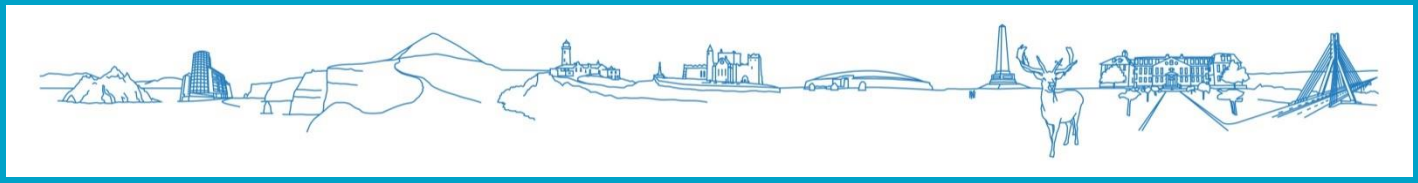
Building a Better Health Service | Seirbhís Sláinte Níos Fearr á Forbairt

National Quality Improvement Team

Coronavirus COVID-19 Public Health Advice

COVID-19 Response

National Quality Improvement Team
Role and Contribution



18th June 2020

Foreword

The COVID-19 pandemic has necessitated the most urgent, critical and large-scale response the Health Service has ever had to provide. We have delivered a united response to the National imperative regarding COVID-19, creating a cross-Government and HSE solidarity driving our response. The National Quality Improvement (QI) team committed fully to supporting pandemic management, and have contributed to steering the strategic and clinical response to COVID-19. The National QI team have used QI skills to mould intelligent responses to challenges and have provided leadership and maintained clarity of decision making in a rapidly changing environment. This has been made possible through rapid analysis, showing data trends over time. We have brought a collective curiosity, creativity and compassion to our response, advocating for a person-centered approach and maintaining strong communication and collaboration throughout. Our leadership in pioneering rapid cycles of testing developments has proved paramount in the context of adapting to new ways of working.

The range of expertise and experience of the National QI Team allows us to support the response to high profile National events. For example, this range of expertise has allowed us rapidly design, test, train for, and scale-up, our national Contact Management Programme (CMP), an entirely new system for contact management, in collaboration with the HSE National Women and Infants Health Programme, Departments of Public Health, Office of the Chief Information Officer (OoCIO), the ONMSD, HSE National Services, National Screening Service (NSS), National Doctors Training and Planning, and Quality Assurance and Verification (QAV), with support from Royal College of Surgeons of Ireland (RCSI), Grant Thornton, PwC Ireland, KPMG, EY and Vision Consulting. This expertise, skills and knowledge include clinical and public health, quality improvement, ICT system engineering, education design and development, facilitation, communication, process mapping, data analysis and project management.

There will be substantial QI learning to take forward and apply in the new ways of working gained in our response to COVID-19 in supporting front line teams in the immediate and longer-term future. All of this will be built on sustaining much of the innovation and learning that the National QI team and colleagues have rapidly implemented over the last few months, and accelerating other innovations to help us operate new models of delivery that are safer for patients and staff and more desirable in any case. In order to progress this, we must take the opportunity to harness existing patient safety and quality improvement expertise to apply proven methodologies to ensure effective implementation and sustainability. We have the opportunity to hold onto the fast pace and reactive nature, introducing new structures, services and initiatives in much shorter timeframes, with the faster spread of improvement into usual care.

We have the opportunity to retain strong elements of the new culture that has developed over the last number of months. While there has been decisive central leadership, it has been based on a strong role for clinical and public health expertise, deference to specialty knowledge in many parts of the organisation and an enabling environment at the front line where rapid innovation and the development of new models of care, new methods of care delivery and new technologies have emerged in a very short time.

We are proud of, and thankful for, the commitment, creativity and passion that the National QI Team and colleagues across the HSE have brought to the COVID-19 National response, and we are pleased to present this report which captures the twelve ways in which the National QI Team have supported the National response.

Dr Philip Crowley
National Director, Quality Improvement

Ms Maria Lordan Dunphy
Interim National Director (from March 2020)

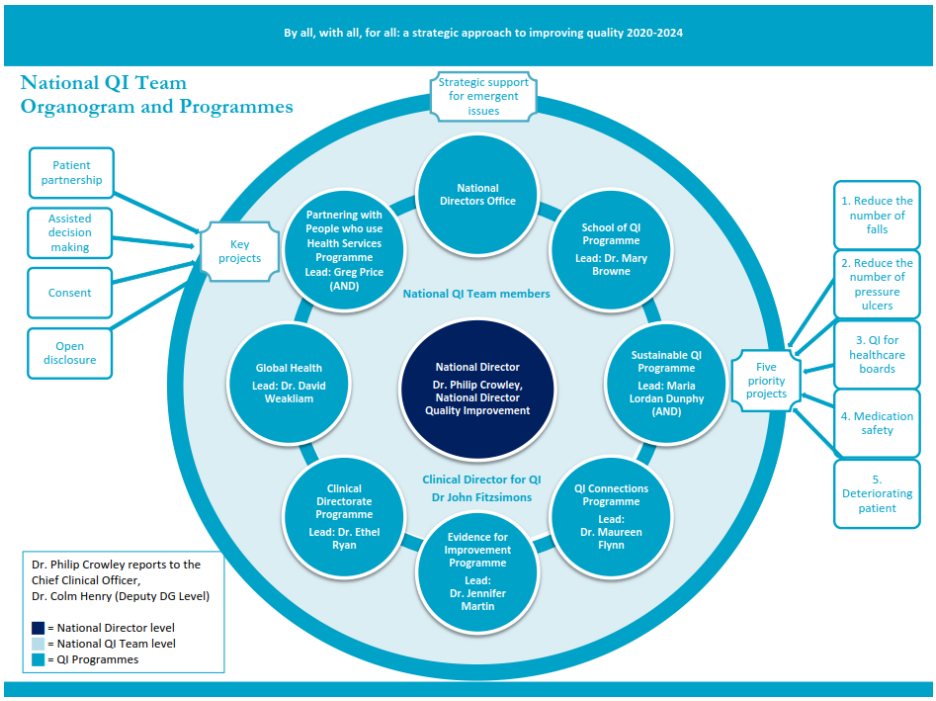
Contents

The National Quality Improvement (QI) Team

The National Quality Improvement (QI) Team, led by Dr. Philip Crowley, working with the Office of the Chief Clinical Officer (CCO) works in partnership with teams and organisations delivering health services to improve the quality of care and experiences they provide to people who use their services. The National QI Team does this by supporting the right conditions for improvement and systematically applying QI methods and tools to improve practice. The National QI Team is driven by the understanding, and international evidence, that quality improvement is central in effectively improving care.

The National QI Team has broad expertise and a proven track record in championing, partnering, enabling and demonstrating quality improvement, and is committed to driving quality as a core business function. The National QI Team has seven programmes of work to achieve these aims, delivered through the combined work of the National QI Team. This work includes QI projects, initiatives, events, networks, campaigns and learning sessions. The 7 programmes are as follows:

1. Sustainable QI Programme (our central support to the patient safety strategy)
   - Reduce the number of falls
   - Reducing the number of pressure ulcers
   - Medication safety
   - Deteriorating patient
   - QI for Healthcare boards
2. School of QI Programme
3. QI Connections Programme
4. Evidence for Improvement Programme
5. Partnering with People who use Health Services Programme
   - Patient Partnership
   - Assisted decision-making
   - Consent
   - Open disclosure
6. Global Health Programme
7. Clinical Directorate Programme



The National QI Team, informed by QI thinking and approaches, is committed to supporting the HSE's wider response to the COVID-19 pandemic. The skills of the National QI Team mean we provide strategic support for emerging issues. We have responded with significant commitment to several high profile, and high priority needs. For example, supporting improvements in intellectual disability services and coordinating the RCOG Expert Panel Review of CervicalCheck, the National Cervical Screening Programme.

This document outlines the twelve ways in which the National QI Team is supporting the National COVID-19 response:

1. *Steering and leading the strategic and clinical response to COVID-19*

2. *Looking through the lens of QI to chart the genesis, design, delivery, education and scale-up of the contact management programme*

3. *Paying attention to the well-being of staff deployed to new and challenging roles*

4. *Involving the people who use health services in our response to COVID-19*

5. *Enabling effective COVID-19 decision making through rapid analysis showing data trends over time*

6. *Optimising people's safety promoting the safe use of medicines during COVID-19*

7. *Maintaining the principles of Open Disclosure during the COVID-19 pandemic*

8. *Promoting a human rights based approach in our response to COVID-19*

9. *Using the principles of Schwartz Rounds to address the emotional impact of work in a pandemic*

10. *Connecting and sharing collective learning on COVID-19 across Q Community partner countries*

11. *Showing solidarity and supporting low-income countries in managing COVID-19*

12. *Sustaining National QI Team Business Continuity in the context of COVID-19*

1 Steering and leading the strategic and clinical response to COVID-19

Dr Philip Crowley, National Director for Quality Improvement and member of the HSE Leadership Team, has extensive expertise in clinical practice, leadership, quality improvement and public health. At the onset, Dr Crowley was asked by Dr Colm Henry (CCO) to take a strategic leadership role in responding to COVID-19 on a national level, working with members of the National QI Team to lead multiple innovations.

Dr Crowley and colleagues have engaged in numerous webinars on the topic of COVID-19. Of particular note is the webinar series entitled 'Conversations That Matter', which is hosted by the RCSI Institute of Leadership, in partnership with the HSE:

- On 30th April Dr Crowley, Dr Miriam Colleran, Dr Donal Brennan and Dr John Fitzsimmons engaged in '*Conversations That Matter: COVID-19 Impact on Quality'.*
- On the 21st May, Paul Reid (HSE CEO) and Dr Philip Crowley with Paul Connors (HSE National Director Communications) engaged in *'Conversations That Matter: Leadership in Healthcare in COVID-19 Crisis and Beyond'.*

1.1 Co- Lead Public Health Response

The Public Health response is co-lead by Dr Philip Crowley and Dr Kevin Kelleher. Dr Crowley and Dr Kelleher work closely with the COVID-19 operational hub, led by Anne O'Connor (COO). Dr Crowley and Dr Kelleher's objectives were:

- Outbreak surveillance and assessment of the impact of control measures (E.g. lead the investigation and management of clusters and outbreaks in the community, nursing homes and other long-term care facilities);
- Provide support, guidance and direction to health professionals and the public (E.g. early adoption of significant physical distancing actions at a societal level and public health risk assessment);
- Contribute to the establishment of new models of care: greatly expanded ICU capacity, maintain as much normal health care service as possible, community COVID-19 testing centres, putting in place community assessment hubs and creating large scale self-isolation capacity for those who cannot safely isolate at home; field hospital capacity is also available but as yet has not been required;
- Minimise morbidity and mortality through control measures – assertive case finding, testing within capacity and contact tracing.

A number of specific prioritised areas of work emerged, as detailed below.

1.2 Long Term Residential Care and Home Support

Main Objectives:

Increasing numbers of COVID-19 clusters in nursing homes are being reported with HPSC data indicating that one in five cases is in Long Term Residential Care (LTRC).

A response based on preparedness, early recognition, isolation, care and prevention of onward spread, is founded on public health actions. There are six actions that have arisen from a National Public Health Emergency Team (NPHET) meeting on Enhanced Public Health measures for COVID-19 Disease Management (LTRC and Home Support), which include:

- Strengthened HSE National and Regional Governance Structures;

    - A local Public Health led Outbreak Control Team (OCT) for each outbreak of COVID-19, who are responsible for data capture with support of LTRC via CovidCare Tracker;
    - Public Health OCT to link with Community Healthcare Organisation (CHO) crisis control teams in management of LTRC facility outbreaks;

- Transmission risk mitigation in suspected or COVID-19 positive settings LTRC and homecare staff
- Staff screening and prioritisation for COVID-19 testing;
- HSE Provision of Personal Protective Equipment (PPE) and oxygen;
- Training; and
- Facilities and homecare providers – preparedness planning.

1.3 Support for General Practice and Primary Care

Dr Crowley, a cross-HSE team and the Irish College of General Practitioners (ICGP) led targeted initiatives to support general practice and primary care to respond to COVID-19.

Main Objectives:

- Provide Public Health guidance to General Practitioners (GPs) assisting with a unified, national response;
- Maintain effective, streamlined and clear communication to the GP community and their communications with the public;
- Support 'business as usual' for GPs, in the context of COVID-19;
- Assist in development of Occupational Health support for GPs;
- Ensure that GPs are equipped to facilitate only those cases that need to be admitted to hospital:
    - Guidance was developed for GP management of COVID-19 positive or presumptive positive in the community;
    - Developed and operationalised Community COVID-19 assessment hubs:
        - Operational Model;
        - Infection Prevention and Control (IPC) Guidance;
        - Clinical Guidance inclusive of entry criteria;
        - Medication Guidance;
        - IT supports;
        - Patient information leaflets;
        - Establish clear pathways of care – Acute, Palliative, Home management with support, Step down units and self-isolation accommodation;
    - ICGP Webinar (Saturday 9th May):
        - COVID-19 update for ICGP members and ICGP AGM;
        - Panel of speakers: Mr Paul Reid CEO HSE, Dr Philip Crowley, Dr Mike Ryan WHO, Dr Martin Cormican AMRIC lead, Dr Tony Cox, Medical education lead ICGP, Dr Mary Favier President ICGP, Laura Magahy Slainte Care;
        - There were 1,828 participants.

1.4 Support for Vulnerable Groups – (Travellers, Homeless, Roma, Asylum Seekers)

Dr Crowley and a cross-HSE team led the development of a targeted approach to assist vulnerable social groups, including the establishment of new clinical leadership to ensure effective care programmes are implemented. People who are homeless, asylum seekers and at risk individuals were moved to hotel rooms at an early stage in the pandemic to cocoon themselves. Homeless hostels have been the subject of case finding, testing and isolation of affected people.

Accommodation for asylum seekers has been de-stressed by moving many people into new accommodation and reducing the density of occupancy.

1.5 Medical Workforce Planning

Dr Crowley and a cross-HSE team led the assessment and response to the whole-system medical workforce requirements throughout the COVID-19 crisis, with the understanding that longer term workforce training issues need to be considered from the start.
The main objectives of this group were to:

1. Analyse skills of returning medical workforce (and for those who have re-entered the Register);
2. Target areas of need in all health care settings inclusive community and residential care settings;
3. Integrate capacity with deployment needs;
4. Enhance public health capacity as contact tracing and outbreak management needs rise; and
5. Liaise with Colleges, Universities and all HSE Divisions, as required.

1.6 Maintaining Continuity of Service amid COVID-19

There is emerging evidence to indicate that the demand and access to previously defined 'mainstream services' has experienced a significant decline, for a variety of reasons. This is consistent with what has happened in other pandemics, and in other countries during the COVID-19 pandemic. If Ireland is to avoid a significant rise in avoidable deaths from non-COVID-19 conditions, we must redouble our efforts to promote and protect our normal services. Some reduction in demand represents a fall in non-acute demand on acute care. In re-establishing continuity of non COVID-19 health services, there is need to consider that the demand on our services from COVID-19 plateauing could be disrupted by a relaxation of social restrictions.

In response to this, Dr Crowley, and team, have prepared and delivered a report to the HSE Quality and Safety Board Committee, outlining the plan for a continuity of services. This will involve:

- Maintaining a readiness to respond to an increase in COVID-19 cases, while providing access to non COVID-19 healthcare;
- A centrally co-ordinated and governed approach, building on the expertise and advice provided by Public Health and the clinical community, whilst taking into account patient and staff safety;
- The reintroduction of non COVID-19 related services in an integrated, co-ordinated and centrally governed manner is an organisation priority;
- A programme of work to lead the HSE Continuity of System Wide Healthcare Services (Non-COVID-19 Healthcare) has been commissioned by the CEO. This is an integrated governance programme led by the Chief Clinical Officer (CCO) and the Chief Operations Officer (COO); and
- The importance of resourcing and redoubling our focus on quality improvement in our approach to resuming usual services.

The objective is to agree a plan with the primary goal of the protection of public health in the short and long term through the gradual re-introduction of non COVID-19 services, while maintaining the ability to be able to cope with possible future surges of the virus.

2 Looking through the lens of QI to chart the genesis, design, delivery, education and scale-up of the contact management programme

In mid-February, members of the National QI Team identified the opportunity for a coordinated approach to contact tracing while supporting public health colleagues in the East with call rotas. As there was awareness of what was happening in Italy (prior to the first case in Ireland), the stark realisation of the volume and importance of the work that would be coming to Public Health Departments across Ireland dawned.

Simultaneously, Dr Colm Henry (CCO) requested Dr Crowley to lead a number of public health work streams responding to the unprecedented challenges associated with COVID-19. To facilitate this, Dr Crowley requested Ms Maria Lordan Dunphy (Assistant National Director) to lead the National QI Team to support the establishment of a large-scale system for contact tracing, in the role of Interim National Director.

In order to meet the immediate need to develop a comprehensive and large-scale contact tracing system, the National QI Team put their Operational Plan for 2020 on hold, as an interim measure. The National QI Team have implemented a number of actions to ensure the hibernation of various ongoing QI programmes of work, and to ensure that projects can be effectively resumed when it is deemed appropriate to do so.

2.1 Introduction to Contact Management Programme (CMP)

In the week beginning 9th March 2020, in anticipation of the increase in the number of COVID-19 cases in Ireland, it was requested that a central contact tracing system to manage COVID-19 cases and their contacts be designed, established and scalable. This system was requested to ensure that cases and contacts were appropriately managed in a streamlined and sustainable process to work with the Departments of Public Health. Through the lens of quality improvement, members of the National QI Team mapped out a process and that was the genesis of an idea. This idea was then developed, working with public health colleagues and using information gained from observing and managing initial cases of COVID-19, to design and test a process that led to the development of the Contact Management Programme (CMP).

Dr Colm Henry identified Mr Kilian McGrane as the CMP Lead and Dr Sarah Doyle as the CMP Clinical Lead. Dr Crowley immediately committed a significant part of the National QI Team to develop the processes that underpin the CMP, to ensure clear governance of the staff involved, to create digital solutions to information transfer across the system and to develop and run training, in partnership with the Office of the Nursing and Midwifery Services Director (ONMSD), for the volunteers now prepared for the contact tracing role. The COVID-19 CMP organisational structure is outlined in **Appendix 1**.

Aim

- The aim of the CMP is to notify results to people tested (or a nominated person) and to identify and manage contacts of people with COVID-19, commencing 13th March 2020. This is to support the work of Departments of Public Health with low complexity contact tracing.

Purpose

- To rapidly identify and close down chains of transmission of COVID-19 and provide advice;
- To release time for Public Health departments to undertake high value public health expert activity including surveillance/enhanced surveillance and complex control activity;
- To slow the progress of the COVID-19 epidemic in Ireland and delay and lessen the impact on health services delivery capacity;
- To save lives through slowing the progress of COVID-19 in Ireland.

The CMP commenced on the 13th March, with paper system in operation. This system was tested with Public Health East and Army cadets on the grounds of Dr Steeven's Hospital. Leadership and coordination was provided by National QI Team members, working with colleagues across the HSE. This system is now operating at a capacity that can communicate with thousands of contacts per day.

The purpose of the CMP is to support and work with the Departments of Public Health with regard to low complexity contact tracing.

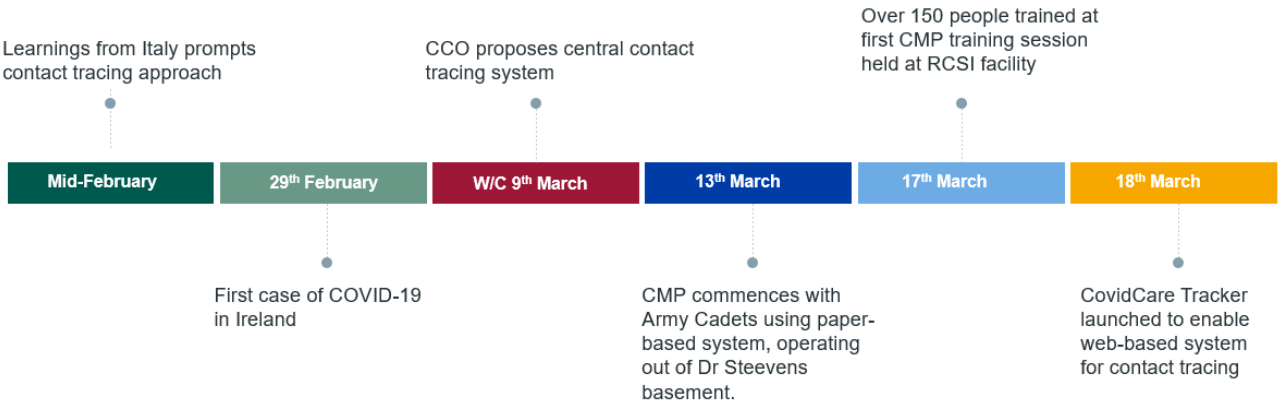


Figure 1: Timeline of the CMP Launch

2.2 National QI Team CMP Enabling Functions

As Interim National Director for the National QI Team, Ms Maria Lordan Dunphy has overseen the deployment of the National QI Team to support the establishment of the governance structures and processes of the CMP. A number of Enabling Functions have been established to facilitate the setup, testing and delivery of the CMP. The functions are a key pillar of work in the overall programme management of the CMP. The Enabling Functions are led by National QI Team members, in collaboration with the HSE National Women and Infants Health Programme, Departments of Public Health, Office of the Chief Information Officer (OoCIO), the ONMSD, HSE National Services, National Screening Service (NSS), National Doctors Training and Planning, and Quality Assurance and

Verification (QAV), with support from Royal College of Surgeons of Ireland (RCSI), Grant Thornton, PwC Ireland, KPMG, EY and Vision Consulting.

The National QI Team brings with it a wealth of strategic and public health expertise, experience of evidence-based practice and systematic ways of working, which have proved invaluable in the operationalisation of the CMP. The diverse expertise and collaborative focus of National QI Team members has enabled a wide variety of Enabling Functions, to be mobilised in a short space of time, and they operate at an extremely high standard (see **Appendix 1**). The National QI Team continues to expedite the HSE's wider response to the COVID-19 pandemic by embedding quality improvement thinking and processes into CMP delivery.

The set-up and operation of the CMP Enabling Functions is dynamic in nature, with a number of Enabling Functions being established for a defined period to meet immediate demands and areas of specific focus. As requirements have shifted, such Enabling Functions have been stood down and resources reallocated. For example, the Enabling Function of CMP Design, which focussed on modelling, establishing and implementing many iterations of a contact management system, was amalgamated with the Enabling Function of CovidCare Tracker CMP Module. Likewise, the Enabling Function of Preparing for Remote Working was stood down once staff had appropriately adapted their working arrangements.

A detailed outline of each Enabling Function is provided in sections **2.2.1** to **2.2.8**.

The team membership for each Enabling Function is in **Appendix 2.**

2.2.1 CMP Governance Decisions and Communication Materials

Within the National QI Team, the QI Connections Programme assists people to communicate, connect, collaborate and network to further QI development and learning, understanding that communication and networks play many roles in health service improvement. With this experience, the members of the QI Connections Programme team and colleagues, were requested to lead the CMP Governance Decisions and Communications Materials Enabling Function.

For full membership of the team, please see **Appendix 2.**

The CMP Governance Decisions and Communication Materials Team was established on 13th March 2020 with the following aim:

- Advise on and document the overall governance arrangements for CMP;
- Document the high level governance decisions that are made in relation to the CMP; and
- Support the other Enabling Functions and the CTCs to communicate with key stakeholders by developing documentation, templates and supporting key messages.

Deliverables

A governance arrangements document has been developed. This interim measure has been to document the overall governance arrangements, including roles and responsibilities, and to capture the high-level governance decisions that were made in relation to the CMP during the initial set up period. This interim arrangement acknowledges the fast pace and rapid changes in personnel and the need for clarity on roles and responsibilities and decision making. Organisational charts have been developed and amended as the CMP has evolved. The most up-to-date Organisational Chart is in **Appendix 1**.

A Communications Plan has been developed to support the work of the Enabling Functions of the CMP, including a style guide of branding. Matters of language and terminology, for example tone, clarity and consistency of language, are communicated to the CMP as they change (E.g. title of CMP,

title of CovidCare Tracker CMP Module; Active Follow-up / active surveillance; restricted movements / self-quarantine).

A number of documents have been developed and uploaded to the Health Protection Surveillance Centre (**HPSC**) and **Department of Health** websites to support the work of the CTCs, including:

1. COVID-19 Contact Management Programme (CMP) Overview;
2. COVID-19 Information for Close Contacts of a Confirmed Case of COVID-19;
3. COVID-19 Contact Tracing Centres (CTC) Frequently Asked Questions;
4. Active Follow up of Close Contacts of a person with COVID-19;
5. Testing of Close Contacts of a person with COVID-19;
6. Information for those receiving a "not detected" COVID-19 test result; and
7. Information for Casual Contacts of People with COVID-19 (this has since been removed as casual contacts are no longer being contacted as part of the contact tracing process).

In the development of these documents, there was engagement with colleagues in Public Health, HPSC and HSE National Communications to ensure continuity of language.

This Enabling Function has provided targeted communication support on request of the other CMP Enabling Functions and National CTC operations with the development of specific pieces of work to date, including:

- Correspondence to GPs and hospitals in relation to contact tracing and the importance of ensuring that a mobile phone number was included in correspondence;
- Correspondence to hospitals seeking their support for callers from CTCs;
- Development of a confidentiality agreement for CTC callers to confirm on deployment to a CTC;
- Supporting CMP Education and Resources with a Creative Commons Licence and a disclaimer for documentation when sharing with other areas and jurisdictions;
- Supporting other CMP functions accessing virtual platforms, including Microsoft (MS) Teams and WebEx, to assist in day to day work and virtual training.

A number of promotional videos have been developed and disseminated to promote the work of the CMP and contact tracing via web and Twitter. Topics covered include:

- Importance of mobile phone numbers, with Dr Sarah Doyle;
- What is restricted movements and self-isolation, with Dr Jennifer Martin;
- What is contact tracing, with Dr Jennifer Martin;
- What is active follow-up, with Dr Jennifer Martin; and
- COVID-19 Close Contacts and COVID-19 Testing, with Dr Sarah Doyle.

Articles for the HSE Health Matters magazine and the Irish Nurses and Midwives Organisation (INMO) journal, on the work of the CMP and contact tracing, were submitted. These included:

- Health Matters – What is the Contact Management Programme;
- Health Matters – A Day in the Life of a Virtual Contact Tracer;
- Health Matters – Contact Tracing during COVID times: Public Health;
- Health Matters – Our Experience of Contact Tracing;
- Health Matters – Developing Resources to Support Contact Tracers;
- Health Matters – Contact Tracing TB during COVID-19;
- INMO – Blood clot / VTE Alert Card;
- INMO – What is Contact Tracing;
- INMO – Maintaining the Principles of Open Disclosure during a Pandemic; and
- INMO – Schwartz Rounds and Team Time.

A CMP Weekly Update has been developed, with provides updates to people on the work on the CMP. Each edition includes a message from the CMP Leads, an overview from Contact Tracing Operations, an overview of contact tracing activity for the previous week, an update from CMP Coordination with Departments of Public Health, and updates from all of the Enabling Functions. The weekly update is widely disseminated to staff in the CMP, CTC Callers and Departments of Public Health. It is issued on a Tuesday, and there have been six issues circulated to date.

The CMP Governance Decisions and Communications Materials team have been actively maintaining the National QI Team Twitter account in the context of the CMP and COVID-19. Over 91 days, from 12th March to 10 June, there have been 246.5K impressions (average 2.6 per day) and 439 new followers (total followers 4,719). The Full report is available here: **https://analytics.twitter.com/user/NationalQI/tweets.**

Status

- The work of this Enabling Function is complete. Planning is in place to conclude current involvement and transition remaining aspects of the work, where appropriate.

2.2.2 CMP Design

The National QI Team's Evidence for Improvement Strategic Programme focusses on educating and enabling people to collect, interpret and contextualise data, in order to evaluate and drive improvements in quality of care. In early March, members of the Evidence for Improvement Programme were requested to lead the initial and ongoing design and modelling of the CMP as a whole.

For full membership of the team, please see **Appendix 2.**

Deliverables

National QI Team members, working with Public Health colleagues, used expertise in process mapping to design and test each iteration of the CMP using QI methodologies. At a high level, these included:

- An initial pilot with Army cadets and HSE health care workers on-site, undertaking paper-based process of all 4 steps. Calls 1 and 2 were undertaken together by an individual with a clinical background. Public health supervision was provided on-site;
- The scale-up of multiple geographically spread CTCs was undertaken, using CovidCare Tracker CMP Module, which allowed callers to operate from a National listing. Calls 1, 2 and 3 were undertaken separately, by various individuals with different expertise and in different locations. Public health guidance was provided remotely (with a number of exceptions). The follow-up of casual contacts and active surveillance ceased;
- A parallel process for contacting individuals with negative results by call and text was implemented, undertaken by a separate and dedicated call centre;
- A subset of people that were queued for testing, were categorised as presumptive positives and were called for contact tracing. Significant complications arose (follow-up required when actual test result came back was complicated and deemed out of scope);
- Active follow-up (also known as active surveillance) recommended for close contacts of cases supported by the automation of a number of steps. Active follow-up was implemented from Friday 8th May. For the 14 days from the last date of contact with the person diagnosed with COVID-19, the HSE Contact Tracing Team will send a text message to a close contact to check (i) if they

have any symptoms related to coronavirus, and (ii) to remind them of the importance of restricted movements, hand hygiene and respiratory etiquette. If the person has developed any COVID-19 symptoms, the HSE Contact Tracing Team can refer them for testing; and

- Testing of close contacts (at the request of NPHET). A process where all close contacts of a confirmed case of COVID-19, whether they have symptoms or not, are referred for a coronavirus test. This is a change in procedure, as previously only close contacts who had symptoms were referred for a coronavirus test. NPHET have recommended that all close contacts should be tested as soon as possible (Day 0) and again at day 7 after the last contact with a person.

This work resulted in the CMP approach, a rapid, large scale system now operating in four steps:

- Step 1 / Case: Rapid notification to a person of a not-detected or positive result and provision of advice;
- Step 2 / Contacts: Rapid identification of contacts of confirmed cases of COVID-19;
- Step 3 / Control: Rapid public health management of contacts of confirmed cases;
- Step 4 / Follow-up: Active follow-up of contacts for 14 days.

With the 4-step process in place, this Enabling Function, and many of the associated resources, were merged with the CovidCare Tracker CMP Module Enabling Function.

Status

- The work of this Enabling Function is complete.

2.2.3 CovidCare Tracker CMP Module

Background and Contribution of National QI Team Members

The National QI Team's Evidence for Improvement Programme team members have backgrounds in quantitative and qualitative data analysis, statistics, and quality assurance, among others. With this expertise, the team took a lead role in the development of a bespoke ICT platform for the CMP.

The CovidCare Tracker CMP Module Enabling Function Team, is made up of National QI Team members, working closely with public health colleagues, National Doctors Training and Planning, National Services, ONMSD and the National Women & Infants Health Programme.

For full membership of the team, please see **Appendix 2.**

The CovidCare Tracker CMP module, within the overall CovidCare Tracker platform (Microsoft Dynamics CRM), is used for the four steps of contact tracing within both CTCs and Departments of Public Health, facilitating a fast national approach and allowing for remote working.

A governance structure and project plan were developed to ensure appropriate structures and processes were in place to lead out on the CovidCare Tracker CMP Module.

A cross-function change management board meets weekly to receive change requests, and prioritise and approve new system functionalities.

Deliverables

The CMP commenced on the 13th March, with a paper-based system in operation. This system was tested with Public Health East and Army cadets, with leadership and coordination provided largely by National QI Team members. The programme subsequently moved to a web-based system, which is now termed the 'CovidCare Tracker CMP Module'. The CovidCare Tracker is an online platform which supports key aspects of care given to COVID-19 patients. This solution supports clinical teams across different COVID-19 care pathways. The CovidCare Tracker CMP Module is a major element of the platform that has been developed in partnership with Public Health and the OoCIO, led by Tom Laffan. The OoCIO team utilised an agile development methodology to ensure the system meets public health requirements while making changes at pace.

The CovidCare Tracker CMP Module team oversees the system design, implementation and ongoing support to users, working with the OoCIO and multiple stakeholders to design the CovidCare Tracker CMP module for contact tracing. The CovidCare Tracker CMP Module team provides 'Superuser' support, CovidCare Tracker online training, training for new releases and provides an advice service to CTC callers and Departments of Public Health. Additionally, they facilitate the continuous updates to the tracker 'Superuser' manual and undertake regular User Acceptance Testing (UAT) alongside the OoCIO. Ensuring that the CovidCare Tracker CMP Module continues to operate and meet the shifting demands of contact tracing, it has been essential that this Enabling Function maintains strong communication links across all other Enabling Functions. For example, a process of streamlining updates between the CovidCare Tracker CMP Module releases and updates to the education, resources and training materials has been implemented, with a scheduled weekly release. The CovidCare Tracker CMP Module Team work with the OoCIO on the development of management reports including dashboards, national KPIs and surveillance data.

Status

- The work of this Enabling Function will complete over the coming weeks. Planning is in place to conclude current involvement and transition remaining aspects of the work, where appropriate.

2.2.4 CMP Education and Resources Development

Background and Contribution of National QI Team Members

Members of the School of QI Strategic Programme, within the National QI Team, were requested to lead the CMP Education and Resources Development Enabling Function, with colleagues, to design and develop educational programmes and resources for CTCs and other contact tracing teams. The CMP Education and Resources Development team capitalised on their experience of developing educational programmes and curricula, and engaging with key stakeholders, including colleges and academic bodies. The CMP Education and Resources Development team are responsible for the design, development, co-production and continuous updating of education materials, programmes and resources to support contact tracers within CTCs and across other settings. These resources include, for example, Caller Scripts, Scenario Manual and the Contact Tracing Induction programme. The CMP Education and Resources Development team is also responsible for providing opportunities for ongoing learning and development of callers, and for ensuring access to the most up to date resources and programmes through our CMP Moodle page.

For full membership of the team, please see **Appendix 2.**

Governance

A governance structure and work streams were developed to ensure appropriate structures and processes were in place to lead out on CMP Education and Resources Development. Work streams include:

1. Education and training materials design, development, and adaptation;
2. CTC Caller Scripts and Scenario Manual; and
3. Digital Learning Platform – HSE/RCSI Moodle to host resources (see **Appendix 3**).

Education and Training Materials design, development and adaptation

Co-designing education programmes, resources and training materials to build capability in contact tracing across many health settings.

The education resources include:

- Six modules of self-directed learning including an introduction to contact tracing, call advice and self-care, and how to conduct a call 1, 2 or 3;
- Facilitated learning including Caller Scripts, FAQs, and a manual for handling various caller scenarios;
- A repository for recent education resources updates;
- Resources specific to the Irish Prison Service (IPS) and Occupational Health and Social Inclusion*;
- Trainer resources including a virtual learning session presentation, training administration records, and evaluation forms;
- Recordings, including a Moodle demonstration and HSE BlackBoard Collaborate Sessions; and
- A Staff Support Zone including tips for employees working in call centre locations, staff support pathway, staff support booklet; and resources to assist call management.

Educational resources were carefully adapted to support contact tracing in unique settings of emerging public health need, such as the IPS and Occupational Health departments. A co-design approach was taken to design and develop these resources, including a bespoke train the trainer programme for both the Irish Prison Service and Occupational Health.

CTC Caller Scripts and Scenario Manual

Tests of change were planned, co-designed, and delivered around designing and developing caller scripts, caller manuals, and related materials. The dynamic nature of caller scripts and scenarios reflect the evolving public health guidance and CovidCare Tracker releases (initially twice weekly, now weekly) and also respond to issues arising in CTCs. The process of development, distribution and communication of Caller Scripts and Scenarios has been refined to reflect the streamlined process of communication of information and resources to CTCs.

Members of the Scripts and scenarios work stream continue to attend meetings with the CovidCare Tracker CMP Module Team and CTC ‘Superuser’ User Group to establish feedback processes and to ensure continuous review and revision, where necessary.

Digital Learning Platform Education and Resources– HSE/RCSI Moodle

With the support of the RCSI, members of the HSE/RCSI work stream designed and established a designated Moodle site to host the education programmes, resources and material required for the CMP. This digital learning platform is available to access via the RCSI portal for all registered users

of the site. The Moodle site went live on 20th March 2020 and to date there are approximately 2,900 registered users of the site.

An agreed pathway was established for uploading resources and providing access to new users, with weekly meetings to review operations and overall arrangements. Quality Assurance (QA) checks were carried out on all material uploaded to the site and summary change lists were added to the "Recent Updates" folder on Moodle to alert all users to any changes and new additions to the site.
A dedicated email address was established to centralise the process of applications and access. **(www.hsemoodleaccess@hse.ie)**

Status

- The work of this Enabling Function will complete over the coming weeks. Planning is in place to conclude current involvement and transition remaining aspects of the work, where appropriate.

2.2.5 CMP Training

Background

The CMP Training Team was established to manage, oversee and deliver training nationally. From 20th April 2020, CMP Training became an Enabling Function, led by members of the National QI Team, and with significant involvement from the ONMSD. A number of members of the National QI Team have been involved as trainers as the need required.

For full membership of the team, please see **Appendix 2.**

The CMP Training Enabling Function has been focused on developing and delivering a contact tracing training programme at scale and pace for CTCs in response to COVID-19.

In order to ensure that the training meets the CMP aim and objectives, while also meeting the needs of trainers and callers, the following processes were agreed in line with the overall CMP governance structure:

- Ongoing review of the CMP training programme;
- Ongoing review of training, team structures and processes; and
- Clear processes established for referral, planning and delivery of training and all parties were fully informed of any changes to processes as they occur.

Deliverables

Across all training modes, over 2,061 people have been trained to date.

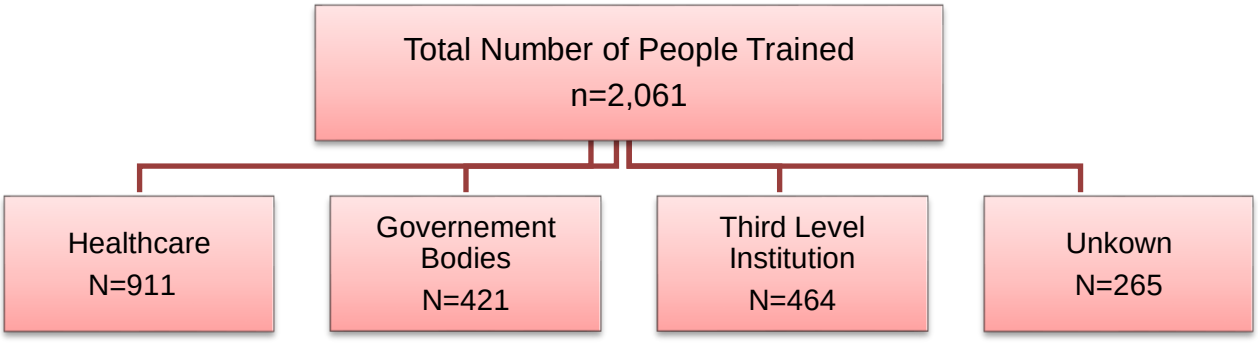


Figure 2: Breakdown of Organisations

Face to Face Training

The training team began delivering CMP training (150 to 200 participants daily) on the 17th March 2020 and continued to deliver face to face training sessions in Dublin, Cork, Athlone, Limerick and Galway through end of March. CMP Induction was provided to the following:

1. Callers who were going to work in CTCs;
2. Trainers who would be delivering training to callers;
3. Occupational Health Professionals; and
4. Public Health Services.

Significant planning was required to secure venues, allocate trainers and provide training materials to support the delivery of training sessions daily. The process of referral and delivery of training enabled education to be provided in a timely manner and meet urgent demand. Participant evaluations demonstrated that the content, delivery and design of the training was informative, comprehensive and beneficial.

In total 1,729 people were trained face to face.

Virtual Training

Due to physical distancing restrictions introduced on the 27th March 2020, it was agreed to change the training from a face to face mode of delivery to a virtual mode. The RCSI Moodle platform continues to be an instrumental enabler in this process.

To facilitate virtual training, a number of different web-based learning platforms were explored including Zoom, Blackboard and Webex. Virtual training began on the 2nd April 2020, using the MS Teams collaboration platform.

The CMP Training team works closely with the CMP Education and Resources Development team to develop and co-design virtual learning approaches. At present, the CMP induction programme comprises of:

- Step 1: Self-directed learning on RCSI Moodle site;
- Step 2: Mandatory interactive facilitated training session on MS Teams; and
- Step 3: CovidCare Tracker CMP Module is available on the RCSI Moodle site, optional live demo with Q&A. Coaching is provided on an individual's placement to a CTC.

Steps 1 and 2 of the Education and Training resources have been evaluated using an online evaluation tool (Survey Monkey) and have been presented to the CMP Management Team. Within this report there are a number of set recommendations for consideration.

Occupational Health Training

On the week of the 23rd March, a number of requests were received for the CMP Training team to deliver training to hospital-based Occupational Health professionals and departments, with a view to potentially using the CovidCare Tracker CMP Module. The CMP Lead and the National Coordinator collaborated with Dr Greg Martin, Public Health Consultant, and the Occupational Health support team from HSE Health and Wellbeing. Standard CMP Induction was delivered to Occupational Health professionals on the 26th and 27th March 2020, however it was evident that they required specific training to meet their needs. A working group was established with representatives from the CMP Training team, National QI Team, HSE Health and Wellbeing and Dr Greg Martin. This group developed a training programme specifically for Occupational Health Professionals engaging in contact tracing. Resources developed included: a virtual learning session, Trainer Presentation, FAQs, and Guidance Document for Occupational Health Contact Tracing. Occupational Health CMP Induction materials were uploaded to the RSCI Moodle site. In total, 441 people were trained as part of Occupational Health specific training.

Public Health Training

Training was provided to people working in Public Health services using a train-the-trainer approach, which enabled representatives to deliver training in their own workplaces.

Irish Prison Services (IPS) Training

Two CMP trainers facilitated the first train the trainer session with nine Irish Prison Staff on 30th March 2020. Since then, 150 staff members have been trained by the IPS contact tracing training team. The CMP programme continues to support contact tracing training within the IPS. There are weekly check in teleconferences. An IPS tile was created on Moodle to enable IPS staff access to contact tracing resources and materials updated in response to emerging evidence and Public Health guidance.

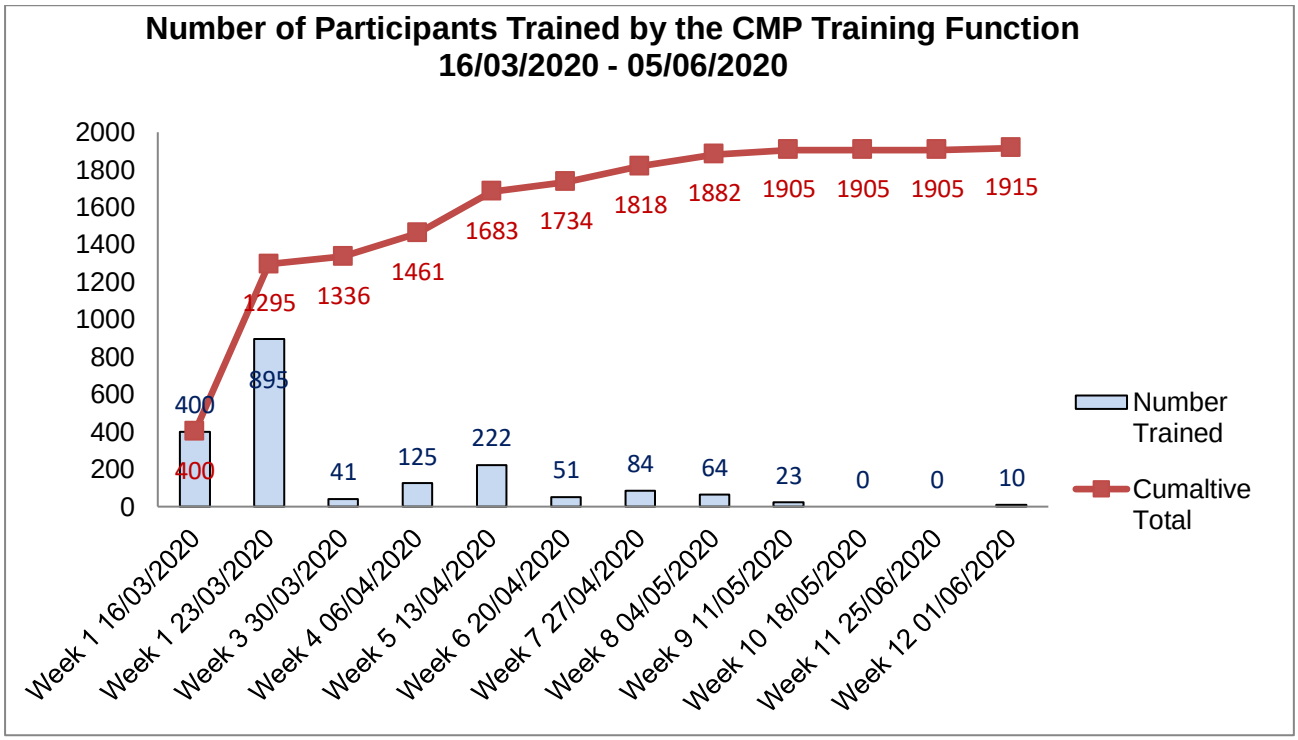


Figure 3: Number of participants trained by the CMP Training Function

Status

- The work of this Enabling Function is complete. Planning is in place to conclude current involvement and transition remaining aspects of the work, where appropriate.

2.2.6 CMP Public Health Support to Contact Tracing Centres

A number of National QI Team members, with public health expertise, have provided ongoing public health advice and support to the overall CMP programme, along with public health colleagues. Two members of the National QI Team sit on the COVID-19 Public Health Operational Group (CPHOG).

Members of the National QI Team have been heavily involved in leading the initial roll out and coordination of the CMP, and associated training and 'Superuser' support, to all Departments of Public Health. Further, National QI Team members were central in establishing the ongoing 'Public Health Contact Tracing Daily Operations Support Team'. The purpose of this team is to provide sufficient support to CTCs to enable them to safely carry out high volume, low complexity, contact tracing. The team also coordinate the rota for the provision of 'first on-call' staff, rostered 7-days a week, and 'second on-call staff' to CTCs, while in operation.

At a high level, the Public Health Contact Tracing Daily Operations Support Team is responsible for:

On Call Tasks:

1. To be on call by phone to provide public health advice and direction to CTC callers; and
2. Undertake or route urgent issues to appropriate Departments of Public Health (E.g. need for self-isolation or advising clinician in the case where the person is an inpatient or in nursing home).

Overall coordination tasks:

1. Review and revise (as advised by CPHOG) additions and refinements to CTC processes;
2. Provide daily communications regarding changes to public health process and advice to be provided by CTC, provided in conjunction with training programme;
3. Provide daily communication to CTCs on updated public health FAQs in response to queries raised by CTCs, provided in conjunction with training programme and daily clearing house huddle.
4. Daily review of issues log at huddle;
5. Attendance at end of day operations huddle;
6. Link with CMP regarding changes to overall contact tracing design process;
7. Support daily operations manager in each CTC in engagements with Departments of Public Health.

2.2.7 CMP Virtual CTCs

Partnering with People Who Use our Health Services Programme is a key programme of work within the National QI Team. It involves engaging and involving people who use our services in the design, planning and delivery of care. With this experience, National QI Team members involved in this programme of work, were asked to lead the Enabling Function of CMP Virtual CTCs, and take on roles within CTCs. For example, the role of Mobiliser for CTCs in UCC and HIQA (Dublin and Cork) (**Appendix 1**). The CMP Virtual CTC's Enabling Function is provided in collaboration with the ONMSD and QAV, and is centred on the remote working approach, set-up, management and support of the Virtual CTC, working in conjunction with National CTC Operations.

The set-up of Virtual Contact Tracing Teams was initiated on 19th March 2020. Members of the National QI Team working remotely undertook online Contact Tracing induction using the resources provided (see CMP Training). Thirteen National QI Team staff members were fully trained for contact tracing during the week commencing 23rd March.

For full National QI Team membership of the Virtual CTC, please see **Appendix 2.**

The members of the Virtual CTC have used their expertise, ways of working and understanding of the importance of maintaining a person centred approach in engaging with people in very difficult and challenging circumstances. The team has made a significant contribution to the overall ability to meet demands for callers through their flexibility in hours, days and times of working. Initially, the virtual CTC focussed on Call 2 and Call 3s. Members of the team with clinical backgrounds are now also undertaking Call 1s.

In addition to contact tracing, two members of National QI Team also acted as coordinators for Virtual Contact Tracing Teams, which included 21 staff members from the ONMSD and QAV who were initially involved in delivering CovidCare Tracker CMP Module training.

A total of six virtual teams were set up and co-ordinated by the National QI Team, including arranging remote training, 'Superuser' support, rostering, managing team huddles, providing support to contact tracers and compiling daily statistical returns.

Three Virtual CTC members have now become CovidCare Tracker CMP Module 'Superusers' and now provide support to CTCs, Public Health specialists, and across CMP.

Status

- Along with the 9 CTCs geographically spread across the country, the work of the virtual CTC is being reviewed in light of the significant week on week reduction in calls and the increasing need for specialist public health input.

2.2.8 CMP Remote Working

Background

The CMP Enabling Function 'CMP Remote Working' was established to accelerate the preparation for remote working across the whole CMP, at the request of Kilian McGrane.

In the current exceptional circumstances, new ways of working were needed to facilitate continuation of service and protection of staff. In line with the government directive of 24th March 2020, staff were requested to work remotely from home, wherever possible, until further notice. The HSE has specific duties to safety, public health and the welfare of all employees during this time.

Deliverables

A number of actions were fast-tracked in order to rapidly facilitate the maximum number of CMP and CTC team members to work remotely, with immediate effect. The Preparation for Remote Working CMP Enabling Function undertook:

An audit of technology requirements to confirm where additional supports were needed for approximately 90 team members e.g. laptops, phones, internet access, etc.
As a result of the audit:

- A consultation exercise was undertaken and issued to team members to establish suggestions for remote working, as well as key concerns and challenges they may encounter. This feedback was collated and fed into the development of a guidance document, to ensure team members' concerns were addressed; and
- Relevant HSE policies were reviewed in developing the guidance, including the HSE Policy on Lone Working (2017) and HR policies issued as part of the response to the COVID-19 crisis. Other policies and practices for Remote Working were reviewed for applicable content, including an NHS Trust policy on home working.

This initial work culminated in a detailed guidance document (approved by the CMP Management Team 27th March 2020) with the facilitation of remote working for almost all of the National QI Team and CMP staff (HSE and non-HSE). This guidance has been effectively implemented and remote working continues across the team with a series of daily and weekly huddles to include and connect people while working remotely.

This CMP Enabling Function was stood down after the Guidance was approved and issued.

Status

- The work of this Enabling Function is complete.

2.2.9 CMP Recruitment and Scalability

Initially, this CMP Function was co-led by members of the National QI Team and members of the HSE National Women and Infants Programme. This Function worked with HR listings of HSE staff potentially available to be deployed for COVID-19. This list was used to identify individuals who could work in CTCs in a variety of roles.

In the process of setting up CTCs, supported by the wider public service, Government departments, education sectors and other agencies such as HIQA and Tusla, people were identified to work within their CTC location. People were deployed for a variety of roles.

Status

- The work of this Enabling Function is complete.

2.3 Sharing the story and learning from CMP Internationally

Over recent weeks, there has been increased interest in contact tracing processes in Ireland, with the story of CMP shared internationally.

A briefing document and video presentation was prepared and shared on the story of CMP on the 8th May with Dr Colin Sumpter and public health colleagues in Scotland. During this session, key learning and tips were exchanged, with a detailed note that followed. Guest access to resources on Moodle was provided to public health colleagues in Scotland.

In a second information sharing session, a briefing document and video presentation was shared with Professor Diarmuid O'Donovan and public health colleagues in Northern Ireland. Similarly, key learning and tips were shared, and guest access to Moodle resources provided.

An exchange of information and experiences on contact tracing is ongoing with public health colleagues in the Czech Republic and New Zealand.

On Thursday 21st May, Dr Jennifer Martin and Dr Philip Crowley presented at an International Society for Quality in Health Care (ISQua) webinar entitled '*Preventative Measures for COVID-19 with Professor Trish Greenhalgh, Dr Philip Crowley and Dr Jennifer Martin'.* Dr Philip Crowley and Dr Jennifer Martin presented the situation from Ireland, which was focused on active case finding, testing and contact tracing of all cases. The presentation was followed by an engaging Q&A session.

3 Paying attention to the well-being of staff deployed to new and challenging roles

It was apparent from the outset of the development of the CTCs that there was a critical need to set up appropriate systems of support for callers working in the CTCs. Callers are working in new roles in an environment and situation that is evolving daily, learning new software and scripts, often breaking bad news to the public and staff and managing the various responses to this news from people, healthcare staff and the public.

Members of the National QI Team, with extensive experience in the area of Open Disclosure, working with colleagues, led on the development of a range of documents as follows:

Document 1: Staff Support Pathway:

This document sets out a support pathway for callers working in CTCs addressing how to protect, enable, manage and support callers. Staff support for callers is set out using a three tiered approach:

- Tier 1: Informal support at local level;
- Tier 2: Formal peer support by trained peer supporters and;
- Tier 3: Established referral network.

Document 2: Psychological support for staff working in the CTCs.

Work was undertaken with the psychology leads in the CHOs, with designated roles for managing the psycho-social response to COVID-19. They agreed to provide psychological support for callers working in the CTCs, working in conjunction with local Employee Assistance Programmes and Occupational Health Departments. These leads were linked up with the mobilisers of the CTCs. This document describes the staff support programme and provides relevant contact details.

Document 3: ASSIST ME: A Model of Staff Support

This document provides information and advice on the types of normal feelings and responses that callers may experience in their role in CTCs; guidance on how to self-care and care for colleagues; tools to support them in doing so; guidance on when to seek medical assistance and information on how and where to access formal supports, if required. The document also provides information and guidance for callers working remotely and for the managers of remote workers.

Document 4: Resources for CTC callers to assist call management

This document provides information and guidance on how to manage the various reactions and responses from patients and the public when contacting them to include (i) managing aggression and distress during calls, (ii) how to say sorry to patients and the public, (iii) managing calls to those who have been bereaved as a result of COVID-19, (iv) remote working and (v) operating a buddy system in the workplace or remotely.

A staff support component was developed and provided to the CMP Education and Training Team for inclusion in caller training programmes.

These documents have been circulated to the CTC mobilisers and are available on the RCSI Moodle platform.

4 Involving the people who use health services in our response to COVID-19

Engaging and incorporating the voices of people in the design, planning and delivery of all care demonstrates a commitment to person centred care. It ensures that care is appropriate to people's needs and is respectful of their preferences. Engagement builds a culture of listening to and learning from the care experiences of patients and their families. Focusing and delivering on the outcomes that matter to patients can only be achieved through meaningful engagement and partnership with patients, carers and their families. This is even more important during a time of national crisis. The Person and Family Engagement Strategic Programme Team, within the National QI Team, have been working to involve people who use our services in decisions and have used this expertise in supporting the HSE's response to COVID-19.

4.1 Patients for Patient Safety Ireland

Patients for Patient Safety (PFPS) is a World Health Organisation (WHO) initiative aimed at improving patient safety in health care. On the 9th of April, a Zoom meeting took place with Dr. Crowley, who provided an update on COVID-19 and listened to the issues and concerns of group members from Patients for Patient Safety Ireland. This meeting was followed by a focus group on 6th May with Dr Jennifer Martin on the new developments in the CMP. Feedback from group members was used to ensure that the patient perspective was reflected in the proposed changes to CMP processes. For example, active surveillance was renamed active follow-up within the CMP. Additionally, a proposed change to the CMP process was reconsidered in response to suggestions from the PFPS forum members. For example, a suggestion was made not to automate the provision of positive COVID-19 results via text. It is planned to continue this engagement.

4.2 National Patient & Service User Forum

A meeting of the National Patient Forum took place by Zoom on 28th April 2020. National QI Team members provided an update on the work undertaken in CTCs and engaged with the members of the Forum on a range of issues and concerns experienced by them and members of their advocacy organisations. These issues were captured and are included in communication to the CCO from the Chairperson of the Forum. The meeting was also an opportunity for members to share information and useful links with each other. A follow up meeting took place on 3rd June 2020, which Dr Crowley provided an update to issues which had been raised by the Forum and outlined the next steps for how best to include patients, service users and carers in the response to COVID-19. Kathleen Brennan, Project Manager, HSE National Immunisation Office presented on a National Immunisation System.

4.3 National Patient Representative Panel

Regular communication has continued with members of the National Patient Representative Panel, by e-mail and phone calls, particularly to those who are vulnerable or are cocooning due to underlying conditions. Members of PFPSI, HSE National Patient & Service User Forum and the National Patient Representative Panel were invited to participate in Zoom meetings to ascertain their feedback on various COVID-19 related matters.

- Patient Representative Zoom meeting, 13th May to discuss proposed changes to contact tracing and contact tracing app which was presented by Dr Jennifer Martin and Fran Thompson.
- Patient Representative Zoom meeting, 20th May in relation to work being undertaken by the HSE during the pandemic in relation to testing of close contacts.

5 Enabling effective COVID-19 decision making through rapid analysis showing data trends over time

The Evidence for Improvement Strategic Programme Team, within the National QI Team, focuses on combining expertise in the science of quality improvement, statistical analysis and qualitative research with clinical experience. With this expertise, members of the Evidence for Improvement Strategic Programme Team have been extensively involved in the development of a daily report highlighting the latest COVID-19 related data in collaboration with Dr Crowley, for the HSE's COVID-19 Integrated National Operations Hub. The report is based on the principles of measurement for improvement, analysing variation over time and across the system. The number of measurements included each day is limited, with a strong focus on outcome measures where possible. This measurement, coupled with clinical expertise provided by Dr Crowley, allows for the interpretation of findings.

For full membership of the National QI National COVID-19 Team, please see **Appendix 2.**

Within the report, data is presented and analysed from a variety of sources, with content changing each day to remain current and relevant to the wider COVID-19 environment. Some of the areas that have been highlighted over the past few weeks include: ICU admissions and occupancy, hospitalisations, notified deaths and deaths in hospital, outbreaks in nursing homes and other settings, community assessment hubs, GP telephone consultations, COVID-19 absenteeism, COVID-19 related incidents, and trends in positivity rates. Other measures related to normal health service activity have also been included in the report; for example, ED admissions, trolley counts, numbers of delayed discharges and urgent colonoscopies.

An example of the COVID-19 Hub Report is provided in **Appendix 4**.

6 Optimising people's safety promoting the safe use of medicines during COVID-19

The National Medication Safety Programme, which sits within the National QI Team, has provided ongoing support to the COVID-19 response by way of promoting the safe use of medicines.

The National Medication Safety Programme team liaise with HSE Communications to ensure appropriate medicines advice is available on the HSE COVID-19 website and in other formats, as well as promoting the use of a medicines list to aid communication at transitions of care.

The Medication Safety Programme team works closely with the Irish College of General Practitioners (ICGP) and Irish Pharmacy Union (IPU) to address frequently asked questions in relation to medicines use in COVID-19, including: Ibuprofen, ACE/ ARB inhibitors, use of Nebulisers and Vitamin D.

The team has coordinated the development of guidance on immunosuppressants, with the National Clinical Programmes for dermatology, gastroenterology, rheumatology and respiratory medicine, together with input from general practice and pharmacology and therapeutics. This includes a proposal to the COVID-19 Expert Advisory Group (EAG) to adjust cocooning recommendations in line with the guidance.

COVID-19 is associated with higher rates of Venous Thromboembolism (VTE) and the Medication Safety Programme team has led developments to minimise the risk, including:

- Developing HSE guidance and protocol for acute settings, developed with haematology consultants and circulated along with a presentation for staff;
- HSE email broadcast to all staff to highlight the importance of VTE prophylaxis for all patients admitted to hospital including COVID-19 as a risk factor;
- Emphasising the importance of the VTE Patient Alert Card and circulating to private hospitals;
- Liaising with HSE Communications to develop patient/public information;
- Developing HSE guidance for community and residential settings, developed with an expert group; and
- Data analysis and monitoring.

The Medication Safety Team has been instrumental in delivering the following:

- Preparing and circulating medication safety poster for hospitals, with Irish Medication Safety Network;
- Liaising with OoCIO, Primary Care Reimbursement Service (PCRS) and hospitals to make dispensed medication information available via a web based portal to streamline medication reconciliation.
- Supporting hospitals in their use of Healthlink for electronic transmission of prescriptions, and supporting a pilot of electronic medicines ordering;
- Participation in Medicines Criticality (NPHET subgroup) and working with Acute Hospital Drug Management Programme and Health Products Regulatory Authority (HPRA) to identify and mitigate medication supply issues and develop guidance for emerging treatments;
- Working with addiction services liaison pharmacists and prison pharmacists to identify emerging issues and ensure they are informed of national developments. This includes guidance on medication use in self-isolation facilities for people who use drugs;
- Working with the Clinical Design & Innovation Team to ensure medication guidance is approved by CCO Clinical Advisory Group and displayed on the HSE Repository for Interim Clinical Guidance Website. Supporting review and appropriate display of summaries of evidence; and
- Supporting the Community Pharmacy Contingency Group (chaired by Dr Philip Crowley), including:

- Planning for a new normal in the short to medium term in community pharmacies, acting to ensure care can be delivered safely, including Infection Prevention and Control (IPC) and operational issues and eHealth developments such as Healthmail;
- Promoting confidence in the public in the use of health services;
- Identifying supports for pharmacy staff, including information, training, and mental health supports; and
- Building on collaboration between various representative groups/ bodies to improve the way community pharmacy operates within the health system in the medium to longer term, including eHealth development.

7 Maintaining the principles of Open Disclosure during the COVID-19 pandemic

The ethos of the HSE Open Disclosure policy is to ensure that the rights of all patients to be communicated with in an open, honest, timely, compassionate and empathic manner are met when things go wrong, for whatever reason, during their health care journey and that this communication process is managed in a manner that is dignified and respectful.

During these current, challenging times it is important that the principles of openness and transparency are maintained in relation to not only the management of and response to all patient safety incidents but also in relation to those affected by COVID-19. Open disclosure must be conducted as per the principles and provisions of the HSE Open Disclosure Policy, as far as it is reasonably practicable to do so.

The Open Disclosure Team created a practical guide for staff on maintaining the principles of Open Disclosure during the coronavirus pandemic. This is available on the **National QI Team website**.

8 Promoting a human rights based approach in our response to COVID-19

Building the capacity and capability of HSE staff and services to achieve compliance with the HSE National Consent Policy, the Assisted Decision Making (Capacity) Act 2015, Part 3 of the Disability Act 2005 and the Irish Human Rights and Equality Act 2014, is a core element of the National QI Team programmes of work. This focus of working in collaboration with key stakeholders including patients, staff representative groups, families and advocates, among others remains to the fore in the context of COVID-19. An overview of how the National QI Team members are promoting, and maintaining, a human rights based approach in their response to COVID-19, is outlined in the following sections.

8.1 National Research Ethics Committee (NREC) COVID-19

The Programme Lead of the National QI Team's Office for Human Rights and Equality Policy, was appointed as a ministerial nominee to the **COVID-19 National Research Ethics Committee (NREC)**. This committee was established by the Minister for Health as part of Ireland's response to the COVID-19 pandemic, and in accordance with a recommendation in the **WHO Roadmap for Research and Development** to deliver an expedited process for review for all COVID-19 related research studies.

The NREC COVID-19 prioritises review of the following study types:

- All COVID-19 clinical trials, including Clinical Trials of Investigational Medicinal Products (CTIMPs) and trials of medical devices, observational trials and all COVID-19 intervention studies;
- Cross-institutional COVID-19 studies;
- COVID-19 studies carried out at national level, for example in multiple settings including but not limited to large cohort studies;
- International COVID-19 studies, including CTIMPs and registries, in which Ireland is a participant;
- COVID-19 studies involving linkage of datasets;
- COVID-19 studies that will, directly or indirectly, result in the establishment of, or expansion of a biobank;
- Other COVID-19 related health research where, following consideration between the applicant and their local REC (or in the absence of an obvious local REC), they feel review by the NREC COVID-19 would best support expedited review.

The Committee was established on the 9th April 2020 and meets weekly to make ethical approval decisions on studies relating to the above subject matter. Approximately 12 applications are considered each week for immediate decision and action.

8.2 Guidance Regarding Cardiopulmonary Resuscitation and DNAR Decision-Making

The Assisted Decision Making (ADM) Team, in collaboration with colleagues, have developed a guidance document to support health and social care professionals regarding advance care planning and cardiopulmonary resuscitation (CPR) decision-making, including making Do Not Attempt Resuscitation (DNAR) decisions, in the context of the COVID-19 outbreak. An expert advisory group was established under the Co-chairs (Prof Mary Donnelly and Prof Shaun O'Keefe) of the HSE National Consent Policy Advisory Group to support the urgent development of this guidance and a limited targeted consultation took place. The process was commenced on the 17th April 2020 and completed on the 7th May 2020. The guidance is now available on the HSE Dr Steeven's Library website, COVID-19 Repository and the **Assisted Decision Making** web page. The guidance should be read in conjunction with other relevant guidance, including the **HSE National Consent Policy,** the **Department of Health Ethical Framework for Decision-Making in a Pandemic**, the **Department of Health Ethical Considerations Relating to Critical Care in the context of COVID-19** and the **Department of Health Ethical Considerations for PPE Use by Health Care Workers in a**

Pandemic. The guidance is applicable to all those who provide services on behalf of the HSE, which includes acute hospitals, the ambulance service, community hospitals, residential care settings, general practice as well as persons being cared for in their own home. A suite of materials and supports are under development to support dissemination of the guidelines. This includes a webinar series with expert input, which will be in place by the end of May 2020.

8.3 Guidance for testing for COVID-19 in Disability Services

The National Office for Human Rights and Equality Policy co-ordinated the national guidance on testing for COVID-19 in Disability Services in collaboration with National Disabilities Quality Improvement Office, key Disability Non-governmental organization (NGOs) and voluntary organisations, Professor Mary Donnelly (Vice Dean of Law, UCC) and Asim Sheik (Barrister at Law, Law Library, Four Courts). The guidance was included in a pack to support Disability Services manage and support people who use their services in relation to tests for COVID-19. This support pack was disseminated to all disability services in March 2020 and is available **here**.

8.4 Expert advisory group on complaints/ queries arising from COVID-19 testing

A member of the National QI Team's Office for Human Rights and Equality Policy was nominated to participate on a time-limited expert advisory group established by Mr. Damien McCallion to resolve a number of queries from the Taoiseach, the Minister for Health and other public representatives regarding delays with testing and the communication of results for COVID-19. The purpose of the group was to resolve the specific issues and queries and revert back to the government department where the query arose. Most of the issues required escalation to a public health consultant or to the National Virus Reference Lab (NVRL), which was done locally.

8.5 Media queries, requests from services and organisations

The office is continuing to support and respond to requests from staff in relation to consent, supported decision making, advance care planning and DNAR in the context of COVID-19.

It is also dealing with on-going media queries with respect to consent and testing for COVID-19 as indicated in the link available **here**.

8.6 Consultations of COVID-19 specific or related guidance

The office is continuing to support reviews of documentation linked to and supporting outcomes for people during the pandemic. This includes the review of the Irish Hospice Foundation ***'Think Ahead'*** Guidelines and the Law Reform Commission's ***'Development of a Regulatory Framework on Adult Safeguarding'.***

9 Using the principles of Schwartz Rounds to address the emotional impact of work in a pandemic

The National QI Team's QI Connections Programme, supports (in collaboration with the Point of Care Foundation) 25 services across Ireland introducing Schwartz Rounds. Schwartz Rounds are a structured process for staff to share the emotional impact of their work. The unprecedented pressures created by the COVID-19 crisis has meant that Schwartz Rounds have been paused in the 25 healthcare services currently implementing these sessions in Ireland.

In response to this, the Point of Care Foundation is offering an alternative online approach called 'Team Time'. The National QI Team is supporting the implementation of Team Time in Ireland, with organisations who are already implementing Schwartz Rounds.

Team Time is a thirty to forty-five minute long reflective practice session, open to services who currently implement Schwartz Rounds.

It is run online, and provides a forum for people from a team to discuss the emotional and personal impact of their work in health and social care, creating mutual support. Team Time aims to offer a reflective space, with a view to:

- Strengthen teams;
- Address feelings of isolation and provide a sense of support to counter the current rising pressures;
- Help team members to be more compassionate to themselves and each other;
- Acknowledge and normalise individuals feelings; and
- Potentially reduce individual levels of stress and anxiety.

10 Connecting and sharing collective learning on COVID-19 across Q Community partner countries

Q is an ambitious, long-term initiative that brings together people working to improve health and care. It is led by the Health Foundation and supported by five country partners across the UK and Ireland.

The HSE National QI Team, in partnership with the Health Foundation, launched the Q Community in Ireland in February 2020. It is an exciting opportunity for improvers in Ireland to connect and collaborate with fellow improvers, use Q as a source of innovation and practical problem solving and get involved with a range of activities and benefits that are on offer.

Q brings together a governance group from the five partner countries - leaders from the national improvement teams across the four countries of the UK and Ireland. The National QI Team is represented by two members from the HSE on this group. During the pandemic the governance group are coming together monthly to explore learning and strategic challenges in national responses to COVID-19. The April discussion focused on "living and breathing quality improvement". The conversation is captured in four themes identified by Penny Perez (Q Initiative Director):

- *Health inequalities and meeting the needs of vulnerable groups* - There was a strong focus on groups that might be particularly vulnerable or heavily impacted in all countries;
- *Staff wellbeing and system resilience* - Watching the incredible efforts of staff from all levels and backgrounds brings with it concerns amongst leaders about the risk of burn out and compassion fatigue, as health and care services seek to both respond to the unique challenges for COVID-19 and maintain quality in routine care;

- *Space and support to learn* - This is also about the imperative to build on and continue to improve the service innovations being introduced during this period;
- *Collaborative improvement alive and strong* - While the call was serious as the context demands, this was also an opportunity to take stock and celebrate the innovation that's shining through from how we're responding as a system: both in terms of specific service changes and ways of working.

You can read more about the first COVID-19 discussion **here**.

The theme for the May session was "*Embedding and spreading COVID-19 innovations: the mind-set shifts behind the specifics",* with a call to:

- *Look for pre-COVID innovations whose time has come* - The language of innovation can disguise the fact that many of the changes coming to the fore during COVID-19 build on an established rationale and evidence base;
- *Understand the mind-set shifts enabling these innovations* - Building on discussions within Scotland, the group identified seven key areas where a different context has prompted new attitudes and action that seem broad and deep enough to suggest at least a temporary shift in mind-set;
- *See how these insights can help us keep and spread positive changes* - Paying attention to the evidence base and to broader shifts in mind set and context that lie behind innovations can highlight which changes are most likely to be ready to spread and deliver systemic benefits for patients and population.

11 Showing solidarity and supporting low-income countries in managing COVID-19

The Global Health Programme, is one of the seven key programmes of work within the National QI Team. The purpose of this programme is to develop a global approach by Irish healthcare services to improve the health and quality of healthcare in Ireland and less developed countries. Over just a few months in 2020, the COVID-19 pandemic has become the priority health issue facing low income countries, as it has in Ireland. It poses an immediate threat to the health services in these countries and threatens to undermine years of progress towards building resilient health systems and achieving universal health coverage.

It is in Ireland's interest to work with other countries in tackling COVID-19. Dr Mike Ryan, Director of Health Emergencies at the World Health Organisation has reminded us that we are *"only as strong as the weakest link"* and *"none of us are safe until all of us are safe"*.

The Global Health Programme has continued to work in solidarity with HSE partners in less developed countries, particularly in Africa. The response is not primarily about humanitarian aid, but to support partners in managing the COVID-19 outbreak while also maintaining essential health services and protecting health workers. The challenge is to continue the path to health system strengthening and to build back better after the pandemic is over. Quality improvement remains the main technical focus across our work with partner countries. Quality and patient safety are even more relevant now in the face of the COVID-19 pandemic.

The Global Health Programme has built on its existing relationships to respond to needs in low income countries, collaborating closely with Irish and international organisations:

11.1 Maintaining focus on quality improvement (QI) initiatives in times of crisis:

- Continued key aspects of current QI programmes in Mozambique and Ethiopia through videoconferences and webinars;

- Collaborated with the International Society of Quality in Health Care in QI training, sharing resources, and input to developing national QI strategies and training materials; and
- Provided technical feedback to WHO on QI in fragile, conflict and vulnerable settings.

11.2 Providing technical advice on COVID-19

- To key contacts in the Ministry of Health in Mozambique and Ethiopia;
- To Irish Embassy personnel in Ethiopia, Mozambique and Malawi; and
- To Irish development NGOs.

11.3 Supporting Irish health institutions working with low income countries

- The ESTHER Alliance is a network of countries working in partnership to tackle major diseases and improve healthcare in less developed countries. The Global Health Programme established a €40k ESTHER Ireland grant fund for partnerships to respond to COVID-19.

11.4 Sharing COVID-19 information and resources for low income countries

- Collaborated with the Irish Global Health Network (IGHN) and ESTHER Alliance to develop a portal for COVID-19 resources (**www.globalhealth.ie**);
- Developed link with Evidence Aid, UK to prepare and disseminate summaries of emerging evidence on COVID-19 in different languages;
- Developed guidance papers for healthcare workers.

11.5 Developing training materials:

- Provided technical inputs and funding (€4,580) to the Gorey-Malawi Health Partnership to develop 14 short training videos for Malawi.

11.6 Running learning and networking events

- Worked with the IGHN and the ESTHER Alliance to establish weekly webinars, 'COVID-19 Conversations'. More than eight thousand people have viewed the first eleven webinars;
- Co-organised one-day online conference on 25th April with THET UK and Medics Academy. More than 800 participants registered from 54 countries; and
- Hosted bi-weekly meetings of UK and Ireland Global Health Network to share learning and resources.

12 Sustaining National QI Team Business Continuity in the context of COVID-19

The National QI Team has dedicated its resources and expertise to support the unprecedented task of confronting the COVID-19 pandemic. Our support, and in particular the set-up and operation of the CMP, has served to highlight the many ways our NQI team is adaptive and responsive, and has shown leadership, innovation and creativity during crisis.

For full membership of the National QI Operations team during this time, please see **Appendix 2.**

Although team members have been deployed across a number of CMP Functions and other COVID-19 programmes of work, the National QI Team has sustained a focus on business continuity and cohesiveness in order to:

- Provide a point of contact for existing QI programme partners e.g. to advise them where necessary on how to hibernate QI projects whilst responding to the COVID-19 crisis;
- Address core business matters that apply to ongoing management of the National QI Team including HR matters, finance, procurement, invoicing, and strategic / operational business planning;
- Provide continuity with previous work, most critically where there are statutory obligations to be met e.g. responding within prescribed timeframes to Subject Access Requests relating to the RCOG Expert Panel Review of CervicalCheck, to ensure compliance with GDPR legislation;
- Maintain connection and solidarity with National QI Team members, many of whom are working with different groups at this time and are working remotely without the normal interaction of an office environment;
- Support team members to continue to work remotely for as long as is needed, signposting them to where they can access required computer software, hardware, stationery, and other tools in order to be productive and connected;
- Prepare for the transition back to work in Quality Improvement, once a process is agreed to scale down and transition from CMP / COVID-19 work with effective due diligence in place. This is with a view to recommencing "business as usual" in the context of using our QI expertise, knowledge and skills in key patient safety areas and delivering on our **National QI Team Strategic approach to improving quality (2020)** and the **Patient Safety Strategy 2019-2024**. This includes:
    - Identifying key areas for QI from the 2020 Operational Plan that (where feasible) need to be prioritised and delivered by year end 2020, following transition or scale-down from the CMP / COVID-19 work;
    - Taking into account the deliverables from the 2020 Operational Plan that were paused, but may be delivered later in 2020 or in 2021 responding to service priorities;
    - Considering what National QI priority projects could be implemented using different approaches responding to service needs;
    - Reviewing opportunities for potential QI projects and areas to support, as a result of COVID-19 that may now warrant greater priority.

A National QI Team Update Meeting is held by videoconference on MS Teams either weekly or bi-weekly, as needs require, in order to keep the full team updated on CMP / COVID-19 work streams as well as to advise on core business matters and provide an opportunity for the team to re-connect by sharing news and photos. The Team chat facility on MS Teams has also provided a "virtual water cooler" discussion board where Team members can spend a few minutes engaged with their colleagues in casual conversation – a useful way to help the team bond, boost morale, and stay connected during these challenging times. The Team have also engaged in a randomised 'coffee break', to offer colleagues the opportunity to meet virtually with another member of the team.

13 Summary

The COVID-19 pandemic has necessitated the most urgent, critical and large-scale response the National QI Team, and the Health Service, has ever had to provide.

The National QI Team, has been deployed to pandemic management, and has used collective curiosity and creativity, as well as quality improvement methodologies and LEAN thinking to mould and implement intelligent responses to the challenges faced by COVID-19. The response by the National QI Team has been fast paced and reactive, with new structures, services and initiatives introduced in a matter of days. The National QI Team has been able to facilitate a coordinated response, through collaborative working, strong communication and mutual respect for each other and the task at hand.

On a larger scale, there will be substantial learning to take forward and apply in the new ways of working that will be necessary in the immediate and longer-term future, and new work practices that will need to be implemented.

Significant QI learning across areas of work:

- Diverse, dynamic National QI Team are effecting progress across a number of areas showing the importance of integrating QI into everything we do.

- High pace of change and urgency associated has a high danger of burnout
  - Compassion and Kindness never so important and easily lost;
  - Resilience is required - we are prepared for a very long haul.

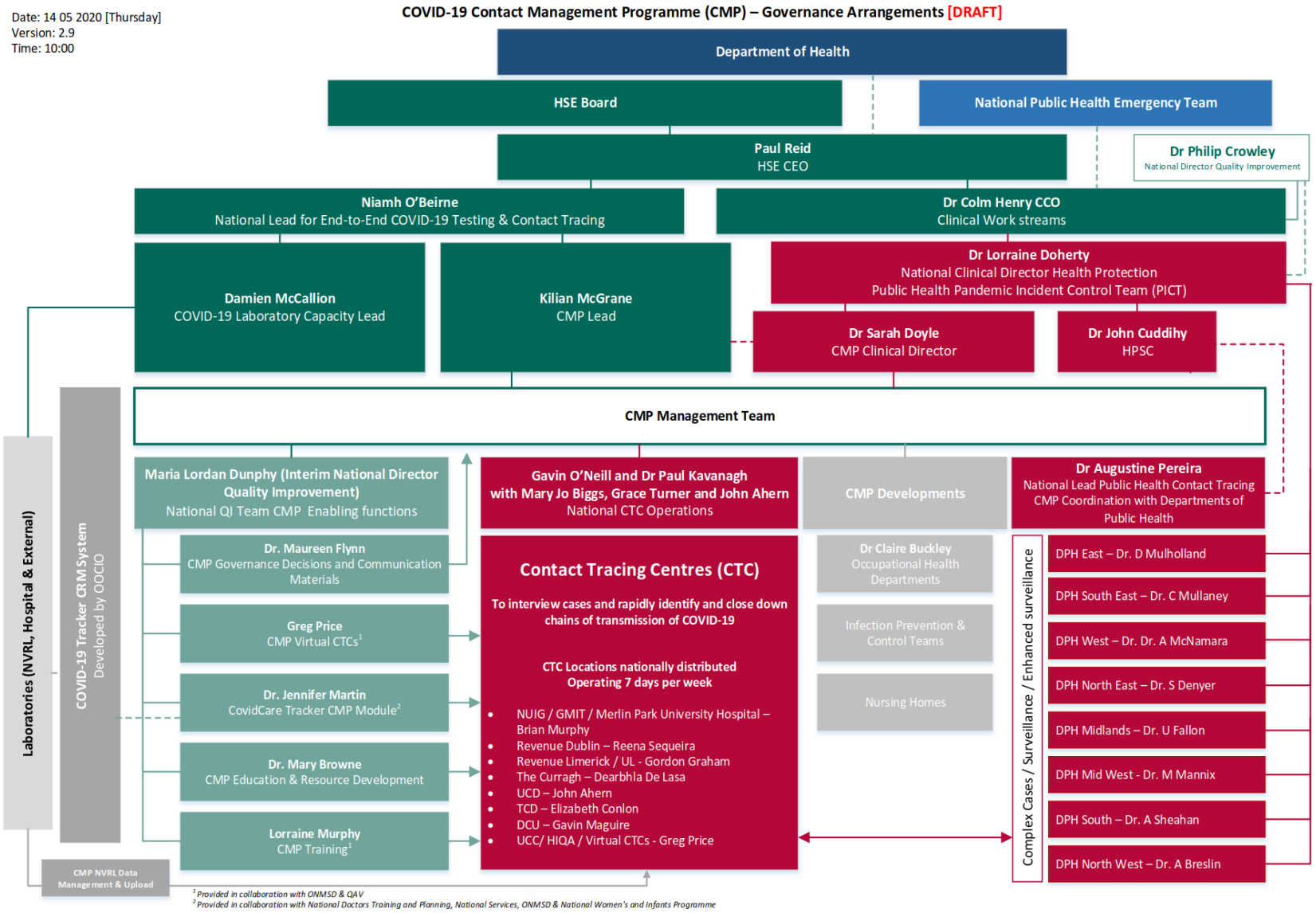
- New services introduced in matter of days integrating QI methods throughout:
  - Rapid testing and multiple PDSAs occurring;
  - Measurement is key and the communication of the same both to clinicians and the general public;
  - Importance of communication and 'finding the correct tribe';
  - Duplication of effort hard to avoid as time pressures to deliver can mean some stakeholders missed;
  - Can do attitude;
  - Comfortable with mistakes, learn and change quickly

- Power of social media and connection
  - Currently in honeymoon period of media coverage, that could change;
  - Huge value in ability to connect internationally on similar challenges;
  - Share and steal shamelessly.

- Some issues with comparisons of different approaches between Ireland and near neighbours.

- Significant future challenges to reboot economy and health service. Lots of new ways of working need to be sustained after the pandemic.

14 Appendix 1 Organisational Chart



15 Appendix 2 National QI Team Deployment

Across the response to COVID-19, the National QI Team collaborated and worked closely with staff throughout the HSE and other agencies, and in particular the HSE National Women and Infants Health Programme, Departments of Public Health, Office of the Chief Information Officer (OoCIO), Office of the Chief Clinical Officer, Office of the Chief Operations Officer, the ONMSD, HSE National Services, National Screening Service (NSS), Occupational Health, National Doctors Training and Planning, and Quality Assurance and Verification (QAV), with support from Royal College of Surgeons of Ireland (RCSI), Irish College of General Practitioners (ICGP), Royal College of Physicians Ireland (RCPI), Irish Prison Service (IPS), Grant Thornton, PwC Ireland, KPMG, EY and Vision Consulting.

The table below sets out the people involved from the National QI Team and the CMP Enabling Functions at any time over the last three months. There has been significant agility and flexibility demonstrated by all, with many people working across a number of work streams and teams for varying timescales. We would like to thank everyone involved, and in particular the large number of CTC callers, the central CMP Team, staff across Departments of Public Health and the Health Protection Surveillance Centre (HPSC), who's involvement has been so pivotal and wide-ranging, but regrettably, impossible to capture on an individual basis.

NATIONAL COVID-19	
Dr. Philip Crowley, National Director	National Quality Improvement Team
Roisín Breen	National Quality Improvement Team
Grainne Cosgrove	National Quality Improvement Team
Sinead Dooner	National Quality Improvement Team
Audrey McEntagart	National Quality Improvement Team
In practice	
Dr. David Weakliam	National Quality Improvement Team
Dr. John Fitzsimons	National Quality Improvement Team
Dr. Ethel Ryan	National Quality Improvement Team
Dr. Ken Beatty	National Quality Improvement Team
National QI Team Operations	
Maria Lordan Dunphy (Lead)	National Quality Improvement Team
Maureen Flynn (Lead)	National Quality Improvement Team
Róisín Egenton	National Quality Improvement Team
Iseult Harding	Grant Thornton
Carmel Donohue	National Quality Improvement Team
Alison Cronin	National Quality Improvement Team
Mary Lawless	National Quality Improvement Team
Eileen Tormey	National Quality Improvement Team
Dervla Fleming	National Quality Improvement Team
Lorraine Murphy	National Quality Improvement Team
Sinead Dooner	National Quality Improvement Team

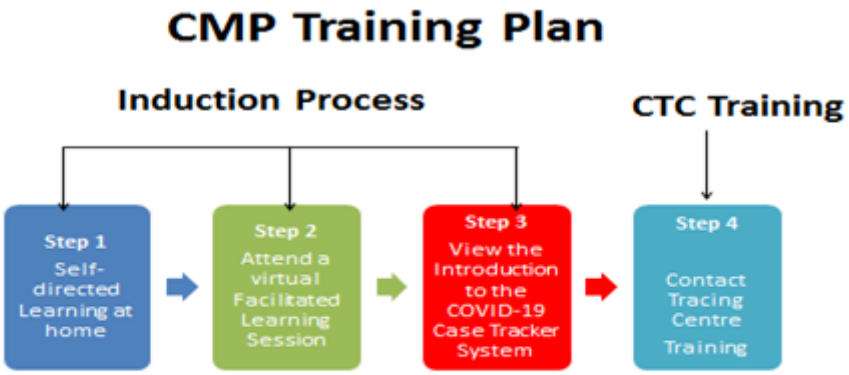
Ciara Kirke	National Quality Improvement Team
Muriel Pate	National Quality Improvement Team
Alison Cronin	National Quality Improvement Team
Enabling Function: CMP Governance Decision and Communications Materials	
Maureen Flynn (Lead)	National Quality Improvement Team
Jacqueline Grogan	National Quality Improvement Team
Anne Marie Heffernan	National Quality Improvement Team
Ross McGauley	National Quality Improvement Team
Róisín Egenton	National Quality Improvement Team
Iseult Harding	Grant Thornton
Caroline Lennon-Nally	National Quality Improvement Team
Noemi Palacios	National Quality Improvement Team
Enabling Function: CMP CovidCare Tracker CMP Module	
Jennifer Martin (Lead)	National Quality Improvement Team
Emma Hogan	National Quality Improvement Team
Paul Kavanagh	Health Intelligence
Davinia O'Donnell	National Women & Infants Health Programme
Cara Regan Downey	National Services
Nicola O'Grady	National Quality Improvement Team
Serena Brophy	Office of Nursing and Midwifery Services Director
Dr. Ciara Carroll	NCHD (P/T)
Dr. Carol Norton	NCHD (P/T)
Iseult Harding	Grant Thornton
Grainne Cosgrove	National Quality Improvement Team
Mary Friel	National Quality Improvement Team
Denise McArdle	National Quality Improvement Team
Angela Tysall	National Quality Improvement Team
Ciara Lattimer	Mental Health Innovation and Design
Loretto Grogan	Office of Nursing and Midwifery Services Director
Enabling Function: CMP Education and Resources Development*	
Mary Browne (Lead)	National Quality Improvement Team
Siobhan Reynolds	National Quality Improvement Team
Róisín Egenton	National Quality Improvement Team
Veronica Hanlon	National Quality Improvement Team
Lisa Toland	National Quality Improvement Team
Caroline Conneely	National Quality Improvement Team
Gemma Moore	National Quality Improvement Team

Stephanie Horan	National Quality Improvement Team
Karen Reynolds	National Quality Improvement Team
Elaine McCaughley	National Quality Improvement Team
Orlaith Branagan	National Quality Improvement Team
Elena Stocchiero	Grant Thornton
Kelly McDyer	National Quality Improvement Team
Lorna Peelo Kilroe	National Quality Improvement Team and Office of Nursing and Midwifery Services Director
Andrew Young	KPMG
Enabling Function: CMP Training*	
Mary Browne (Lead until 16th April)	National Quality Improvement Team
Lorraine Murphy (Lead from 17th April)	National Quality Improvement Team
Marie Kilduff	National Quality Improvement Team
Lorna Peelo Kilroe	National Quality Improvement Team and Office of Nursing and Midwifery Services Director
Catherine Hogan	Quality Assurance and Verification
Loretta Jenkins	Quality Assurance and Verification
Marie Gilligan	National Quality Improvement Team
Catherine White	Office of Nursing and Midwifery Services Director
James Begley	Office of Nursing and Midwifery Services Director
Maggie McGarry	Quality Assurance and Verification
Joanne Haffey	Quality Assurance and Verification
Deborah Kavanagh	Quality Assurance and Verification
Fiona Culkin	Quality Assurance and Verification
Megan O'Leary	KPMG
Jason Henshaw	Quality Assurance and Verification
Lorraine Dunne	Office of Nursing and Midwifery Services Director
CMP CTC Mobilisation and Virtual CTCs	
Greg Price (Lead)	National Quality Improvement Team
Angela Hughes	National Quality Improvement Team
Teresa O'Callaghan	National Quality Improvement Team
Patricia Gibbons	National Quality Improvement Team
Brid Boyce	National Quality Improvement Team
Marie Gilligan	National Quality Improvement Team
Mila Whelan	National Quality Improvement Team
Noemi Palacios	National Quality Improvement Team
Nicola Williams	National Quality Improvement Team
Caroline Lennon Nally	National Quality Improvement Team

Gerard Gibbons	Quality Assurance and Verification
Alfie Bradley	Quality Assurance and Verification
Lorraine McNamee	Quality Assurance and Verification
Marie Boles	Quality Assurance and Verification
Anne Keane	Quality Assurance and Verification
Catherine Timoney	Quality Assurance and Verification
Anne Maria Keenan	Quality Assurance and Verification
Anne McDermott	Quality Assurance and Verification
Colette Twomey	Office of Nursing and Midwifery Services Director
Emer McEvoy	Quality Assurance and Verification
Tánia Pond	Quality Assurance and Verification
Helen Bohan	Quality Assurance and Verification
Angela Tonry	Quality Assurance and Verification
Anna Larkin	Quality Assurance and Verification
Anne McCarthy	Office of Nursing and Midwifery Services Director
Mary Nolan	Office of Nursing and Midwifery Services Director
Mary B Rice	Office of Nursing and Midwifery Services Director
Michelle Quinn	Office of Nursing and Midwifery Services Director
Anita Gallagher	Office of Nursing and Midwifery Services Director
Deirdre Keown	Office of Nursing and Midwifery Services Director
Anne Carey	Office of Nursing and Midwifery Services Director
Liz Breslin	Office of Nursing and Midwifery Services Director
Caitriona Crowley	National HR
Caoimhe Gleeson	National Quality Improvement Team
Marie Tighe	National Quality Improvement Team
Angela Tysall	National Quality Improvement Team
Mary Friel	National Quality Improvement Team
Kelly McDyer	National Quality Improvement Team
Margaret Williams	Office of Nursing and Midwifery Services Director
Annemarie Farrelly	St James' Hospital

*For full details on the many people that assisted in CMP Training, please see the COVID-19 Contact Management Programme Training Report 16th March – 17th April 2020.

16 Appendix 3 CMP Training Stages and RCSI Moodle Platform



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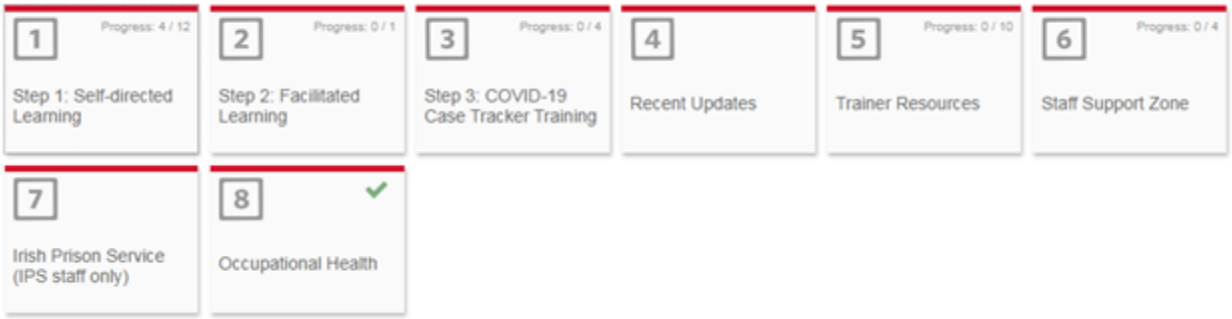
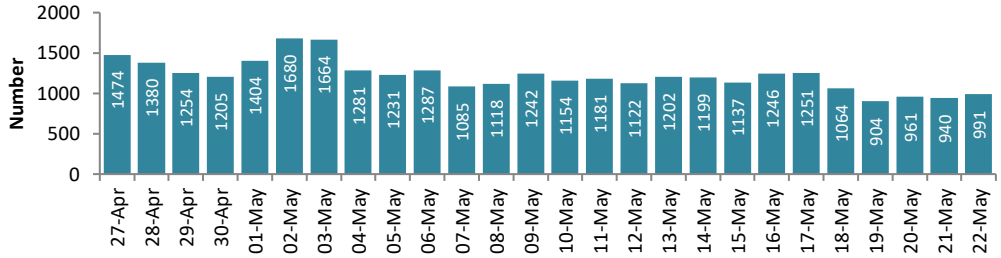


17 Appendix 4: National QI Team COVID-19 Data Report

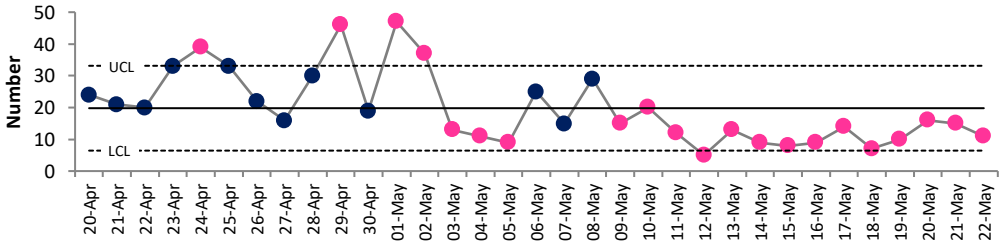
Based on data as of Friday evening 22/05/2020

Number of vacant general beds (excluding critical care beds)



The number of vacant beds has fallen from **over 2,000 in mid-April to under 1,000 over the past 4 days**. This suggests an increase in non-COVID related activity. **Demand cannot be completely controlled and vacant beds should continue**

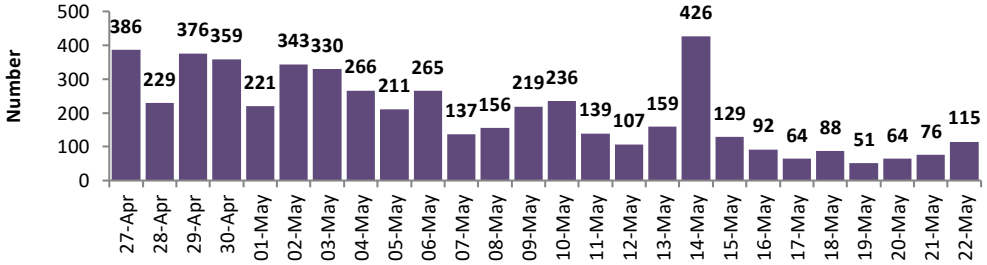
Number of hospital admissions during the previous 24 hours of COVID positive patients



The number of COVID positive admissions **will be a key metric as we return to normal activity.**

The SPC chart shows a signal of a sustained reduction in new admissions since 9th May.

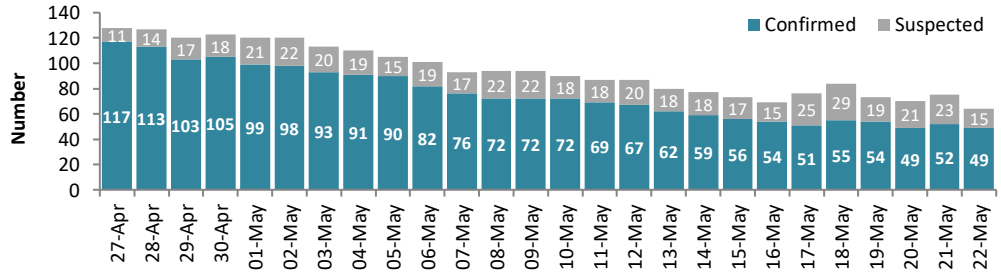
Number of new cases per day



Number of new cases is influenced by number of tests done, and is not an indication of disease incidence.

Total number of cases: 24,506 up 0.5% on

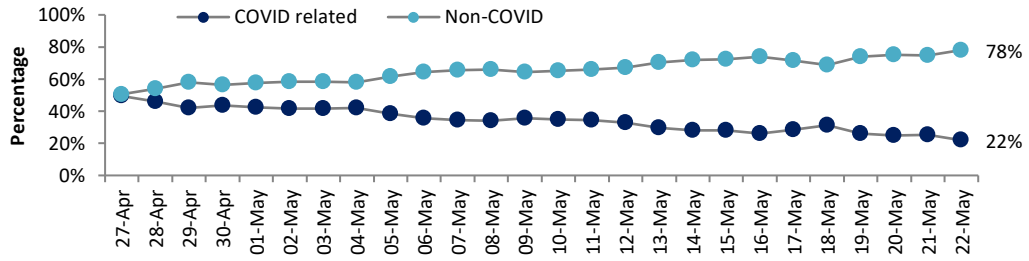
Number of COVID-19 patients in ICU (as of 18:30 each day)



The number of patients with confirmed COVID-19 in ICU is 49 with an additional 15 suspected COVID cases in ICU.

The number in ICU is down 69% on the peak seen on 9th April but the rate of decrease appears to be slowing.

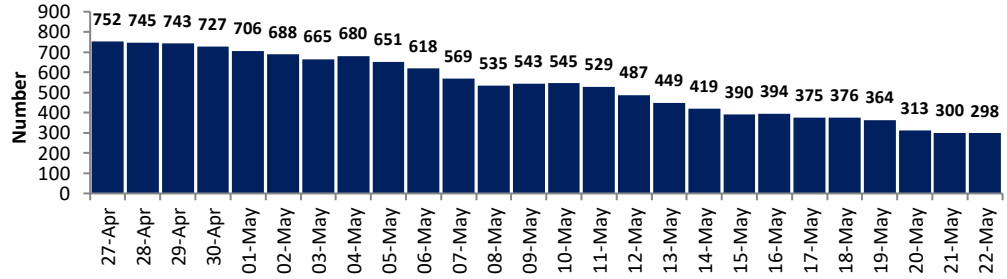
COVID-19 related and non-COVID related cases in ICU as a percentage of occupied ICU beds



The proportion of ICU beds occupied by patients with confirmed or suspected COVID-19 is decreasing, and non-COVID cases are increasing. This indicates a **return of normal ICU activity**.

There are 107 vacant ICU beds.

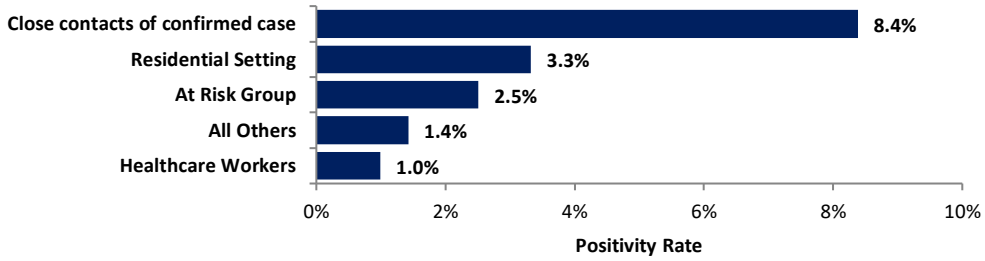
Number of cases currently in hospital (8pm each day)



The number of confirmed cases currently in hospital is **298** and is **down 66% on the peak of 879 on 13th April.**

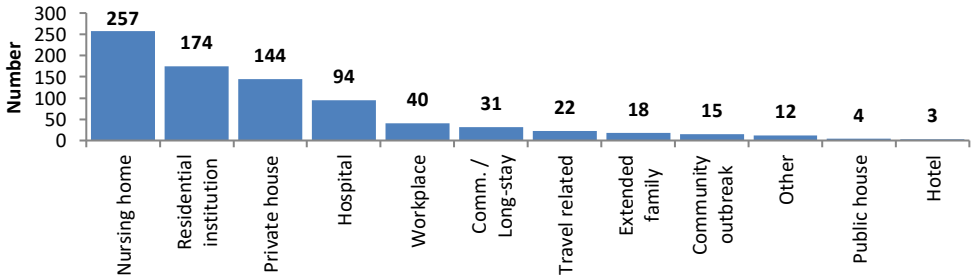
Overall bed occupancy has increased; this suggests an **increase in non-COVID related hospitalisations.**

Positivity rate based on patient category, NVRL data only from 16th – 22nd May



The **positivity rate for tests completed over the past week is 2%.** The highest positivity rate based on NVRL tests has been among **close contacts** of confirmed cases. The **positivity rates for all other categories of patients were significantly lower**.

Number of outbreaks / clusters by location (total up to 19th May)



There are now **814 outbreaks** of COVID-19 with **9,263 cases** associated with these (38% of total cases).

Over half of outbreaks have been in nursing homes (32%) and residential institutions (21%).

Changes over the past week:

- **The number of new cases identified by testing is lower than previous weeks**. **New cases increased by 2% over the past week** (550 new cases diagnosed since Friday 15th May).
- The number of **deaths increased by 5%;** this is a **lower increase than previous weeks. The number of deaths notified by day is trending downwards.**
- The number **currently in hospital decreased by 24%** (down 92 on Friday 15th May).

- The number **currently in ICU decreased by 13%** (down 7 on Friday 15th May). This is a lower reduction than previous weeks, suggesting that the rate of decrease may be slowing.

COVID-19 among healthcare workers (based on data as of midnight 16th May):

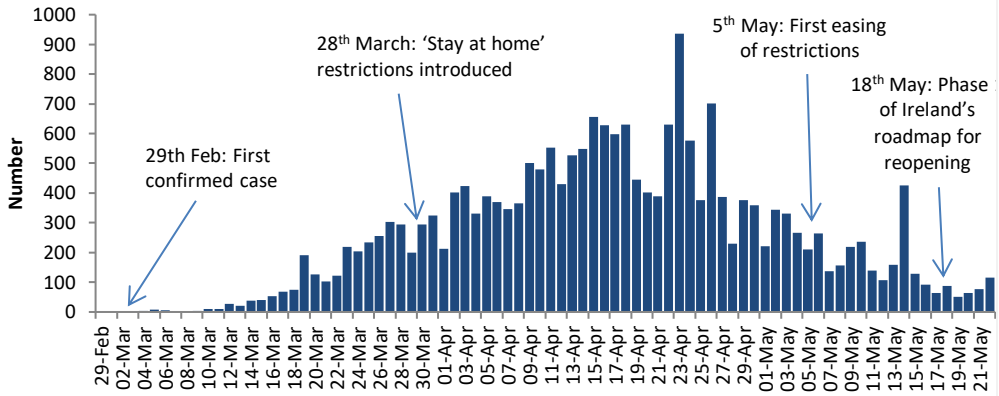
- There are 7,791 cases of COVID-19 among healthcare workers, 32% of total confirmed cases (up to 20th May). **It is important to note that this does not mean that 32% of healthcare workers have been infected with COVID-19**; it is the proportion of all COVID-19 cases that are among healthcare workers.
- The **rates of hospitalisation and ICU admission are much lower among healthcare workers with COVID-19 in Ireland than among the total population with COVID-19**. Based on data up to 16th May:
    - 279 (3.6%) healthcare workers with COVID-19 have been hospitalised. This compares to an overall hospitalisation rate of 13.1% for the total population with confirmed COVID-19.
    - 40 (0.5%) healthcare workers have been admitted to ICU, compared to 1.7% of total cases.

Impact of COVID-19 among vulnerable groups:

- There are **12 outbreaks (plus 1-2 new outbreaks in Dublin and Galway) in Direct Provision Centres,** with 158 associated cases of COVID-19.
- There are approximately **64 cases associated with outbreaks involving the Roma community, with 6 deaths**.
- There are at least **46 cases associated with outbreaks involving Irish Travellers**.
- There are **8 outbreaks in homeless services, with 52 associated cases**.
- There are less than 20 cases associated with outbreaks in homeless services for those with addiction / mental health needs.
- **Significant efforts have been made to protect vulnerable groups.** Cocooning socially vulnerable people was introduced early in the pandemic; there has been a reduction in the monthly mortality rate among homeless people compared to last year despite the occurrence of the pandemic; and prisoners have been largely protected from infection.

Appendix: Longer Term Trends

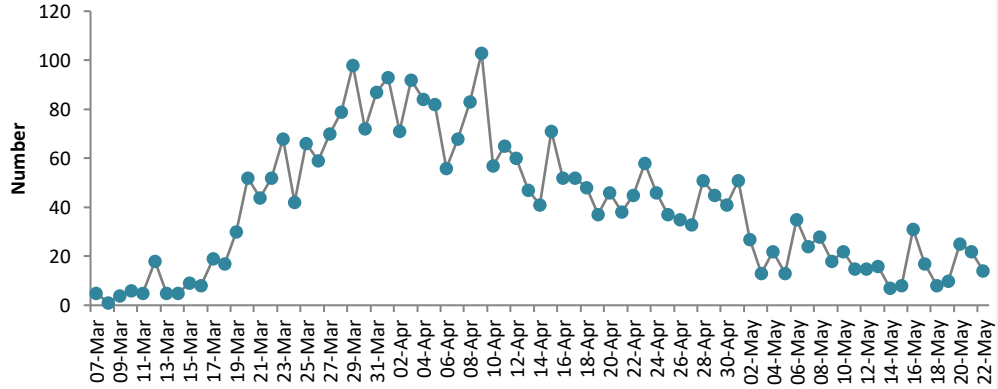
Number of new cases of COVID-19 per day



The number of cases diagnosed per day was highest during April, and peaked at 936 new cases notified on 23rd April. Since then the number of cases has fallen, and for t**he past week has averaged 79 new cases per day.**

This is below the level of new cases seen at the end of March when mandatory restrictions were introduced.

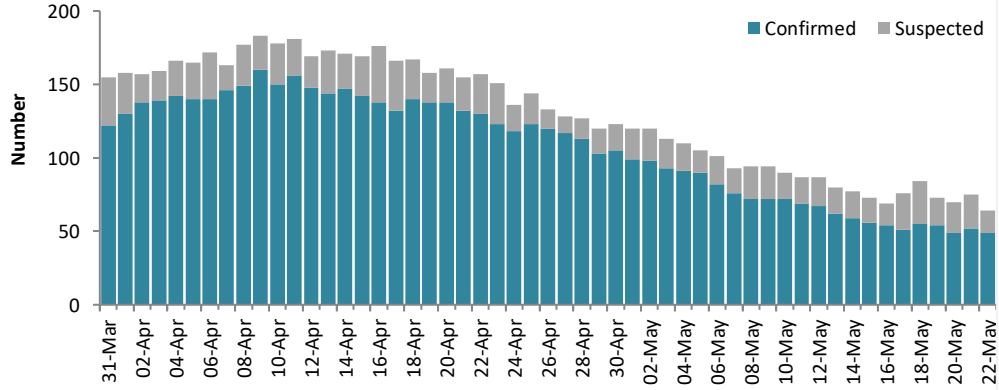
Number of new confirmed cases of COVID-19 in hospital each day



The number of new confirmed cases of COVID-19 in hospital peaked on 9th April when there were 103 new confirmed cases of COVID-19 in the previous 24 hours.

Since then the number of new admissions per day has reduced, and **for the past week averaged 18 new cases per day.** Note that this includes new admissions and new confirmed cases after testing.

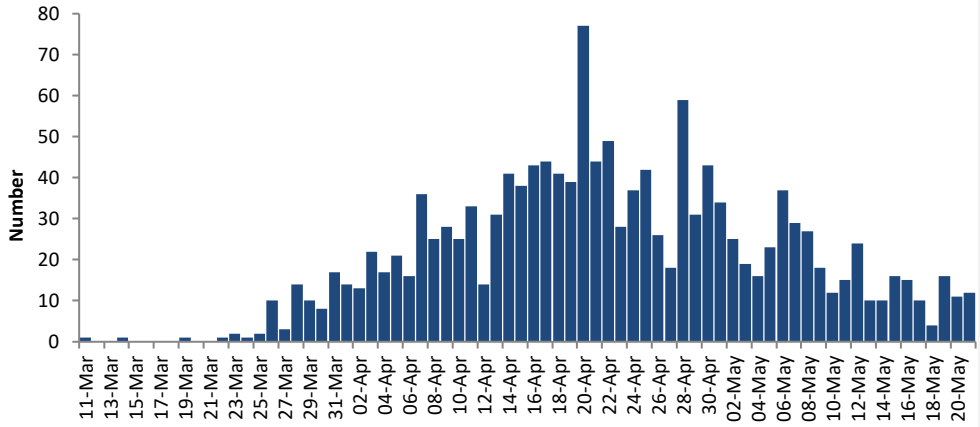
Number of COVID-19 patients in ICU



The number of COVID-19 patients in **ICU peaked 9th April when there were 160 confirmed cases** and an additional 23 suspected cases in ICU.

The number is trending downwards since then, although it should be noted that the **rate of decline was lower over the last week** than previous weeks.

Number of deaths notified to the HPSC by day



The first COVID-19 death was notified on 11th March. Since then there have been **a total of 1,592 deaths (including probable and possible COVID related deaths)**.

The number of deaths notified peaked on 20th April when 77 deaths were notified that day. **Over the past week an average of 11 deaths per day were notified**. Note that the actual date of death may differ to the date of notification.