The impact of the COVID-19 pandemic and the societal restrictions on the health and wellbeing of the population, on our staff and on health service capacity and delivery:

A plan for healthcare and population health recovery
# Reader Information

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Appendix 1: Impact of COVID-19 on health service business as usual ....................................................... 29
Abbreviations

ASI  Alzheimer Society of Ireland
AN/MP  Advanced Nurse/Midwife Practitioner
CAMHS  Child and Adolescent Mental Health Services
CCO  Chief Clinical Officer
CN/MS  Clinical Nurse/Midwife Specialist
CMP  COVID-19 Contact Management Programme
COPD  Chronic Obstructive Pulmonary Disease
CSO  Central Statistics Office
DoH  Department of Health
DRHS  Dublin Region Homeless Service
EAP  Employee Assistance Programme
ED  Emergency Department
FNA  Fine Needle Aspiration
GMQ  Granby Merchants Quay
HCW  Health Care Worker
HIPE  Hospital Inpatient Enquiry
HSCP  Health and Social Care Professional
HSE  Health Service Executive
ICGP  Irish College of General Practitioners
ID  Infectious Diseases
IHFD  Irish Hip Fracture Database
IMO  Irish Medical Organisation
IPC  Infection Prevention Control
MDT  Multidisciplinary team
MMUH  Mater Misericordiae University Hospital
National QI Team  National Quality Improvement Team
NCCP  National Cancer Control Programme
NCPPD  National Clinical Programme People with Disabilities
NOCA  National Office of Clinical Audit
OPD  Out Patients Department
OPAT  Outpatient Parenteral Antibiotic Therapy
OST  Opioid Substitute Therapy
OT  Occupational Therapist
PA  Personal Assistant
PCRS  Primary Care Reimbursement Service
PHN  Public Health Nurse
PPE  Personal Protective Equipment
QI  Quality Improvement
RCPI  Royal College of Physicians Ireland
RCSI  Royal College of Surgeons Ireland
SJH  St. James’s Hospital
SLT  Speech and Language Therapist
SpR  Specialist
Registrar
Summary of recommendations

1. A clear plan is needed for the recovery of all services. This must acknowledge the significant gaps in services prior to the pandemic that have resulted in long waiting lists for acute and community services, and address these with investment.

2. Recovery will need to address the historical waiting list and delays in service access and will require new ways of delivering health services and increased investment in service delivery.

3. Continued investment in expanding ICU beds will be needed to future proof our service capacity.

Population Health

4. Clear measures will be needed to tackle the additional challenges to the health of the population caused by the pandemic and by the measures put in place to control viral spread.

5. The partnerships developed with community organisations and voluntary groups should be deepened to broaden their role in partnering with the health services in tackling the health determinants highlighted in this report.

6. Innovation in health care delivery must continue with a strong co-design element with service users and their families.

7. The planned investment in expanding public health capacity must ensure we are prepared for likely future public health shocks. Additionally, discrete immunisation teams will be needed especially for schools.

8. We must track the ongoing impact of the pandemic on the population’s health.

Workforce

9. Wherever possible in future waves the redeployment of staff from front line services must be minimised, accepting that the Covid-19 vaccination programme is an absolute priority.

10. Our staff must be actively assisted to recover. Healthcare staff require careful rostering, annual leave, organisational support from employers and, where necessary, “psychological first aid”.

11. A workforce plan is needed, ‘growing our’ own given the global shortage of skilled staff.

12. Investment is needed in training and up-skilling of staff to support the delivery of remote services; invest in technology, and clarify governance of virtual health and social care services.

13. The effectiveness of digital, virtual and remote services must be evaluated so that we can identify where they should be incorporated into future service delivery.

14. We must commit to a culture of continuous quality improvement and drive a management culture where teamwork is prioritised, and all staff are enabled to improve care in their area of expertise.

Younger People

15. Children while not the most affected by Covid-19 should be protected from secondary harm due to increased inequality and reduced access to health and other services.

Older People and Chronic Diseases

16. Significant development in services for older people and people with chronic disease will be needed both in the acute and community sectors: one site one stop ambulatory care models should be developed in the acute sector to facilitate admission avoidance and make hospital engagement as seamless as possible; better integrated acute care and community services are needed; a programme of gerontological education and training in chronic disease prevention should be developed and services must focus on de-institutionalization and re-enablement.

17. The Nursing Home Expert Panel report provides a set of evidence-based and essential recommendations which must be implemented as a priority.

Mental Health Services

18. Continued investment will be needed for mental health services and support.

Post Covid-19 Illness

19. Adequate community rehabilitation services for patients with post-acute Covid-19 syndrome must be provided.

20. Infectious disease clinical involvement is likely to continue in coming years and we need to protect and expand the frontline, physician-led ID services to reflect this.

21. A coordinated response specifically for rehabilitation needs in this population will be required to ensure that functional recovery can be maximised and prevent recurrent hospitalisations and / or premature long-term care admissions.
1. Introduction

This paper seeks to explore the impact of the pandemic and the societal restrictions on the health of the population. We have learned of the harm of protracted closure and curtailment of some services. This learning can inform future decision making in the event that there are further surges which require suspension of what is deemed non-essential activity.

As we enter a phase of the pandemic where the third wave appears to have subsided and the impact of the vaccination programme is becoming more clear every day, it is timely to further consider a plan to invest intelligently in effective health service provision to recover our services, to (i) recover the health of the population impacted by societal restrictions and (ii) help our staff to recover from the considerable burden of working on this pandemic for over a year.

The purpose of this paper is to:

a) highlight the considerable innovation that staff have shown
b) support the delivery of services in new ways
c) sustain services despite the challenges of the pandemic
d) lay out the impact that COVID-19 has had on:
   • health service delivery
   • individuals’ health and that of the population
   • those providing health care services.

This updated paper uses an expanded range of now available data, expert opinion and analysis to establish to what extent normal health services have been restored; what we have learnt about delivering health services during a pandemic; and what lies ahead in terms of our ability to deliver normal health services, and to meet the additional health needs arising from the population health impact of societal restrictions.

We must re-examine to what extent we have successfully re-established health and social care services that were, of necessity, paused or reduced due to the demands of dealing with the pandemic. In this phase, we are seeking to ensure that disruption is lessened by recruiting staff from outside the service to drive testing and contact tracing.

This paper is informed by data developed and analysed by the clinical care programmes, the National Cancer Control Programme and HSE services.

The paper examines, the:

1) on-going impact of the pandemic on the delivery of health and social care services in hospitals and in the community
2) impact of the pandemic and the restrictions required to control the spread of the virus on the health of our population; and
3) impact of COVID-19 on our health and social care workforce.

It concludes with high level recommendations for a plan for the recovery of our health services and for the recovery of the health of our population.
1.1. Existing challenges for our services

The need for enhanced infection control precautions and the use of PPE has resulted in delays in care delivery, as have pre-pandemic waiting lists (which were considerable in many services). These waiting lists increased by the suppression of demand due to service users being reluctant to present to health services for fear of contracting the virus. We are only learning now of the long-term effects of COVID-19 infection on some patients and will need to explore appropriate supports and care where required.

In addition to these challenges are the many effects of the social restrictions that our society have so effectively adopted in order to halt the spread of COVID-19. The isolation, loneliness and loss of condition through restricted exercise for so many of our older population will inevitably create additional health challenges for this group. Fear and anxiety about the virus and the mental health impacts of the restrictions is already creating a significant additional mental health burden across all of our society. What we are describing here is a picture that is predictable and very similar to many other health services and societies.

At risk groups and COVID-19 - Evidence from Ireland: a study analysing hospitalised cases of COVID-19 during the first wave in Ireland identified that the presence of comorbidities like obesity, hypertension, chronic kidney disease and chronic obstructive pulmonary disease have been shown to be associated with adverse clinical outcomes. This data has informed programmes to optimise the management of these conditions and support early access to COVID-19 vaccines (Beatty et al., article in preparation).

| The health services response to the unprecedented challenges of the COVID-19 pandemic has demonstrated a very high level of staff commitment to maintaining services and providing quality care while protecting patients; a rapid and significant level of innovation in developing new models of service overnight; and a major whole system response to ensure the services could deal with the demands placed on them by the pandemic and to preserve as much of normal health care delivery to our patients as possible. |

1.2. Changes in the utilisation of acute hospital care in Ireland (first wave of pandemic)

The COVID-19 pandemic has impacted healthcare utilisation, particularly the provision of non-COVID-19 care in many countries (Middleton et al., 2020; Rosenbaum, 2020). Internationally, it has been reported that reduced and delayed presentations for non-COVID-19 illness have resulted in increased morbidity and mortality (Birkmeyer et al., 2020 and Nguyen, 2020).

A seminal study in Ireland found a substantial reduction in population rates of Emergency Department (ED) presentation, admission from ED and non-COVID-19 hospital admission in quarter 2-4 2020 compared to quarter 1 2020. These reductions were greatest in quarter 3 2020. Within quarter 2-4 there were 81,712 fewer ED presentations (-18.8%), 19,692 fewer admissions from ED (-17.4%) and 210,357 fewer non-COVID-19 hospital admissions.

Analysis of ED activity using PET data indicated that a greater proportion of those presenting to ED in quarter 2-4 2020 were from older age groups and had arrived by ambulance and were admitted which suggests increased severity of illness compared to quarter 1 2020. There was an increased likelihood of being admitted to hospital following ED presentation in quarter 2-4 compared to quarter 1, which was most marked in quarter 3. This suggested that those who presented in these periods were more unwell. In the recovery period (quarter 4), ED presentations and admissions from ED returned to pre-COVID-19 levels for those aged over 45 years but remained reduced for those aged below 45 years.

Analysis of non-COVID-19 hospital admissions using HIPE data found reductions across all diagnostic groups and all admission types including elective, emergency, maternity and new-born admissions. Reductions were greatest for elective care. Overall, had admission trends continued as
per quarter 1 2020, 30,899 more non-COVID-19 emergency care episodes (21%) and 173,688 more elective care episodes (42.8%) would have been expected in quarter 2-4 2020. Comparing elective admissions in quarters 2-4 2020 to what would have been expected based on quarter 1 2020, there were particularly large reductions in cancer (36,120 fewer episodes of admission, -33.8%), cardiovascular (6,637 fewer episodes of admission, -58.5%), dermatology (12,180 fewer episodes of admission, -56.1%) and respiratory (8,021 fewer episodes of admission, -65.8%) admissions. Analysis of emergency admissions showed reductions in admissions with stroke and transient ischaemic attack (TIA) (411 fewer episodes of admission, -12.1%) and acute myocardial infarction (AMI) (395 fewer episodes of admission, -14.7%) in quarter 2-4 2020 compared to expected based on quarter 1 2020. There were also reductions in emergency admission with injury (2,059 fewer episodes of admission, -21.4%) and post-road traffic accident (RTA) (182 fewer episodes of admission, -24.4%) in quarter 2 and 3 2020 compared to expected based on quarter 1.

This study has demonstrated reduced healthcare utilisation for elective and emergency acute hospital care during the first wave of the COVID-19 pandemic in Ireland, which overall persisted following easing of restrictions, with evidence of increased alcohol and mental health related admissions in the recovery period. While there was no evidence of direct or immediate harm due to delayed or missed care in the analyses conducted, lost or postponed care may result in delayed diagnosis and treatment and increased morbidity and mortality. The consequences of these delays may only become apparent over time and through examination of wider health information datasets.

The findings of this study are consistent with international literature that has described healthcare utilisation during the first wave of the COVID-19 pandemic. The COVID-19 pandemic highlighted longstanding health system weaknesses in Ireland, however, it also demonstrated innovation and reform capability (Source: Dr Louise Marron and Dr Paul Kavanagh).

2. Staff innovation in new service delivery to sustain care

Our health service underwent probably the most radical transformation in its history over the last year. Across the country, staff have devised new ways of delivering care while keeping staff and patients as safe as possible from COVID-19 infection. The adoption of new technology to enable service access has been unprecedented. A library of new guidance was developed by clinical colleagues in every speciality area to redesign services and ensure that all staff were up-to-date with latest pandemic guidance.

The HSE approach was characterised by strong partnership working with the medical colleges, patient advocacy groups, the Irish College of General Practitioners (ICGP), the Irish Medical Organisation (IMO), Health and Social Care Professions (HSCP), nursing and midwifery groups, community pharmacy and many others.

Many people working at national/corporate level and often characterised as “admin” worked all day every day to ensure our service could respond effectively to the challenges of the pandemic. They took no breaks and no leave for months on end.

2.1. Acute hospitals

Acute hospitals rapidly adapted their processes for managing patient flow through ED and electively with separation of possibly infected patients where possible. Extensive testing was used, a comprehensive approach to PPE access, and clear guidance for protecting patients and staff was developed.

Senior decision makers were mobilised to front line interactions, private sector capacity allowed increased care delivery, and many of these changes rapidly adopted should be maintained to sustain the improved models of care and performance that resulted. The National Office of Clinical Audit (NOCA) partnered with the HSE to ensure real time data on ICU capacity was available and
ICU capacity was increased by 39%. Patient demand was such that we were able through utilisation of surge capacity redeployment to deal with all ICU demand and our ICU mortality was lower than the UK as a result.

With enhanced application of Infection Prevention Control (IPC) precautions. Irish dialysis patients had lower COVID-19 infection rates than in England and 50% less patients on dialysis or post-transplant died than in the UK or Spain. Dialysis capacity was expanded to meet demand.

New care models included increased home care and remote consultations using “Attend Anywhere” in many cases. The trauma services were early and comprehensive adopters of remote assessment and management. Infectious disease teams were pivotal in driving safe care throughout the hospital system. Advanced Nurse / Midwife Practitioners (AN/MP) delivered virtual clinics and antenatal education. HSE estates were to the fore in ensuring expanded capacity, enhancing oxygen supply, and increasing availability of single rooms.

2.2. Social inclusion

Clinical leadership was brought in to lead on protecting homeless people, Roma, those in direct provision and members of the travelling community. The clinical leads worked under the public health leadership of Dr Margaret Fitzgerald. Two Inclusion Health Teams were established at St. James’s Hospital (SJM) and the Mater Misercordiae University Hospital (MMUH) to outreach with community services.

In the homeless sector existing networks between partners (including Inclusion Health teams in SJH, MMUH, SafetyNet, Granby Merchants Quay (GMQ), Dublin Region Homeless Executive (DRHE), De Paul, Mc Verry, HSE Social Inclusion, DRHE and local authorities, addiction services) enabled a rapid, effective response which has prevented the widespread outbreaks and deaths in the homeless community seen in the UK and US. An assertive approach was taken to testing, cocooning those at higher risk, isolating symptomatic people and a major expansion in methadone access protected many from the harm of illicit drug use. Numbers of homeless presenting to hospital were significantly less than in the same period in 2019.

Addiction Response and Challenges due to COVID-19: A small number of COVID-19 outbreaks were noted in addiction settings but morbidity was low.

- Challenges continue to present to services including delivery of Opioid Substitution Treatment (OST) to people who are self-isolating or awaiting test results. In some cases, services had to cease face-to-face work due to outbreaks of COVID-19 among staff.
- St Michaels Ward in Beaumont Hospital, one of only two medical drug dependency units, has been closed and repurposed as a vaccination unit.
- The number of individuals in receipt of OST at the end of March 2021 was 11,445. Increased by 950 people from January 2020 as access was greatly improved.
- Waiting lists for residential treatment programmes have increased due to requirements introduced from a Public Health perspective. For example, the waiting time for admission to our other Medical Drug Dependency unit in Cuan Dara, has changed from 35.5 days’ average in March 2020 to 54.6 days’ average in March 2021.

The ageing cohort of opioid users is particularly vulnerable because of their high level of pre-existing health problems and lifestyle factors. In addition, it has been found that long term opioid use can considerably compromise one’s immune system directly. There were additional risks identified for this population during the COVID-19 pandemic that included living in crowded accommodation (if homeless) and attending low threshold services where maintaining social distancing was challenging. The 2020 report of the HSE Drugs and Alcohol Helpline reported that 50% of calls were in relation to alcohol, an increase from 39% in 2019.
In addition, the National Social Inclusion Office carried out a service user experience survey reflecting perceptions during the first lockdown noting concerns in relation to Mental Health issues and the need for counselling services. Some areas reported an increase in crack cocaine use among existing users, with some Dublin clients progressing to injecting.

An analysis of street benzodiazepine samples identified that newer, more potent substances and mixtures of substances were emerging and significantly increasing the risk of adverse mental and physical health reactions. The National Social Inclusion Office responded by producing a range of resources to inform services and issued an advisory alert in November in relation to the risks associated with the ‘new’ benzodiazepine Etizolam. Concern has been raised in relation to the potency of new cannabis products (both Edibles and Cannabinoids) with the risk of accidental overdose and adverse reactions high.

2.3. Disability services

Comprehensive efforts were made to re-establish and maintain services for those in the disability sector. Actions included: the provision of PPE to all funded agencies; infection prevention and control support, advice and training; public health advice/support with regard to suspected/positive cases; testing of all residential staff in April/May 2020, with a further targeted round of testing in December/January 2020/21; and COVID-19 Response teams, to assist and support residential services.

Technology solutions in disability services:

- Clinical – assessments, advice and information, multidisciplinary team (MDT) interventions, one-to-one interventions, group treatments/classes, behavioural support programmes, others – Nursing and Midwifery, Physiotherapy, Occupational Therapy, Speech and Language Therapy, Psychology, Dietetics, Social Work, GP Consultation, Others, etc.
- Assistive Technology - specific interventions/supports remotely delivered.
- Education and training – part of structured programmes delivered remotely. Many new eLearning programmes developed and available on HSELand to support COVID-19 response
- Day Services - Social/Educational/Person-Centred Services/Other – zoom classes, exercise, art, dance, quizzes, PPE desensitisation, information on COVID-19, person centred planning, other virtual content and more.
- Home support – checking in, assessing needs, social interactions, remote monitoring, technology less useful for one-to-one personal services.
- Residential/respite – supporting connectedness with families, supporters, advocates, some social and clinical services.

Evaluation of therapy delivered online to date is mixed with people generally satisfied but some indicating that they would always prefer face-to-face.

2.4. Nursing homes

The HSE put in place a range of supports for the nursing home sector:

- Temporary HSE governance arrangements for some non-public nursing homes
- Enhanced HSE engagement
- Multidisciplinary clinical supports at CHO level through 23 COVID-19 Response Teams
- Access to supply lines for PPE, medical oxygen etc.
- Serial testing programme of all staff in nursing homes
- Access to staff from community and acute hospitals
- Multiple guidance documents in COVID-19 management
- Information/ educational webinars.
There has been significant learning with regard to COVID-19 and nursing homes since March 2020, including the level of asymptomatic transmission and the atypical presentation in older people. In August 2020, the Department of Health (DoH) published the COVID-19 Nursing Homes Expert Panel Report. The report which made 86 recommendations aimed to safeguard the residents in nursing homes over the next 12-18 months and into the longer term (Kennelly, et al. 2020; O’ Neill, et al. 2020).

2.5. The public health response

This would require a separate paper but suffice to say the public health departments worked themselves to the bone at the forefront of our response to controlling the spread of the virus. Innovation was early and rapid as a COVID-19 Contact Management Programme (CMP) using new technologies and training lay people to do contact tracing was developed with National QI Team leadership. Community services developed mass testing capacity to meet the need to test all when mass testing began in residential care and other settings, as the case definition become broader and as contacts were included in testing.

2.6. Infectious diseases clinical care programme

Infectious Disease (ID) services assumed a lead clinical role in those hospitals that have ID services.

- ID established and implemented COVID-19 care pathways to allow for the safe triaging and clinical care of suspected or known COVID-19 infected patients, often bypassing or fast tracking through ED.
- ID established COVID-19 testing clinics in hospitals and assumed the governance of testing and result management in these clinics. This was of paramount importance for HCW testing and crucial for infection control and outbreak management. It was also crucial for pre AGP procedure screening allowing for the safe return of elective surgery and other procedures between waves.
- ID established outpatient follow up COVID-19 clinics in many of our hospitals, working closely with respiratory colleagues.
- ID established and Provided COVID-19 outreach including remote monitoring service for COVID-19 patients. This allowed admission avoidance and expedited discharge, saving significant bed days while ensuring patient safety.
- ID directly advised colleagues, hospital management and national organisations on all facets of COVID-19 care and management.
- Contributed to informing the population via media briefings at a local and national level.
- Reduced capacity for care of HIV, TB, viral hepatitis, complex infections, OPAT.
- Reduced general infection training for trainees.
- Increased post-COVID-19 referrals are leading to increased waiting lists, in addition to the increase in waiting lists due to the decreased access to OPD for non-urgent cases during the COVID-19 surges.
- Sexual health clinic capacity has decreased – related to staffing and present model of care.
- Workload demands and associated urgency has led to the burnout of staff members. Staff (across all levels) have not been able to take leave and have worked significantly more than contracted hours, including weekend cover (1 in 3 for consultants and SpRs) which is not sustainable in the medium to long term.
2.7. General practice response

Irish general practice comprehensively stepped up to the plate deploying remote consulting technology, designing and running the COVID-19 hubs, playing a key role in the vaccination programme, and providing strong independent leadership in the public domain.

The Irish College of General Practitioners surveyed its membership before and during the global pandemic. Face-to-face consultations significantly (p<0.001) decreased from a median of 26 (IQR 21.3–30) to a median of 8 (IQR 6–13). GP telemedicine consultations increased (p<0.001) from a median of 2.4 (IQR 0–5.3) to a median of 11.3 (IQR 6–19). Respondents reported a decline in non-COVID-19-related consultations, among certain patient cohorts—92.0% for children under 6 years old; 79.5% for patients over 70 years. The authors concluded that the way general practice is delivered may not return to as it was before the COVID-19 pandemic and increased telemedicine can be expected. However, it is necessary to assess the impact of this shift on patient health and to assess healthcare provider and patient experience to ensure continued high-quality care and patient safety (Homeniuk and Colins, 2021).
3. Pandemic impact on service provision, needs and demands

3.1. The impact of the pandemic on the diagnosis and treatment of cancer

During the first wave of the COVID-19 pandemic, the cancer diagnostic and treatment pathways were affected at numerous points. This included pausing of screening programmes, reduced GP attendance with concerning symptoms, redeployment of staff to COVID-19 patient management and the impact on capacity of COVID-19 risk reducing measures, such as distancing in clinics and infection prevention and control measures.

**Diagnosis:** referrals and attendances at rapid access clinics:

- In March and April of 2020 (first wave), the National Cancer Control Programme (NCCP) Rapid Access Clinics (RACs) experienced a significant fall in referrals, attendances and subsequent diagnoses of cancer across all three tumour sites of Breast, Lung and Prostate.
- By end 2020, referrals and attendances had returned to near normal levels.
- 2021 data indicate continuing recovery in RAC referral and attendance rates. Breast RAC e-referrals via Healthlink for Jan-March 2021 inclusive (third wave) are 133.8% of 2019 referrals for the same time period. This may be due to unmet need from 2020 now presenting in 2021. However, this increase may also be impacted by the fact that virtually all referrals to breast RACs are now occurring electronically, as opposed to the estimated 82% e-referral rate observed in 2019.
- Prostate and lung RAC e-referrals for Jan-March 2021 are at 95.3% and 90.3% of 2019 levels respectively.
- New attendances at breast, prostate and lung RACs for Jan-Feb 2021 inclusive are at 105.6%, 90.9% and 85.8% of 2019 figures for the same time period respectively.

The potential of missing diagnoses is worrying. Delays in diagnosis of cancer, particularly in diseases such as colorectal cancer can lead to an upward stage shift, with cancer being diagnosed at a later stage of the disease when it is more aggressive and less easy to treat (Sud et al., 2020).

**Treatment:** in the March to June 2020 period, there were 668 less cancer resections (reduction of 12.5%) performed compared to 2019 figures (Faculty of Pathology, 2020).

- The reduction in cancer resection specimens is less marked than that seen with small biopsies, GI endoscopy biopsies and FNA cytologies. This reflects patients who had diagnostic biopsies and cytologies earlier in the year before the pandemic and whose surgery was completed. The ability to complete these resections was enhanced by accessing private hospital capacity.
- There was a minor increase in cancer resection cases in May 2020, which was maintained in June 2020 (90% & 77% respectively of levels for the same month in 2019). It is not immediately clear what direction the curve takes after June 2020.
- Attendances for chemotherapy began to fall in March 2020. By April 2020 a total of 67.3% of patients attended as a day case for chemotherapy in Irish public hospitals in April 2020 when compared to April 2019 levels but this does not capture activity in day wards relocated to private hospitals. Recovery began in May 2020 and further improved in June 2020 but overall, the year to date activity at the end of August 2020 was still at 85% of 2019 levels. These data most probably overestimate the fall in treatment numbers as some hospitals moved their systemic therapy services offsite - this is not captured in these data.
- As Radiation Oncology centres are standalone units, they did not need to move to alternate sites. Reduction in activity was thus the least impacted of the cancer services and activity data is more complete. Some use of private sector capacity has been necessary, as unit activity is still impacted on by COVID-19 precautions, including the challenges of continuing to give radiation therapy to patients with COVID-19.
- This pandemic impact is not unique to Ireland. Similar results have been seen at Northern Ireland/UK trusts: between 23 March 2020 and 23 June 2020 skin cancer diagnosis decreased by 69% and delays in endoscopy reduced endoscopic cancer detection by 58% overall and 72% for colorectal cancer.
The impact of COVID-19 pandemic and societal restrictions on service delivery

These data emphasise the importance of continuing to encourage early presentation when there is a suspicion of cancer and protecting the availability of diagnostic services to enable rapid diagnosis. It is crucial that there is a careful balance in the management of the COVID-19 pandemic, whilst minimising disruption to other health services including cancer services. Despite the reduction in referrals and attendance, provisional data shows that most of the expected cases of breast and lung cancers (based on 2019 volumes) have been detected for the year to date, with a lower proportion of prostate cancers, at 66.4%, It is too early to know if these cancers were diagnosed at a later stage.

In a briefing paper on the impact of the COVID-19 pandemic on the diagnosis of cancer prepared for the HSE board by NCCP, a summary of the efforts being made to offset the potential impacts of COVID-19 on cancer diagnosis is outlined, through public awareness campaigns, revision of rapid access clinic pathways and investment through the HSE winter planning process to increase diagnostics and use of private hospitals. In addition, improving access to a variety of radiological investigations is being implemented: X-ray, Ultrasound, MRI and CT for GPs and Community Specialist Teams, and the use of innovations like capsule endoscopy. It is essential to acknowledge that many patients have their cancer diagnoses outside of a rapid access pathway and thus these routes also need to be prioritised and maintained through the winter planning process.

From a diagnostic perspective, there were significant reductions in referrals and attendances at Rapid Access Clinics, and an overall reduction in diagnostic activity. From a treatment perspective, significantly fewer patients have undergone cancer treatments since the pandemic began, compared to the same period in 2019. The rate of service delivery recovery has been good in some areas. However, in all areas, particularly those related to cancer diagnostics, which are key to life saving early diagnosis, the data indicate that intensive efforts are needed to ensure access to all cancer services going forward. The impact of the delay on patient outcomes is unknown. The duration and impact of the pandemic is also unknown, so it cannot be assumed that the fall in numbers experienced in the spring of 2020 will not be repeated.

3.2. The national screening services

Screening services for Cervical, Bowel and Diabetic Retinopathy were paused in March 2020 and resumed in the summer of 2020 and Breast Screening resumed in October 2020 in line with NPHET guidelines and government advice. The National Screening Service is closely monitor staffing and uptake rates to ensure service provision, and may need to pause and prioritise the screening invitations to support high-risk priority patients. The picture in Ireland is mirrored in other similar health services.

BreastCheck: since recommencement of screening through structured appointments, those who had appointments cancelled in March 2020 will be invited for screening first on recommencement. Breastcheck will monitor and report regularly on capacity and uptake.

CervicalCheck: cervical screening continues in Primary Care and all colposcopy units remain fully operational. There is a risk that women may not present for screening. Total screening tests taken in Primary Care are being monitored weekly. The programme has no plans to pause screening,

BowelScreen: invitations continue to issue to fill available colonoscopy capacity. At this point BowelScreen has not been advised of any impact (increase or decrease) on the level of service it is delivering. The programme has no plans to pause screening and continues to maximise the available BowelScreen capacity and to expand on this where possible.

National Diabetic Retinal Screening Programme: the DRS programme will continue to screen participants unless one of the following factors make screening untenable: attendance rates reduce to a level that is untenable to continue inviting participants to screening and/or access to screening venues becomes unavailable. The programme has no plans to pause screening. Urgent patients will continue to be treated throughout the various societal restrictions in the symptomatic services.
Universal new-born hearing: screening was paused for a short period of time.

New-born bloodspot: screening service was maintained throughout.

3.3. Impact of COVID-19 on hip fracture management

In March 2020, the Irish Government approved a proposal from the Department of Health to allow for a formal partnership with private hospitals, which would make their facilities and capacity available to meet the challenges of the COVID-19 pandemic. This made 2,200 beds and approximately 8,000 staff available to the public health service (HSE, 2020). Fourteen public hip fracture patients were treated in a private hospital between 01 March and 31 May 2020, their information was entered onto Hospital Inpatient Enquiry (HIPE) and Irish Hip Fracture Database (IHFD) and are included in reports.

Preliminary data from the IHFD show that 45 patients admitted to hospital between 01 January and 31 May 2020 had a hip fracture and a diagnosis of COVID-19. This cohort has been compared to hip fracture patients admitted to hospital in 2019. Hip fracture patients with a COVID-19 diagnosis had a lower level of achievement in all Irish Hip Fracture Standards compared to patients in 2019. The percentage of patients who developed a pressure ulcer (IHFS 3) was 12% (n=4/32) versus the national average of 3% in 2019. Furthermore, patients admitted to hospital during the COVID-19 period had a mean length of stay of 32 days (median 26 days) compared to 20 days (median 12 days) for patients admitted in 2019. In-patient mortality was recorded at 28% (n=13/45) in the COVID-19 group compared to only 5% in the 2019 cohort. Although we need to err on the side of caution due to the small numbers in the COVID-19 group, a recent study by Hall et al. (2020) in Scotland also showed that COVID-19 positive patients had a significantly lower 30-day survival compared to those without COVID-19 64.5% vs 91.7%. It must be noted that the numbers in the COVID-19 cohort were extremely small, until we have more data we cannot conclusively state that there was any significant difference between these two cohorts.

A subsequent report showed that hip fracture activity remained high although at a slightly reduced level throughout the on-going COVID-19 pandemic. Overall, there appeared to be a reduction in the compliance with many of the Irish Hip Fracture Standards during Wave 1 which seemed to return to pre-COVID-19 levels by May 2020. There was widespread disruption to the pathway of care and staff redeployment as seen from the services survey in IHFD COVID-19 Report 1:0. It has yet to be seen if the expedited discharge of patients back home (length of stay - down from 18.5 to 14 days) has had a positive or negative impact on the outcomes and readmissions of patients and warrants further monitoring (IHFD COVID-19 Report Issue 2 June-august 2020).

3.4. Primary care, general practice and COVID-19

The COVID-19 pandemic has led to unprecedented interruption to normal healthcare activity in the primary care setting, with disruption to service delivery and infrastructural development. Responding to the COVID-19 pandemic in March 2020, the HSE working in collaboration with GPs developed new ways of delivery care such as the network of community assessment hubs run with general practitioners. In addition, business continuity plans resulted in a prioritisation of service delivery with services identified into four levels ranging from “must do/critical” to “lower priority/desirable”. This response framework has meant that essential services for the most vulnerable were maintained, albeit sometimes at a reduced level of service. The focus on priority services for the most vulnerable was critical, but it should not distract from the fact that COVID-19 has had a significant impact on the delivery of more routine HSE primary care services and has exacerbated the challenges associated with historical underdevelopment of the sector in Ireland.
The challenge facing primary care and general practice is two-fold:

- **Service delivery with enhanced IPC** - the need for infection prevention and control measures and social distancing has impacted on the capacity of the system to deliver services, particularly in terms of limiting the scope for group work.
- **Staffing Capacity** - service delivery is being impacted by staffing limitations, both in terms of COVID-19 related staff absence and redeployment to the COVID-19 response.

Taken together, these twin challenges have resulted in reduced core services across a range of disciplines, including public health nursing (PHN), occupational therapy (OT), speech and language Therapy (SLT), physiotherapy, dietetics, podiatry, social work, psychology and other therapy services. The most recent HSE performance report indicates that waiting times for essential therapies have been significantly impacted by COVID-19 with almost 192,000 fewer physiotherapy patients seen than targeted in the year to March 2021 and over 148,000 less Speech and Language Therapy patients seen than targeted in the year to March 2021.

**Redeployment of Primary/Community Staff to COVID-19 Response Services**: staff across disciplines were redeployed to help support testing and tracing services. This is of course essential work and redeployment of staff in the short-term was undoubtedly necessary. Good progress in the recruitment of dedicated contact tracers has alleviated this pressure. The needs of the vaccination programme represents an on-going potential demand on front-line primary care staff.

**Chronic Disease Services**: community chronic disease services were badly affected by staff redeployment with redeployment of most of the chronic disease Clinical Nurse Specialists (CNS) and HSCP staff, to testing or tracing. This led to a significant reduction in these services support to patients in the community, and increased presentations with complications were noticed e.g. diabetic leg ulceration, exacerbations of Chronic Obstructive Pulmonary Disease (COPD) etc. In addition, patients with chronic disease were often cocooning and were hesitant to attend their GP in person, keep their Out Patient Department (OPD) appointment or attend the hospital for care, all of which impacted on their condition.

**Children and primary care**: routine PHN visits and developmental surveillance by PHNs and community medical doctors were curtailed with PHNs redeploying to support COVID-19 response - the impact remains to be seen. There has been an increase in wait times for speech and language therapy etc. for children due to both the deployment of therapists and requirement for social distancing limiting numbers at clinics. School related health visits including hearing and vision screening and dental visits, were curtailed. Paediatric facilities and accommodation on many co-located sites were taken over to accommodate adult services.

More recently, a number staff from the immunisation teams, have been redirected to the vaccination programme. In April 2021, there are 579 community staff WTEs redeployed to COVID-19 services, which is a reduction of 2,976 WTEs compared to 3,555 WTEs on the April 2020 peak. The 579 WTEs redeployed to COVID-19 services at April 2021 is a reduction of 236 WTEs compared to 815 WTEs at November 2020. The total of 579 community staff WTEs redeployed to COVID-19 services at April 2021 includes 277 WTEs from nursing and midwifery.

### 3.5. Immunisations and public health activity

School immunisations were inevitably halted with the closure of school buildings in March 2020. Catch up clinics ran during the summer to invite eligible children for immunisation. In the new academic term 2020-21, school immunisation teams have faced challenges planning school based immunisation delivery as some schools are now using venues like gyms, where immunisations were previously carried out, as additional classroom space. Therefore, in some areas immunisations are still being delivered outside of the school setting for school-aged children. Due to the redeployment of staff to support essential COVID-19 activities, some school immunisations have been paused. The primary immunisation schedule has experienced a reduction in coverage. This may be due to...
restrictions in GP services at the height of the pandemic and some reluctance by patients to attend general practice.

The work required to deliver the COVID-19 vaccine to the population will divert at least some human resources away from traditional screening, immunisation and health promotion programmes. The huge level of demand placed on public health departments by the pandemic has hindered their ability to sustain notifications of illnesses and some of their other surveillance activities.

School immunisations-HPV/Tdap/MenACWY: in the academic year 2019/2020, the uptake rate for MenACWY vaccine (81.6%) is 7% lower compared to the uptake rate of the Tdap vaccine (88.8%) and the uptake rate of the second dose of HPV vaccine (74.7%) is also 7% lower compared to uptake of the first dose of HPV vaccine (82.1%). In the majority of previous academic years this difference in uptake was <3% - mop up clinics are ongoing. HPV uptake for 2009/2010 and 2010/2011 cohorts of first year girls vaccinated from May 2010 was measured by manual reports and national uptake for the combined cohort was estimated at 82.1% for the second dose and 81.9% for the third dose.

**Figure 1:** National vaccine uptake by academic year among first years* in second level schools and their age equivalents in non-second level schools and home schooled

Of note 2020/21 data are preliminary and incomplete and reflects data entered on the database as of the 24 November 2020, data are not always entered in real time and so do not reflect vaccinations administered; denominator data are not finalised on the database.

**Immunisation uptake at 12 and 24 months of age:** at 12 months of age the national uptake of the majority of vaccines declined in quarter 1 2020 and quarter 2 2020 overall by 1-2%. As mentioned, this may be due to restrictions in GP services at the height of the pandemic and some reluctance by parents to attend general practice. This may also be due in part to delays in entry of vaccination records. At 24 months of age in quarter 1 2020 a decline in uptake of 1% nationally was observed for a number of vaccines. While national uptake at 24 months in quarter 2, 2020 was mostly unchanged compared to quarter 1, 2020 there was a decline in uptake rates in CHO9; we understand there was a delay in entry of vaccination records into the database in CHO9 due to staff redeployment.
DTaP-IP and MMR School immunisations Among Junior infants and 4 to 5 year olds: in HSE administered areas during the 2018/2019 season, the uptake of the DTaP-IP (or “4 in 1”) vaccine was 91.4% and that of the MMR vaccine was 91.2%. In contrast, provisional returns taken from the HSE’s School Immunisation System (SIS) on the 10 November 2020 for the same administrative area during the 2019/2020 season indicate that the uptake of the 4 in 1 vaccine was 87.2% and that of the MMR vaccine was 86.8%. The differences between percentage uptake figures is likely to be largely attributable to difficulties in the delivery of immunisation when schools were closed and data entry of the vaccination records into SIS because of the redeployment of staff during this same period of time. It is hoped however, that the uptake figures for 2019/2020 season will improve as catch-up vaccination clinics are set up and as vaccination record entry resumes over the next few months and new year.

Immunisation uptake rates in children 12 months of age in Quarter 2-2020: 92% for MenB (↓1%), 89% for D₃, T₃, P₃, Hib₃, Polio₃, HepB₃ MenC₁ and PCV₂ (↓1%). Rates had also declined in Quarter 1, 2020 compared to Quarter 4, 2019.

Immunisation uptake rates in children 24 months of age in Quarter 2-2020 were unchanged: this is against a backdrop of some decline in uptake prior to the pandemic. Hib₄ was 86%, an improvement compared to Quarter 1, 2020 when uptake had declined to 77%. (Source: Lucy Jessop and Suzanne Cotter, December 2020).

3.6. Impact of the COVID-19 pandemic on activity in HSE mental health services

- There were 5,660 acute admissions to HSE adult psychiatry inpatient units in the first six months of 2020, which is 7.3% less than the equivalent period in 2019. The Mental Health Commission reports 2,033 involuntary admissions in the first ten months of 2020 (up 2% on this period in 2019).
- The Allied Admissions Service (which assists with involuntary admissions under the Mental Health Act, 2001) reports an increase in the number and acuity of severe cases of mental illness requiring involuntary admission. Requests for assisted admissions increased by 13.5% in the second quarter of 2020 and 14% in the third quarter, compared to 2019. There is also increased need for Garda intervention, reflecting more serious illness.
- There were 222 admissions to child and adolescent mental health services (CAMHS) inpatient units in the first nine months of 2020, which is 1.3% less than the equivalent period in 2019.
- Outpatient referrals fell significantly in the first nine months of 2020 compared to the first nine months of 2019, and the numbers seen fell by approximately similar proportions: CAMHS 14% less patients seen, adult 13% less patients seen and later life psychiatry 16% less patients seen.
- There were many consultations provided online using two platforms, “Attend Anywhere” (~50,000) and “BlueEye” (~20,000).
- With regard to CAMHS, there was a decrease of 45 children on waiting lists for community mental health services from 2,157 in August 2020 to 2,112 in September 2020, but an increase of 38 children compared to the same period last year.
- With regard to psychiatry of later life, the larger decline in patients seen (-16.4%) compared to the decline in referrals (-9.7%) might reflect that service’s practice of domiciliary assessments, which were disproportionately impacted by COVID-19.

3.7. Acute stroke

Stroke admissions to hospital remained stable throughout wave one of the pandemic. Changes noted between the pre-COVID-19 and COVID-19 periods include:

- Overall stroke management improved during the period of the pandemic. There was no statistical difference in numbers of cases with stroke admitted to a stroke unit in the pre-COVID-19 and COVID-19 periods
The thrombolysis rate increased from 10% in the pre-COVID-19 period to 13% in COVID-19 period.
Mortality for haemorrhagic cases with stroke was statistically higher in the COVID-19 period.
There was an increase in the number of cases with stroke who were seen by a doctor within 1hr, from 60% in the pre-COVID-19 period to 70% in the COVID-19 period.
There was an increase in the number of cases with stroke who had a CT scan within 1hr, from 41% in the pre-COVID-19 period to 49% in the COVID-19 period.
However, the number of cases with stroke who were assessed by a Clinical Nurse Specialist decreased from 83% in the pre-COVID-19 period to 73% in the COVID-19 period.
The number of cases with stroke discharged home with Early Supported Discharge increased from 4% in the pre-COVID-19 period to 7% in the COVID-19 period.


The Acute Stroke activity nationally for the second 'lockdown' was reviewed by the Stroke Clinical Programme and the data appears to illustrate no change, in particular there was no drop off in attendance. It appears that the behavioural response of non or late attendance in the first wave was likely related to population anxiety at the start of the pandemic, which is remarkable for something as serious as Acute Stroke (Source: Prof Joe Harbison, December 2020)

3.8. Disability services during COVID-19

COVID-19 has presented a considerable challenge to the effective provision of disability services in Ireland. The sector has responded in a variety of different ways and confronted an array of challenges in doing so. Approximately 8,300 people live in residential disability services, around 90% have intellectual disabilities. About 2,000 of these are living in congregated settings (institutions/residential campuses) where ten or more people share the accommodation or location. Almost 90% of residential disability centres have never had an outbreak. As of 15 December 2020, there were 13 open outbreaks in disability services, and 92% of outbreaks to date are closed.

Scale of health vulnerability: a report from IDS-Tilda, which surveyed over 700 over-40s with an intellectual disability, quantified the prevalence of underlying health conditions that are higher risk factors. This found that 67% of respondents were overweight or obese, 52% had cardio-vascular disease, 29% had epilepsy, 10% had diabetes, and 9% had lung disease. This compares with HPSC figures showing that for all COVID-19 cases for which data were available, 31% had underlying medical conditions. A total of 443 participants in the Tilda study were tested for COVID-19 reporting COVID-19 like symptoms of which 11 tested positive. There were no instances of mortality due to COVID-19 in the sample.

Service provision: residents who would have gone to day services received their day supports from the home in which they reside. Provision of residential service has continued throughout the pandemic. Many day services closed during the first pandemic wave. All day service locations have reopened since August /September 2020 with the exception of seven locations that are currently being used as COVID-19 Isolation/Test centres. The capacity in day service locations has been reduced in line with Public Health Guidance. At end of September 2020 approximately 4,500 adults that also receive residential services were receiving supports for 24-hour x seven days weekly or 100% service. The remaining day service users were receiving 40% of their previous service amount. Children’s Disability Services were stepped down in March 2020 in line with government recommendations to minimise the spread of COVID-19. Through the pandemic, services continued to be provided on the phone/online, and also, face to face for some children and families with high prioritised needs.

As of October 24, 2020 the number of therapy and administrative staff normally employed in HSE disability therapy services deployed to Test and Trace was 96.9 whole time equivalent staff.
Informal reports from Heads of Disability Services have indicated that this figure has reduced significantly during November / December 2020. Short-stay residential and emergency/residential respite closed during the first pandemic wave and began to re-open from July to August 2020. In some situations, where families were under extreme pressure during the lockdown some services were sustained. At present, centre-based respite facilities are generally providing services at 40 to 60 percent occupancy levels. The number of people with disabilities in receipt of Personal Assistant (PA) and Home Support services has remained steady throughout the pandemic.

3.9. Long term effects of COVID-19 infection on individuals – early evidence

COVID-19 can result in prolonged illness and persistent symptoms, even in young adults and persons with no underlying medical conditions who were not hospitalised (Carfi et al., 2020 and WHO, 2020) Evidence continues to emerge and the true nature of long term effects of COVID-19 infection on some individuals is still being studied. In Carfi’s study among patients who had recovered from COVID-19 at a Rome hospital, 87.4% reported persistence of at least one symptom, most often fatigue, dyspnoea, joint pain, chest pain and cough. According to Greenhalgh et al., (2020), approximately 10% of people experience prolonged illness after COVID-19.

Breathlessness, chest heaviness, muscle pain, palpitations and fatigue are among the continuing and debilitating symptoms being reported by people with COVID-19 often months after the onset of the disease and after they have been declared recovered (2020). Mardani (2020) states that longer-term complications may include heart failure, neurological disease and lung disease. Symptoms may include fatigue and brain fog, which may be related to cytokines that cross the blood-brain-barrier and affect the brain (Mahase, 2020 and Mardini, 2020); and may be indicative of a post-viral syndrome associated with COVID-19. Insomnia, general myalgia, dermatological manifestations, exercise intolerance, temperature dysregulation and increased anxiety are other common symptoms (Halpin et al., 2020, Mahase, 2020 and Nath 2020).

In a purposive sample of 100 survivors assessed four to eight weeks after discharge from hospital, Halpin et al., (2020) found that new illness-related fatigue was the most common reported symptom by 72% of participants who had required treatment in an intensive care unit and 60.3% managed in hospital wards without needing ICU care. The next most common symptoms were breathlessness (65.6% in ICU group and 42.6% in ward group) and psychological distress (46.9% in ICU group and 23.5% in ward group). Marshall (2020) and Kemp et al., (2020) suggest that the virus may injure multiple organs, and although the most severe infections also cause the worst long-term impacts, even mild cases can have life-changing effects notably a lingering malaise similar to chronic fatigue syndrome. Potential long-term effects include damage to the lungs, to the immune system, to the heart, and to the brain, resulting in neurological complications such as delirium, confusion and memory loss (Marshall, 2020).

Olfactory dysfunction is another lingering symptom with up to 10% of patients reporting persistent loss or distortion of smell or taste eight weeks after symptom onset (Hopkins et al., 2020, Fjaeldstad, 2020 and Vaira et al., 2020). Chary et al., (2020) however, conclude that although olfactory and gustatory dysfunctions related to COVID-19 are frequently reported and prevalent in mild symptomatic forms of the disease, recovery in most cases seems rapid and complete. Carvalho-Schneider et al., (2020) recommend a prolonged medical follow-up of patients with COVID-19 regardless of the severity of initial clinical presentation.

One of the most insidious long-term effects of COVID-19 is its least understood: severe fatigue (Marshall, 2020 and Townsend et al., 2020). Over the past nine months, an increasing number of people have reported crippling exhaustion and malaise after having the virus. Symptoms such as foggy thoughts, breathlessness and exhaustion resemble chronic fatigue syndrome, also known as myalgic encephalomyelitis (CFS/ME); comparisons with CFS/ME are frequent in the literature (Rubin, 2020, Mardini, 2020, Marshall, 2020, Lyons et al., 2020, Mahase, 2020 and Rooney et al., 2020).
Pero et al., (2020) speculate that psychiatric illness and fatigue may also be a long-term effect of COVID-19, as it was previously for the SARS epidemic. Lyons et al., (2020) also caution about the potential for a significant and persistent negative mental health impact based on previous experience with other pandemics.

Rooney et al., (2020) conclude that physical function and fitness are impaired following SARS-CoV infection and impairments may persist up to two years’ post-infection. However, there are concerns related to the impact of graded exercise therapy for managing post-viral fatigue in patients recovering from COVID-19, with NICE acknowledging that graded exercise therapy may not be appropriate for some patients (Torjesen, 2020). There are no definitive, evidence-based recommendations for the management of post-acute COVID-19 as yet. Therefore, patients should be managed pragmatically and symptomatically e.g. antipyretic for fever, breathing techniques for chronic cough, home pulse oximetry for monitoring breathlessness, pulmonary rehabilitation, staged return to exercise (BMJ, 2020). Greengalgh et al., (2020) state that patients recover spontaneously (if slowly) with holistic support, rest, symptomatic treatment and gradual increase in activity. Indications for specialist assessment include clinical concern along with respiratory, cardiac or neurological symptoms that are new, persistent, or progressive.

3.10. Pregnancy and COVID-19

Our knowledge of the effects of SARS-CoV2 on maternal and neonatal outcomes has rapidly evolved, with reports of perinatal transmission increasing. While much has been written regarding potential unintended adverse effects of the pandemic on provision of maternity services and the resulting impact on maternal and neonatal outcomes, there has been little actual data. Published data suggests an increase in preterm births in COVID-19 affected pregnancies, the majority of which is iatrogenic due to maternal illness or foetal compromise. A large population based study in the UK by Knight et al. (2020) showed a 26 % preterm birth rate amongst COVID-19 affected pregnancies and 76 % of these were iatrogenic.

A statistically significant decrease in hypertensive disorders of pregnancy during the pandemic period was described in the study by Khalil et al. (2020). Worries regarding the possibility of missed antenatal complications were also raised by publications, secondary to the rapid reconfiguration of maternity services during the pandemic. Maternity care and Antenatal visits continued with regular frequency. There was no difference in un-booked pregnancies or infants born before arrival to hospital during the pandemic.

Six recent stillbirths in Ireland have been linked to coronavirus related placentitis.

See appendix for run charts showing specific service delivery impacts
4. Impact of public health measures and the pandemic spread on population health

4.1. Impact of “cocooning” measures on older people in response to COVID-19 pandemic

People in society as they age are not all the same. The narrative that emerged during the pandemic reflected all people aged over 70 as a vulnerable group. However as multiple studies have shown people who are older make substantial contributions within society (Source: www.TILDA.ie). Community and societal initiatives were launched to inform and support older people with volunteers, helplines and other platforms set up by local authorities, Non-Government Organisations (NGOs) and communities. Examples such as; Age Friendly Ireland, Alone, Alzheimer Society of Ireland, Family Carer’s Ireland, Age Action, Age and Opportunity, the GAA, An Post, the Gardaí and many others played a key role in supporting older people during restrictions and cocooning.

The indirect consequences of COVID-19 and cocooning effects on older people include functional and cognitive decline, low mood, anxiety, alcohol dependence and weight gain. A joint report from TILDA and Alone (2020) examines the issues of loneliness and social isolation with specific reference to the COVID-19 pandemic. “Current measures such as social distancing and cocooning in response to the COVID-19 pandemic are likely to increase levels of loneliness and social isolation” This may have a negative effect on the wellbeing of older adults. Many callers to the ALONE helpline had deferred engaging with health services because of anxiety about COVID-19; some reported having fallen but not sought medical treatment or examination. There are limited qualitative data at present on the impact of COVID-19 on older people. Further studies are planned to explore the in-depth experiences and beliefs of older Irish adults during the COVID-19 pandemic.

Psychological wellbeing and mental health, experience of social isolation and loneliness and the impacts on physical health, risk of sarcopenia (loss of skeletal muscle and strength), and nutrition deficits are associated risk factors arising from cocooning. Because of ‘cocooning’ with the lack of opportunity for sun exposure and given the low use of supplements, many of this vulnerable group could be at very high risk of vitamin D deficiency. The overall disruption to healthcare services and resources, the impact on home help provision, loss of day centres and other group activities are negatively impacting on the growing vulnerability of some older people and carers. The cancellation or delays of medical appointments, treatments or surgery have also impacted. Tilda research shows that an absence of social ties, and dissatisfaction with the quality and quantity of social contacts, is associated with poorer wellbeing. A substantial body of research already exists showing the negative impacts of loneliness on both physical and psychological wellbeing and more recently, excess mortality risk. Data from ALONE gathered since the introduction of measures such as cocooning and social distancing show a rise in loneliness and associated negative emotions.

National research undertaken by the Alzheimer Society of Ireland (ASI) in June 2020, explored how people with dementia and their carer’s are coping during COVID-19. An estimated 55,000 people are currently living with dementia in Ireland. The research findings clearly demonstrate how the COVID-19 pandemic is shaping the lived experiences of carers and people with dementia. The findings point to their growing vulnerability arising from the cessation of services and supports. According to carers, significant challenges include the cancellation or postponement of medical appointments, a marked worsening in dementia symptoms coupled with an increase in responsive behaviours (a sign of frustration or confusion), the loss of routine for the person for whom they care for, boredom and anxiety. Those with dementia who took part in surveys echoed many of these concerns. Additional difficulties include loneliness, social isolation, anxiety and worry, and increasing stress resulting from workload leading to burnout and crisis. The need to re-open day care and the impact of cessation of day care on the person with dementia and their carer is a strong theme throughout recent research (Source: Alzheimer's Society of Ireland (July 2020) Caring and Coping with Dementia During COVID-19).
4.2. Post COVID-19 rehabilitative care needs for older people in Ireland – preparing for a deconditioning pandemic

Although the COVID-19 pandemic is affecting individuals of all ages, the older adult population is at significant risk. The Tilda (2020) study on the Population Estimates of Physical Frailty in Ireland during the COVID-19 Pandemic found that 80,600 adults over 70 are living with frailty in Ireland, with 12,200 adults over 70 living alone with frailty. This represents a ‘baseline’ of older people prior to pandemic in terms of risk of physical and/or cognitive decline. There is recognised impact emerging related to the impacts of prolonged cocooning in older people leading to what is now being called a ‘deconditioning pandemic’. (cf ‘Impact of cocooning report; HSE, 2021).

The significant burden of COVID-19 illness has been borne by people over 65 years with over 30,000 cases documented and 7,336 hospitalisations in this group out of a total of 13,376 (24/03; CSO). Mortality rates approach close to 20% in the oldest group. International data emerging has highlighted high rates of post COVID-19 complications in this age group. Readmission rates in COVID-19 patients were 3 times that of controls as were new onset cardiovascular (3 times), respiratory (27 times) and diabetes (1.5 times) events, with the greatest risks observed in those >70 and ethnic minorities (Ayoubkhani, 2021).

Acute COVID-19 disease presentations in older people have been associated with increased rates of associated delirium; prolonged functional decline, increased lengths of stay in hospital, and weight loss. Similar challenges have been identified in post COVID-19 survivors in long-term care settings where specific issues remain including most notably significant weight loss and functional decline with poor access to community MDT supports.

Therefore, there is a need for a structured response to actively identify post COVID-19 survivors who are older, support them with an evidence based approach to rehabilitation and coordinated access to services in order to mitigate the impact of COVID-19 in this population and support recovery.

4.3. Nursing home residents

The COVID-19 pandemic has been particularly challenging and impactful on residents who live in nursing homes, their families and residential staff. There was a significant number of people living in nursing homes who have died as a result of COVID-19 infection. Many staff in nursing homes also contracted the virus and became ill. Nursing homes are people’s homes as well as places where healthcare and social care is provided.

There are 575 nursing homes. There are 461 private and voluntary nursing homes. There are 30,000 residents / 25,000 in long-term care. The very infectious nature of COVID-19 makes it difficult to prevent and control in residential care settings. The number of new nursing home outbreaks occurring oscillated around six per week, this has since massively reduced due to the vaccination programme and there were no outbreaks in nursing homes in the last week (early May 2021).

One of the most immediate concerns in March 2020 was the impact on residents from social isolation and separation from their families. While the residential sector has been innovative in its response developing social networks through online technologies and social media platforms, visiting restrictions still prove extremely challenging for many residents and family members (Kennely, et al., 2020).
4.4. Mental health

Data from the Amarach Public Opinion survey for the Department of Health on 30 November 2020 showed that 31% of people reported experiencing anxiety a lot of the day during the previous day; 34% reported experiencing worry; 28% of people reported experiencing boredom; 32% reported experiencing stress; 22% reported experiencing sadness; and 19% reported experiencing loneliness. A report “Loneliness and social isolation in the COVID-19 Pandemic among the over 70s: Data from The Irish Longitudinal Study on Ageing (TILDA) and ALONE” noted that although data from TILDA has shown that most older people are often not lonely, data from ALONE’s helpline suggests a rise in negative emotions during the COVID-19 pandemic, particularly related to cocooning. Since March, ALONE has received 35,966 calls and has made 218,845 calls to older people.

The Primary Care Reimbursement Service (PCRS) reported in early December a 30% increase in the prescription of antidepressants compared to the previous year. Overall, there is no evidence that the COVID-19 pandemic accounts for a significant increase in the use of psychotropic medication. Corbett et al. (2020), found that over half of pregnant women surveyed in Ireland worried about their health often or all of the time, with 63 % reporting concern about their unborn baby. They reported an overall increased level of health anxiety in this population.

The need for mental health services

- The combined effect of the COVID-19 pandemic and associated restrictions is that approximately one person in every five in the general population in Ireland and elsewhere has significantly increased psychological distress (e.g. anxiety, depression). Particular risk factors include being female and living alone.
- These findings are attributable to a combination of anxiety about COVID-19 and the effects of restrictions, which include confusion, anger and post-traumatic stress. Particular stressors include long duration of restrictions, infection fears, frustration, boredom, inadequate supplies or information, financial loss and stigma. These effects are diminished by maintaining restrictions for no longer than required, providing clear rationales and information, ensuring sufficient supplies and reminding the public about the benefits.
- Infection with COVID-19 itself also affects mental health. As was the case with severe acute respiratory syndrome (SARS), over 50% of people infected with COVID-19 experience clinically significant depression and/or anxiety, as well as possible longer-term effects, such as post-traumatic stress and post-viral syndromes (“long COVID-19”). This underscores the necessity for specialist mental health services for these patients.

Impact of the COVID-19 pandemic on presentations with deliberate self-harm and suicide

- Provisional figures show hospital presentations with self-harm fell by 25% in April 2020 compared to April 2019, but all-cause presentations to hospitals fell by 40%. These trends are consistent with self-harm data from six Irish hospitals from January to August 2020, although there is evidence of an emerging increase in self-harm presentations in August.
- While there is also evidence of an increase in presentations with self-harm by men aged 30 to 44 years in March and April 2020, there is, as yet, no systematic evidence of overall or sustained increases in deliberate self-harm and suicide during the pandemic, according to the HSE National Office for Suicide Prevention, the Suicide and Self-Harm Observatory, the National Self-Harm Registry Ireland, and preliminary impressions from coroners.
- Even if there is no increase in rates, however, there is concerning evidence of increased lethality of self-harm in at least one Irish hospital. Close analysis of more data is needed, especially in relation to the number of possible homicide/suicides during the pandemic.
Impact of the COVID-19 pandemic on HSE online and telephone mental health services

- Traffic to HSE mental health content on Yourmentalhealth.ie was up by 490% between March and July 2020.
- There was a 35% increase in calls to the YourMentalHealth information phone line
- Crisis Textline received 16,227 calls and visits to online tele-psychiatry supports between March and July were up to 38,417.
- MyMind’s online counselling numbers increased by 137%. Online counselling numbers continue to rise.

Feedback from mental health service users in Ireland during the COVID-19 pandemic

- The HSE National Office of Mental Health Engagement and Recovery performed a study of 215 people with mental illness and their supporters. Three issues arose: (a) loss of services; (b) changed mode of contact and (c) poor communication and communication preferences.
- Public health restrictions had a significant impact with people reporting feeling sick of being indoors with no privacy.
- While only 38% of people with lived experience of mental illness received information about minding your mental health/accessing services a large majority of those who received such information saw it as helpful.
- Overall, mental health service-users in Ireland express needs for (a) an accessible, responsive service that meets their unique needs (contact from teams, peer support, well-being calls, clear information); (b) services to be aware of the significant impact that changes in provision have; and (c) recognition of the struggle some people have between COVID-19 restrictions and feelings of being left to cope alone.

This report recommends (a) maximising the effective use of technology (e.g. consolidating practices); (b) maintaining social support and face-to-face contact (to reduce anxiety and isolation); and (c) enhancing and developing mental health services (Source: Mental Health Services, Communication and Engagement: Service User, Family/Supporter Experiences During COVID-19).

The effects of mental illness on the distribution of COVID-19 in the population

- In addition to COVID-19 contributing to mental illness, it is clear that pre-existing mental illness affects the pattern and distribution of COVID-19 across populations.
- In the United States, the odds of infection with COVID-19 are over seven times greater in people with depression or schizophrenia compared to the general population, even after adjusting for age, gender, ethnicity and medical comorbidities (cancers, cardiovascular diseases, Type 2 diabetes, obesity, chronic kidney diseases, chronic obstructive pulmonary disease, asthma, and substance use disorders).

Finally, it is worth noting that there are likely to be other, less direct effects on mental health, owing to increased rates of domestic violence during the pandemic, altered patterns of alcohol and substance misuse, and various other factors such as unemployment. These trends will only become apparent in time and underpin the necessity for enhanced Counselling in Primary Care and HSE Primary Care Psychology services, as well as robust specialist mental health services (Source: Dr. Brendan Kelly and Dr. Amir Niazi, November 2020).
4.5. Child health and wellbeing

**Disease impact:** numerous countries including Ireland, the United States and England have reported that fewer children become infected with COVID-19 and they have a milder clinical course (HSE, 2020; Christakis, 2020; Longfield, 2020.)

A small number of children have developed a severe multi-system inflammatory response to COVID-19 infection. “When exposed to the infection, children under 12 years are less than half as likely to acquire the virus. They account for 6% of COVID-19 cases despite representing 25% of the population” (Murphy, 2020).

In contrast, children are significantly more vulnerable to influenza infection. Murphy (2020) reported that twenty-five per cent of children are infected with influenza annually compared with 5-10% of adults. Furthermore, the HSE’s National Immunisation Office has launched a campaign to target influenza vaccination for all children aged 2-17 years inclusive (HSE, 2020).

**Educational and Psychological Impact:** the national restrictions on movement of people and gatherings implemented in March 2020 to curtail and slow the COVID-19 pandemic surges, have had significant educational, psychological and psychosocial impact on children. The sudden school closures and withdrawal from the security and routine of the classroom, teachers and friends was confusing and difficult for young children to process. Children’s reading skills at 8-9 years is a good predictor of future performance. Poor literacy at this age is more prevalent in children from disadvantaged areas. The delay and pause in education between March and September 2020 may widen existing inequalities facing young children (Murphy, 2020). Children with special needs are feared to have suffered regression during school closures. Respite care was greatly reduced or unavailable.

There has been a sharp rise in the presentation of young people with eating disorders. For example, in Temple Street Hospital in 2019 there were 21 children/adolescents (aged<16) who required hospital admission for management of eating disorders. This number for 2020 rose to 35 admissions. The children admitted in 2020 were considered more medically unwell and had a lower median BMI than those admitted in 2019.

This experience is replicated internationally with much concern being expressed by Psychiatrists and Paediatricians in many countries. Increased prevalence is thought to relate to factors including lack of structures and routines with schools/ sports closed, increased time being spent on-line; a sense of lack of control in other aspects of these adolescents’ and children’s lives.

**Family support:** the implications of the lockdown on the wider family support system initially saw children perceived to be ‘super spreaders’ prohibited from visiting or hugging elderly cocooning grandparents. Child care was unavailable for essential frontline workers and family’s experienced lost celebrations, birthdays and various other milestones.

**Child Protection:** the school environment offers a point of contact between the state and families which is especially important for children in vulnerable home situations. Teachers, SNAs and other school staff play an important role in identifying children at risk. Unemployment and financial difficulties can compound the difficulties for families at risk (Murphy, 2020). The policing authority reported a sustained increase in child reported domestic violence and they also expressed concerns about safety of children spending increased time on-line. Childline reported a 26% increase in calls.

**Children living in disadvantage:** the COVID-19 pandemic has presented enormous challenges to society not alone from a health perspective but economically, socially, emotionally and educationally. The impacts have been particularly pronounced for children and families who are already in need due to poverty, homelessness or social exclusion. These children are disadvantaged relative to their peers and face broad challenges in navigating safely through childhood into adulthood.
The links between marginalisation and poor health outcomes are well documented and are likely to be further exacerbated now as a consequence of the COVID-19 pandemic. Crushell et al., (2020) reported on the increased difficulties marginalised children are experiencing in October/November 2020 as the ‘second wave’ of the pandemic took hold. They reaffirm the essential role that schools play in providing not just education but in meeting a wide range of social, emotional, physical, developmental and mental health needs whilst helping children and families to access appropriate social support. The authors propose investment in early childhood, health and wellbeing, safeguarding, housing and homelessness and a particular emphasis on the role of schools for disadvantaged children and that extra efforts need to be made for those children at the margins of society.

The Report ‘Actions to address the Impact of the COVID-19 Pandemic on Children experiencing marginalisation and homelessness’ proposes an implementation plan seeks to improve health outcomes for children experiencing homelessness and marginalization. The priorities outlined will build on and help strengthen existing structures to better meet the needs of children and also to address the equity gap. The plan focuses on the importance of specific investments to maximise physical, mental and social health for these children. Greater collaboration between the different partners will ultimately lead to efficient and responsive service delivery.

4.6. COVID-19 and the wider determinants of health

At an individual level, SARS-CoV-2 caused a viral infection with acute health effects of variable severity and duration. However, from an eco-social perspective, the occurrence of the COVID-19 pandemic, the necessary counter-measures that have been put in place to effect control and protect health, and the wider socio-economic impacts have effects on the wider determinants of health which will play out in population health outcomes in the short and longer term. For example, work by the Central Statistics Office has already begun to characterise significant impacts on work. Since the beginning of COVID-19 pandemic, just under half of the population aged 15 years and over (47%) have seen their employment situation affected. Employment effects due to COVID-19 include: loss of employment, temporary layoff, change in work hours, remote working from home or Change to business model to online/takeaway etc.

The COVID-19 crisis had a significant impact on the labour market in Ireland in October 2020. While the standard measure of monthly unemployment was 7.3% in October 2020, the COVID-19 adjusted measure of unemployment could indicate a rate as high as 20.2% if all claimants of the Pandemic Unemployment Payment (PUP) were classified as unemployed; the seasonally adjusted Monthly Unemployment Rate was 7.3% for October 2020, unchanged from September 2020 and up from 4.7% in October 2019. The health effects of unemployment are well-described and long-established. It causes injury to health through creating a stressful life-event, leading to impoverishment, creating conditions for unhealthier behaviours, and fundamentally changing life-chances in a way which places people on an unfavourable trajectory that can be difficult to change.

The effects on health, wellbeing and behaviours has also been characterised by the CSO. In November 2020, more than one in three (35.6%) of respondents rated their overall life satisfaction as low. This compares with 29.6% in April 2020 and 8.7% in 2018. The likelihood of respondents reporting that they were very nervous ‘all or most of the time’ in the four-week period prior to interview was higher in November (11.4%) than in April 2020 (7.7%). Some respondents report positive changes over the course of 2020 and the effects on health behaviours have been mixed. While children are at low risk of severe impact from SARS-CoV-2 infection, concerns have been identified that the wider impacts of the pandemic have created conditions which increase their exposure to Adverse Childhood Experiences (ACEs), a well-recognised pathway to poor health, as well as increasing their chances of poor mental health.

Finally, rates of reported domestic violence rose during lockdown and this will cause enduring problems for those affected. Pregnancy is an acknowledged risk factor for domestic violence.
5. The impact of the COVID-19 pandemic on our healthcare workforce

Our workforce has experienced many of the impacts everyone else in society has – lack of access to loved ones, isolation etc. They have experienced additional impacts such as excessive workload over prolonged periods, emotional distress from caring for severely ill patients, physical hardship arising from PPE use, frustration at seeing critical services hindered by the pandemic demands and COVID-19 illness. This is inevitably taking a toll as the first wave gave way to subsequent waves. Psychological distress, exhaustion and burnout are significant risks for many of our staff. We have many programmes to support staff and we know that if we do not look after staff they will not be able to look after people.

Absenteeism in mental health services has not changed significantly since 2019 despite COVID-19 related absenteeism accounting for 82.0 WTE. Globally, rates of significant psychological distress among healthcare workers (≈40%) are approximately double those in the general population (≈20%). In Ireland, a survey of 370 radiographers between March and May 2020 found that 40% reported burnout symptoms due to the pandemic and 30% considered changing jobs or retiring since the outbreak. A survey of 195 psychiatrists by the College of Psychiatrists of Ireland in May and June 2020 found increased workloads (61%), decreased well-being (46%) and decreased ability to take annual leave (51%). There are significant concerns that many health care staff will opt in increased numbers for retirement as we exit the acute phase of the pandemic.

5.1. Workplace Health and Wellbeing Unit

Support for staff has been ensured through the introduction of video and telephone sessions for clinical work (counselling sessions and group supports, Critical Incident Stress Management debriefs). As part of the HSE COVID-19 response, the Employee Assistance Programme (EAP) Service has increased access for managers and staff seeking consultation on wellbeing issues. EAP Counsellors placed psychosocial support phone calls to HCWs in self-isolation and specific psychosocial support was offered to OH staff and Public Health staff due to increased work demands.

Occupational Health Departments have been central to the HSE’s support for healthcare workers during COVID-19. There has been a much increased workload which sought to help staff deal with the psychological and physical effects of caring during the pandemic. Occupational health professionals are central to ensuring the continuing availability of staff, through the application of national protocols on return to work, the careful designation of workers as high or very high risk from exposure to COVID-19, and the management of those with positive test results and their contacts.

A dedicated Health Care Worker (HCW) COVID-19 support phone line was established and to date has responded to over 21,400 calls from HCWs. The National Health and Safety Function has developed; 25 new supporting documents including guidance, risk assessments and audit tool; COVID-19 specific webpages – receiving 61,562 hits to date; Online Safety Clinics to provide practical advice to services enhancing their safety management system to manage COVID-19; and three new online training programmes including Lead Work Representative training (444 trained to date).

5.2. National doctors’ retention and motivation

Doctors are the subject of some research – the findings are likely to equally apply to many front-line professional disciplines. COVID-19 has highlighted the importance of wellbeing for hospital doctors: Hospital doctors have been on the front-line, along with their many other front-line colleagues in different disciplines, providing care for patients in the face of COVID-19, struggling with supporting patients and families while wearing PPE, redeploying or providing services in new ways, fitting their work and home lives around lockdown public health restrictions, and risking contracting the virus or passing it on (Source: Doctor’s Wellbeing during the first wave of COVID-19-19. Jennifer Creese, John-Paul Byrne, Niamh Humphries, March 2021)
COVID-19 highlighted the importance of staffing for NCHDs experience of work: The restructuring of NCHD work actually enhanced the work environments of the NCHDs interviewed, primarily through perceived increases in medical staffing. Demonstrating the significant effect of staffing levels on NCHDs’ work experience, interviewees described how increased medical staffing had positive implications for enhanced workplace relationships and morale due to decreased workloads, and improved access to clinical support and decision-making as there were more senior doctors on the floor. (Source: Working through COVID-19: The NCHD experience. John-Paul Byrne, Jennifer Creese, Niamh Humphries)

Interviews undertaken in June/July 2020 with 31 hospital doctors in Ireland who had worked through the first wave of the COVID-19 pandemic in Ireland demonstrated:

- Among COVID-19 returners, many had brought forward pre-existing plans to return to Ireland in 2020.
- Those who returned without pre-existing plans will not remain without access to secure jobs and training (i.e. beyond their initial short-term ‘COVID-19’ contracts).
- A combination of a culture of medical migration, weak workforce planning and poor working conditions continue to drive doctor emigration from Ireland.
- The pandemic will likely increase global competition for doctors.
- A continuation of the pre-pandemic pattern of largescale doctor emigration from Ireland could pose a threat to the Irish health system. COVID-19 and doctor emigration (Source: Niamh Humphries, Jennifer Creese, John-Paul Byrne)

5.3. National Quality Improvement team

The National QI Team documented an account of the lived experiences of people who worked on the HSE COVID-19 Contact Management Programme (CMP) during the first four months of the pandemic. The stories in the full document provide heart-warming and sobering thought for senior leaders on what motivates people to give so much when the need arises and how important it is to acknowledge this at every opportunity (Peelo-Kilroe, 2020). Brief summary of common themes:

1. The incredible pace of change, getting work done as quickly as possible and the fear of making mistakes when trying to learn new skills very quickly
2. Working long hours and feeling exhausted and overwhelmed at times
3. Missing family and friends and worrying about safety and health as demarcation lines between work and home got blurred
4. Appreciating the support and encouragement they received from colleagues with a sense of all in this together
5. Feeling valued for expertise and the efforts made as well as the importance of recognition for hard work
6. The powerful impact of coming together, feeling useful and making a difference
7. Difficulties of getting to know new team members quickly and making connections
8. The need for lessons to be learned about our culture, what energises and motivates us and what we no longer need to be doing
9. The levels of anxiety and fear that so many carried during this time and the efforts not to let it impact on work
10. How much easier it was to make decisions with many barriers removed
11. Kindness from family, friends and colleagues was very important.

Healing Workshops, are one offering from the National QI, as part of an overall recovery plan, available via virtual platforms to teams returning to normal work after redeployment or changes in work practices and want to reenergise and refresh their team.
6. Conclusion

This second updated impact paper highlights the phenomenal response of our staff to the COVID-19 pandemic. It outlines the impact that responding to the pandemic has had on our ability to deliver normal healthcare business. This response was entirely necessary. We have demonstrated here the impact the pandemic has had in nursing homes, on cancer services, vaccination programmes and other services. The full picture of the impact of this pandemic on health services, those who work in them and societal health and wellbeing is clearly very significant. There are many areas where we lack data to fully elucidate that effect and other impacts will only emerge more clearly over time. This paper updates our previous paper with new evidence that clearly demonstrates the significant impact the pandemic has had on our ability to deliver the full range of services to the public. The paper also paints a more detailed picture of the health toll that the pandemic and the actions we had to take as a society to control its spread has had on our people.

Staff working at the administrative centre as well as at the front-line of the HSE worked excessive hours for a prolonged period of time. This demonstrated their considerable dedication but raises concern about staff burnout as this pandemic continues to challenge our health service. There are also concerns emerging that many staff close to retirement might bring their retirement forward once the pandemic is seen to come under control.

The evidence that we have and the analysis of our clinical programmes is a call to rebuild our health services and to tackle the population impacts of the pandemic with a comprehensive programme of actions. We will have to continue to invest to recover our health services and to expand them to meet the previous and additional suppressed demand. We cannot revert to old ways of working and must continue to innovate and develop new models of service delivery with clear emphasis on integration and moving care into communities. We must embed a culture from top to bottom in our services where all staff can lead and change care in their area of expertise, where management enables front line innovation and where patients and service users are true partners in service design and delivery. Our services should see their role in the wider society and create innovative partnerships with community organisations and voluntary groups where new services can be delivered in targeted ways and ensure that marginalised groups come into all our care. Nothing short of a continued transformation in how we deliver care, putting quality improvement at the core of our service provision, and an investment in our staff, in our services and in our service users will serve to truly allow our services and our health to recover from the multiple impacts that this pandemic has visited upon them.
References and Bibliography


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Appendix 1: Impact of COVID-19 on health service business as usual

Figure 1: Number of new people waiting > four weeks for access to an urgent colonoscopy

Between January 2019 and February 2020 the average number of new people waiting more than 4 weeks for access to an urgent colonoscopy was 15 per month. This increased to 328 during March 2020 and to 1,408 in April 2020. It has since decreased, although the average since January 2021 is 450 per month, significantly higher than normal. The target is that no one waits more than 4 weeks for access to an urgent colonoscopy.

Figure 2: Number of delayed transfers of care

Between January 2019 and February 2020 the average number of delayed transfers of care (delayed discharges) was 650 (target of ≤550). In March 2020 the number fell to 238. It increased since then to 417 in May 2020, but currently remains stable at an average of 402 since then, significantly below the average prior to the pandemic.

Figure 3: Number of new and return outpatient attendances

Between January 2019 and February 2020 the average number of outpatient attendances was just over 280,000 per month. This decreased to 210,370 in March 2020; down around 25% from normal levels. Attendances have increased since then, and appear to be returning to near normal levels. However there was a notable drop in attendances again in January 2021, and attendances for the first 3 months of 2021 were down 6.5% on the same period in 2019.
The impact of COVID-19 pandemic and societal restrictions on service delivery

Figure 4: Number of ED attendances

Between January 2019 and February 2020 the average number of ED attendances was 103,000 per month. This decreased to a low of 65,706 in April 2020; down around 36% from normal levels. Attendances have increased since then, but are still below normal levels. Attendances for the first 3 months of 2021 were down 22% on the same period in 2019.

Figure 5: Number of patients triaged as urgent presenting to symptomatic breast clinics

Between January 2019 and February 2020 the average of patients triaged as urgent presenting to symptomatic breast clinics was 1,753 per month. This decreased to a low of 1,189 in April 2020; down around 32% from normal levels. The numbers have increased since then, and for the first 3 months of 2021 were up 13% on the same period in 2019.

Figure 6: Number of patients attending rapid access lung clinic in designated cancer centres

Between January 2019 and February 2020 the average of patients attending the rapid access lung clinic in designated cancer centres was 306 per month. This decreased to a low of 202 in April 2020; down around 34% from normal levels. The numbers have increased since then, but for the first 3 months in 2021 were slightly below the same period in 2019 (down 6%).
Between January 2019 and February 2020 the average number of patients attending the prostate rapid access clinic in the cancer centres was 325 per month. This decreased to a low of 160 in April 2020; down 51% from normal levels. Attendances have increased since then, but for the first 3 months in 2021 were slightly below the same period in 2019 (down 4%).

Between January 2019 and February 2020 the average number of patients who completed radical radiotherapy treatment was 491 per month. While there appeared to be little change during the first few months of the pandemic the average number since August 2020 is 429 per month, down 13% on the period Jan-19 to Feb-20.

Between January 2019 and February 2020, an average of 90% of attendees aged 75 and over at ED were admitted or discharged within 24 hours. The target is 99%. This increased significantly during March 2020 (96.3% within 24 hours), and improved further in April 2020 when 99.7% of attendees aged 75 and over at ED were admitted or discharged within 24 hours. The percentage has trended downwards since then to 95.3% in October 2020, but it still remains stable and above the level experienced prior to the pandemic. Note that attendances of people aged 75 and over were down around 30% in April 2020 compared to April 2019, and were still around 14% lower during the first 3 months in 2021 compared to the same period in 2019.
The imp...act of COVID-19 pandemic and societal restrictions on service delivery

Figure 10: Inpatient and day case activity (including dialysis)

The number of inpatient discharges in April 2020 was 35% lower than April 2019, while the number of day cases in April 2020 was 52% lower than April 2019. Inpatient and day case activity has increased since then, although for the first 2 months of 2021 inpatient activity was down 21% and day case activity was down 32% on the same months in 2020.

Figure 11: Number waiting for a first appointment at a consultant-led outpatient clinic

The number of people waiting for a first appointment at a consultant-led outpatient clinic continues to trend upwards, and in March 2021 was up 66,063 (+12%) compared to the March 2020.

Figure 12: Inpatient and day case active waiting list

The number of people waiting for inpatient or day case treatment had been trending downwards slowly from January 2019 up until February 2020 (from 72,027 in January 2019 to 66,705 in February 2020, a decrease of 7%). Between February and May 2020, the number of people on the waiting list increased by over 20,000 (86,946 in May 2020, an increase of 30% on February 2020). The number trended downwards then to 72,475 in December 2020 but increased again in January 2021. In March 2021 the number of people waiting was up 3% on March 2020, and up 14% on March 2019.
There has been no change in the number of emergency hip fracture surgeries carried out since the start of the pandemic, or in the proportion carried out within 48 hours of initial assessment.
The National QI Team

What do we do?
We work in partnership with teams and organisations delivering health services. We want to support frontline services in improving the quality of care and experiences they provide to people who use their services.

How do we do it?
We do so by supporting the right conditions for improvement and systematically applying QI methods and tools to improve practice. Partnering with people is central to all that we do.

It means everyone in our health service committing to:
- supporting staff to access QI learning and development opportunities,
- creating time and resource to drive improvement, and
- developing cultures that enable all staff and people who use our services to act on their ideas for improvement.

Why do we do it?
International evidence demonstrates how important QI is to effectively improve care. Our services struggle to achieve the outcomes we seek for people when we do not systematically apply improvement methods or support a culture of improvement.

Why is this work important?
Only by working together will we be able to tackle the many challenges we face in healthcare.

Core elements of a QI focused health service

To become a quality focussed health service we:
1. Develop real partnerships with people
2. Collaborate and share learning across our system
3. Invest in QI and create QI posts in all our organisations
4. Commit to QI learning and development for all staff
5. Work on relationships and culture so that staff feel valued and their input is encouraged
6. Work with our leaders and managers to create a work environment where staff are enabled to work on improving care
7. Use measurement for improvement approaches to understand our data better
8. Ensure we have quality at the centre of our management and governance of health care
9. Work to integrate services
10. Partner with communities so that we contribute to improving the social issues that profoundly affect health outcomes