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Integrated Care
Programme for
the Prevention
and Management
of Chronic Disease

Seirbhís Sláinte
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á Forbairt

Building a
Better Health
Service

National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020 – 2025

A 10-step guide to support local implementation

Integrated Care Programme for the Prevention and Management of Chronic Disease

Foreword

We know that the risk factors for chronic disease and the levels of chronic disease across Ireland's population are increasing. Our health service, as it is currently structured, struggles to meet the needs of our population and the hospital-centric focus, with the main emphasis on acute illness, is no longer fit for purpose. Sláintecare, Ireland's ten-year plan for delivering a health and social care service that meets population need, provides the impetus for developing and implementing a chronic disease framework that is person-centred, holistic, proactive and preventive in its approach. Our recent experience of learning to live with COVID-19 lends further weight to the need for reform of our health services.

'Integrated Care' for chronic disease is defined as healthcare provided at the lowest appropriate level of complexity, with responsive services built around patient need to support and empower individuals to optimise their health, actively address and minimise their risk factors for chronic disease and to live well with chronic disease.

The *'National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020 - 2025: a 10-step guide to support local implementation'* provides a guide for the development of integrated care at the local level. It should be read in conjunction with its companion document *'National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020 - 2025*'. This companion document outlines the steps that are being taken at a national level to support the integration of care. It describes a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management and rehabilitation services that are coordinated across different healthcare providers and healthcare settings. It describes a new way of working together across the health continuum.

Integrated care requires us to adopt new ways of working across boundaries at community, Community Health Network, ambulatory care hub, hospital and Regional Health Area levels, with healthcare workers working to the top of their license. A shift from an over-reliance on acute sector services to the provision of person-centred care provided as close to home as possible is required. This 'ten-step guide' is based on evidence of "what works" in the delivery of integrated care. This evidence is drawn from the international literature but also from our experience of implementing integrated care here in Ireland.

As we embark on a new way of working together, I hope that this ten-step guide will support your journey towards achieving integrated care.

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National Clinical Advisor & Group Lead for Chronic Disease
Chair of the Integrated Care Programme for the Prevention and Management of Chronic Disease

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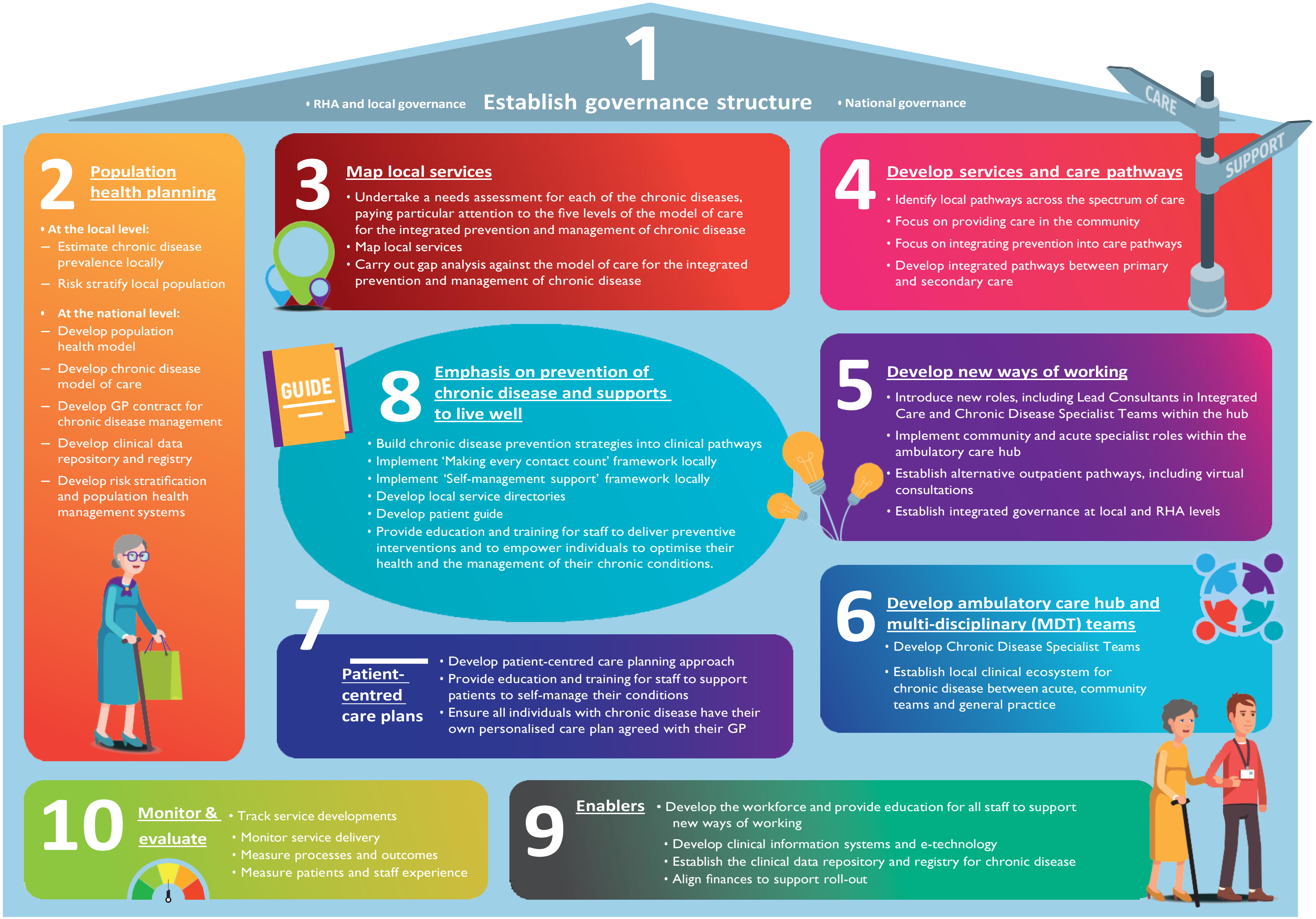
1.0 Introduction

The *'National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland'* presents a clear vision for the delivery of integrated care, focussed on the prevention and management of chronic diseases in Ireland, over the next five years.[1]

This *'10-step guide'* is an accompanying document to the National Framework. It describes the ten key steps to enable the implementation, embedding, monitoring and evaluation of an integrated model of care for the prevention and management of chronic disease at both the national and regional levels (Figure 1). This local implementation guide has been developed to complement the Integrated Care Programme for Older People's Framework: *'Making a start in integrated care for older persons: a practical guide to the local implementation of integrated care programmes for older persons'* and their extensive work in this area.[2] It is a framework approach, rooted in evidence, which leverages national enablers to support engagement and innovation at the local level in order to drive health system change.

Figure 1. Ten-Step Guide for the implementation of integrated care for the prevention and management of chronic disease in Ireland



1 Establish governance structure

- RHA and local governance
- National governance

2 Population health planning

- **At the local level:**
  - Estimate chronic disease prevalence locally
  - Risk stratify local population
- **At the national level:**
  - Develop population health model
  - Develop chronic disease model of care
  - Develop GP contract for chronic disease management
  - Develop clinical data repository and registry
  - Develop risk stratification and population health management systems

3 Map local services

- Undertake a needs assessment for each of the chronic diseases, paying particular attention to the five levels of the model of care for the integrated prevention and management of chronic disease
- Map local services
- Carry out gap analysis against the model of care for the integrated prevention and management of chronic disease

4 Develop services and care pathways

- Identify local pathways across the spectrum of care
- Focus on providing care in the community
- Focus on integrating prevention into care pathways
- Develop integrated pathways between primary and secondary care

5 Develop new ways of working

- Introduce new roles, including Lead Consultants in Integrated Care and Chronic Disease Specialist Teams within the hub
- Implement community and acute specialist roles within the ambulatory care hub
- Establish alternative outpatient pathways, including virtual consultations
- Establish integrated governance at local and RHA levels

6 Develop ambulatory care hub and multi-disciplinary (MDT) teams

- Develop Chronic Disease Specialist Teams
- Establish local clinical ecosystem for chronic disease between acute, community teams and general practice

7 Patient-centred care plans

- Develop patient-centred care planning approach
- Provide education and training for staff to support patients to self-manage their conditions
- Ensure all individuals with chronic disease have their own personalised care plan agreed with their GP

8 Emphasis on prevention of chronic disease and supports to live well

- Build chronic disease prevention strategies into clinical pathways
- Implement 'Making every contact count' framework locally
- Implement 'Self-management support' framework locally
- Develop local service directories
- Develop patient guide
- Provide education and training for staff to deliver preventive interventions and to empower individuals to optimise their health and the management of their chronic conditions.

9 Enablers

- Develop the workforce and provide education for all staff to support new ways of working
- Develop clinical information systems and e-technology
- Establish the clinical data repository and registry for chronic disease
- Align finances to support roll-out

10 Monitor & evaluate

- Track service developments
- Monitor service delivery
- Measure processes and outcomes
- Measure patients and staff experience

2.0 The Ten-Step Guide

The 10-Step Guide describes a practical framework, based on research evidence, as to how local services can develop integrated care for chronic disease in their own area. The guide identifies national key developments which support this approach and which can be drawn on at the local level.

Step 1: Establish a governance structure

The implementation of integrated care can be complex: a lack of a coordinated approach and a lack of clarity regarding goals are acknowledged as challenges to integration within the primary care setting.[3] Such challenges can result in divergent working and a slow pace of change.[4] A framework for clinical governance for integrated care is therefore essential and should consider the clinical, environmental, administrative and support aspects and how these aspects will work in concert together to provide seamless, patient-centred care across all healthcare settings.[4] Implementing integrated care will require a "whole of society" approach with responsibility for its implementation shared across both the regional and national levels.

National governance

New national governance will be developed to support local leadership in the implementation of this 10-step guide and the *'National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020-2025'.* The national governance structure will support the delivery of integrated care through:

- Providing national sponsorship and overseeing that local implementation is aligned to the National Model of Care;[1]
- Enabling the Ten Step Framework; and,
- Working with local implementation teams.

Local governance

At local Community Healthcare Organisation (CHO) level there should be a Chronic Disease Integrated Care Local Governance Group reflecting key managerial and clinical stakeholders across the hospital, ambulatory care hub and local community service settings. Reporting to this group should be three working groups: one for each major chronic disease (cardiovascular disease, asthma, COPD and type II diabetes mellitus) reflecting the appropriate clinical membership, patient representation and local management. Membership of these groups should reflect key stakeholders across preventive services, primary and secondary care and should provide for meaningful engagement with patients with chronic disease.

The function of the local governance group will be to:

- Ensure a locally-driven focus on the development of services built around the needs of local populations of patients with chronic disease;
- Ensure appropriate leadership at the clinical and operational levels to develop and design services and to support the prioritisation and resourcing of these services;
- Ensure local evaluation services are in place to drive service improvement and to feed in to national evaluation;
- Ensure the implementation of supporting frameworks e.g. ”Making Every Contact Count” and “Living Well with a Chronic Condition: The National Framework and Implementation Plan for Self-management Support for Chronic Conditions: COPD, Asthma, Diabetes and Cardiovascular disease”;[5,6]
- Support the implementation and smooth working of the General Practitioner (GP) Chronic Disease Contract at the local level;[7]
- Ensure local care pathways continue to be developed and implemented to support the delivery of integrated care at the local level; and,
- Ensure enablers of integrated care are developed and barriers removed.

Clinical governance for the Chronic Disease Specialist Teams, which will operate from the ambulatory care hubs, will be delivered through the key leadership and governance functions described below:

- **Clinical governance:**
  The function of the Community Specialist Team is to support GPs to care for people with chronic disease in the community. They provide services i.e. specialist nursing, physiotherapy, dietetics, podiatry and structured patient education, to patients on referral from their GP. The clinical governance of the patient remains under the GP.

  Pulmonary and cardiac rehabilitation services are provided in the hub. These services are under the clinical governance of the local consultant respiratory physician or cardiologist. Each hospital associated with the hub will nominate a relevant consultant to oversee these services and integrate the hospital and community delivery of their rehabilitation service.

Hospital specialist teams for cardiology, endocrinology, respiratory medicine and pulmonary outreach have been resourced to fill critical gaps, to allow them to support ambulatory care in association with the community specialist teams in the hubs. Patients referred by their GP to acute specialist services will be under the clinical governance of the relevant consultant for the acute services.

- **Clinical Leadership:**
  Integrated Care Consultants will sit on the Local Integrated Care Governance Group, to ensure good integration between hospital and community services.

  The Integrated Care Consultants will have a specific role to support clinical service design, implementation and clinical governance of their hub, whilst also ensuring service design in key pathways is aligned with deliverables. These new integrated care positions created for cardiology, respiratory and endocrinology consultants will be based in the specialist ambulatory care hub for 50% of the time with the other 50% spent working in the affiliated hospital. Each hospital associated with a hub will nominate a consultant in each of the chronic disease specialties to work with the integrated care consultant (s) in their hospital to ensure this role is delivered.

  Professional Governance: Professional governance for each disciplinary group will be through their existing community or acute clinical line managers.

- **Operational Governance:**
  The operational governance of the specialist ambulatory care hub is under the Chief Officer of the CHO, via the head of Primary Care. The Head of Primary Care is the Chair of the Local Chronic Disease Governance Group. The Service Improvement Lead for Chronic Disease reports to the Head of Primary Care in each CHO. The local Service Improvement Lead will work with the local Project Officer to support the delivery of key enablers including workforce recruitment, data to drive service improvement, operational function and reporting back to relevant heads of care in their area. The Service Improvement Lead will also be tasked with overseeing the operational function of the Local Integrated Care Governance Group for chronic disease. The Service Improvement Lead will ensure an interdisciplinary approach, whilst also monitoring case load.

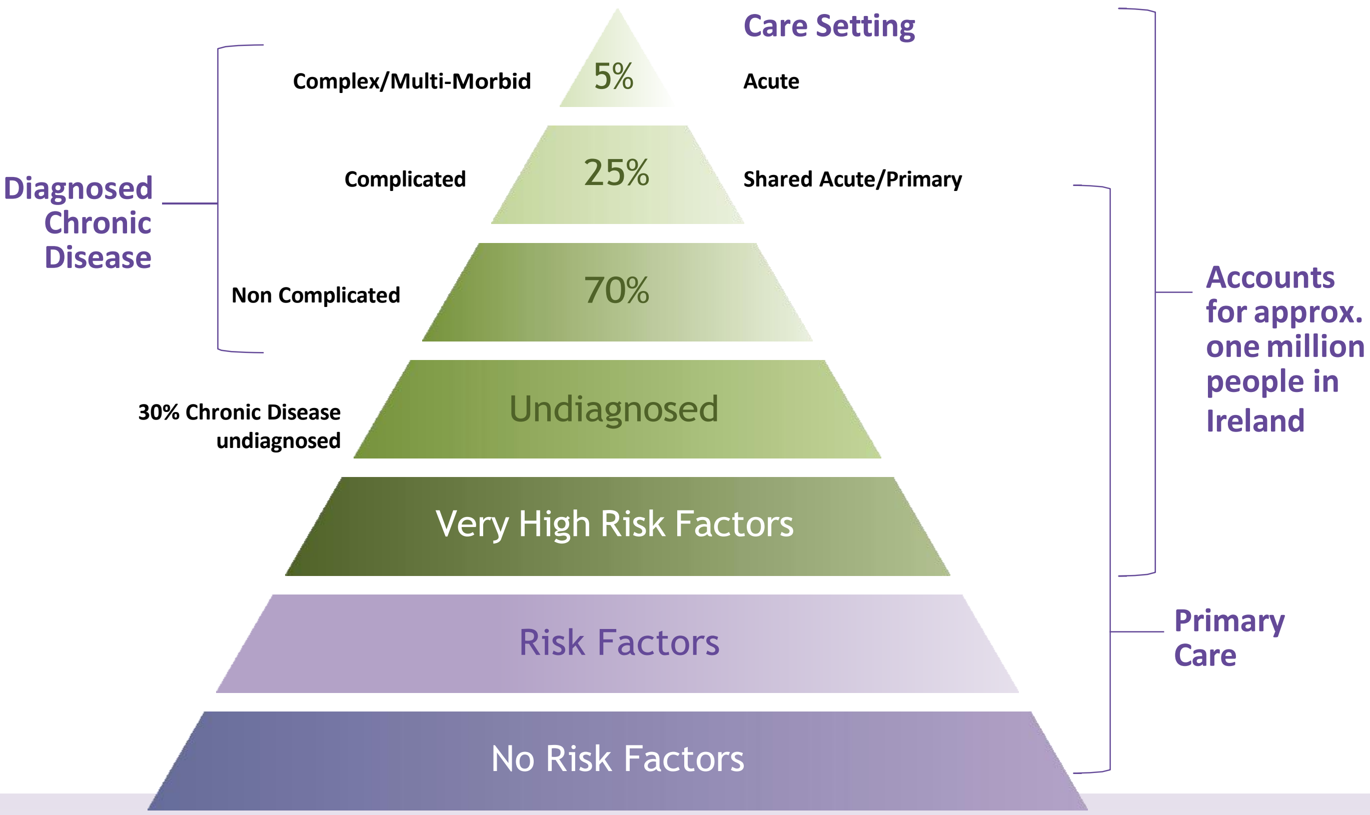
Step 2: Population health planning

Population health approach

Population health can be defined as “the health outcomes of a group of individuals, including the distribution of such outcomes within a group”.[8] A population level approach to the management of chronic disease involves moving a step further upstream from the level of the individual, to assess whole-population needs, with a view to targeting different interventions at individual risk groups. In order to achieve health improvement at a population level, it is necessary to proactively consider the needs of the population as a whole as well as all patients with the targeted chronic disease(s) within the population in the management programme.[4]

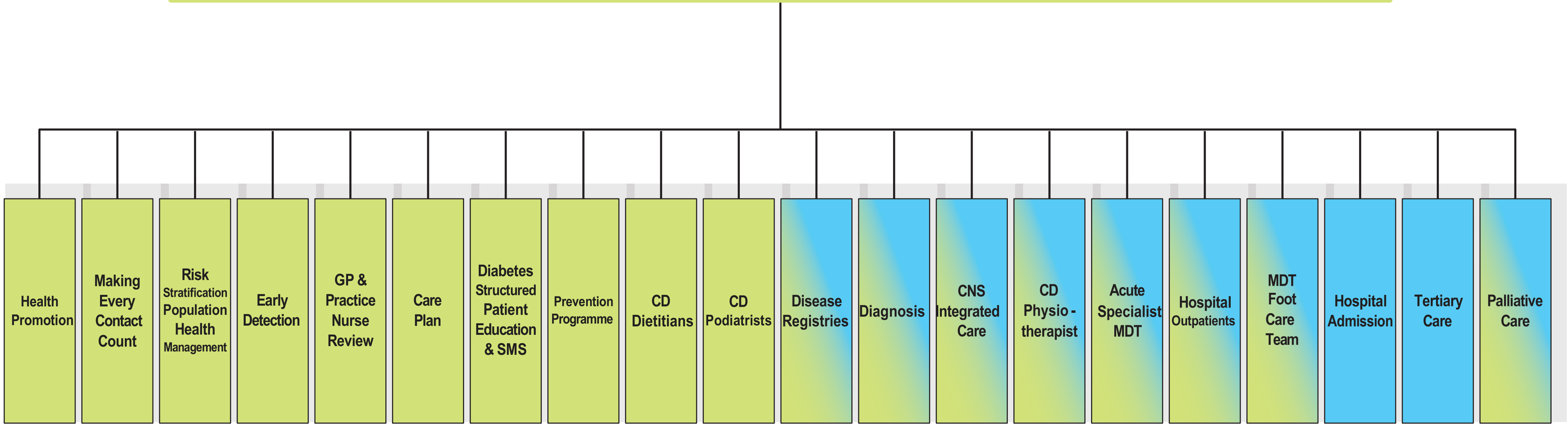
The “Population Health Pyramid” is an important concept which underpins the population approach to chronic disease (Figure 2). It shows the different levels of progression of chronic illness in the population which ranges from: people with no risk factors to a small number of people with complex chronic disease or multiple morbidities.

Figure 2. Population health approach to chronic disease



Any of the population can require acute secondary care either for exacerbations of their already diagnosed chronic disease or for other reasons. People will progress up the pyramid unless actively managed. With good management some will improve their profile. Figure 3 shows the full spectrum of services required to provide end-to-end care in Ireland and the settings where they should occur. As Figures 2 and 3 demonstrate, the vast majority (up to 95%) of care can be managed in an appropriately resourced primary and community care setting.

Spectrum of Services for Chronic Disease Prevention and Management



🟩 Primary Care Setting

🟦 Hospital Care Setting

Figure 3. Spectrum of services for the management of chronic disease

Estimate chronic disease prevalence locally & nationally through the development of a clinical data repository and registry

Population planning describes the demographic and social characteristics of a target population. It is a key component in planning, developing and implementing integrated care at both regional and national levels. Estimates of the prevalence of chronic diseases and co-morbidities, and the identification of trends, will support service planning at both the national and local levels. The Health Intelligence Unit has developed local health profiles which will provide population data at both the CHO and CHN levels. The Health Intelligence Unit is working with the *'Integrated Care Programme for the Prevention and Management of Chronic Disease'* (ICPCD) to develop local chronic disease prevalence profiles.

The ICPCD are engaged in cross-sectoral collaboration with health service partners to develop a national clinical data repository and chronic disease registry, which will record both demographic and clinical data and will support national and local service planning and evaluation, quality improvement and assurance activities and ultimately, the provision of an evidence-based, person-centred service going forward.

Risk stratify local populations

Risk stratification is an important part of population health management as it helps to accurately identify patients for interventions.[10] Large numbers of individuals suffer from the four major chronic diseases in Ireland (estimated over one million) and many more have high risk factor profiles.

To manage population health, the health service must ensure that all individuals receive appropriate preventive interventions and ongoing care for chronic conditions, as required. Not all individuals will visit their health professionals in time or adhere to their care plans; hence, the health services should reach out to individuals with chronic disease who require support to address unhealthy lifestyle factors. Health services should also explore and record identified risk factors when individuals come in to contact with the health services, engage them in self-management and provide them with educational materials, as appropriate. To do this it is necessary to stratify populations by health risk.[10]

There are two main methods of stratifying populations: [11]

- Clinicians apply clinical risk categorisation to each patient;
- Population risk stratification algorithms based on routinely collected data.

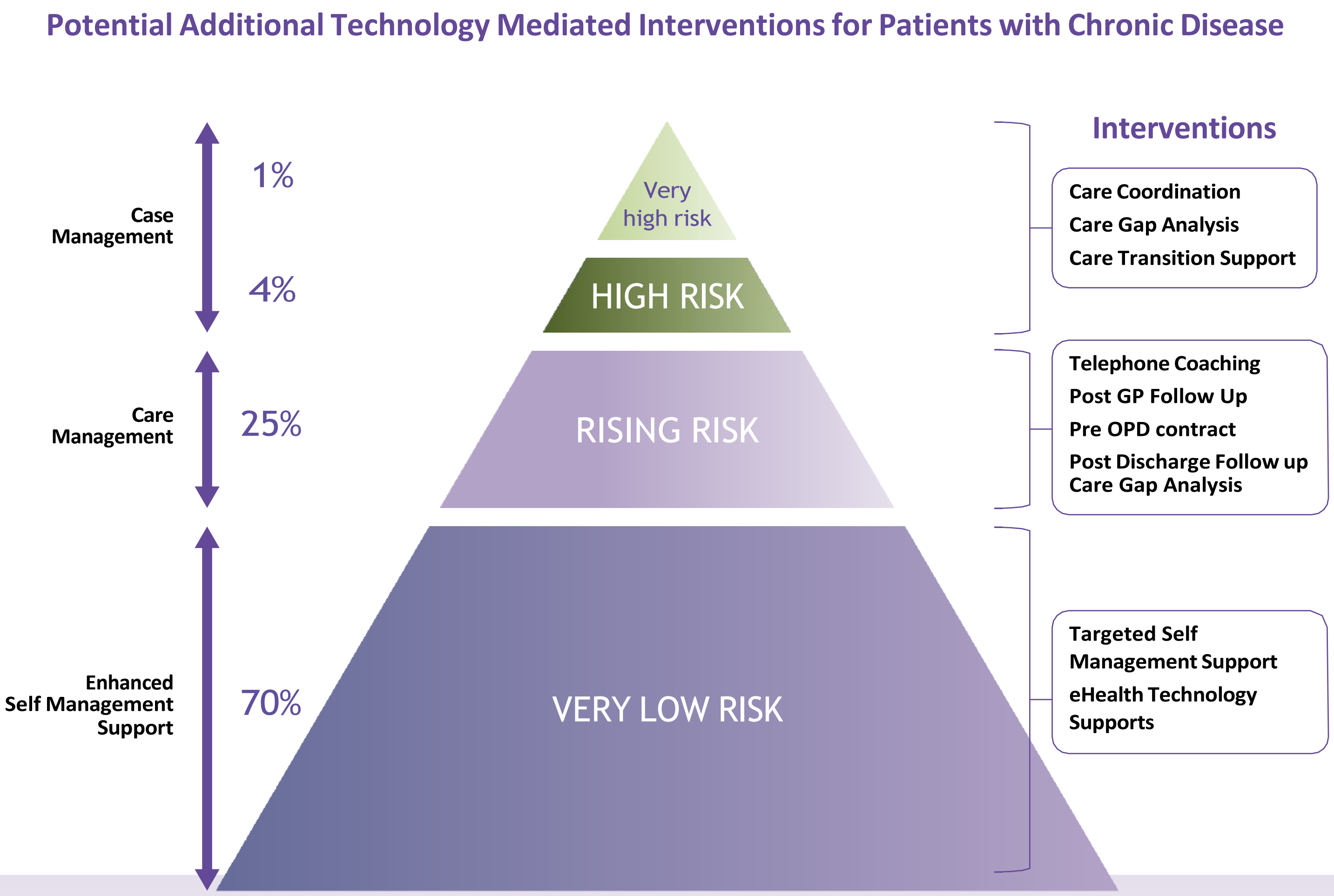
Currently, clinical risk categorisation is used in order to identify patients who require higher levels of support by ambulatory care specialist staff over and above what is provided by their General Practice. Clinical criteria and pathways for referral have been developed. For example based on international evidence, individuals with type II diabetes can be categorised into: non-complicated, complicated and complex categories.[9] This categorisation enables the appropriate level of care to be provided. COPD patients can be categorised by the GOLD criteria into mild, moderate, severe and very severe groupings, again illustrative of the severity of the disease and the level of care required.[12] Similarly asthma or heart failure patients can be identified and appropriately risk stratified.[13,14]

At General Practice and ambulatory care hub level, clinicians should identify patients in the clinical risk categories and provide the appropriate level of intervention.

International evidence suggests that risk stratification systems that utilise information and communications technology (ICT) are superior to individual clinician identification systems when applied to large populations. Furthermore, the use of ICT-based risk stratification systems provide efficient, affordable and scalable systems, using routinely collected data and proven algorithms, to predict patients who will be at higher risk of hospital admission in the next year. These systems can be applied proactively to populations of patients, including patients who have not yet presented, for specific clinical risk categorisation: this is known as ‘predictive risk stratification’. Predictive risk stratification aims to identify those who are most likely to be high users of healthcare in the future - and who are therefore amenable to intervention - rather than those who are currently at the height of their usage.[11]

Internationally many countries have developed “population health management systems” to do this. These systems use the risk stratification results to target appropriate services to individuals in each of the risk categories. The low risk category is supported through eHealth technology. The rising risk category is further supported with telephonic health coaching, whilst the high risk categories have case management techniques (e.g care coordination) employed. Figure 4 identifies the potential additional technology interventions which could be applied in Ireland if a risk stratification and population health management system were to be introduced. While risk stratification identifies cases of high risk which may benefit from case management, the real savings in efficiency for health care systems are gained by identifying the “rising risk” patients, as the prevention of these patients going on to be high risk cases are where most savings can be made.

Figure 4. Risk stratified population and potential interventions



Step 3: Map local services

Map local care services

It is widely acknowledged that improving population health is not the responsibility of the health sector alone, a whole-system approach is required not only to achieve, but sustain, positive health outcomes. As part of this approach, it is important to identify and map all health and social care resources across the public, private and voluntary sectors that play their part in supporting population health and wellbeing within a particular area. Local areas should develop a local service directory which supports an individual to self-manage their condition, enables Health and Social Care Professionals (HSCPs) to signpost individuals towards the appropriate services in their locality and facilitates gap analyses to be undertaken to ensure the future planning of services meets population need.

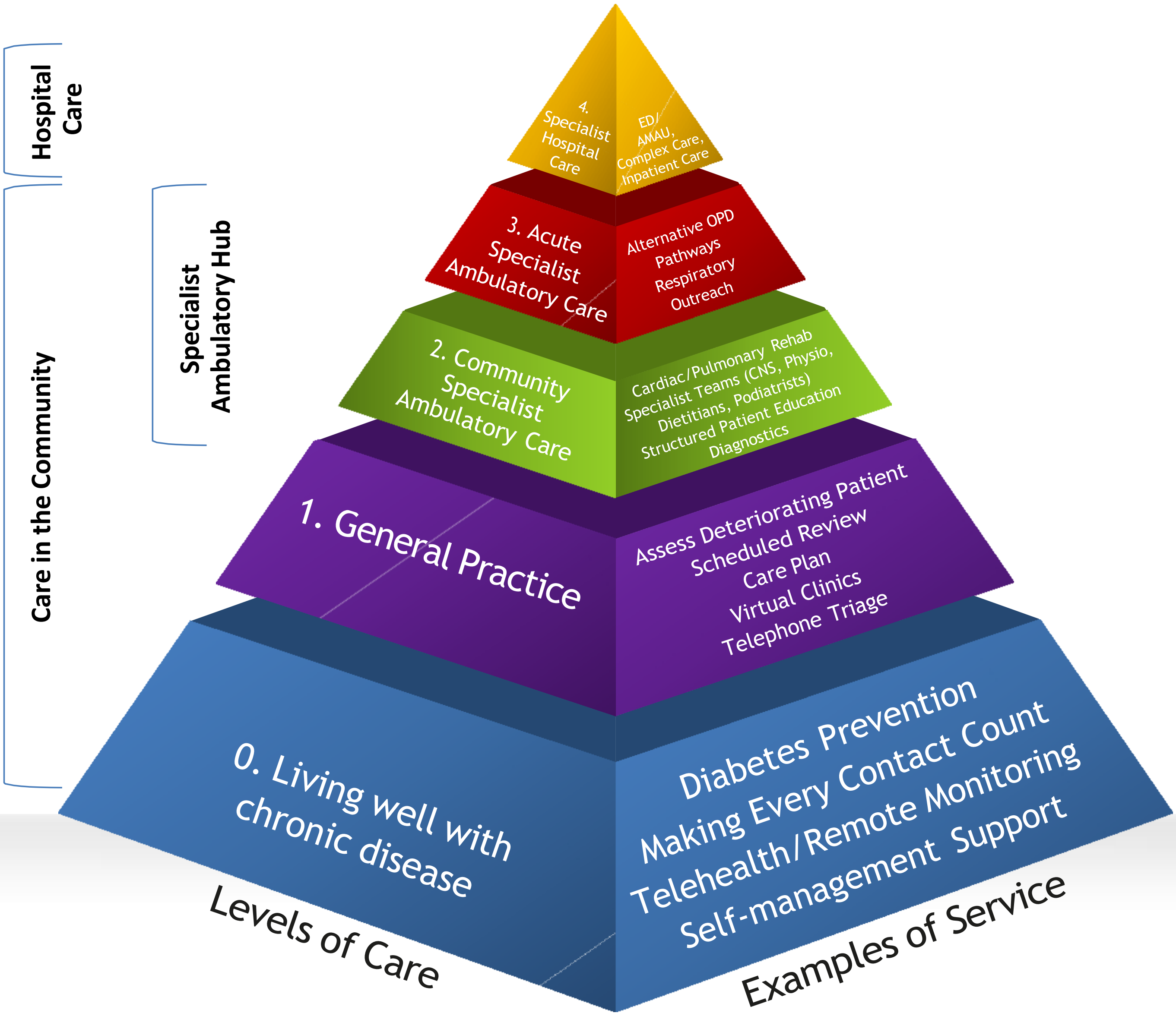
Local services should assess their service provision for each of the five levels of care as described in the model of care for the prevention and management of chronic disease within the National Framework with particular regard for each of the chronic diseases.[1] This assessment should be informed by local data and national studies. Critical service gaps against the model should be identified and services developed to fill these gaps.

Step 4: Develop services and care pathways

The basic building block of the structure of service delivery for the prevention and management of chronic disease is General Practice and it is anticipated that GPs and primary care team staff will work together as integrated multidisciplinary teams at CHN level.[7]

The ICPCD aims to provide care at the lowest level of complexity and as close to home as possible. It describes five levels of care with the emphasis placed on supporting individuals to self-manage their chronic diseases within the community (Level 0) (Figure 5).[1]

Figure 5. Model of care for the integrated prevention and management of chronic disease



The GP Contract supports the achievement of this vision by setting out the activities required of GPs and practice nurses in the prevention and management of chronic disease (Level 1). Access to appropriate diagnostics, other self-management supports such as cardiac rehabilitation or diabetes structured patient education and specialist opinion from the Chronic Disease Management Specialist Teams will be made available to GPs at the ambulatory care hub level (Level 2).

Level 3 of the service level pyramid addresses acute specialist ambulatory care services such as rapid access to outpatient clinics and outreach services. Local development of referral pathways will offer early access to specialist advice as close to home as possible through the use of virtual consultations and the 'Attend Anywhere' service. Level 4 of the pyramid addresses specialist inpatient services.

In line with the clinical networks identified, a national needs assessment and gap analysis has been undertaken for cardiovascular disease (CVD), diabetes, COPD and asthma specialist services. The mapping of local services, in partnership with detailed population health planning, will support the identification and development of new and existing local services and care pathways. It is important that clear pathways of care across the spectrum are defined so that patients can flow seamlessly between the levels of service, according to their need. Integrated care requires that each element of the spectrum of service is available at the appropriate capacity and can be accessed by patients throughout the country.

Local services should conduct a care pathway mapping exercise, to maximise access to prevention, early detection, treatment and self management support services. Services should map care pathways to maximise hospital avoidance, detect those at rising and higher risk of hospitalisation and map early discharge capacity. Services should prioritise key pathways that need to be developed, identify "bottle necks" in existing pathways, key resource constraints and they should design local solutions.

Step 5: Develop new ways of working

New ways of working across boundaries at community, CHN, hub, hospital and RHA levels, with HSCPs working to the top of their license, will be required to deliver integrated care. Hospital and community services will need to work together to ensure the new staff being appointed under the Chronic Disease Programme are facilitated to provide integrated care and to work across boundaries.

Local services will appoint Chronic Disease Specialist Teams and will work to support such teams in their new integrated care roles. The Lead Consultants for Integrated Care for Diabetes, Cardiology and Respiratory will lead out on the development of clinical pathways within the ambulatory care hub and its connections with primary care and the acute services. Alternative outpatient pathways are in development to support a reduction in the need for face-to-face appointments. It is anticipated that these alternative pathways will be a more efficient use of resources while continuing to support the provision of care as close to home as possible. New governance arrangements on an integrated basis between hospital and community are required for cardiac rehabilitation, pulmonary rehabilitation, cardiac and pulmonary diagnostics and podiatry services. These governance arrangements will be developed by the Local Governance Groups with support from the National Clinical Programmes for Respiratory and Diabetes and the National Heart Programme.

The ICPCD will continue to develop new ways of working, including identifying and developing opportunities for new linkages between General Practice, community services and specialist services across the public, private and voluntary sectors in order to meet the needs of individuals with chronic disease living in the community and to provide them with seamless coordinated care.

Consultant/GP virtual consultations

Virtual clinics represent a relatively new way of working for the Irish healthcare system and will form part of service delivery at level 3 of the service level pyramid (Figure 5). Participation in virtual clinics has been agreed as a Special Item of Service under the new GP Contract.[7] Under this new service item, GPs will be able to participate in a weekly virtual clinic facilitated by a Consultant Cardiologist to discuss eligible patients with heart failure and agree/amend care plans for these patients. Ongoing monitoring of a pilot in the Carlow/Kilkenny area has shown a 95% decrease in referral for admission and an 87% decrease in referral to outpatients clinics of these patients. It is planned to roll this service out to three further sites by 2022 and when all four sites are fully operational, this service will provide an additional 17,500 virtual clinic slots per year.[7] A survey of GPs using the service reported that 94% of respondents found that the virtual clinic improved their ability to care for patients in the community while 76% said that the clinic improved their confidence in accurately diagnosing heart failure.[15] This service is a prime example of the patient-centred approach of integrated care, where high-quality care is provided by a team of healthcare professionals working together to offer healthcare as close to home as possible. The virtual clinic service should be developed and expanded to the other chronic disease specialties by each ambulatory care hub and affiliated hospital.

Alternative outpatient pathways in the specialist ambulatory care hub for chronic disease

A renewed focus on chronic disease and its management is required to support the judicious use of our finite health resources. In that context, cardiology and other chronic disease outpatient (OPD) services have been under extraordinary pressures, further aggravated by the COVID-19 pandemic. It is estimated that Covid restrictions will reduce OPD capacity by as much as 50%. Moreover, it is highly desirable not to call patients with chronic disease to a congregated setting in hospital, in order that specialist opinion can be obtained if there are viable alternatives.

The National Clinical Programmes for Chronic Disease have agreed that alternative ambulatory care pathways for specialist opinion are required and should be provided from the ambulatory care hub (Figure 6). Local hospital and community services should work together to enable the new model of OPD to be implemented locally.

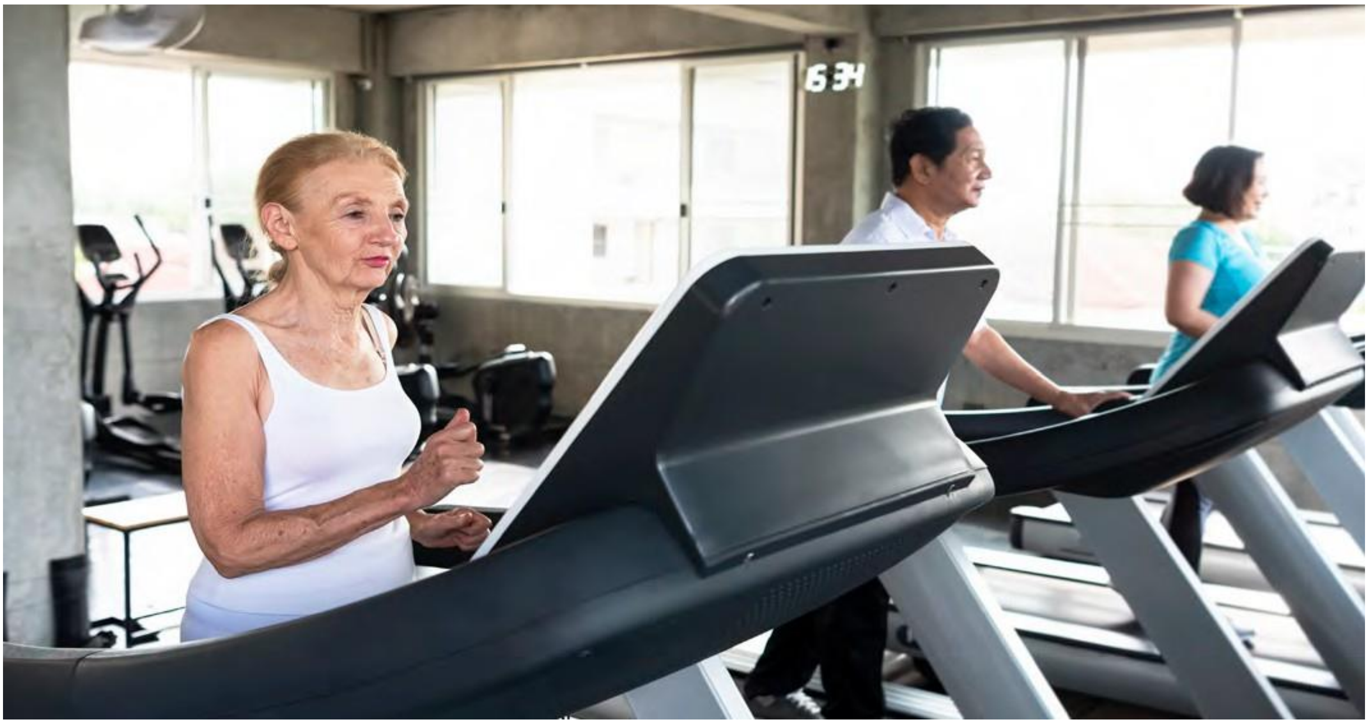
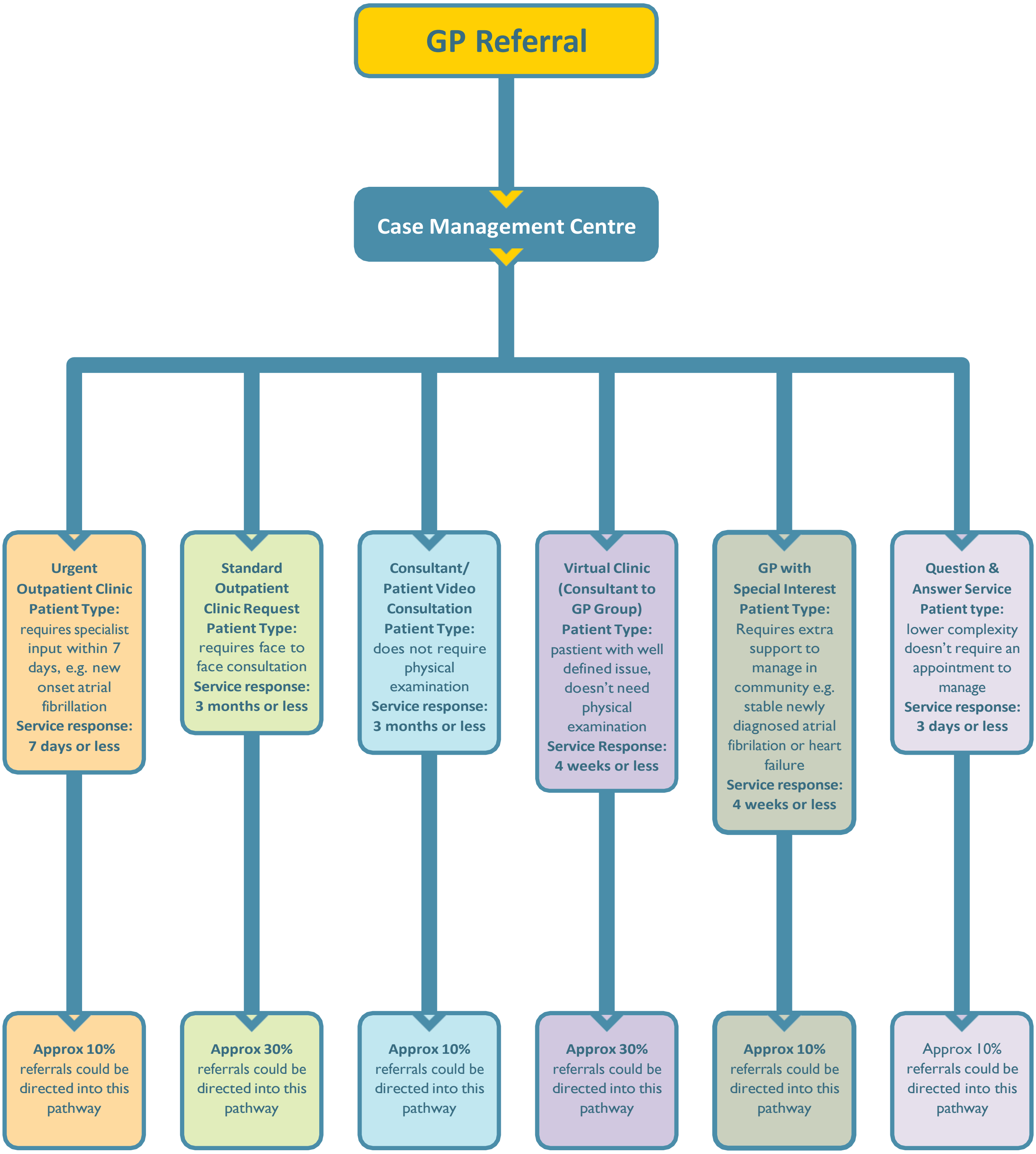


Figure 6. Alternative OPD pathways to be located in the ambulatory care hub



Cardiac & pulmonary rehabilitation

Cardiac and pulmonary rehabilitation are examples of self-management support interventions which are supported by robust evidence for their effectiveness.[16] Despite this, national needs assessments for cardiac and pulmonary rehabilitation indicate that only 39% of national need is being met for the former and 11% of national need is being met for the latter.[17,18] The Self-Management Support Framework recommends exploring effective and sustainable methods of resourcing cardiac and pulmonary rehabilitation programmes in order to support increased access, scaling and standardisation of these essential services.[5] While this will include resourcing existing rehabilitation services, exploration of alternative methods of delivery and how they will be governed (e.g. within the community), and leveraging synergies with other rehabilitation programmes (e.g. stroke rehabilitation programmes, diabetes structured patient education), will also need to be considered to address the significant deficit in service.[5,31]

During the COVID-19 pandemic, rapid progress was made in developing virtually delivered rehabilitation programmes which are currently being provided around the country.[19] It is anticipated that some patients may be selected in future as more suitable to receive their rehabilitation through the virtual platform, although it is likely that there would continue to be an ongoing need for a face-to-face service as well. The rehabilitation programmes should be delivered in the ambulatory care hub rather than in the acute hospital setting.

Diabetes structured education programme

A National Programme for Diabetes Structured Education and Self-Management has been developed and is being rolled out. This is a structured, group-based education programme that is designed to support individuals with diabetes to improve their glycaemic control and has been demonstrated to have a positive impact on healthcare service utilisation secondary to type II diabetes mellitus.[16] This programme will be provided in each of the hubs to individuals living in the mapped networks. The dietitians based in the hubs will spend half of their time in delivering the structured patient education programme to their population, and half of their time engaging in individual sessions.

Diabetes prevention programme and weight management programme

A National Diabetes Prevention Programme and a Weight Management Programme are being developed and will be provided by diabetes dietitians to the population of the three adjoining mapped networks associated with each of the community specialist hubs. These programmes are designed to prevent/delay the onset of the complications of diabetes and to support weight management, respectively. The evidence base supports a reduction in healthcare service utilisation for each of these programmes.[20,21]

Step 6: Develop community specialist teams and specialist ambulatory care hubs for chronic disease

Local services will appoint staff to multidisciplinary specialist teams and create the specialist ambulatory care hub for chronic disease which includes the level two and three services, as previously described (Figure 5). This hub will serve as a place where advice and information may be frequently exchanged between team members in order to coordinate and plan the provision of services for patients. Local services need to develop a shared integrated care vision between community and hospital services to provide support to General Practice and emphasise ambulatory provision of care. They should strive to develop a local clinical ecosystem for chronic disease between acute, hub, community teams and general practice.

It will be necessary to develop new multidisciplinary teams of a generalist, community specialist and acute ambulatory care specialist nature, to enable shared care between primary and secondary care, so that more services are available in the community. A particular challenge of implementing integrated care is that the multidisciplinary team will be expected to work across the hospital and community setting and so clear accountability structures, a shared understanding of roles and responsibilities and clarity of purpose will need to be developed by each multidisciplinary team from the outset.

Step 7: Person-centred care plans

Patient and caregiver engagement should guide the development of all integrated care initiatives. Patient and caregiver engagement also supports patients to take increased responsibility for managing their chronic diseases, empowers them to self-manage and to participate in shared decision-making in relation to their care.[5]

The development of an individualised care plan for individuals with chronic disease is a requirement arising from the new GP contract.[7] Each patient will have two scheduled reviews per annum, made up of a visit to both the GP and the practice nurse. The practice nurse visit will enable detailed education and discussion of the care plan and will include blood tests as required. Subsequently, a clinical examination, medications review and an overall care plan will be reviewed and finalised by the GP, in partnership with the patient. The practical output of this is that a GP or practice nurse develops a care plan with each patient registered on the Chronic Disease Programme. This care plan will take cognisance of the clinical aspects of the patient's condition as well as the patient's personal health goals for what they wish to achieve. The self-management aspect will be central to each care plan: each individual will receive education and information on supports available in the community that will enable them to take steps to optimise their condition and to address their risk factors, to identify a deterioration in their condition and to empower them to respond to it through the use of an action plan. The chronic disease specialist team within the hub should ensure that their care plan for the patient relates closely to the GP care plan.

Such involvement of patients in their own care planning will empower them to take a more active role in their care.[5] Local teams should also seek to identify patient champions who can be involved in service planning. Acting locally on feedback from patient experience surveys and the patient narrative project will also form essential components of delivering a person-centred service.

Step 8: Prevention & supports to live well

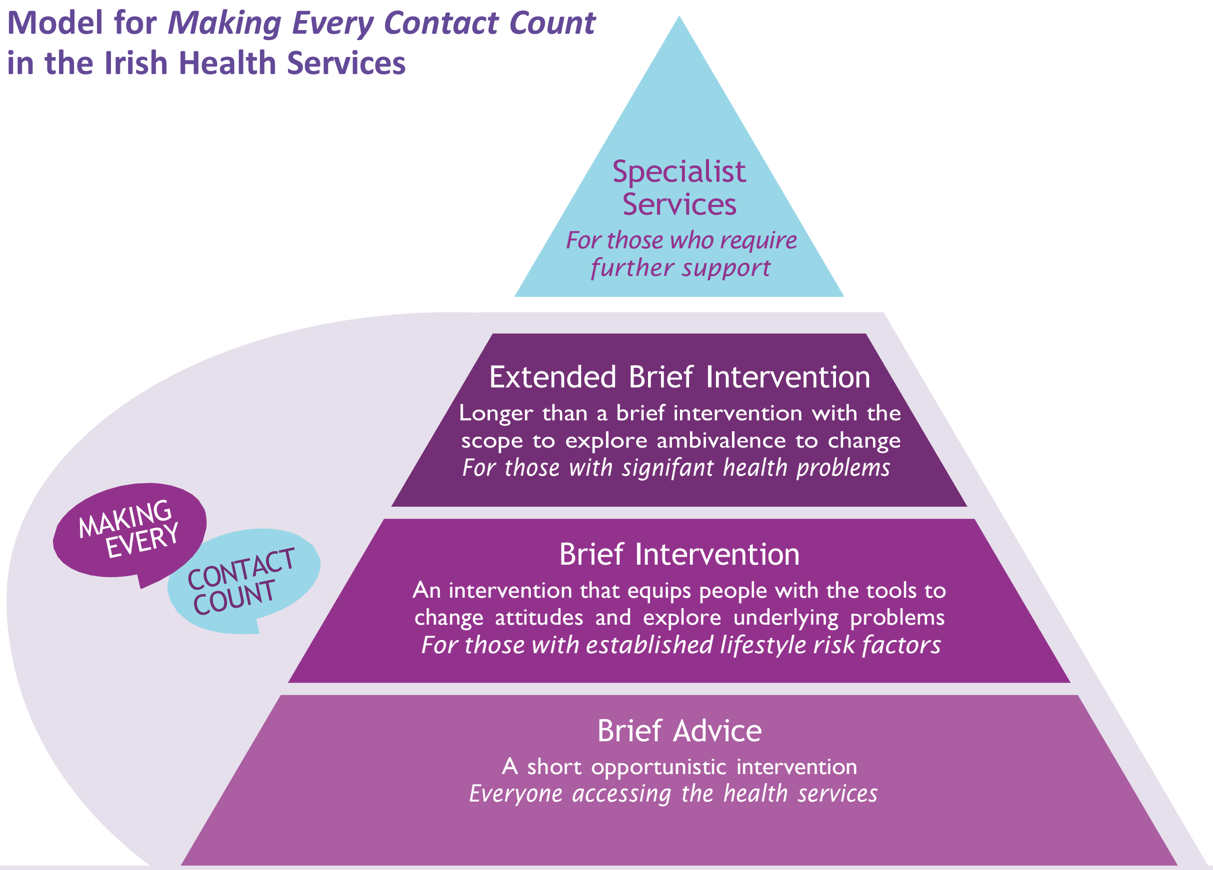
Making every contact count

"Making Every Contact Count" (MECC) is the HSE National Framework for health behaviour change in clinical practice which requires all HSCPs to engage their patients in addressing unhealthy lifestyle habits.[6] It is an essential element in an integrated pathway of care for the prevention and management of chronic disease as it uses a tiered approach to the implementation of evidence-based interventions that support people to reduce and manage their risk factors for chronic disease and/or prevent progression of their chronic condition(s).

HSCPs have millions of contacts each year with patients. MECC is about enabling HSCPs to recognise the role and opportunities that they have through these daily interactions in supporting patients to make health behaviour changes and hence, improve their health and wellbeing.

The model for MECC is presented as a pyramid with different levels (Figure 7). Each level represents an intervention of increasing intensity with the low intensity interventions at the bottom of the pyramid and the specialised services at the top. Implementing the MECC approach seeks to begin the process at the basic level of brief advice and brief intervention. In practice this will mean that all HSCPs will be trained to a level that enables them to conduct a brief intervention with their patients when appropriate.

Figure 7. Model for interventions for Making Every Contact Count in the Irish Health Services



Model for *Making Every Contact Count* in the Irish Health Services

Specialist Services
For those who require further support

Extended Brief Intervention
Longer than a brief intervention with the scope to explore ambivalence to change
For those with signifant health problems

Brief Intervention
An intervention that equips people with the tools to change attitudes and explore underlying problems
For those with established lifestyle risk factors

Brief Advice
A short opportunistic intervention
Everyone accessing the health services

Adapted from NHS Yorkshire & Humber Prevention & Lifestyle Behaviour Change Competence Framework (2011)[1] and NICE (2014)[2]

A five-year implementation plan for MECC outlines 23 high-level actions to be implemented by the HSE National Centre and by each CHO/RHA.[6] Each local area should ensure that they are implementing MECC in their locality, training and releasing staff as appropriate and ensuring that prevention is built in to clinical pathways and recorded in clinical systems.[6]

National self-management support framework

'Living Well with a Chronic Condition: National Framework and Implementation Plan for Self-management Support for Chronic Conditions: COPD, Asthma, Diabetes and Cardiovascular Disease' aims to improve patients' skills and confidence in managing their health problems through education, training and support.[5] Supporting self-management is key to delivering person-centred care, in which patients are empowered to actively participate in the management of their condition. It is also a critical element of our journey toward building a sustainable health service.[5]

While self-management is the responsibility of individuals, this does not mean individuals are self-managing their chronic diseases in isolation. Successful self-management relies on people having access to the right information, education, support and services. It also depends on professionals understanding and embracing a person-centred, empowering approach in which the individual is the leading partner in managing their own life and condition(s).[5]

The framework is based on four evidence-based principles which:[5]

- Describe patients as **active partners** in their healthcare;
- Envision the enablement of self-management as core to high quality care provided to individuals with long-term conditions;
- Ensures interventions are **evidence-based,** standardised and are subject to ongoing evaluation; and,
- Ensures a **whole system approach** to the implementation of self-management supports with recommendations in the framework being made at the patient, HSCP, organisation and wider system levels.

Included in the priorities for the first phase of implementation are: the development of the local service directories, the development of a patient guide, training for health and social care professionals and the appointment of self-management support co-ordinators for each CHO to support local implementation of the Framework.[5]

Step 9: Enablers

Develop an appropriately trained workforce

A review of the *’HSE People Strategy 2015-2018’* formed the foundations for the final working draft of the *‘Health Service People Strategy 2019-2024’*.[22] This refreshed plan describes “Teams of the Future” who have the collective leadership, capability and talent to deliver on the Sláintecare reform programme with a focus on supporting the provision of person-centred care. Indeed, service design and integration are listed as one of nine priorities within the ‘Health Service People Strategy 2019-2024’, with an acknowledgement that workforce planning must now explore the impact of service transformation to an integrated model of care and how such change can be supported.[22]

A fundamental workforce challenge for the implementation of the *‘Integrated Model of Care for the Prevention and Management of Chronic Disease’* will be the training, recruitment and retention of people with the necessary skills required to develop all aspects of the spectrum of services at each service level. A dominant theme that emerged from the consultation process in 2018 in the development of the current people strategy was the need for a “flexible service”.[22] This will require redefining roles for some existing staff and the development of a competency based approach. The need to develop and work within networked teams, drawing on the strengths of our community and voluntary partners, whilst embracing and optimising our use of social networking technologies and platforms is identified as a further priority within the updated strategy.[22]

It is widely accepted that conventional approaches to health and social care delivery are unsustainable and a fundamental shift in workforce planning and the provision of care is necessary. The HSE needs to develop a workforce across the spectrum of acute hospital services to local community services which has the skills to provide a high-quality, holistic service with timely access, ensuring that individuals with chronic disease receive the right level of care in an appropriate location. As a first step, a workforce plan needs to be developed to support the implementation of this Framework. The ICPCD will work jointly with Human Resources and other Divisions to ensure that the requirements to develop the workforce needed now for integrated care and into the future, are taken into account in workforce planning in all sections of the service. The plan will need to outline the existing requirements, new roles, redefining of existing roles and their training needs, on a competency based approach. This will link with existing workforce planning processes.

Develop clinical information systems

Electronic Health (eHealth) involves merging all information and knowledge sources involved in the delivery of healthcare via information technology-based systems.[23] It brings together patients and their records, information from monitoring devices and management and administrative functions and is a critical enabler of the delivery of person-centred, high quality and efficient care for individuals with chronic disease.[23]

The ICPCD will work with the Office of the Chief Information Officer to develop information and technology workstreams, which have significant potential to improve effectiveness, efficiency and patient experience of chronic disease, and the associated work of HSCPs.

The breakdown of the work will require detailed and collaborative assessment but overlaps with the needs of the Electronic Healthcare Record (eHR) programme. EHealth is a key component of the GP contract and an important part of this will be ensuring effective inter-operability between the GP Practice Management Systems and the HSE IT Systems.

The ultimate goal is to achieve:

- A more integrated service which will be delivered through the deployment of improved client identity (Individual Health Identifier), electronic communication within community services (PCRS/eHR) and also between primary care and secondary care;
- Safer clinical practice through ePrescribing and improved client identity (Individual Health Identifier) as mentioned above; and,
- Greater involvement of patients in their treatment plans through the Summary Care Record and the Shared Care Record.

The areas for attention in the development of a clinical information management system fall broadly into three domains:

- Information management;
- Information technology; and,
- E-Health Technologies.

Information management

Providing integrated care for chronic diseases will generate large amounts of data, including demographic and patient identification data, diagnoses and problem lists, care plans, medications, laboratory and radiology results, biometric data such as weight and blood pressure as well as documents created in the course of patient care. Such data can be used to identify unmet health need and to support population health planning, in quality assurance and quality improvement activities.

Information technology

People need the technology to collect and interact with the data. Much activity in the health system relates to chronic disease and this places chronic disease care at the centre of the eHR. The ICPCD will collaborate with the Office of the Chief Information Officer to ensure that the information technology developed:

- Facilitates data presentation and data entry for busy clinicians wherever they work;
- Provides decision-support based on clinical guidelines, ordersets, formularies and embedded algorithms;
- Enables effective information sharing, communication and collaboration between professionals, patients and carers for optimal management. This includes initiatives such as a variety of virtual clinic applications;
- Provides information (both clinical and administrative) to patients which is truly accessible, thereby supporting self management; and,
- Integrates relevant clinical signposting.

It will be essential that a clinical ICT system is developed, using hand held technology to support the work of the chronic disease specialist teams. Systems for collecting, capturing and presenting outcome data will also be required. This system is also required by ICP OP and will need linkages to other systems

E-Health technologies

As a starting point, the GP contract provides for the integration of IT systems across primary and secondary care and the introduction of the individual health identifier (IHI) via general practice on a phased basis.[7] The purpose of the IHI is to provide patient safety by identifying patients correctly and identifying their associated health records. In addition, it enables the delivery of eHealth as it provides the ability to identify multiple health records that may be associated with a patient. With the introduction of the IHI, it is anticipated that the use of the e-referrals system will increase and will culminate in the roll out of the Integrated Referral Pathway System (IRPS), starting in 2021. E-prescribing will also be enabled in the coming years through the development of a revised drug file which will contain all items that can be dispensed by the community pharmacist. This technology will allow for more efficient and effective prescribing by GPs.

The ICPCD will work with the Office of the Chief Information Officer and other stakeholders to access new technologies in chronic disease management. The development of health technologies related to chronic disease is a rapidly expanding area for both consumers and professionals. The role, relevance, potential and limitations of many of these technologies are gradually emerging. These technologies include, for example, self-measurement and monitoring, remote monitoring, near-patient testing and communication and decision-support tools, amongst many others.

Such rapid developments in e-health technologies may require the development, commissioning or acquisition of health technology assessment capability in collaboration with HIQA, NCPE and others going forward.

Communications

The implementation and roll-out of the National Framework will see a fundamental shift in how care is delivered and this will require public and clinician buy in, consultation with stakeholders, the sharing of information and mechanisms to engage and enable agreement on the changes required at national and regional levels. The ICPCD will contribute to the development of a communication and engagement plan that works with CHOs and hospitals.

Step 10: Monitor & evaluate

The ability to measure and evaluate outcomes is critical. To ensure service and quality improvement, the ICPCD will develop measures and key performance indicators (KPIs). It will advise on the development of recording systems and an evaluation methodology for the monitoring and evaluation of this Framework. National data collection systems will need to support the collection of these data both in the community and in hospitals.

Measures

Local services will need to ensure that they adopt the necessary recording systems and ensure that the data is captured and reported in a timely fashion with adequate quality and completeness to enable evaluation.

Evaluation methodology

The ICPCD will agree a defined evaluation methodology to ensure a consistent approach across all the areas of work, enabling sharing of best practice and learning, as well as the ability to demonstrate improvement and changes that are evidence-based.

Patient-reported outcome measures (PROMs) are standardised validated questionnaires that measure patients' perceptions of their own health status and quality of life. Their value in quality improvement and performance measurement is becoming increasingly recognised and they are seen as an essential component of providing patient-centred care.[24] Patient-reported experience measures (PREMs) are standardised questionnaires used to measure a patient's experience whilst receiving care.[25] PREMs are often used to complement the PROMs data in order to present a more comprehensive picture of both the process and outcome of care from the patient's viewpoint.[25] The ICPCD will work to develop a set of PROMs that can be applied to the care of individuals with chronic disease within an integrated care setting. Patient-related experience will be examined using surveys and further information will be gathered from the HSE "Your Voice Matters" which is a survey recording patients' experience of utilising healthcare services in Ireland to inform service improvements.[26] Qualitative surveys will also be used to capture views of staff (acute, GPs and primary care, social care) on the quality and safety of care provided.

3.0 Critical interdependencies

There are a number of factors necessary for the successful implementation of the National Framework, namely:

- Resourcing of the Chronic Disease Model of Care in the 11 initial hospitals and 18 hubs in 2020-2021 with subsequent roll-out to the remaining hospitals and hubs over 2021-2022;
- The rapid establishment of national and local governance structures;
- The recruitment of a skilled workforce and the capacity to develop and implement new roles;
- The availability of adequate physical facilities for the hub in each area;
- Adequate diagnostic services available in each hub;
- The availability of change management support and expertise at the national and local levels;
- The development of clinical ICT systems to support the work of the multidisciplinary teams, data capture and reporting systems together with the development of risk stratification and population health systems;
- The development of systems and information governance for sharing and managing clinical data and development of risk stratification and population health systems
- Full implementation of the GP contract for chronic disease prevention and treatment;
- Successful implementation of the ‘Making Every Contact Count’ and Self Management Support frameworks in full;
- The continued development and delivery of the Integrated Care Programme for Older People in partnership with the delivery of the Programme for the Integrated Prevention and Management of Chronic Disease, within the ambulatory care hubs. This will identify and capitalise on opportunities for synergistic working; and,
- It will be essential to garner political, managerial and clinical leadership at all levels to implement and sustain the changes required to deliver integrated care for chronic disease within the health system. Furthermore, adequate financial resources and capacity across the whole system will be required to deliver the necessary reforms across the five service levels.

4.0 Conclusion

Integrated care is essential in identifying and meeting the needs of individuals with chronic disease, particularly those with multimorbidity and complex care needs. Integrated care is necessary to improve the outcomes of vulnerable and at-risk populations and to build a sustainable health service, with a focus on health improvement and disease prevention for the general population in Ireland.

'Healthy Ireland' identifies a healthy population as a valuable asset to society and calls for a whole-of-society approach to the improvement of health and wellbeing of all individuals living in Ireland.[27] Health and social care systems should work to optimise the quality, safety, efficiency and cost-effectiveness of the care it provides. However, against the backdrop of an ageing population with changing health needs, the fragmented approach to both acute and non-acute care, with an over-emphasis on hospital-based services, is unsustainable, particularly in the current COVID-19 environment. It is apparent that the current ways of working within the Irish health services are sub-optimal and the time has come to make a change.

The delivery of an integrated service will require substantial service reform to provide a service with an adequately resourced primary care sector at its centre which focuses on health improvement and disease prevention. New ways of working at both national and regional levels, informed by clear service and care pathways, and supported by adequate education and training will be required. A robust governance structure will be essential to implement and sustain change and the evidence base should be interwoven throughout. Implementation of integrated care for chronic disease will require significant funding and a programmatic approach. Ultimately, many of the determinants of health lie outside of the health sector and so a whole-of-society approach to integrated care that places people at the heart of care, providing wrap around support for individuals with chronic disease and complex care needs is required.

References

1. Health Service Executive. National Framework for the integrated prevention and management of chronic disease in Ireland. Dublin, HSE; 2020.

2. Health Service Executive. Making a start in integrated care for older persons: a practical guide to the local implementation of integrated care programmes for older persons. Dublin, HSE; 2018.

3. Buja A, Toffanin R, Claus M, Riccardi W, Damiani G, Baldo V et al. Developing a new clinical governance framework for chronic diseases in primary care: an umbrella review. BMJ Open. 2018;8:e020626.

4. A national chronic disease management patient support programme for HSE. Dublin: Health Service Executive; 2008.

5. Health Service Executive. Living well with a chronic condition: framework for self-management support. Dublin, HSE; 2017.

6. Health Service Executive. Making every contact count: a health behaviour change framework and implementation plan for health professionals in the Irish health service. Dublin, HSE; 2016.

7. Department of Health, Health Service Executive, Irish Medical Organisation. Terms of agreement between the Department of Health, the HSE and the IMO regarding GP contractual reform and service development. Dublin, HSE; 2019.

8. Kindig D, Stoddart G. What is population health? AJPH. 2003;93(3):380-383.

9. National Clinical Programme for Diabetes. Integrated model of care for diabetes. Dublin, HSE:2018.

10. Goodwin N, Curry N, Naylor C, Ross S, Duldig W. Managing people with long term conditions. London: Kings Fund; 2010.

11. Glynn R, O'Reilly O. A discussion paper on developing risk stratification and population health management in Ireland. Dublin, HSE (internal paper - unpublished); 2018.

12. Global Initiative for Chronic Obstructive Lung Disease. 2020 global strategy for prevention, diagnosis and management of COPD. Fontana, GOLD; 2020.

13. Global Initiative for Asthma. Global strategy for asthma management and prevention. Fontana, GINA; 2020.

14. Caraballo C, Desai NR, Mulder H, Alhanti B, Wilson FP, Fiuzat M et al. Clinical implications of the New York Heart Association classification. J Am Heart Assoc. 2019 Dec 3;8(23):e014240.

15. Gallagher J, et al. Heart Failure Virtual Consultation: bridging the gap of heart failure care in the community - A mixed-methods evaluation. ESC Heart Failure 2017; 4: 252–258. Published online 22 May 2017 in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/ehf2.12163.

16. Health Information and Quality Authority. HTA of chronic disease self-management. Dublin, HIQA; 2015.

17. Petty-Saphon N. O'Reilly O. A needs assessment of cardiac rehabilitation services in Ireland. Dublin, HSE; 2016.

18. Petty-Saphon N, O’Reilly O. An audit and needs assessment of pulmonary rehabilitation services in the Republic of Ireland. Dublin, HSE; 2016.

19. National Clinical Programme for Respiratory. Pulmonary documents and resources: chronic obstructive pulmonary disease [Internet]. Dublin:HSE;2020[updated 2020 July; cited 2020 August 10]. Available from: https://www.hse.ie/eng/about/who/cspd/ncps/copd/resources/programme-documents-resources.html

20. Ashra NB, Spong R, Carter P, Davies MJ, Dunkley A, Gillies C et al. A systematic review and meta-analysis assessing the effectiveness of pragmatic lifestyle interventions for the prevention of type 2 diabetes mellitus in routine practice. London, Public Health England; 2015.

21. Dee A, Kearns K, O’Neill C, Sharp L, Staines A, O’Dwyer V et al. The direct and indirect costs of both overweight and obesity: a systematic review. BMC Res Notes. 2014 Apr 16;7:242.

22. Health Service Executive. People strategy 2019-2024: final working draft. Dublin, HSE; 2019.

23. Health Service Executive. EHealth strategy for Ireland. Dublin, HSE; 2015.

24. Olde Rikkert MGM, van der Wees PJ, Schoon Y, Westert GP. Using patient reported outcome measures to promote integrated care. Int J Integr Care. 2018; 18(2): 8.

25. Kingsley C, Patel S. Patient-reported outcome measures and patient-reported experience measures. BJA Education. 2017;17(4):137-44.

26. Health Service Executive. Your voice matters: stories to build a better health service[Internet]. Dublin, HSE[updated undated; cited 2020 August 10]. Available from: https://www.hse.ie/eng/about/who/cspd/patient-narrative/your-voice-matters/

27. Department of Health. Healthy Ireland: a framework for improved health and wellbeing. Dublin, Department of Health; 2013.

Appendix 1

ICP CD Steering Committee membership 2016 – 2019

Mr. David Walsh, Chair, Chief Officer, Community Healthcare - Dublin South, Kildare & West Wicklow

Dr. Orlaith O Reilly – National Clinical Advisor & Group Lead (NCAGL) Chronic Disease and Clinical Lead ICP CD

Dr. David Hanlon, NCAGL, Primary Care

Dr Siobhan Kennelly, NCAGL, Older Persons

Dr. Margo Wrigley, NCAGL, Mental Health

Dr. Pat Nash, Group Clinical Director, Saolta Hospital Group

Professor Ken McDonald, Clinical Lead Heart Failure Programme

Professor Pat Manning, Clinical Lead, Asthma Programme

Professor Tim McDonnell, Clinical Lead, COPD Programme

Professor Sean Dinneen, Clinical Lead, Diabetes Programme

Dr. Brendan O Shea, Director of the Postgraduate Research Centre, ICGP

Ms. Mairead Gleeson, General Manager, Office of the NCAGL CD

Mr. Brian Murphy, Assistant National Director, Primary Care

Mr. Ciaran Browne, General Manager, Acute Hospital Division

Ms. Colette Cowan, CEO, UL Hospital Group

Ms. Mary Wynne, Interim Nursing and Midwifery Services Director & Assistant National Director

Ms. Virginia Pye, Director of Public Health Nursing

Ms. Emma Benton, General Manager, Office of National Clinical Advisor & Group Primary Care

Ms. Yvonne Goff, Assistant National Director, Integrated Information Service/Chief Clinical Information Officer, OoCIO, HSE

ICP CD Clinical Leadership Group 2020

Subsequent to the changes in HSE management structures and the CCO Review of National Clinical Programmes (2019) the governance of the ICP CD was changed to a clinical leadership group. The composition of the current clinical leadership group is;

Dr. Orlaith O Reilly – Chair, National Clinical Advisor & Group Lead (NCAGL) Chronic Disease and
Clinical Lead ICP CD

Professor Ken McDonald, Clinical Lead, National Heart Programme

Professor Sean Dinneen, Clinical Lead, Diabetes Programme

Dr. Des Murphy, Clinical Lead, Respiratory Programme

Dr. Sarah O Brien, Specialist Public Health Medicine, Office of the NCAGL Chronic Disease

Dr. Joe Gallagher, ICGP/HSE Primary Care Lead for Integrated Care Programmes (Cardiovascular Disease)

Dr. Diarmuid Quinlan, ICGP/HSE Primary Care Lead for Integrated Care Programmes (diabetes)

Dr. Mark O Kelly, ICGP/HSE Primary Care Lead for Integrated Care Programmes (COPD)

Dr. Dermot Nolan, ICGP/HSE Primary Care Lead for Integrated Care Programmes (asthma)

Ms. Mairead Gleeson, General Manager, Office of the NCAGL

Ms. Margaret Humphreys, National Lead for Diabetes Structured Patient Education

Ms. Cliodhna O Mahony, Programme Manager, National Clinical Programme for Diabetes

Ms. Susan Curtis, Programme Manager, National Clinical Programme for Respiratory

Ms. Regina Black, Programme Manager, National Heart Clinical Programme

Dr. Miriam Owens, Specialist Public Health Medicine *

Dr. Claire Buckley, Specialist Public Heath Medicine*

*Currently reassigned to Covid services.

Integrated Care
Programme for
the Prevention
and Management
of Chronic Disease

Seirbhís Sláinte
Níos Fearr
á Forbairt

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