- to drive the HR contribution to creating a digital culture and workforce enabled through the development of digital skills and the integration of existing systems.

7.1.2 The mandate has a strong governance content with the responsibility to deliver on the corporate responsibilities of Leadership, Governance, Communication, Planning and Organisation, Analysis, Insights and Data Management, and to manage the escalation of performance issues as per the Performance and Accountability Framework.

7.2 2021 ACHIEVEMENTS

7.2.1 2021 presented many Covid challenges including the 3rd lockdown in Q1, the criminal cyber-attack in Q2 and the development of the national vaccination service and rollout.

Key focus in 2021 was: -

(a) **Recruitment (General)** - A significant number of large scale national and international recruitment campaigns were delivered, notably in Medical, Nursing and Health & Social Care recruitment.

- Significant work was undertaken to commence the design and implementation of a new digital improvement programme - The Recruitment Operating Model - to introduce an end to end recruitment process. This programme is designed to introduce greater process automation, data transparency oversight and reporting, from both the candidate and also the service perspective. In 2021 to date – 4,952 new development posts have been filled.

- International recruitment, and the expansion of international recruitment frameworks beyond that of Nursing and Midwifery to all other grades of staff was also undertaken in 2021 with over 1,000 international nurses recruited.

(b) **Recruitment (COVID-19)** - To enable the timely and proactive recruitment of staff to populate the Test & Trace and Vaccination Programmes, National HR oversaw a substantial recruitment drive. This recruitment drive saw national recruitment of in excess of 2,500 vaccinators; 760 contact tracers and 1,046 community swabbers.

(c) **HR Health & Wellbeing Unit –** The Unit facilitated timely and operational advice to managers on managing staff through the pandemic – addressing staff concerns and providing definitive and supportive advice nationally. This was supported with regular Circulars enabling revised working processes e.g. redeployments, remote working, FAQs re COVID-19 circulars etc. The pandemic has had a huge impact on health service staff and a key element in managing the response to COVID-19 has been the roll-out and promotion of the National HR Staff Health & Wellbeing Department 'EAPandMe' programme.

(d) **HSELanD** - Supporting the development and roll out of HSELandD training programmes for all health service staff - including voluntary and support organisations on COVID related topics. There have been 1,038,200 programme completions year to date (Nov 2021). Since 23rd March 2020 there have been 696,123 Covid-19 related programme completions.

(e) **Consultant Contract negotiations**. The HSE and the DOH commenced negotiations with staff representative bodies on a new Sláintecare public only consultant contract.

(f) **Advancing the networking and partnering needed at local and national level** (with voluntary organisations, DOH, DPER, staff representative bodies) to provide decisions and direction to managers and frontline staff in an agile and comprehensive manner. Robust communication with staff was critical to both manage the services during the pandemic and to support staff with information required. In 2021, 39 HR Circulars issued which supported over 62 HR Circulars and COVID FAQs from 2020 providing governance, clarity, guidance, consistency and protection to staff and managers in the health service. These Circulars were prepared with support from DPER, the Dept. of Health and staff representative bodies.

7.2.2 Other Areas of achievement can be summarised as follows: -

- Recruitment of circa 9,000 replacement staff for the HSE.
- Enabling communications channels – e.g. weekly meetings of HOHR, bi-monthly meetings with Staff Representative bodies, weekly communications with DOH.
- Completing the HSE 2021 Staff Survey.
- Work is also ongoing regarding HSeLanD system enhancement to improve the user experience and reporting facilities. HSeLanD won the award for Most Innovative Use of Technology at the 2021 HR Leadership and Management Awards.
- The report on the EAPandME programme to mid-point 2021 show 1,677 HSE staff received support from EAP services, 5,993 counselling sessions were delivered, 242 psychosocial calls were made, and 157 Manager Consultations delivered.
- The 2021 Health Service Excellence Awards.

7.3 **KEY CHALLENGES FOR 2022**

7.3.1 **Delivering Digital Recruitment Service**. The HSE is currently undergoing a major digital transformation of its recruitment services which is designed to maximize automation, improve capacity and the overall candidate experience. This will be underpinned by a quality assurance unit and appropriate digital enablers and includes multi-stakeholder engagement from the customer base. Following on from this work, a Hybrid model has been approved in principle by the EMT.

7.3.2 **The HSE HR Resourcing Strategy 2022** identifies the challenges for 2022 in resourcing the health service and sets out a robust and well-defined programme structure and project governance. Looking ahead to 2022, the single biggest challenge is availability of health workforce supply in an ever-increasing global shortage that has intensified subsequent to the global pandemic.

7.3.3 **Driving staff engagement** - as the HSE moves to the next phase of re-organisation into RHAs as part of Sláintecare – the HR focus is on supporting building relations within the teams, being proactive in managing solutions and enabling agile in decision making in order to support Patient Centred delivery of care.

7.3.4 HR are also enabling **culture programmes** for staff and are actively endorsing the Staff Engagement forums. The refreshed Values in Action programme with a focus on local ownership and co-design is working in tandem with local areas.

7.3.5 Developing **supporting tools to influence recruitment and retention** in the Irish Health Service. Current influences in this area include career opportunities in 2022. These opportunities offer a substantial number of new posts, in new/newly focused service areas that will be attractive to our existing staff. HR are also recruiting for advanced practice roles – (enabling staff to practice at the top of their licence), engaging on early year recruitment calls for 2022 health graduates (aimed at retaining graduates already working in the Irish health system – such as internship nurses and midwives, NCHDs, HSCPs); and providing continuous professional development opportunities (CPD) and enhanced staff health and wellbeing supports.

7.3.6 **Roll out of Performance Achievement** – National HR continues to promote Performance Achievement around the system, through direct engagement with HR colleagues and targeted messages around the Performance Achievement process and reporting requirements. Following consultation with the National Joint Council (NJC) in Nov 2021 there will be a focus on improving returns for the next reporting

cycle. The Performance Achievement Hub within HSELanD contains a suite of supports under the areas of guidance, resources, scenarios, advice and working examples, to ensure that services are enabled and equipped to embed and progress the Performance Achievement requirements. The supports are comprehensive and presented in a variety of formats, including webinars, filmed Performance Achievement meeting scenarios, templates and training resources.

7.3.7 **Progressing the Rollout of NiSRP** – The programme is currently deploying Employee and Manager Self Service 'myhseselfservice' to the HSE North West, HSE Midlands and HSE Mid-West for "go-live" in Jan 2022. The NiSRP Programme will deploy a fully integrated SAP HR & Payroll Solution with time entry and self-service functionality to HSE South in 2023, followed by HSE North East in September 2024 and HSE West in September 2025. The order of the last two implementations may change depending on the prevailing circumstances at the time.

7.4 CONCERNS AND OPTIMISM

7.4.1 Causes of Concern

The fields for improvement include areas such as enhancing people management training, employee recognition and engagement, greater cohesion between Workforce planning and Recruitment, continued frequent and honest communication as with the HR circulars and COVID FAQs and access to staff support services.

7.4.2 Causes of Optimism

The lessons learned from the health service response to the pandemic identify the importance of providing responsive training programmes, having access for employees to occupational health supports, having an agile recruitment and workforce planning system so recruitment is processed in a timely fashion – i.e. having the right people in the right place at the right time. Good working professional relationships and networks have been to the fore in getting things done and continued focus is needed on developing teams and networks with local organisations.

A revised Diversity, Equality and Inclusion strategy is currently under development, setting out initial proposals for a comprehensive programme of work to support and develop Diversity, Equality and Inclusion within the HSE's workforce, and outlining the involvement of key internal and external stakeholders, including plans for engagement with staff members with a range of diversity characteristics.

The development of a workforce projection model with the Economic and Social Research Institute (ESRI) continues to progress in line with the projected delivery schedule. The draft report is due by year end, with the final report anticipated in Q1 of 2022.

Additionally, 2022 will see new cohorts in the Health Service Leadership Academy commence in both Leading Care II (Masters) and Leading Care III (Professional Diploma in Management). The 2022 Prospectus will offer in-house trainings to staff.

There are ongoing innovations in Learning and Development. The new electronic Learning Management System which will be hosted on HSeLanD will go live in December in preparation for being fully operational in 2022.

The HSE Digital Academy was initiated to improve HSE Digital Competence, Capability and Capacity, including the development of Digital Health Passport training and digitalisation of the Change Guide. The HSE Digital Academy have progressed a number of free resources for staff and managers and HSELanD: Introduction to Digital Health has been launched.

The HSE Corporate Plan 2021-2024 reflects the ambitions of the 2019-2024 People Strategy and prioritises Supporting our People and Becoming a High Performing Organisation. The learnings from the COVID-19 response identify the importance of teamwork, enabling local decision making, workforce planning and creating a positive and supportive work environment based on employee engagement, with clear policies and direction to provide a better employee experience.

CHAPTER 8

Chief Information Officer

8. CHIEF INFORMATION OFFICER

8.1 CIO CORE MANDATE AND AREA OF RESPONSIBILITY

8.1.1 The eHealth and Disruptive technology area is responsible for the delivery of technology to support and improve healthcare for the Health Service. The CIO and team support the delivery of transformational eHealth capability across the healthcare as part of business transformation which is enabled through the use of digital technologies. The role is to provide technology leadership, strategic direction, and operational excellence across the organisation. The eHealth and Disruptive technologies area work in partnership with national, regional and local leadership and across government through the Dept. of Health and Office of the Government CIO.

8.1.2 The key functions within the area are led by Assistant National Directors: -

- Operational ICT,
- ICT Reform Programme,
- Leading the development of the eHealth ecosystem within the Irish health system, bringing together key stakeholders across the public and private sector in support of innovations and maximisation of investment in Ireland's eHealth infrastructure.
- Business Intelligence and data and insights,
- Digital & Telehealth,
- ICT Management,
- eHealth and Disruptive Technology,
- ICT Shared Services
- Digital Enterprise Architecture
- SAP Centre of Excellence

There are defined below in greater detail.

8.1.3 eHealth

The key activities of eHealth are the management, optimisation and support of our large existing estate, the delivery of new eHealth and corporate solutions in partnership with the relevant services, the implementation of data insights and the management of ICT. Cyber security is a major focus for all the eHealth team but especially within the technology and infrastructure team who are tasked with modernising our infrastructure and managing our cyber profile.

8.1.4 ICT Capital Plan

2021 was dominated by two items, the Covid response and the Cyber-attack. The delivery of our 2021 capital plan was badly impacted by the Cyber-attack. All of the ICT resources with the exception of our Covid teams were involved in the restoration of our services from May to September. The eHealth and Distributive technologies area have between 20% - 25% of its workforce dedicated to Covid work throughout the year.

8.1.5 Covid related work

There are four primary programmatic areas of work which were undertaken these are, Contact tracing, Vaccine Programme, GP and Pharmacy support and integration and Data insights.

8.1.6 Contact Tracing

Is a digitally enabled service, the eHealth area has delivered and equipped contact tracing centres, telephony solutions, and the core contact tracing solution which incorporates booking tests online, supporting the swabbing centres and the delivery and ongoing support of the Contact Relationship Management solution. eHealth teams provide and support the swabbing centre ICT infrastructure.

8.1.7 Vaccine programme.

This is enabled by a number of eHealth services; each vaccine centre is digitally equipped to enable the vaccinations. The vaccine system had enabled all vaccinated people to have their vaccine process managed and recorded with 97% having their IHI utilised on the system. The vaccine solution provides an end-to-end digital service which has been continually upgraded to support the changes in the vaccine programme through the year. In total there have been 17 major releases and a further set mini releases and hotfixes throughout the year. In addition, eHealth

services provide all of the ICT infrastructure for the Vaccine Centres and manage the ICT elements of the commissioning and de-commissioning of centres and pop up clinics.

8.1.8 GP and Pharmacy integration

As part of the vaccine programme eHealth services designed and implemented, in conjunction with GP's and Pharmacists digital solutions which enable GP's and Pharmacies record vaccine delivery and integrated the results into the vaccine solution. The eHealth area designed, developed, and implemented the Covid vaccine pharmacy solution to enable pharmacists partake in the vaccine programme.

8.1.9 Data Insights

eHealth is responsible for developing and managing all the business intelligence solutions for the vaccine programme. This ranges from a set of dashboards utilised daily by senior management and local vaccine centres to the delivery of a large range of reports which are required to provide additional insights for all the Covid data. All Covid data resides in the system of record and within the data lake to enable data analysis.

8.1.10 Cyber-Attack

On 18 March 2021 the HSE was infected with malware after a workstation interacted with a malicious Microsoft Office Excel document that was attached to a phishing email. On 14 May 2021 the Cyber-attack was identified when the execution of ransomware which caused widespread IT disruption.

Over 80% of the ICT estate was impacted. The vaccine systems by design, was not on the network and were not impacted. A four-phase approach to the recovery was utilised: (a) **Contain**: stop the ransomware spreading, (b) **Inform:** ensure that all relevant stakeholders are briefed, (c) **Assess:** the systems and restore them to their pre-ransomware state, and (d) **Remedy strengthen:** our network and increase our cyber profile in line with lessons learnt.

The Chief Clinical Officer and the Chief Operations Officer collaborated closely to establish an integrated clinical and operational group which informed decisions on restoration of services, based on a hierarchy of clinical and operation risk. All systems were restored according to this hierarchy. The cyber-attack had a significant impact on the HSE's ability to deliver care, during the restoration timeframe (16 Weeks) which impacted on scheduled and unscheduled care across all services.

The HSE Board, in conjunction with the CEO and the Executive Management Team, commissioned a report to establish the facts thorough an Independent Review and learn lessons for the future to the benefit of the HSE and other organisations.

8.2 **2021 ACHIEVEMENTS**

Below is a small selection of achievements which cut across a wider range of services.

8.2.1 **HPVP - Health Performance Visualisation Platform** is now live, based on NTPF data, for the initial 4 hospitals, expanding to all acute hospitals next year. The HPVP platform provides real-time health data and trends across emergency departments, outpatient services, surgery and theatres, diagnostic services and bed management. It enables visibility of activity across the system and make urgent interventions where necessary, while enhancing transparency.

8.2.2 **Patient Administration System (PAS) in Portiuncula Hospital** – a part of the Saolta strategic PAS single instance deployment, the hospital went live in November. The benefit in having a single PAS instance is common patient demographics, common processes and policies and a modern supported system.

8.2.3 **ICT Support** - the support help desk has processed approx. 500,000 calls during the year. Just under 70% of all calls are resolved by the national service desk and 30% require further investigation by other teams prior to being resolved. The service desk now takes 60% of all support calls via self-service.

8.2.4 **Recruitment of eHealth Staff** - During the year eHealth recruited a further 200 ICT staff, this was achieved against the backdrop of a very challenging external market and the Cyber challenges.

8.2.5 **National Cancer Information System** – solution extended into Beaumont hospital and St. James Hospital, the solution supports the management of e-prescribing and e-administration of cancer drug treatment, for the treatment of cancer

8.2.6 **Scheduled Care** - streaming of NTPF datasets delivery to support various initiatives – HPVP, Scheduled Care Transformation programme and Primary Target List tracking. The Scheduled Care dashboard was delivered to allow for analysis of OPD and IPDC waiting list across hospitals and specialities.

8.2.7 **NIMIS BEAM** - is an image record sharing solution. It enables the electronic transfer of a patient's entire imaging record i.e. images, reports and related scanned documents, between facilities. It is deployed in all NIMIS site

8.3 **KEY CHALLENGES FOR 2022**

8.3.1 The size scale and complexity and governance of the Health Sector is very challenging to navigate within eHealth. The key challenges for the eHealth team are as follows: -

- The services articulated need to digitise far outweighs the ability of the organisation to deliver.
- Development of an agreed eHealth Strategy which is acceptable to all stakeholders.
- eHealth projects are not always treated as business transformation programmes which are ICT enabled thus leading to programmes being an 'ICT project' rather than a business project.
- Modernising and continuing to keep our infrastructure evergreen is a significant challenge given the complexity of the environment.
- Resourcing our plans with appropriate resources given the current employment market.
- Lack of an Electronic Health Patient Record within the Acute and Community services.
- Managing programmes for the totally of their lifecycle requires staffing at business and eHealth level to continue to optimise and support them.
- Delivering a cyber-security environment which is fit for purpose and aligned with the PWC report recommendations.
- Length of time it takes for eHealth projects to mobilise, procure and deliver.
- Moving our expenditure from CapEx to an OpEx model for eHealth services in line with the industry.

8.4 CONCERNS AND OPTIMISM

8.4.1 Causes of Concern

The management of Cyber security and GDPR within the domain. The length of time it takes to deliver projects and the management of projects through their lifecycle. The lack of an agreed and funded roadmap for an Electronic Health Record. The ability to recruit suitably qualified staff within the eHealth domain.

8.4.2 Causes for Optimism

The staff on the eHealth area are very dedicated, professional and a hardworking team who have deep knowledge of eHealth and have the ability to support multiple projects through their lifecycle across the health domain. The critically of eHealth is recognised across all domains within the Health Service which improves the profile of eHealth. The potential to maximise local ownership and delivery through the Regional Health Organisations.

CHAPTER 9

National Director of Communications

9. NATIONAL DIRECTOR OF COMMUNICATIONS

9.1 COMMUNICATIONS MANDATE AND AREA OF RESPONSIBILITY

9.1.1 The National Director of Communications leads the HSE in using communications to support the development and retention of the trust and confidence of patients, the public, staff and key stakeholders across the health service.

9.1.2 The role involves using a very wide of communications tools and channels to achieve these objectives. The Communications Division runs substantial marketing and advertising campaigns to inform the public about services (e.g. vaccination and screening) and to drive health-related behavioural change (e.g. smoking and child health etc); we run the HSELive contact centre and a social media engagement service, both of which have rapidly become the first point of contact with the HSE for thousands of people daily; the press office represents the HSE with news media across all channels, and its number of engagements has grown by c150% over two years; and our relatively new internal communications function has begun working towards a system allowing regular and rich communication with over 130,000 staff, a major challenge given the geographical spread of those staff among a large number of services.

9.1.3 Day-to-day activity throughout this past year has been dominated by the response to the pandemic and the need to support the smooth rollout of the vaccination programme. The communications team has worked very closely with EMT members and other operational leads to ensure the HSE's activity and approach are reported accurately and very regularly to the public via news media. HSE senior leadership and many others have been very involved in this effort and have devoted considerable time and energy to this task. This has made a major contribution to the level of public trust and confidence that the HSE now has.

9.2 AREAS OF RESPONSIBILITY

(a) The ongoing interaction of the HSE with news media, including responses to large volumes of queries on all aspects of HSE activity, as well as pro-active explanation and promotion of HSE activities

(b) HSE marketing campaigns, information resources and community engagement. This year these have been particularly focussed on COVID-19 and the vaccination programme but they include ongoing campaigns about HSE services and health and wellbeing (smoking, alcohol and more).

(c) Internal Communications. A relatively new function, involving developing communications channels with a large, geographically and functionally diverse workforce.

(d) Operating the HSE website, social channels and the HSELive customer service operation, the use of which is growing exponentially

(e) Development and implementation of different strategies that support the service and its staff (Trust and Confidence, Irish Language).

9.3 **2021 ACHIEVEMENTS**

9.3.1 In terms of activities and achievements during 2021, I would highlight the following:

- The maintenance of a **high profile for the HSE voice** in the public arena in giving clear, accurate information about the pandemic response and the vaccination programme throughout the year. Our COVID-19 response has supported strong behavioural change across the population and our marketing campaigns have been recognised by a range of awards for clarity, reach and impact.
- **Communications support for the COVID-19 vaccination programme**, providing **trustworthy information** via press and media, marketing and advertising, web and social, and the HSE Life service;
- Day-to-day interaction with **Government / Government Information Service** to ensure coherence on messages.
- **Marketing, public information and media relations campaigns** in relation to the pandemic response in general.
- **The 95% uptake of the COVID-19 vaccine** has been supported by these effective, responsive and clear communications to each person taking part.
- **The COVID-19 helpline** has supported the public throughout the pandemic with information and customer support for testing and tracing and vaccinations, handling 2.5 million calls in 2021 up from 200,000 in 2019.
- Other **multi-channel marketing campaigns** such as the **QUIT** campaign, **Dementia Understand Together, sexual Wellbeing, screening services** and others. The QUIT campaign surpassed 2021 NSP target for people signing up to the Programme.

- The management of the **crisis communications response** to the **cyber-attack** through the provision of clear information to the public and staff during the crisis. Our public website was visited 85 million times in 2021 up from 20 million in 2019.

- Maintaining regular communications with staff through broadcasts, webinars and the staff website throughout the year. Having developed an openly accessible staff website at the end of 2019 was a significant achievement. We have since redesigned hundreds of pages of information for staff since then and since January 1st, 2021 we have had 1.6m visitors and almost 7m page views.

- Providing **online information and health guides on more than 350 conditions** and medicines, child health and pregnancy, diabetes and stroke on the HSE website.

- **Ongoing response via media and other channels to voices critical of actions of the HSE through open and honest communications**. Our social media channels have become a go-to source of information and support 7 days a week, followers have increased to 1.45 million from 600k in 2019. In 2019 we responded to 9000 queries on social media, in 2021 it was 160,000.

- The **Trust and Confidence project** has made substantial progress during 2021. A number of actions have been agreed to be implemented, with further research and consultation to take place in 2022

9.4 **KEY CHALLENGES FOR 2022**

9.4.1 The challenges for 2022 can be put into two broad areas.

(a) **Firstly**, to maintain and enhance the heightened level of operational communications activity, and the service the public and other stakeholders receive as a result.

- HSELive now handles 12 times the number of calls that it did two years ago; press office engagements have grown by 150% during that time; social media followers have more than doubled and social media queries answered have multiplied by six – all since 2019. The requests for information, for PQ answers and for Oireachtas Committee appearances has also grown hugely.

- This is not simply an argument for resources: it is a reflection on the point that the amount of two-way engagement between the HSE and

stakeholders at all levels has grown hugely. Communicating well in response to the growing interest in what we do is crucial to earning trust and confidence across the board. Conversely, doing this badly, in a context in which people have now come to expect responsiveness from us at a large scale, will be very damaging to that trust and confidence.

(b) **Secondly**, to deploy our communications resources to achieve future strategic objectives, such as to support changes being made under the Sláintecare programme and to develop further the Trust and Confidence programme.

The challenge is to ensure we continue to plan and deliver communications that increases understanding of changes and developments taking place within the health service as a result of government policy. Whether it is the introduction of regional structures, a new consultants' contract or some other development, we need to plan communications so that the changes are understood and that we maximise the chance that the public will support us as we implement government policy. We need to explain, to engage and to be clear, open and transparent at all times in our messaging.

9.4.2 In terms of specifics, in 2022 we need to;

- Continue to inspire confidence in our response to COVID-19 and engaging the public and our staff in protective actions long-term
- Retain the support we have earned for the COVID-19 vaccine programme, maintaining high uptake of boosters and further phases
- Develop the Internal Communications function into one that can truly engage with a hugely segmented and diverse staff within an extremely large organisation.
- Transform permanently the HSE's customer service and digital channels to make them fit-for-purpose for the future.

9.5 CONCERNS AND OPTIMISM

9.5.1 Causes of Concern

The cause for concern is the need to ensure that the heightened focus on communications remains, as time passes. Post-pandemic, we will need high levels of trust and confidence as we work to deal with long waiting times for elective care, and also to make changes in how we operate in line with government policy. The transformed level of public engagement with us during the pandemic will never go back to pre-2019 levels, and the task of setting up the communications function to deal with that level of engagement into the future is a major challenge.

9.5.2 Causes of Optimism

Our cause for optimism is the central role communications has taken in supporting the HSE's core functions and the recognition that this has gone well. Regular research conducted by our team shows that the level of public trust and confidence in the HSE rose substantially since the start of the pandemic response and has remained at a high level since. Public trust and confidence make it easier for the HSE to carry out its functions.

CHAPTER 10

National Director of Internal Audit

10. HEAD OF INTERNAL AUDIT

10.1 MANDATE AND AREA OF RESPONSIBILITY

10.1.1 The Internal Audit Division (the **'Division'**) provides an Internal Audit service to the HSE. We also provide an Internal Audit Service to Tusla which is reported on separately to its Audit & Risk Committee.

10.1.2 As National Director of Internal Audit my role is to provide independent assurance to the Board and Management that HSE's risk management, governance and internal control processes are operating effectively. The remit of Internal Audit covers all HSE funded activities including all organisations funded by the HSE. My annual audit opinion is included in the Statement of Internal Control in the AFS.

10.1.3 As an independent function within the HSE, as NDIA I report directly to the Chairperson of the Audit and Risk Committee and I have right of direct access to, and an administrative reporting relationship to, the CEO. To further underpin IA's independence, I also have right of access to the Chairperson of the Board, if required. With effect from mid-2021, I also report to the Safety and Quality Committee in relation to Health Care audits.

10.1.4 The role of Internal Audit is set out in the HSE's Internal Audit Charter and our work, which is conducted in accordance with the Core Principles for the Professional Practice of Internal Auditing, and the Code of Ethics and International Standards of the Institute of Internal Auditors, is underpinned by the Division's annual plan as approved by the ARC.

10.1.5 **Areas of Responsibility - The Division comprises 5 units:**

(a) **Internal Audit Operations Unit** – this is the main part of the work of the Division and entails the completion of the operational audit programme by the various audit offices (7 in all based throughout the country).

(b) **Healthcare Audit** - this comprises audits specific to area of Healthcare. As part of the Corporate Centre Review the Health Care Audit (HCA) team, formerly part of the Quality Assurance & Verification Division (QAV), transferred to the Internal Audit Division with effect from 18 March 2021.

(c) **ICT Audit** - this comprises ICT audits conducted by the Division's ICT audit unit and by an external specialist firm of ICT auditors (Deloitte) contracted to work

for the Division under the direction of the Assistant National Director for ICT Audit.

(d) **Special Projects & Investigations** - this work is conducted by a team in the Division together with, if required, contracted specialist forensic accountants (Mazars).

(e) **Corporate Reporting Team** - this comprises a small dedicated unit that is responsible for our corporate function including: recommendation tracking, preparation of Committee papers and fulfilment of the administrative duties within the Division.

10.2 2021 ACTIVITIES THROUGHOUT THE YEAR

10.2.1 The Division's 2021 core work is set out in an annual programme of work which was approved by the ARC in December 2020. The cyber-attack on HSE systems on the 14th May 2021 severely impacted the Division's ability to conduct audit work during the period up to IT systems restoration and a residual impact was experienced due to the post cyber impact on the system's capacity to engage with the audit process.

10.2.2 A revised plan was presented to, and approved by, the ARC in September to reflect the reduction of 25% in available audit days due to the impact of the Cyber-attack, coupled with the difficulty in filling staff vacancies.

10.2.3 As at 30th November the Division issued 156 audit reports of which 141 relate to HSE and 15 relate to TUSLA. In addition to audits of HSE and TUSLA operations, these reports included audits of funded agencies, follow-up audits, special investigations, and ICT audits. As NDIA, I attend all the meetings of the ARC and I report the results of the HSE audits to the ARC and EMT on a quarterly basis and to the Safety & Quality Committee on the results of Health care audits. During 2021, I briefed the People & Culture Committee and the Safety & Quality Committee on a number of Internal Audit reports referred by the ARC to the Committees for their information.

10.2.4 In addition to the planned programme of work, we undertook, and reported on, an audit of Payroll Irregularities at St Columcille's Hospital and we are currently undertaking an audit on all hospitals' compliance with HSE Standards on Post Mortem Examinations (2012) for post mortems completed between 1 January 2018 and 31 October 2021.

10.2.5 We place considerable effort in tracking and reporting on management's implementation of Internal Audit recommendations and encouraging their implementation. On quarterly basis I reported the status of management's implementation of recommendations to the ARC and EMT.

10.2.6 During 2021, I also provided the ARC and EMT with briefings on management's implementation of recommendations in a number of Key Internal Audits reports on NCHD Recruitment, Children First Legislation, Senior Management Overtime, the Job Evaluation Scheme, and the European Working Time Directive NCHDs.

10.2.7 A key aspect of our work during 2021 has been the transitioning of Health Care audit to Internal Audit and the standardisation and integration of our audit and administrative processes.

10.2.8 Other activities during 2021 included:

- Issuing the Annual Report of Internal Audit for 2020, which included my annual overall audit opinion on the governance, risk management, and control processes of the HSE during 2020
- Increasing the frequency of the release of Internal Audit reports under FOI from twice yearly to quarterly.
- Reviewing and updating our Internal Audit Charter.
- Presenting a dedicated ICT Audit Overview to the ARC through our outsourced ICT audit service provider.
- Undertaking the 2022 Internal Audit Planning process and developing the draft 2022 plan for ARC approval.

10.2.9 The division also provided an Internal Audit service to Tusla and as National Director I attended all meetings of Tusla's Audit & Risk Committee.

10.3 **2021 ACHIEVEMENTS**

(a) Work achieved to date in **transitioning the HCA Unit into the Internal Audit Division**. This has included the HCA Reports for the first time setting out risk implications for their audit findings, introducing risk rating on their recommendations and producing their audit reports in a style consistent with the Division's approach.

(b) **Adapting our work practices during Covid** through to use of more remote auditing techniques aligns with the need for the HSE Internal Audit Division to ensure it is managing its resources and delivering on its objectives in an efficient and effective manner and aligns with public sector reform plans and central government policy to deliver better outcomes and efficiency through innovation and the use of ICT.

(c) **Delivering complex and challenging audits during 2021** which added both value to the area under review and to the wider HSE control environment including: NCHD Recruitment, Job Evaluation Scheme, Payroll Irregularities St. Colmcille's, Children First Legislation and several audits topics which emerged as a result of the increase risks and expenditure as a result of the HSE's response to Covid-19.

(d) **Delivering timely tracking recommendations status reports to EMT members, NPOG, and sub-committees of the Board** on the progress of audit recommendation implementation throughout the HSE and funded agencies.

(e) The introduction and roll-out of our **on-line post audit survey feedback programme**. The results of which are collated and examined by the IALT and reported into the ARC.

10.4 **CHALLENGES FOR 2022**

- **Attracting qualified and experienced audit staff**. Filling of vacant posts in a competitive accounting and assurance market.
- **Loss of staff** and delays experienced in the recruitment process
- **HCA integration** increased workload on small corporate team to deliver the added reporting requirements to our stakeholders.
- **Sláintecare** - The need to align our strategy and operational activities accordingly.
- **Provision of Internal Audit Service to Tusla** – we have identified a number of emergent issues in relation to our current arrangement to act as the Internal Audit Division for Tusla. The Division has recently engaged with Tusla on the matter with the view that Tusla will begin the process of seeking to establish its own Internal Audit function.

This is in line with TUSLA's own strategic direction including its continued divergence and reduced reliance on HSE systems and processes.

10.5 CONCERN AND OPTIMISM

10.5.1 Causes for Concern

The progress of some outstanding recommendations remains a concern. The progress on the implementation of audit recommendations is periodically reported to the relevant HSE senior management and NPOG.

In some instances, the timeliness of management responses to audit requests and management responses to draft audit reports was a source of concern for the Internal Audit Leadership Team (IALT). This is being examined by the IALT and consideration is being given to a development of a formalised escalation protocol.

10.5.2 Causes for Optimism

Despite Covid and the Cyber-attack audit impacting our audit work, Internal Audit staff showed resilience and flexibility to adopt new ways of working to deliver on its remit. The increase in ICT capability generally throughout the HSE allows for greater use of remote auditing techniques to be utilised as part of our audit work.

The Division noted the impact of our work to effect change and the ability of the HSE system to quickly implement change and action audit recommendations where prioritised. This was clearly evident in the work by Strategy and Planning on the Research Governance Framework, the CFO led assurance exercise on local payroll procedures and the introduction of dedicated posts at CHO level to monitor and oversee governance arrangements with funded agencies.

CHAPTER 11

Board Updates

(27 November - 13 December

11. BOARD UPDATES (27 NOVEMBER TO 10 DECEMBER)

11.1 PwC Report into the Cyberattack on HSE Systems

11.1.1 The Board via its specially established oversight Committee has received regular updates in relation to the progress of the PwC review which has now been completed.

11.1.2 The background is by now well known. On Friday 14th May 2021, there was a major cyber-attack against the HSE's IT systems through the criminal infiltration of these systems using Conti Ransomware. As a result, all HSE IT systems were shut down. This event is thought to be the most serious cyber-attack on the country's critical infrastructure and was considered by the HSE to be a Major Incident. Healthcare services across the country were severely disrupted with real and immediate consequences for the thousands of people who require health services every day.

11.1.3 Given the seriousness of this attack, the Board of the HSE in conjunction with the CEO and EMT decided to commission independent Post Incident Review into the circumstances surrounding this infiltration of the HSE's IT systems.

11.1.4 **Review Team**

PwC were commissioned to undertake the Review.

The final Report from PwC was accepted by the HSE Board at its November meeting and the Report will be published on Friday 10th December 2021.

11.1.5 **Purpose of the Review**

The purpose of the Review was to,

(a) Establish the facts in relation to the preparedness and response of the HSE.

(b) Identify the learning from this incident to bring about improvements to the HSE's preparedness for and response to other major risks.

(c) Share those learnings within the HSE and externally with State and non-State organisations.

(d) Make recommendations to improve the HSE's preparedness for and response to major cyber-security threats and other major risks and incidents that cause significant business disruption.

11.1.6 **Key findings**

(a) **Health service staff resilience:** In times of significant challenge or emergencies, health service staff are resilient, respond quickly and have an ability to implement actions to maintain the continuity of services to their patients

(b) **Attacker techniques:** The attacker used relatively well-known techniques and software to execute this attack. It is essential that the HSE maintains the managed cyber defence monitoring service it now has in place.

(c) **ICT estate:** The health service is operating on a frail IT estate. Its architecture has evolved over time rather than having been designed for resilience and security. The cyber security risk is a common risk across all organisations connected to the national health network given the interconnectedness of the IT systems and the governance constructs and various levels of autonomy over IT and cybersecurity decision making.

(d) **Cyber maturity:** There is a low level of cyber security maturity. This combined with the frailty of the IT estate enabled the attackers to achieve their objectives with relative ease.

(e) **IT and cyber transformation:** Reducing cyber risk requires a transformation in both IT and cyber security capability. This transformation and the capability to prevent and detect a similar incident in the future will require senior cyber security leadership. In particular there is a need to appoint a Chief Technology Transformation Officer and Cyber Information Security Officer. These appointments will need to be supported by a suitably skilled and resourced cyber security function, the development of a clear IT vision, strategy and architecture which in turn will require significant funding over many years.

(f) **Operational resilience and business continuity:** Business continuity as a risk discipline has not developed at the pace needed. This will require the HSE to implement a clinical and services transformation programme.

11.1.7 **Recommendations**

The report makes a number of strategic recommendations under four headings. These are governance of IT and cyber-security; leadership and transformation of the IT foundation on which the provision of health services depends; leadership of cybersecurity capability; and development of clinical and services continuity and

crisis management capability to encompass 'service-wide' events such as prolonged outage of IT.

A number of other tactical recommendations are included in the report.

Learning for other organisations

The Report highlights that cybercrime is increasing in frequency, magnitude and sophistication, with cybercriminals easily operating across jurisdictions and country borders. These incidents can cause major damage to safety and the economy.

In a standalone chapter, the Report identifies key areas of learning for other organisations such as Technology dependency and governance, cyber-security strategy and leadership, effective cyber monitoring and response, testing cyber capability and business continuity planning and disaster recovery.

11.1.8 **Immediate cyber-protection measures**

The HSE has put in place a range of immediate measures to strengthen its cyber resilience. This includes the engagement of an internationally recognised firm providing managed cyber defences and security operations, monitoring the IT estate, detecting threats and taking action as required.

11.1.9 **Next steps for the HSE**

Following the publication of the Report, the HSE will engage with the Department of Health to agree an approach to implementation and investment planning. The next steps for the HSE will include:

(a) Development of an implementation plan and the business case for investment.

(b) Putting in place the following implementation structures:

  (a) A Board Sub-Committee to provide governance oversight for the ICT/ Cyber Transformation Programme.

  (b) An EMT ICT/ Cyber Transformation Implementation Steering Group to oversee day to day implementation of the Programme.

  (c) An Executive Operational Resilience Steering Group

11.2 **COVID-19 – A PERSPECTIVE ON THE IMPACT OF VACCINATION ON DEATHS (SEE CHART BELOW)**

11.2.1 COVID-19 reached Ireland in Q1 2020 and unsurprisingly given its novel nature and ease of transmission the virus took hold and had a devastating effect on those most vulnerable, resulting in a high portion of deaths per individuals infected with the virus.

11.2.2 Throughout the latter end of Q1 and Q2 2020, Ireland implemented severe lockdown measures in an effort to safeguard its citizens, the health service and particularly those with compromised health. This stymied the rate of transmission and reduced the number of deaths.

11.2.3 The measures taken here and abroad gave the international scientific community time to develop and test effective vaccines, which normally take years and test. It was nothing short of a scientific triumph that these vaccines were developed, synthesised and passed regulatory approval within little more than a year following the first cases of COVID-19 being reported.

11.2.4 Approaching the end of 2020, Ireland substantially reopened the economy. During the Christmas period in particular, increased interactions led to a rapid and very serious wave of infection, resulting in increased transmissions and deaths. However, at this point, clinical knowledge had improved, reducing the number of deaths relative to the number of infections. The correlation however between Covid cases and deaths very much remained.

11.2.5 COVID-19 is liable to have serious effect on those who fall ill, but the risks are particularly acute for those who are immunocompromised. The demands placed on our hospital staff and systems, were such that very difficult decisions had to be taken, e.g. to cancel substantial volumes of scheduled care so that people hospitalised with the virus could be cared for.

11.2.6 Just as 2020 was closing, Ireland received its first consignment of vaccines and although supply was initially restricted, our health service built a highly efficient mass vaccination programm, with locations right across Ireland. The population was divided into cohorts, based on those who were most in need of protection.

11.2.7 As the vaccination programme gained traction throughout the summer of 2021, the rate of transmission and related deaths dropped materially, bring a sense of normality to many people's lives for the first time in over a year. Families were able to meet and enjoy those summer months, have staycations and meet friends.

11.2.8 As we entered late summer and early autumn of 2021, the prevalence of COVID-19 materially increased again, seeing a fourth wave. This was primarily made up of younger people and at this time the correlation between Covid positive cases and deaths clearly was broken and our vaccine was clearly doing its job effectively.

11.2.9 This however changed yet again in Q4 when Covid cases already high saw an increase in deaths, primary of those older, frail or those immunocompromised. This is attributable in the main to waning immunity, leaving these groups more exposed to the virus. With the commencement of the booster programme in autumn of 2021, immunity has been reinforced and once again we are beginning to see a reduction in deaths - even though COVID-19 cases continued to grow.

11.2.10 COVID-19 is now highly prevalent in the 5-12-year-old group and with NIAC's announcement that these age cohort will shortly be administered a vaccine, we project that the prevalence of COVID will fall greatly within the community as a higher proportion of our citizens gain greater protection.

Number of COVID-19 Cases and Deaths over the Course of the Pandemic

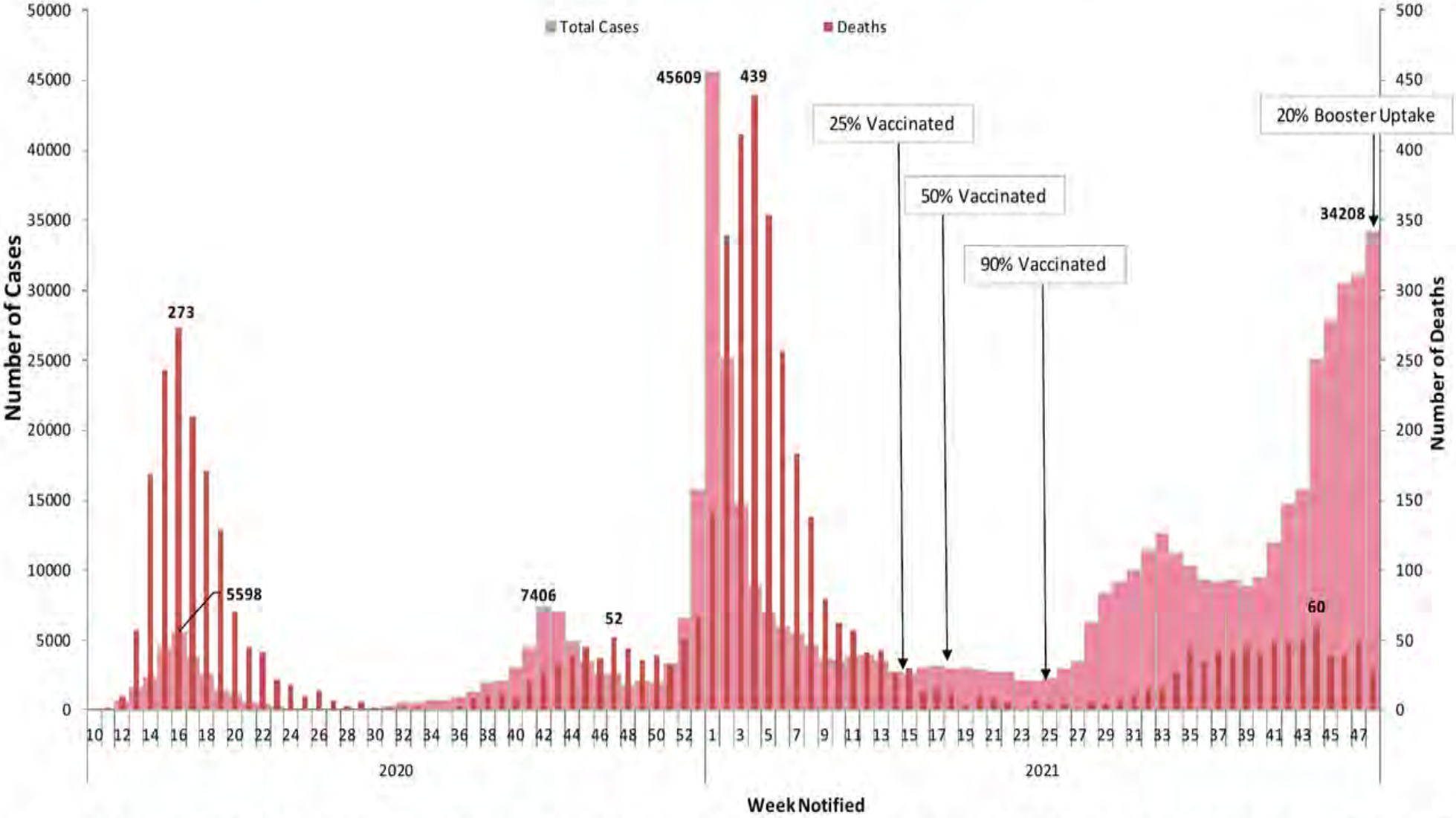

Figure 1: Number of COVID-19 cases based on week of notification and number of deaths due to COVID-19 based on week of death in Ireland between week 10, 2020 and week 48, 2021*

*Please note that vaccination rates are determined based on percentage of fully vaccinated individuals among eligible population over the age of 12.

A Narrative of COVID-19-relates Deaths And the Administration of Vaccines Since the Pandemic Commenced.	
Timeline	**Narrative**
Q1 2020	COVID-19 reached Ireland and unsurprising given its novel nature and high transmissibility, the virus took hold and had a devastating effect on those most vulnerable, resulting in a high portion of deaths per individuals infected with the virus.
Q1 – Q2 2020	Ireland effectively closed down in an effort to protect our citizens, the health service and those with compromised health resulting in a lower rate of transmission and related deaths. These lockdowns gave our international scientific community time to develop and test effective vaccines, which normally take years to development and test but with the approval of vaccines one year after the first cases of COVID-19, it really was a modern-day miracle.
Q4 2020	Ireland opened up again just before the Christmas period. Increased interactions led to a sudden and serious second wave, resulting in increased transmissions and deaths. At this point, clinical knowledge had improved, reducing the number of deaths per Covid cases and increasing the lag effect. The correlation however between Covid cases and deaths very much remained. COVID had a serious and sometimes catastrophic effect on those falling ill. The HSE's clinical response placed on our hospital staff under enormous pressure. Substantial volumes of scheduled care were cancelled in order to retain capacity.
Year End 2020	Ireland welcomed the first vaccines into Ireland and although supply was initially restricted, our health service embraced a vaccination programme by delivering vaccines following a cohorted system, initially to those most in need.
Q2 2021	As the vaccination programme gained traction throughout the summer, the rate of transmission and related deaths dropped materially, bring optimism about a return normality to many people's lives for the first time in over a year. Families were able to meet and enjoy the summer months, have staycations and meet friends.
Q3 2021	As we entered late summer and early autumn, the prevalence of COVID-19 materially increased again, seeing a further wave. This was primarily made up of younger people and at this time the correlation between Covid positive cases and deaths clearly was broken and our vaccine was effectively doing its job.
Q4 2021	However, changes were afoot when Covid cases already high increased further. A small increase in deaths followed, primary in those older, frail or those immunocompromised, as immunity was waning leaving these groups more exposed and vulnerable to the virus. With the launch of the 3rd and booster doses in the autumn of 2021, this again strengthened immunity and began to see a reduction in deaths.

A Narrative of COVID-19-relates Deaths And the Administration of Vaccines Since the Pandemic Commenced.	
Year End 2021	As we follow to the end of this graph, COVID cases are now highest in the 5- 12year old age group. NIAC's announcement that this age group will shortly be administered a vaccine. We project that the prevalence of COVID will fall greatly within the community as a higher proportion of our citizens gain greater protection.

11.3 OMICRON VARIANT (B.1.1.529)

11.3.1 Significant concern has been raised internationally following the recent detection of the variant B.1.1.529, which has a high number of S gene mutations compared to the original virus. Cases of B.1.1.529 have been confirmed in a number of countries/regions internationally including South Africa, Botswana, Hong Kong and Israel. A case has also been reported today in Belgium. To date, the first known confirmed B.1.1.529 infection was from a specimen collected on 9 November 2021.

11.3.2 On foot of concerns in relation to this variant the World Health Organization (WHO) Technical Advisory Group on SARS-CoV-2 Virus Evolution (TAG-VE) convened 26th November 2021 to assess the potential risk of B.1.1.529 and make recommendations as appropriate. Based on its assessment of the evidence, the TAG-VE has advised WHO that this variant should be designated as a VOC, and the WHO has designated B.1.1.529 as a VOC, named Omicron. On 26 November 2021, ECDC also designated the SARS-CoV-2 variant B.1.1.529 as a variant of concern and continues to monitor all emerging evidence in relation to this variant.

11.3.3 There are a number of reasons for us to be concerned about this emerging lineage. Firstly, it has more mutations than previously observed in other variants and appears to possess mutations that were previously only seen in separate viruses. In addition, the evolving epidemiological situation in South Africa would suggest that the virus is readily transmissible and might have an initial growth rate that is greater than that of previous variants, Alpha & Delta. (**Source:** Risk Assessment of SARS-CoV-2 Variant B.1.1.529 (Omicron) A Joint Review by HSE, HPSC, NVRL, Department of Health)

11.3.4 **Epidemiology**

One hundred and nine COVID-19 cases are currently identified as confirmed, probable or possible (PUI) Omicron cases as a result of SGTF results since October on the TaqPath PCR assay, being a contact of a confirmed case or having recently travelled outside Ireland or having contact with a case who has recently travelled.

11.3.5 Summary of confirmed, probable Omicron cases and persons under investigation identified in Ireland October – December 7th 2021

Recommendation of Joint Review by HSE, HPSC, NVRL, Department of Health	HSE Action taken
1. All arriving passengers to Ireland with a travel history in the previous 14 days from a listed country3 to home quarantine at the address provided on the passenger locator form. Travellers should be required to avail of a PCR test from the HSE at day 2 and at day 8. The person may exit home quarantine at day 10 if the day 8 test returns a result of not detected, or at day 14 if no test is undertaken, and if they are asymptomatic. If an individual returning to Ireland with a travel history in the previous 14 days from a listed country is confirmed positive at any time, they should continue to home quarantine for 10 days from the date of the positive test, or if symptomatic, from the date of symptom onset, if they are also five days fever-free.	New SARS CoV-2 Omicron Variant (B.1.1.529): interim guidance on required actions for all Clinicians, Hospitals and Public Health' <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/sars-cov-2variantsofconcern/Interim_Omicron%20guidance.pdf> live on HPSC website.
2. Household contacts of a traveller arriving from a listed country will be required to home quarantine for the same ten-day period as the traveller, and may exit quarantine if they remain asymptomatic, and the traveller has received two not detected test results. If the traveller receives a positive test result household contacts will be required to undergo immediate testing and follow public health guidance for confirmed cases.	
3. Information should be made available at the ports of entry advising travellers of the new requirements.	Information at ports of entry: being actioned by Dr. Mairin Boland and HSE Communications

4. Passengers who have arrived in Ireland from 1 November will need to self-isolate and be offered a prioritised PCR test from the HSE at day 5, or as soon as possible thereafter. They should remain in self-isolation until the results of a not detected test are available **and** at least 10 days have elapsed post-arrival without symptoms.	Text messages were sent from the Contact Management Programme to all confirmed cases who travelled into Ireland from one of the designated countries since 01/11/21, advising them in relation to self-isolation and PCR testing
5. All passengers, irrespective of vaccination status, arriving from the listed countries should be required to present evidence of a not detected result from a pre-departure PCR test taken no longer than 72 hours before arrival.	
6. The HSE should conduct a review of confirmed cases from 1 November to ascertain if any have travel history from countries in southern Africa in the previous 14 days. For cases identified as part of this review, enhanced contact tracing should be undertaken.	
7. As of 26 November, the HSE should reintroduce collection of travel history during contact tracing for all confirmed cases.	Contact Management Programme scripts and scenarios have been updated to include the attached HPSC guidance and enhanced contact tracing for cases associated with travel from or transit through a designated country is being done.
8. Enhanced public health control measures for cases of B.1.1.529 variant should be immediately put in place by the HSE. The HPSC will provide guidance in this regard	Guidance on testing, and public health management for travel and non travel associated Omicron VOC is published on HPSC website: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/sars-cov-2variantsofconcern/VOC%20pathway_Omicron.pdf
9. The HSE should re-introduce flight contact tracing for all confirmed case of B.1.1.529 with a travel history from any origin.	Travel history is being collected by CMP and flight contact tracing has been re-introduced for all possible cases of Omicron with a travel history from any origin.
10. The HSE should issue an advisory note to primary care and acute services advising suspension of elective activity for those with travel history from the countries listed.	Memo sent from A/National Clinical Director of Health Protection & CCO to hospital clinicians and GPs on 28/11/21 regarding the Omicron variant of concern and action required by general practice and acute hospitals including the suspension of elective activity for those with travel history from the countries listed
11. Samples from all positive cases with travel history should be forwarded to the Backweston laboratory for testing on Taq-Path assay from any cases with a travel history. Confirmed variant samples will be sent to the NVRL for whole genome sequencing.	Detected' SARS-CoV-2 samples on people who have travelled from any country overseas into Ireland in the previous 14 days are being sent to Backweston lab for S-gene dropout screening and samples with S-gene dropout will be sent to NVRL for whole genome sequencing.

11.4 **PERFORMANCE UPDATE – October 2021 Reporting Cycle**