IFIC Integrated Care Academy

STATE OF EDUCATION REPORT

The State of Education and Training in Integrated Care Worldwide

Collaborating Partners

CUMMINGS GRADUATE INSTITUTE FOR BEHAVIORAL HEALTH STUDIES

UNIVERSITY OF APPLIED SCIENCES UTRECHT

MTU Ollscoil Teicneolaíochta na Mumhan Munster Technological University

UNIVERSITY OF THE WEST of SCOTLAND UWS

Universidad de Las Américas

Contents

Authors 3

Acknowledgments 5

Introduction 6

Summary of the case studies 9

Findings from across the geographies 23

What needs to be done to promote the widespread adoption of integrated care education and training 28

References 30

Case studies 31

- Australia case study 32
- Chile case study 37
- England, UK case study 44
- Ireland, UK case study 50
- Ontario, Canada case study 57
- Scotland, UK case study 62
- The Netherlands case study 67

Authors

Main report authors

Dr Niamh Lennox-Chhugani
Chief Executive and Director of Research
International Foundation for Integrated Care (IFIC)

Dr Edelweiss Aldasoro
Senior Researcher and Head of the Integrated Care Academy
International Foundation for Integrated Care (IFIC)

Frances Barraclough
Senior Associate
International Foundation for Integrated Care (IFIC)
Senior Lecturer, University Centre for Rural Health (Northern Rivers), School of Health Sciences, Faculty of Medicine and Health, The University of Sydney, NSW, Australia

Case study authors

Australia

Frances Barraclough
Senior Associate
International Foundation for Integrated Care (IFIC)

Chile

Dr Osvaldo Artaza
Dean of the Faculty of Health and Social Sciences
Universidad De Las Américas, Chile

England, UK

Dr Niamh Lennox-Chhugani
Chief Executive and Director of Research
International Foundation for Integrated Care (IFIC)

Ireland

Dr Dominika Lisiecka
Senior Associate
International Foundation for Integrated Care (IFIC)
Lecturer and researcher at Munster Technological University – Kerry Campus, Ireland

Scotland, UK

Helen Rainey
Senior Associate
International Foundation for Integrated Care (IFIC)
Lecturer at School of Health and Life Sciences at University of the West of Scotland, UK

Prof Anne Hendry
Senior Associate
International Foundation for Integrated Care (IFIC)
Director IFICs Hub in Scotland; Honorary Professor, University of the West of Scotland, Honorary Secretary, British Geriatrics Society

Case study authors cont.

The Netherlands

Dr Ruben van Zelm
Course Manager-Principal Lecturer
University of Applied Sciences
University of Utrecht

Mariëlle van Wijngaarden
PhD Candidate
Radboudumc Health Academy

Thieme Stap
Senior Researcher
Fontys University of Applied Sciences
PhD candidate, Radboudumc Health Academy, the Netherlands

Ontario, Canada

Dr Anne Wojtak
Adjunct Lecturer
Dalla Lana School of Public Health
University of Toronto

Reviewers

Dr Cara English
Chief Executive Officer and Chief Academic Officer
Cummings Graduate Institute for Behavioral Health Studies (CGI), USA

Acknowledgments

We would like to acknowledge the Task and Finish group members, whose contributions have supported the development of this work in different ways. Members in alphabetic order:

Prof Anne Hendry (Case study author), International Foundation for Integrated Care (IFIC); University of the West of Scotland, UK

DrAnne Wojtak (Case study author), University of Toronto, Canada

Dr Cara English (Reviewer), Cummings Graduate Institute for Behavioral Health Studies (CGI), USA

Dr Dominika Lisiecka (Case study author), International Foundation for Integrated Care (IFIC); Munster Technological University – Kerry Campus, Ireland

Dr Edelweiss Aldasoro (Main report author), International Foundation for Integrated Care (IFIC)

Frances Barraclough (Main report author and Case study author), International Foundation for Integrated Care (IFIC); University of Sydney, Australia

Helen Rainey (Case study author), International Foundation for Integrated Care (IFIC); University of the West of Scotland, UK

Liliane Rocha (Initial group member), The Behavior Web; Cummings Graduate Institute & ERPIC, USA

Mariëlle van Wijngaarden (Case study author), Radboudumc Health Academy, the Netherlands

Dr Niamh Lennox-Chhugani (Main report author and Case study author), International Foundation for Integrated Care (IFIC), UK

Dr Osvaldo Artaza (Case study author), Universidad de Las Américas, Chile

Dr María del Rocío Sáenz Madrigal (Initial group member), Public Health School, University of Costa Rica, Costa Rica

Dr Ruben van Zelm (Case study author), University of Applied Sciences Utrecht, the Netherlands

Thieme Stap (Case study author), Fontys University of Applied Sciences; Radboudumc Health Academy, the Netherlands

Introduction

Over the years, the Integrated Care Academy as part of the International Foundation for Integrated Care (IFIC), has developed several continuing professional development (CPD) and other education and training programmes. It has delivered these as stand-alone and in collaboration with partners. It has also promoted the work of partnering higher education institutions that provide post-graduate education and training.

The scaling up of integrated care models internationally and the recognition of the crisis in health and care workforce capacity and capability has surfaced a gap in our understanding of how we are addressing the needs of the workforce, including informal carers, for education and training in the fundamentals of integrated care.

The limited research and knowledge generation in this area to date has focused on the specific skills, knowledge and competency requirements for working in the context of care integration. We do not know the extent to which this is being incorporated into the design and provision of education and training within our vocationally trained workforce for health and care practitioners (HCPs) at undergraduate and postgraduate levels or as part of CPD. What little research there is in this area has largely been conducted in high income and anglophone countries.

IFIC's Academy team wanted to understand the current state of integrated care education and training in a range of countries across the world where we have strong networks and where we know there is a clear policy focused on delivering integrated people-centred care[1].

IFIC convened a small group of experts in education and training from our network, including members of the IFIC's Education and Research Special Interest Group (SIG) and some of our long-term education partners. This group first met in early 2023 to agree on the questions we wanted the review to focus on and developed the following questions:

1. What integrated care-specific training and education is currently provided in our selection of countries/regions for HCPs at vocational, undergraduate, and postgraduate levels?
2. What integrated care-specific training and education is currently provided in our selection of countries/regions for informal carers to enable them to take an active role in models of care?
3. What needs to be done to better support career development in integrated care including education and training?

[1] Strengthening integrated, people-centred health services. Sixty-ninth World Health Assembly. WHA69.24. 28 May 2016 A69_R24-en.pdf (who.int) accessed on 20 February 2024.

The group designed the approach to this review, conducted a high-level review at the country or region level, and summarised each case study as a short case study. The group shared barriers and enablers of education and training for integrated care in each case, and these were synthesised into an overarching set of recommendations.

The case studies presented here are high-level and snapshots at a point in time. They are not intended to be an exhaustive review of each country or region, but a starting point for a conversation about what needs to be done in the higher education sector for health and care more broadly to ensure we are equipping our HCPs and informal carers for the population health and care needs we face today and tomorrow.

Methods

The review was conducted over a 10-month period, and the overall approach to this review is presented in the figure below.

Data collection step 1 (Aug-Oct 2023)	Data collection step 2 (Nov-Dec 2023)	Data synthesis (Jan-Feb 2024)	Reporting (Mar-Apr 2024)
• Rapid desk review of health and care professional education sector • Focus on specific integrated care content	• Interviews with key stakeholders in-country to fill gaps from desk review	• Country / region summaries • Cross-country / region comparisons • Similarities and differences • Enablers and barriers	• Present final report at ICIC24

The Task and Finish Group worked collaboratively to identify a long list of countries that could be included as case studies in this review to help us answer the agreed-upon questions.

The group then used the criteria below to identify a shortlist of countries or areas for which we would gather detailed information.

Case study long list assessment criteria

The country or region has an explicit policy focus on integrated care;

There is evidence of integrated care happening at scale, and The Task and Finish Group:

a. have an existing network

b. IFIC has contacts in higher education

c. And/or there is clinical CPD in place

The final list of countries/areas was agreed upon, such as Ireland, Scotland, England, Ontario in Canada, Chile, the Netherlands, and Australia.

A desk review of the education and training provision in the shortlisted countries and areas was then conducted by lead authors for each country case study capturing vocational, undergraduate, and post-graduate education and continuing professional development. This desk review was supplemented by interviews with local key informants where necessary. The table below summarises the framework used for case study data collection.

	Category (Headings in Case Study)	**Theme / question**	**Source**
1	Health and care education and training context		
1.1	Organisation	Brief overview of how the health and care education sector is organised, funded, resourced and delivered for high level professional groups involved in integrated care (medical, nursing, allied health professionals, social workers, others).	Country HiT report; Ministry/ government data sets.
1.2	Funding		
1.3	Availability of resources		
1.4	Delivery		
1.5	Professional regulation		
1.6	Policy commitment	Evidence of political commitment to integrated care and interprofessional education and training	Policy documents
2	Health and care education and training provision		
2.1	Undergraduate	Which professional training programmes are incorporating integrated care into their curriculum?	Key informant interviews and signposting to relevant local documentation
		What is included in the content of the curriculum?	
		Which professional training programmes are planning to incorporate integrated care into their curriculum?	
		Is there a specific population group that is the focus of the integrated care curriculum (e.g. older people)?	
2.2	Postgraduate	What is included in the content of the curriculum?	
		How is the programme accredited?	
		How do graduates use the qualification?	
		Is the qualification recognised by their professional body?	
		Is the qualification recognised by their employer?	
2.3	Continuing professional development	What is included in the content of the curriculum?	
		How is the programme accredited?	
		How do graduates use the qualification?	
3	Gaps in education and training to enable integrated care		
3.1	Undergraduate	Gaps by professional group	Key informant interviews
		Gaps by integrated care competency	
		Gaps by population focus	
3.4	Post-graduate	Gaps by integrated care competency	
		Gaps by population focus	

The cases were then collated, summarised, and discussed at a working session at the 24th International Conference on Integrated Care (ICIC24) in Belfast in April 2024. The participants generated overarching recommendations for the future development of integrated care workforce.

Summary of the case studies

Scotland, UK

Integrated care context

Organisation: The organisational structure of health and social care in Scotland is characterised by 14 local health boards and 32 local government organisations tasked with delivering social care services. The integration of these services was formalised through the Public Bodies (Joint Working) (Scotland) Act 2014, which led to the creation of 31 Health and Social Care Partnerships (HSCPs). These partnerships are responsible for planning and delivering adult community health and social care services, ensuring a more coordinated approach across different sectors. The third sector operates independently of government and political affiliations, focusing on community-oriented goals, and is vital for local health and social care delivery.

Funding: Funding for public services in Scotland is largely provided by a Block Grant, the funding that the UK Government gives to the devolved administrations of Scotland, Wales, and Northern Ireland, and Local Authorities receive 85% of their funding from the Scottish Government. The integration scheme established integrated budgets, allowing more coordinated financial management across health and social care services.

Availability of resources: The health and social care workforce is the largest employment sector in Scotland, with over 400,000 people working in various roles and settings. The National Workforce Strategy aims to create a skilled workforce, emphasising fair working conditions and opportunities for career development. The third sector, with over 25,000 charities registered in Scotland, employs more than 200,000 people.

Delivery: The Public Bodies (Joint Working) (Scotland) Act 2014 shapes the delivery of health and social care services through Health and Social Care Partnerships, which use strategic and place-based planning to respond to local needs with more coordination. The Social Care (Self-directed Support) (Scotland) Act 2013 provides the framework for delivering social care by giving individuals greater choice and control over how they receive support.

Professional regulation: Professional regulation is overseen by national entities such as the General Medical Council (GMC) for doctors and the Scottish Social Services Council (SSSC) for social care workers.

Policy commitment: Scotland has demonstrated a strong policy commitment to reforming and improving health and social care services. The Christie Commission, established in 2011, laid the foundation for these reforms by advocating for a shift towards prevention and early intervention, greater integration of public services, investment in the workforce, and the use of digital technology to enhance performance. The National Care Service (Scotland) Bill seeks to centralise social care responsibilities under a new national service to address the increasing demands of an ageing population and the complexities of current health and social care needs. Its implementation has been delayed ensuring the reform meets the needs of all the stakeholders. Moreover, there is a policy commitment to work to create a more equitable and effective health and social care system.

Education and training focused on integrated care

Providers of education and training: education and training for health and social care are provided through national bodies such as NHS Education for Scotland and the Scottish Social Services Council, as well as through education colleges, universities, and local organisations. The NHS Scotland Academy, established in 2021, offers accelerated training for a wide range of health and social care roles. However, most of this training is focused on clinical and advancing practice rather than integrated care.

Moderators of education and training: Educational provision in Scotland is overseen by each professions governing body and in line with the Scottish Credit and Qualifications Framework (SCQF). NHS Education for Scotland and the Scottish Social Services Council also play a key in overseeing the education and training of the health and social care workforce.

Types of education and training:

- **Undergraduate:** Undergraduate education for health and social care professionals in Scotland is guided by regulatory body requirements. Programmes in medicine, nursing, Allied Health Professionals (AHPs), pharmacy, and social work include interprofessional learning but do not specifically address integrated care. Some broader health and social care undergraduate programmes have core integration components, but this is not consistently applied.
- **Postgraduate:** Postgraduate education in Scotland includes programmes such as the Graduate Diploma (SCQF level 9) and Postgraduate Certificate (SCQF Level 11) in Integrated Community Nursing, as well as the MSc Leading People-Centred Integrated Care. These programmes support professionals in planning, commissioning, and providing integrated care. Many postgraduate programmes related to health and care, leadership, and person-centred care do not explicitly focus on integrated care.
- **Continuous professional development:** CPD in Scotland is delivered by national organisations, further education colleges, universities, and local bodies. They focus on leadership and quality improvement rather than integrated care. The NHS Scotland Academy provides some CPD with induction resources for social care professionals, but its primary focus remains clinical skills and advanced practice.
- **Vocational:** Vocational education includes Scottish Vocational Qualifications (SCQF levels 5-10), which promote collaborative working and leadership in social care but do not specifically address integrated care. National Certificates, Higher National Certificates, and Higher National Diplomas in Social Services and Health Care support foundational education and career pathways. Education for social prescribing link workers is provided through in-house training.

Gaps in education and training on integrated care

Macro: The NHS Scotland Academy's clinical and advanced practice training does not appear to explicitly cover integrated care, and CPD programmes appear to lack specific emphasis on integrated care programmes.

Meso: Some postgraduate and undergraduate programmes encourage interprofessional learning, but integrated care is not explicitly included in the curricula.

Micro: Vocational qualifications support collaborative working but do not focus explicitly on integrated care. A new Scottish Vocational Qualification at SCQF Level 7 on Integrated Health and Social Care is in consultation, aiming to address these gaps.

Ontario, Canada

Integrated care context

Organisation: Canada is divided into ten provinces and three territories, and the province of Ontario, located in Central Canada, is both geographically large and the most populous.

Funding: Ontario's healthcare system operates within the broader framework of Canada's public health insurance system, characterised by provincial and territorial autonomy under the oversight of federal legislation (the Canada Health Act). Healthcare in Ontario, as in the rest of Canada, is predominantly publicly funded, with 70% of healthcare expenditures coming from public sources and the remaining 30% from private-sector contributions. Ontario's funding structure reflects the broader Canadian model, where provinces and territories manage, organise, and deliver healthcare services to their residents, supported by federal transfer payments.

Availability of resources: In 2022, there were 928,500 people employed in Ontario's health care and social assistance sectors, comprising approximately 12% of the province's total workforce. In 2022, the sector contributed $53.9 billion to Ontario's Gross Domestic Product (GDP), or approximately 7.2% of the province's total GDP. Females accounted for 80.3% of Ontario's health care and social assistance workforce in 2022, compared to 47.3% for all industries. By sector, hospitals represented the largest employers at 33% of the workforce, followed by ambulatory healthcare services (31%), social assistance (18%), and nursing and residential care facilities (17%). Registered nurses represented 12.6% (117,000 individuals) of the health workforce, while General Practitioners (GPs)/family physicians represented 3.2% (29,900). The demand for healthcare and social care workers is expected to continue to grow, in part due to labour shortages resulting from the COVID-19 pandemic.

Delivery: In 2007, the Ontario provincial government established 14 Local Health Integration Networks (LHINs) through the Local Health System Integration Act of 2006. These LHINs oversaw the regional administration of publicly funded healthcare services, including hospitals, long-term care homes, home and community care agencies, and mental health services. In 2019, Ontario shifted its approach with the Connecting Care Act, which replaced the LHINs with a new provincial agency, Ontario Health, and established Ontario Health Teams (OHTs). These teams are designed to advance integrated health and social care locally, eventually making them accountable for the population health of their regions. The establishment of OHTs began with 24 teams in 2019, and by January 2024, 58 approved OHTs were covering all geographic regions of the province.

Professional regulation: Health and care professionals must be licensed by their respective colleges, such as the College of Physicians and Surgeons of Ontario or the College of Nurses of Ontario. These organisations play a crucial role in maintaining the quality and safety of healthcare services in the province, ensuring that healthcare providers meet the required educational and ethical standards.

Policy commitment: Ontario's commitment to healthcare policy development, particularly in integrated care, has been evident in its evolving strategies over the past several years. The establishment of LHINs in 2007 marked a significant shift towards regionalisation, aiming to integrate healthcare services at a local level. The introduction of the Health Links model in 2012 represented a further attempt to improve care coordination, particularly for vulnerable populations with complex needs. The Connecting Care Act (2019) introduced Ontario Health Teams, with higher decentralisation, to support the needs of the local people.

Education and training focused on integrated care

Providers of education and training: In Canada, education and training are provided through a robust system of universities, colleges, and career institutions. In Ontario, which has 23 publicly assisted universities, 24 colleges, and over 500 registered career colleges, the Ministry of Colleges and Universities oversees post-secondary institutions. Provincial funding supports post-secondary education, which constitutes 24% of university revenues, with the remainder coming from tuition fees.

Moderators of education and training: Education programmes in colleges and universities, including those for healthcare professionals, fall under the responsibility of the Ontario Ministry of Colleges and Universities. Regulated health professions are governed under the Regulated Health Professions Act, 1991 (RHPA) and various health profession-specific Acts. In addition, Health Regulatory Colleges are responsible for licensure and oversight of individual health professions. (Source: https://www.ontario.ca/page/regulated-health-professions)

Types of education and training:

- **Undergraduate:** No dedicated undergraduate programmes are specifically focused on integrated care.
- **Postgraduate:** Postgraduate education in Canada includes healthcare administration and leadership programmes that may incorporate aspects of integrated care. However, there are no dedicated degree programmes specifically focused on integrated care. Some professional development programmes related to integrated care are offered, but these are often time-limited and insufficient to fully address system leadership and healthcare transformation needs.
- **Continuous professional development:** Various institutions, including those funded by the Ministry of Health, offer several non-degree professional development programmes related to integrated care. These programmes are designed to address immediate needs but are not comprehensive or long-term solutions.
- **Vocational:** Vocational training in Ontario includes trade and careers schools that may offer health and social care training programmes for roles including community service workers, personal support workers, medical receptionists, and paramedics. However, these programmes focus on offering specific skills-based training versus education related to integrated care.

Gaps in education and training on integrated care

Macro: Despite a provincial policy to advance regional integration of care, dedicated undergraduate and postgraduate programmes focused specifically on integrated care are lacking.

Meso: There is evidence of a gradual increase in interprofessional learning and team-based care in healthcare and medical education programmes, but explicit curricula focused on integrated care is lacking.

Micro: At a local level, models of integrated care are in development and there are some small, focused educational initiatives such as training webinars and conferences designed to increase knowledge of integrated care but no larger scale programmes specifically targeting the design and/or implementation of integrated care.

Ireland

Integrated care context

Organisation: Ireland's healthcare system is managed by the Health Service Executive (HSE), a publicly funded body responsible for providing health and personal social services nationwide. Starting in February 2024, the HSE is implementing a major reorganisation into six new HSE health regions. These regions are designed to ensure better alignment of hospital and community healthcare services based on local population needs, supporting the Sláintecare vision of an integrated health and social care service. While the HSE Board continues to govern these regions, local decision-making and service planning will be empowered at the regional level.

Funding: The healthcare system in Ireland is primarily publicly funded, with significant financial resources allocated by the government to support health services.

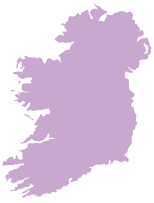
Availability of resources: The HSE's resources for 2024 are focused on enhancing the capacity of the healthcare system to meet growing demands, as outlined in the National Service Plan. This includes the addition of 683 Whole Time Equivalents (WTE) for disability services and 2,268 WTEs for other health and social care services. The National Service Plan outlines the goal of expanding critical care capacity by adding 22 new beds, bringing the total to 352 beds. Additionally, there is a focus on increasing the number of GPs and other healthcare professionals to deliver care at the community level and investing in digital infrastructure to support integrated care.

Delivery: The delivery of healthcare services in Ireland is undergoing significant reform to improve access, reduce waiting times, and integrate care across different sectors. The HSE is rolling out a three-year Urgent and Emergency Care Plan (2024-2026) to enhance the delivery of these services, with a focus on hospital avoidance, emergency operations, in-hospital operations, and discharge processes. The Enhanced Community Care Programme is being expanded to ensure that more patients receive care in their local communities rather than hospital settings. This includes delivering over 141,000 patients through the Integrated Care Programme for Older Persons and 228,000 through the Integrated Care Programme for Chronic Disease.

Professional regulation: Health and social care professionals in Ireland are regulated by relevant statutory bodies that ensure standards of practice and professional conduct. The HSE, through its governance and implementation plans, supports ongoing professional development and adherence to clinical guidelines. As part of the reforms, there is an emphasis on recruiting and retaining skilled healthcare professionals, particularly in mental health and disability services. The introduction of new health regions aims to empower healthcare providers at the local level, fostering a more responsive and accountable professional environment.

Policy commitment: The Irish Government is committed to transforming its healthcare system by implementing Sláintecare, a 10-year strategy published in 2017. Sláintecare aims to achieve universal healthcare that provides equal access to services based on person need rather than the ability to pay. The National Service Plan for 2024 is aligned with this vision, prioritising the development of primary and community health services to keep people healthy in their homes and communities for as long as possible. Key policy commitments include improving urgent and emergency care, reducing waiting lists, enhancing mental health services, and ensuring the successful rollout of the six HSE health regions. These reforms are intended to create a more integrated and equitable health system that meets the needs of Ireland's changing population.

Education and training focused on integrated care



Providers of education and training: In Ireland, universities, institutes of technology, and other higher education institutions are responsible for providing undergraduate and postgraduate education for registered health and social care professionals. The Nursing and Midwifery Board of Ireland, the Medical Council, and CORU regulate and approve education programmes and maintain registration systems for various health and social care professions. The Higher Education Authority manages the governance and regulation of higher education institutions and allocates exchequer funding.

Moderators of education and training: At the national level, the Department of Health and the Health Service Executive oversee health policy development and the management of health services.

Types of education and training:

- **Undergraduate:** Undergraduate programmes in Ireland include person-centred approaches and multidisciplinary team (MDT) collaboration. However, specific coursework on integrated care is limited, and placements tend to be unidisciplinary.
- **Postgraduate:** Many postgraduate programmes tend to emphasise clinical specialisation while offering a limited focus on integrated care. However, certain universities, like Munster Technological University-Kerry and Trinity College Dublin, are creating specialised training in integrated care. Some roles, such as Clinical Specialist (a grade found among AHPs), allocate time for both research and education. Additionally, the HSE offers funding for educational advancement and skill development, with growing opportunities for pursuing PhDs in integrated care.
- **Continuous professional development:** CPD is mandated by professional bodies, but there is no specific requirement for integrated care training.
- **Vocational:** No vocational courses specific to integrated care were identified.

Gaps in education and training on integrated care

Macro: Despite some national initiatives and funding expansions, dedicated undergraduate and postgraduate programmes focused specifically on integrated care are lacking. Education systems largely remain unchanged at the undergraduate level, with integration more evident at the postgraduate level.

Meso: Models of integrated care are scaling up, with local initiatives supporting integrated care. However, education systems are slow to adapt, and there are few programmes specifically targeting the implementation of integrated care.

Micro: Workforce issues and the lack of integrated digital healthcare records are significant barriers. CPD does not specifically address integrated care, though some emerging funding and support for research and education in integrated care practices exist.

The Netherlands

Integrated care context

Organisation: The healthcare system in the Netherlands is based on four key laws: the Health Insurance Act, the Long-Term Care Act, the Social Support Act, and the Youth Act. The Health Insurance Act and the Long-Term Care Act are the primary frameworks for healthcare funding, with the former focusing on hospital care and other types of long-term care. Private health insurance companies are central to implementing the Health Insurance Act, operating under a model of regulated competition. Meanwhile, the Social Support Act and the Youth Act are enforced by the approximately 400 municipalities in the Netherlands, which provide various forms of care and support. These laws focus on ensuring that healthcare and support services are accessible to all residents.

Funding: In 2022, the Netherlands allocated 10% of its gross domestic product (GDP) to healthcare. This significant investment supports the services mandated by the four major healthcare laws. The Health Insurance Act and the Long-Term Care Act underpin the funding system, representing most of the healthcare budget. This budget is managed within a framework of regulated competition, ensuring that healthcare services are adequately funded across the country.

Availability of resources: As of 2021, the Dutch healthcare sector employed approximately 111,000 people. Of these, 4.3% were medical doctors and dentists, 19.1% were nurses, and 12.2% were allied health professionals.

Delivery: Healthcare services in the Netherlands are delivered through a system regulated by the four key laws.

Policy commitment: The healthcare system in the Netherlands is built on principles of solidarity, access for all, and the provision of high-quality services. These values are embedded in implementing the four major healthcare laws that structure the system.

Education and training focused on integrated care

Providers of education and training: In the Netherlands, education for health and social care professionals is provided by three main types of institutions: universities ('wo'), universities of applied sciences (Higher Professional Education, 'hbo'), and secondary vocational education ('mbo'). These institutions offer undergraduate and, in many cases, postgraduate training. Private educational organisations also provide accredited CPD training.

Moderators of education and training: The professional bodies, such as the Dutch Association of Medical Specialists (FMS), play a role in shaping the focus on integrated care within educational programmes. Funding is available for research on integrated care through agencies like ZonMw, which supports research and innovation in health and well-being.

Types of education and training:

- **Undergraduate:** Undergraduate education across universities and applied sciences in the Netherlands includes elements of integrated care, such as interprofessional collaboration. However, no specific training programmes are dedicated solely to integrated care at the undergraduate level.
- **Postgraduate:** Several master's programmes focus on improving health and social services, including one specifically focused on integrated care design, MSc degree in Integrated Care Design. Other master's programmes aim to improve health and social services more broadly, sometimes incorporating elements of integrated care.
- **Continuous professional development:** In continuing professional development, several initiatives exist to learn about integrated care, such as the 'Jan van Es Institute for Primary Care Towards Integrated Care'. This institute organises webinars addressing specific topics, such as population-based care. There are also disease-specific programmes, such as ParkinsonNet, that mainly focus on the disease but also incorporate cross-boundary working.

Gaps in education and training on integrated care

Macro: While there are no specific undergraduate programmes dedicated to integrated care, elements of integrated care are integrated into existing curricula. The need for education on integrated care is recognised in policy reports, but initiatives are often embedded within broader curricula.

Meso: Several master's programmes and CPD initiatives are available that focus on integrated care, but these are not universally applied across all education programmes. The integration of specific training on integrated care remains limited and often hidden within broader curricula.

Micro: At the individual level, while there are CPD opportunities and specific programmes addressing integrated care, the overall availability and focus of integrated care training remain limited.

England, UK

Integrated care context

Organisation: The National Health Service (NHS) in England operates as a taxation-funded Beveridge system, providing comprehensive healthcare services free at the point of use, except in limited circumstances. The system is managed by the Department of Health and Social Care (DHSC), with operational responsibilities shared with NHS England, an executive agency. Since 2022, the planning and delivery of health and care services have been delegated to Integrated Care Systems (ICSs) across 42 areas of England. Since 2023, nine statutory joint committees have been responsible for planning and delivering specialised services.

Funding: Total healthcare expenditure in the UK in 2021 accounted for 12.4% of gross domestic product (GDP). Social care is not universally covered like healthcare and is means-tested, with assessments conducted by local authority social care services. The total expenditure on social care in England was £27 billion in 2020/21. There has been a shift towards funding at-home care rather than residential care, although funding increases have not kept pace with rising costs.

Availability of resources: The NHS workforce in England employs approximately 1.4 million people in around 1.2 million full-time equivalent posts. Nurses make up 26% of the workforce. There is a noted shortage of GPs, with England having about 7.8 GPs per 10,000 people compared to an OECD average of 10.8. The NHS Long Term Workforce Plan aims to address these shortages by focusing on training, retaining, and reforming the workforce.

Delivery: Healthcare provision is dominated by NHS provider trusts, which deliver hospital and community care. Primary care is provided by GPs through contracts with NHS England. Private providers also supply some NHS services through contracts and service-level agreements. Despite being free at the point of use, there is fragmentation as citizens move between different types of care, including hospital, community, and general practice services.

Professional regulation: The NHS workforce includes various health professionals, such as nurses, who are regulated to ensure safety and quality in healthcare delivery. GPs and other healthcare professionals are also subject to regulatory oversight to maintain clinical and ethical standards.

Policy commitment: Since 2014, England's health policy has focused on promoting population health and integrated care. Integrated Care Systems (ICSs) were introduced in 2022 for local health and care service planning. The NHS Long Term Workforce Plan reflects ongoing efforts to address workforce gaps and service delivery challenges. Despite policy commitments, integration across health and social care remains limited and dependent on local collaboration.

Education and training focused on integrated care

Providers of education and training: Universities in England provide undergraduate and most postgraduate training for regulated and registered health and social care professionals. Accreditation ensures these institutions, and their courses meet external standards. In addition to traditional university routes, non-traditional routes like apprenticeships are being developed under the NHS Long Term Workforce Plan. National Vocational Qualifications (NVQs), awarded by organisations like City and Guilds, are also common in health and social care.

Moderators of education and training: Health Education England (HEE), now part of NHS England, plays a significant role in commissioning and funding education routes. This includes volume education, return-to-practice programmes, and other formal education needed for workforce development. NHS England also supports professional development through its Workforce Development funding stream, though most tuition fees are self-funded. The Medical Schools Council and UKAS provide recommendations on expanding educational places to address workforce needs.

Types of education and training:

- **Undergraduate:** Undergraduate education in England includes a BSc (Hons) in Integrated Care Studies at Teeside University and an Integrated Health and Social Care BA (Hons) at Manchester Metropolitan University. The General Medical Council's Outcomes for Graduates include leadership, team working, and communication skills, but only a few programmes specifically focus on integrated care. Many medical and nursing degrees include modules on team working and person-centred care.
- **Postgraduate:** At the postgraduate level, programmes such as the MA/PgC/PgD Professional Practice: Integrated Care at the University of Suffolk and the MSc in Leading Integrated Care at City University address integrated care. However, some of these programmes are not consistently available or have uncertain continuity.
- **Continuous professional development:** NHS England significantly supports CPD for NHS professionals and includes various courses like the Introduction to Integrated Care Systems for Pharmacy Professionals and the Programme for Integrated Child Health (PICH). The Personalised Care Institute provides eLearning for new roles in integrated care, such as social prescribers and care coordinators.
- **Vocational:** National Vocational Qualifications are work-based qualifications common in health and social care and awarded by organisations such as City and Guilds.

Gaps in education and training on integrated care

Macro: Education reform is needed to support the expansion of integrated care, as outlined in the NHS Long Term Workforce Plan. Although some undergraduate programmes focus on integrated care, the overall integration of such training across all educational levels remains limited.

Meso: Postgraduate and CPD opportunities related to integrated care are available but not widespread. Education and training are adapting slowly to support the shift towards integrated care, with gaps in consistent and comprehensive coverage across all levels.

Micro: Challenges include professional identity barriers, lack of protected time for education not mandated by employers, and insufficient funding for integrated care training, especially for non-professional and unregulated roles.

Chile

Integrated care context

Organisation: The health system in Chile includes a public insurance scheme, the National Health Fund (FONASA), covering 86% of the population, and multiple private insurance schemes (ISAPRES) for the remaining 14%. The public sector provides most hospital care, while ambulatory care is evenly split between public and private providers. The private sector operates on market principles, whereas the public sector faces challenges, including insufficient funding and organisational issues.

Funding: Public expenditure on health represents 5.17% of Chile's gross domestic product (GDP) and 15.47% of total public expenditure. Out-of-pocket spending on health constitutes 28.87% of total health expenditure. Only 23% of public spending is allocated to primary care, with the majority directed towards public hospitals.

Availability of resources: The healthcare sector represents 46.3% of the public sector workforce and is characterised by a highly feminised workforce (69%). As of December 2022, the public health network employed 268,697 individuals, with 59% in the hospital network and 41% in municipal primary care. The staffing rate includes 3.1 doctors, 3.8 registered nurses, 2.0 physiotherapists, 1.5 dentists, 4.0 psychologists, and 12.4 higher-level health technicians per 1000 inhabitants. Approximately 24% of doctors are foreign nationals, with a significant portion working in primary care.

Delivery: The health system in Chile is human resource-intensive, with the public health sector's workforce increasing by 96% from 2013 to 2022. Despite this growth, significant gaps remain in the number and distribution of professionals, particularly in specialities, mental health, and emerging areas such as rehabilitation and home hospitalisation. The COVID-19 pandemic led to a 23% increase in the public health sector's workforce, but challenges persist in effectively addressing new health demands.

Professional regulation: The Ministry of Health in Chile faces limitations in overseeing the labour market for health professionals, particularly specialist doctors. There is insufficient capacity to adjust health personnel's practices or redirect their skills towards emerging health challenges.

Policy commitment: The health system in Chile is marked by a mix of public and private funding and provision, with ongoing challenges in addressing inequities and inefficiencies. Despite a significant public health workforce and an increase in staffing due to the COVID-19 pandemic, there are still critical gaps in service delivery and professional distribution. The Ministry of Health has limited oversight and capacity to adapt to demographic and epidemiological changes.

Education and training focused on integrated care

Providers of education and training: In Chile, higher education includes various levels and types of institutions:

- **University Subsystem:** Comprises 60 universities, including state universities, non-state universities, and private universities
- **Technical-Professional Subsystem:** Includes state technical training centres and private professional institutes.
- Professional education typically results in a professional or bachelor's degree and lasts about five years. Technical education focuses on employment skills and lasts a minimum of four semesters.

Moderators of education and training: The Ministry of Education and the Higher Education Undersecretariat formulate policies and oversee higher education, but market forces predominantly drive the system. There is a focus on quality assurance through national exams and accreditation but limited regulatory influence over universities.

Types of education and training:

- **Undergraduate:** Undergraduate health-related programmes show a significant increase in enrollment and graduation rates. However, the standard curricula do not include specific information about integrated care, except for isolated cases such as the learning experience located in communities and the process of curricular adjustments that the Faculty of Health and Social Sciences of the University of the Americas is doing in Chile.
- **Postgraduate:** Gradually a postgraduate offer is being developed that includes aspects associated with integrated care, especially in postgraduate degree associated with family and community health and community health.
- **Continuous professional development:** In Chile, continuous training associated with integrated care content is still very limited. We hope that the strengthening of academic groups associated with IFIC in Chile and Latin America reversed this situation.
- **Vocational:** Vocational education in Chile does not yet contemplate aspects related to integrated care that implies both a challenge for the educational system and for the Chilean health sector.

Gaps in education and training on integrated care

Macro: While Chile's policies and care models express commitment to integrated care, the market's influence and a hospital-centric system pose challenges. Professional and patient associations often focus more on market participation and immediate procedural access rather than integrated care objectives.

Meso: Change processes are occurring within academic groups and local efforts but lack systematisation. Key needs include:

- Greater Ministry of Health influence on curriculum and student profiles.
- Incentives for primary care and community participation.
- Redefining accreditation to include integrated care perspectives.
- Structural and funding adjustments to support integrated care.

Micro: Healthcare professions tend to maintain a monodisciplinary, biomedical focus with traditional and hierarchical practices. Despite some progress catalysed by the pandemic, sustained political will and financial support are needed to promote integrated care.

Australia

Integrated care context

Organisation: Australia has a multi-tiered health and social care system funded by national, state, and local governments, non-government sectors and private health insurers.

Funding: Healthcare in Australia is financed by a mix of national, state, and local government funding, private health insurers, and out-of-pocket contributions. The Australian Government provides national health policy through Medicare, which covers a range of medical services and prescription pharmaceuticals but does not cover certain services, such as ambulance transport and most dental services. Additional private health insurance can be purchased to cover these costs and reduce waiting times in the public system. State governments fund and manage public hospitals, ambulance services and deliver community-based services. Local governments provide community—and home-based health services and environmental health activities.

Availability of resources: Australia's healthcare system employs a significant portion of the workforce, with nurses and midwives constituting the largest groups, followed by allied health and medical practitioners. Despite government incentives and programmes aimed at encouraging health and care professionals to work in rural and remote areas, staffing rural and remote areas remains challenging.

Delivery: Primary care is a fundamental part of the healthcare system, delivered through general practices, community pharmacies, and health centres. Primary Health Networks (PHNs) aim to streamline health services and improve care coordination. Integrated care examples include initiatives like Community Health Pathways and shared care planning. Programmes such as "planned care for better health" and intensive case management aim to improve patient outcomes and reduce hospitalisations.

Professional regulation: Australia is undergoing a national review of health practitioners' scope of practice in primary care settings, focusing on developing consistent interprofessional competencies and national standards. The review aims to address limitations and silos in interprofessional practices and promote a more integrated approach. The Australian Health Practitioner Regulation Agency (Ahpra) oversees the registration and regulation of health practitioners and collaborates with national boards to ensure education standards are met.

Policy commitment: Australia is committed to managing chronic conditions, focusing significantly on improving care for individuals with long-term health and care needs. The system faces challenges such as overstretched GPs and fragmentation due to budget silos, but efforts are ongoing to enhance integration and coordination of care across various services and settings. Government funding and incentives are directed towards improving access and outcomes, particularly in underserved areas.

Education and training focused on integrated care

Providers of education and training: In Australia, education and training for the health and care workforce are offered through a variety of institutions, including 41 universities and 59 TAFE (Technical and Further Education) institutions. The universities provide a broad spectrum of programmes in disciplines such as medicine, nursing, and allied health, while the TAFE sector primarily focuses on vocational training.

Moderators of education and training: Several moderators influence the education and training landscape. Ahpra works with various national boards, such as the Australian Medical Council and the Nursing and Midwifery Board of Australia, to develop and approve accreditation standards. However, some professions, like social workers and speech pathologists, are self-regulated, which introduces inconsistencies in training and practice. Regulatory approaches vary across primary health care professionals, which can hinder integrated care training and implementation.

Types of education and training:

- **Undergraduate:** In Australian universities, undergraduate programmes in health-related fields often focus on acute care rather than integrated care. While some universities include aspects of integrated care in their curricula, the predominant emphasis remains on disease-based and acute care models.
- **Postgraduate:** Postgraduate education in Australia offers some opportunities to study integrated care, with programmes such as those found at the University of Tasmania, which provides units in integrated care through its College of Business and Economics and the Australian Institute of Health Service Management. Despite these offerings, integrated care remains a niche area within postgraduate education.
- **Continuous professional development:** CPD for health professionals includes training opportunities related to integrated care, though these are limited. CPD programmes often focus on acute care and disease management rather than the broader, integrative approaches required for effective integrated care.
- **Vocational:** Vocational education and training (VET) through TAFE institutions address various aspects of healthcare practice but generally lack a focus on integrated care. The training tends to be more oriented towards specific skills and knowledge required for immediate job roles rather than holistic, integrated care approaches.

Gaps in education and training on integrated care

Macro: At the macro level, there is a need for a global framework and competencies for integrated care to guide educational institutions in Australia. Efforts to align education with integrated care principles and promote leadership and cultural change within healthcare settings are critical. Enhancing the alignment between educational programmes and accreditation requirements is also essential for addressing gaps in integrated care training.

Meso: At the meso level, efforts are being made to integrate care concepts into curricula and training, but these initiatives are not yet systematically applied across all institutions. The lack of coordination between different educational sectors and the insufficient focus on integrated care in many programmes contribute to the gap.

Micro: On a micro level, barriers include the continued focus on acute care in training programmes and a lack of understanding of integrated care among students and professionals. The fragmented approach to education and training contributes to gaps in understanding and coordination of care across sectors.

Findings from across the geographies

1. The impact of the health and care training context

The integrated care policy context and priorities influence what constitutes education and training to support the development of a health and care workforce that can deliver integrated care. The seven countries reviewed by the team are at different stages in their evolution of integrated care and there are different drivers for the shift towards greater care integration.

In the cases of the Netherlands, Ontario in Canada and Scotland, these countries or provinces have been implementing integrated health and social care at national or provincial level for at least a decade. There is long term political and social commitment to integrating care for the population including increasing the investment in prevention.

Against the background of this long-term commitment, higher education institutions in these geographies have invested in developing continuing professional development, fellowship programmes and master's level programmes for health and care professionals to support the development of their integrated systems. The relative maturity of these systems also provides experienced faculty for teaching on these programmes.

In England too we see the benefits of an ongoing and sustained policy commitment to integrated care on the development of an integrated care education and training eco-system. The existence of a national level body in Health Education England and opportunities for collaboration with organisations such as Skills for Health and Skills for Care, have created conditions for an agreed education and training framework for person-centred care which has been used develop e-learning resources and content for existing post-graduate training and education.

Investment in education and training for integrated care is much more fragmented and under-developed in Australia and Ireland which mirrors the relative maturity these systems in their path to integrated care. Until recently, both systems had implemented integrated care programmes at sub-state level with finite funding streams. Recent policy reforms in some Australian states such as New South Wales and in Ireland, have created more sustainable conditions for implementing integrated health and social care models at scale. There is early indication that higher education institutions in other countries are building on research capabilities to introduce integrated care training and education at post-graduate and CPD levels.

Chile is at a much earlier stage in its development of integrate health and social care. Reforms over the last decade has focused more on improving healthcare quality and comprehensive provision but recent political commitment to people-centred integrated care have created more conducive conditions for education providers to collaborate and develop CPD initiatives that support inter-disciplinary work.

In all cases, however, the continuing dominance of uni-professional registration requirements in all levels of education for the health and care workforce means that inter-disciplinary training and education, a key feature of care integration, remains low priority for systems.

2. The extent of provision of training in integrated care at all levels

Globally, over the last decade, there has been increasing calls in government policy recommending an integrated approach to care [1-4]. The case studies across all seven countries identified that although there are national policies and directives committing to integrated care, there is a lack of a systematic approach and recognition that we need to train our health and care workforce specifically in integrated care skills and what these skills and competencies look like.

Higher education and vocational jurisdictions, curriculum developers, accreditation and registering bodies, policy developers and national governments need explicit preparation and direction to understand the training gaps and requirements to implement integrated care. They need to recognise that integrated care involves a different set of knowledge, skills, and attitudes to those with which our current health and social care workforce are traditionally trained to do.2,3,5 Training in integrated care needs to be mandated and incorporated into the curriculum for all undergraduate, postgraduate, vocational, and continuing education health and social care professionals.

The need for this training was exemplified in all seven case studies who highlighted an increasing ageing population and chronic disease. All countries reported a quarter or more of their populations having one or more chronic conditions and a high prevalence of obesity and people experiencing psychological problems. The leading causes of mortality were preventable diseases such as cancer, cardiovascular and respiratory diseases, diabetes, and drug related deaths. We know that people with ongoing health problems, preventable diseases and chronic conditions need continuous care and treatment across settings and providers. Growing evidence reinforces this model between health care and other sectors emphasising a person-centred, preventative, and community-based approach and a move away from disease-based and institution-focused care [2-5].

Across all seven countries there were similarities in the way we describe and train our health and care workforce within undergraduate, postgraduate, and vocational care settings with the content of training and registration processes mandated by national accreditation and or professional bodies. However, across all seven countries there were no specific requirements for the inclusion of integrated care in any of these training settings, curriculums or as part of pre and post registration and accreditation requirements.

The case studies demonstrated that there has been very little change in the way we prepare and train our health and care workforce to work within an integrated care model. No frameworks documenting what our workforce should look like as well as how we need to change our curriculum and accreditation processes to incorporate this specific model of care.

> "Our health care professions have maintained a monodisciplinary identity rooted in the biomedical paradigm, and the interpersonal practices among healthcare personnel, as well as their interactions with individuals and communities, remain highly traditional, hierarchical, paternalistic, and paternalistically oriented"
> **(Chile)**
>
> "Fragmentation presents a challenge when planning workforce transformation across the integrated care system. There is also a scarcity of expertise in integrated care" **(England)**
>
> "Lack of funding of integrated care education and training is also a challenge particularly for those in non-professional and unregulated roles in health and social care"
> **(Chile)**

> "Nursing is so acute care focused; it makes it very difficult for students to think outside acute care. Most nurses have worked in acute care, so they do not understand integrated care"
> **(Australia)**

Although countries like Chile and Australia are committed to integrated care through policies, these policies and changes are dominated by hospital centric programmes and GP focussed outcomes on the community.

> "Only 23% of public spending is allocated to financing primary care, with the majority directed towards public hospitals. The workforce is concentrated in hospital networks"
> **(Chile)**

Interviews with 9 curriculum leads across different universities as well as disciplines nationally across Australia as part of a larger PhD study shows that we are still training our health professionals in silos, there is a lack of understanding of what integrated care is and how it is applied in practice, our health workforce is not trained to understand the complexities and referral processes to the social care sector as we are still focussing on disease based and acute focused care. Training does not include how to coordinate care across sectors. Another barrier is that we are still focussing on interprofessional learning frameworks that are acute orientated and do not include key concepts of integrated care such as care coordination across sectors and health promotion and disease prevention. There is also a lack of understanding of what integrated care is and how training in integrated care is different to interprofessional learning.

Our country profiles show that there is no consensus to what integrated training should look like and no consensus of minimal standards and competencies for undergraduate, postgraduate and our vocationally trained workforce.

Undergraduate training

While interprofessional learning in countries such as Canada, Scotland, Netherlands, and Australia were identified as an essential component of training for our health workforce there is nothing specific to integrated care.

Scotland acknowledged that some of their undergraduate programmes have core integration components in the curriculum but not specific to integrated care.

> "Often when students from different disciplines are brought together to learn, the focus is on acute care topics, the students are usually within the first or early years of their training. It is difficult to programme and is not always a priority"
> **(Australia)**

The Netherlands has no specific training programmes on integrated care in undergraduate education.

In Ireland, many courses talk about person-centred approaches and MDT collaboration. Little course work focuses specifically on integrated care. Interprofessional learning and teaching opportunities are observed. Placements tend to be unidisciplinary. The education system tends to be largely unchanged at the undergraduate level.

In England, models of integrated care have been pioneered at some scale since 2013, however the link to higher education institutions (HEIs) as the providers of under-graduate and post-graduate training remains largely unchanged. This fragmentation presents a challenge when planning workforce transformation across the integrated care system. There is also a scarcity of expertise in integrated care in HEIs across England with some notable exceptions.

Postgraduate training

The Netherlands has several master programmes focused on improving health and social services, including one specifically focused on integrated care design (MSc Integrated Care Design).

In Ontario, there are no dedicated post-secondary degree programmes specifically focussed on integrated care; however, some aspects of integrated care may be included in post-graduate healthcare administration and leadership programmes.

A hand search of Universities in Australia conducted in January 2024 identified three universities offering undergraduate and postgraduate courses that have some reference to components of integrated care. The University of Tasmania offers the Foundations of Integrated Care and Delivering integrated Care as part of the College of Business and Economics and the Australian Institute of Health Service Management.

Scotland has an MSc Leading People-centred Integrated Care providing a progressive pathway of master's level studies for working professionals. It is intended for people involved in planning, commissioning, or providing care and support across health, social care, housing, independent and third sectors and for those with a role in education, regulation, inspection or assuring the quality of integrated services and practice. Creating the conditions, leadership, value and people and communities are at the heart of the programme.

From a nursing perspective, Scotland also offers a Graduate Diploma (SCQF level 9) and postgraduate Certificate (SCQF Level 11) in Integrated Community Nursing.

There are other postgraduate programmes within Scotland related to health and care, leadership, and person-centred care; however, none of these programmes appear to have explicit modules or references to integrated care.

In Ireland, national efforts are underway to develop postgraduate programmes focused on integrated care. Munster Technological University - Kerry began offering a Certificate in Principles of Integrated Care in January 2022, with bi-annual intakes. The same University delivers a module: 'Advanced Practice in Person-Cenred Integrated Care', which is part of a MSc in Advanced Nursing Practice. Trinty College Dublin also provides postgraduate modules in integrated care, which are part of the MSc in Health Policy and Management, and the MSc/ Postgraduate Diploma in Specialist Nursing - Gerontological Nursing.

Vocational training

Scotland recognised that its vocationally trained social care workforce promotes collaborative working and leadership capabilities but is not specific to integration. At present, there are some induction resources for social care professionals; however, most of the training appears to be clinical and advancing practice focused.

No countries identified vocational courses specific to integrated care.

Continuing professional development

All countries reported higher education, vocational education and private organisations provide continuing professional development. Selected continuing professional development is mandated by professional bodies, however there is no requirement to include integrated care.

Scotland has no CPD programmes specific to integrated care. Instead, programmes in Scotland tend to be focused on leadership and quality improvement rather than integration.

The Netherlands offers short courses and webinars introducing integrated care.

In Ontario, several non-degree professional development programmes are being offered by various institutions, including post-secondary institutions and dedicated OHT-focused learning programmes funded by the Ministry of Health. However, these programmes are time-limited and insufficient to address the growing need for administrative leaders and clinicians with the knowledge and skills required to lead healthcare transformation.

In England, centralised planning and funding of education and training have created opportunities for Integrated care education and training at scale, but there are reports that workforce shortages and variations between ICSs are affecting the take-up of available education and training at postgraduate and CPD levels.

Ireland is experiencing a growing availability of CPD opportunities in integrated care. For instance, the Strategic Programmes Office (HSE) held the "Future of Integrated Care in Ireland: Modernised Care Pathways Implementation Workshop" at the Royal College of Surgeons in Ireland in May 2023. Additionally, a rising number of webinars are being offered as part of integrated care initiatives, including those organised by the HSE Integrated Care Programme for the Prevention and Management of Chronic Disease and the Patient Flow Academy.

3. Identifiable gaps in integrated care training and education

In all the geographies reviewed, there was little evidence of a comprehensive approach to education and training for integrated care. Isolated higher education institutions have developed programmes to meet the needs of the health and care workforce delivering integrated care. Innovations in course design, such as micro-credentialing, are being explored to provide a range of options to a workforce that is under time pressure and where training budgets are being squeezed.

Some professional groups have greater access to and participation in the available integrated care education and training. Nurses and allied health professionals were most likely to access the training in all the countries included in this review. Some medical schools are actively looking at including "person-centeredness" in their curricula, but this remains patchy and underdeveloped. Health and care professionals working in community services, whether state, private, or voluntary sector-funded, are also more likely to access this training.

In England and the Netherlands, specialist education and training have been developed for population health analytics and care coordination. In both these countries, Ireland and in Ontario, Canada, education and training for social prescribing is being developed. These have been identified as critical new skills in new integrated care models and are unmet needs in most countries.

Across all geographies, education and training in integrated care have been general in terms of population focus. However, where attention has been paid to a specific population, this has generally been long-term conditions and geriatrics. Education and training on meeting the integrated care needs of children, young people, and people with disabilities remain largely unmet.

What needs to be done to promote the widespread adoption of integrated care education and training

1. Develop national or global frameworks for education and training in competencies for integrated care

There are a small number of peer-reviewed publications that have focused on the competencies required for integrated care service delivery in different countries. A recent scoping review by Barraclough et al. (2021) reinforced the findings of this review that integrated care education and training remain uni-disciplinary or setting-specific. This study recommended a framework of competencies that could be universally applied to integrated care. Following the scoping review, Barraclough et al in 2024 published a global framework for workforce training in integrated care. This framework consisted of eight domains and forty competencies. It was developed through a Delphi study with twenty-one experts from around the world with experience in workforce training and development in integrated care. The expert panel consulted in the study were from three of the countries covered in this review (Australia, the UK and the Netherlands), all high-income and relatively mature in their implementation of integrated care. Nonetheless, this framework provides an excellent starting point for all countries engaging in reform to create the conditions for person-centred integrated care to understand what needs to be done to build the education and training infrastructure at vocational, undergraduate and post-graduate levels to support their reform programme. Sharing the lessons from middle- and low-income countries, whose needs may differ, will be particularly important.

2. Increase investment in a range of training and education options for all health and care workers through High Education Institutions, professional bodies and third-sector providers

The UN Sustainability Development Goal target 3.c. aims to "substantially increase health financing and the recruitment, development, training and retention of the health workforce..." Despite this and the recognition that the health and care workforce across the world is under significant pressure from increasing demand and decreasing workforce supply (Boniol et al, 2022), there remains a significant lack of data and action in the education and training of the health and care workforce generally (World Health Organization, 2022), not to mention specific to integrated care competencies.

The move to new modes of providing training and education through online learning, asynchronous learning and micro-credentialing are all innovative responses to a growing demand for greater flexibility and how we train and educate the health and care workforce, particularly those already working in face-to-face roles. Building on these early cohorts of integrated care 'experts' will be important to provide the faculty for teaching and onsite supervision of future cohorts of health and care workers undertaking education and training in integrated care.

Increased investment will rely on systematic evaluation of the impact of these emerging models of education and training, which in turn relies on better quality data on education and training and its effects on health and care workers, people at the centre of care and the system within which they work. Simultaneous investment in this data collection, synthesis and feedback is urgent. The World Health Organisation has started to populate the National Health Workforce Accounts Data Portal but has not yet been able to populate it with education and training data from countries.

3. Update professional accreditation requirements to include competencies related to integrated working practices where appropriate

Professional regulatory bodies are starting to recognise the impact of new models of prevention, care integration, and interdisciplinary work on their members' scope of practice and overlapping accountabilities. There is some very early indication that these bodies are introducing new types of CPD to equip their members, but this is patchy and short term with limited commitment from employers to fund such training and development which does not affect accreditation or other regulatory requirements. CPD training should be mandatory and funded accordingly, specifically where such training supports the implementation of current policy reform. The recent WHO Europe report Health and Care Workforce in Europe: time to Act (2022) stressed the importance of updates to health and care workforce education that equip people with the competencies to "practise in an interprofessional and intersectoral team environment with shared decision-making" (2022; pg. 42).

4. International collaboration on education and training for integrated care

Organisations like the International Foundation for Integrated Care (IFIC), as both a provider of education, training, and development in integrated care through our courses and conferences and a knowledge manager of research into education and training through our journal, the International Journal of Integrated Care (IJIC), play an important role in enabling cross-country collaboration in integrated care education and training and research on its impact.

IFIC will work over the next 12 months with its partners and collaborators worldwide to identify emerging areas of research in interdisciplinary practice in the context of changing models of care to meet the needs of populations living longer with chronic illness. This research will be shared to support and promote evidence-informed education and training policy and practice.

References

1. Amelung V, Stein V, Goodwin N, Balicer R, Nolte E, Suter E, editors. Handbook Integrated Care [Internet]. Cham: Springer International Publishing; 2017. Available from: https://link.springer.com/book/10.1007%2F978-3-319-56103-5#editorsandaffiliations
2. Barraclough F, Smith-Merry J, Pit S, Stein V. Workforce Development in Integrated Care: An International Framework. International Journal of Integrated Care. 2023 Dec 28;23(S1):383.
3. Barraclough F, Smith-merry J, Stein V, Pit S. An International Competency Framework for High-Quality Workforce Development in Integrated Care (IC): A Modified Delphi Study Among Global Participants. International Journal of Integrated Care. 2024;24(2).
4. Boniol M, Kunjumen T, Nair TS, Siyam A, Campbell J, Diallo K. The global health workforce stock and distribution in 2020 and 2030: a threat to equity and "universal" health coverage? BMJ Global Health [Internet]. 2022 Jun 1;7(6):1–8. Available from: https://gh.bmj.com/content/7/6/e009316
5. Cohen DJ, Balasubramanian BA, Davis M, Hall J, Gunn R, Stange KC, et al. Understanding Care Integration from the Ground Up: Five Organizing Constructs that Shape Integrated Practices. The Journal of the American Board of Family Medicine. 2015 Sep 1;28 (Supplement 1): S7–20.
6. Mitchell GK, Burridge L, Zhang J, Donald M, Scott IA, Dart J, et al. Systematic review of integrated models of health care delivered at the primary–secondary interface: how effective is it and what determines effectiveness? Australian Journal of Primary Health. 2015;21(4):391.
7. NHWA Web portal [Internet]. apps.who.int. Available from: https://apps.who.int/nhwaportal/
8. Valentijn PP, Schepman SM, Opheij W, Bruijnzeels MA. Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. International journal of integrated care [Internet]. 2013;13(1): e010. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3653278/
9. Europe WHORO for. Roadmap: strengthening people-centred health systems in the WHO European Region: A Framework for Action towards Coordinated/Integrated Health Services Delivery (CIHSD). iriswhoint [Internet]. 2013; Available from: https://iris.who.int/handle/10665/108628
10. Europe WHORO for. Health and care workforce in Europe: time to act [Internet]. iris.who.int. World Health Organization. Regional Office for Europe; 2022. Available from: https://iris.who.int/handle/10665/362379

Case Studies

The State of Education and Training in Integrated Care in Australia

By Frances Barraclough

Country context

Our population and health status

Australia's population was 26,638,544 people on 30 June 2023. New South Wales has the highest population. Australia has the third highest life expectancy in the world. Life expectancy at birth was 81.2 years for males and 85.3 years for females in 2020-2022[1].

As of December 2023, eight in ten (81.4%) people had at least one long-term health condition. One in two (49.9%) people had at least one chronic condition. Mental and behavioural conditions (26.1%), back problems (15.7%), and arthritis (14.5%) were the most common chronic conditions. Forty-seven percent of Australians had one or more chronic conditions. Over the last decade the prevalence of chronic conditions increased (from 42%). Chronic illness has been the leading focus of Australia's health care system. Around one in five Australians have a disability and many others provide care to those with a disability[2].

Health and care systems structure

Health and social care in Australia are funded by national, state, and local governments. Other jurisdictions such as non-government sectors, private health insurers and individuals also fund and provide services[3].

The Australian government informs national health policy and funds health services through Medicare. Medicare is a universal insurance scheme that upholds Australia's health system. Medicare pays rebates for medical services and procedures provided by private practitioners in the community such as General Practitioners and other medical practitioners[3].

Medicare provides free hospital services for public patients in public hospitals and a range of prescription pharmaceuticals subsidised under the national Pharmaceutical Benefits Scheme (PBS). However, Medicare does not cover services such as ambulance services, most dental services, and optical aids. People can pay additional private health insurance to manage these costs as well as alleviate waiting times in the public hospital system and can choose their own doctor.

The Australian government provides funds to the states and territories for public hospital services, community controlled Aboriginal and Torres Strait Islander primary health care services, health care for veterans, to support the National Disability Insurance Scheme (NDIS) and residential aged care. The Australian government also regulates private health insurance and funds health and medical research[3].

Our state governments, on the other hand, fund and manage public hospitals, ambulance services and deliver community-based and preventive services (for example, cancer screening and immunisation). Local governments provide community and home-based health and support services, environmental health services and public health activities[3].

Primary care is the foundation of the healthcare system, providing care in communities and connecting Australians to specialised medical care when needed. Delivered through general practice, community pharmacies, community health centres, mental health centres, and allied health services, primary care professionals and their support teams are often the first place Australians turn to for their general health needs. Primary care is provided by a broad range of services including individuals without formal healthcare qualifications that work in primary care services and help people to access care[3].

Australia also has 31 Primary Health Networks, who are independent organisations working to streamline health services – particularly for those at risk of poor health outcomes – and to better coordinate care so people receive the right care, in the right place, at the right time[3]. The PHNs identity and prioritise local health needs and develop collaborative care pathways and joint funding initiatives.

The Australian examples of integrated care are confined to the GP dominated primary sector, focus on hospitalisation avoidance, the patient experience (looks mainly across GP and acute episodes of care)and the implementation of Health Care Homes. However, GPs are often overstretched, with large patient caseloads and often do not discuss health issues with people with high health risks and the focus on people with existing chronic conditions in health care homes is too narrow[4]. Another drawback of Australia's current health system is that there is a series of budget silos, there is no financial incentive to use other parts of the system, and this blocks the progress towards an integrated health system[4].

In NSW there are Community Health Pathways (CHP) a web-based portal providing locally agreed processes, pathways and referral information for primary care providers. This process helps with the delivery of integrated care across a range of service providers. A similar program is shared care planning with the implementation of a patient centred health record that can be shared across service providers.

Other integrated health care examples in NSW include planned care for better health, a program that identifies patients at risk of hospitalisation early and provides care coordination, care navigation and health coaching to improve the patients experience and outcomes. Emergency department to the community is another tailored intensive case management program to reduce the need to hospitalisation. A similar program exists in residential aged care to prevent hospitalisations[5].

There is currently a national review of health practitioners' scope of practice in primary care settings, with early suggestions recommending a nationally consistent approach in promoting and implementing common interprofessional competencies and national standards[6]. The risk here is that we don't move on from interprofessional practices that have been limited and siloed in the past.

Our health and care workforce

Our health and care professionals deliver services in a variety of settings, from large hospitals (in capital cities and regional centres) to small health clinics (such as those in remote areas). Nurses and midwives make up most health professions followed by allied health and medical practitioners who mostly work in metropolitan, regional centres, or large rural towns[7].

Significantly less work in small rural towns and remote communities. This is despite reports illustrating that people living outside major cities have increased health risk factors, chronic conditions, and higher mortality rates.

The Australian Government funds several programs to encourage health care workers to train, live and work in these areas. This includes incentives for General Practitioners to work in rural and remote locations, the implementation of training facilities in rural Australia and a broad range of scholarships to support health workers in rural and remote settings[8].

Vocationally trained health workers such as Assistants in Nursing, Dentistry, Audiometry, Pharmacy Physiotherapy and Occupational therapy work in community settings, hospitals, private practice, schools, residential aged care and other health and disability settings. Many of these certificate courses have pathways to higher education. Technical and Further Education New South Wales (TAFE NSW) is Australia's largest vocational education and training provider.

Education and training focused on integrated care

Providers of education and training

In Australia, our health and care workforce are trained in university and vocational settings. There are forty-one universities located in multiple campuses across metropolitan, regional, and remote areas. New South Wales has the highest number of universities[11], followed by Victoria and Queensland.[8] The remaining states have 1-4 universities. Students can study medicine, nursing, dentistry, social work, pharmacy, and a variety of allied health disciplines, including occupational therapy, physiotherapy, nutrition and dietetics, exercise physiology, paramedics, and speech pathology. The TAFE sector is the largest education and training sector in Australia. There are 59 institutions across metropolitan and regional areas.

Moderators of education and training

Under the National Law, fifteen national boards are responsible for registering and regulating the sixteen health professions that have protected titles. The professions with protected titles include doctors, nurses, pharmacists, and psychologists. As part of its function, the Australian Health Practitioner Regulation Agency (Ahpra) manages registration and renewal for health practitioners[9].

The Australian Practitioner Regulation Agency (Ahpra) works in partnership with the boards to ensure that Australia's registered health practitioners are suitably trained, qualified and safe to practice. The Australian Practitioner Regulation Agency works closely with the individual health boards to develop and approve accreditation standards, assess, and accredit programs of study and monitor approved programs of study. Examples of these boards include the Australian Medical Council (the AMC) responsible for accrediting education providers and their programs of study for the medical profession. The AMC assesses medical schools and their programs of study against the approved accreditation standards. The Nursing and Midwifery Board of Australia works to ensure that Australia's nurses and midwives are suitably trained, qualified and safe to practise[9].

However, some health professions are 'self-regulated' (that is, not regulated under the National Law), including social workers, speech pathologists and audiologists. For healthcare workers outside the National Scheme, there is a Code of Conduct, which establishes expected standards of care and allows for investigations into alleged breaches of the code. The implementation and regulation of the code is a state and territory responsibility.

There are inconsistencies in the regulatory approaches across primary health care professionals that may inhibit these professionals working to their full scopes of practice.

Training focused on integrated care

A hand search of Universities in New South Wales, Australia, conducted in January 2024 shows the extent of health-related courses offered at all 11 universities including undergraduate and postgraduate courses. The search identified 3 universities offering undergraduate and post graduate courses that have some reference to integrated care.

A hand search of all universities in Australia, identified post graduate units in the Foundations of Integrated Care and Delivering integrated Care as part of the college of business and economics and the Australian Institute of Health Service Management at the University of Tasmania.

Barriers to implementing integrated care in education and training

Interviews with 9 curriculum leads across different universities as well as disciplines nationally as part of a larger PhD study shows that we are still training our health professionals in silos, there is a lack of understanding of what integrated care is and how it is applied in practice, our health workforce is not trained to understand the complexities and referral processes to the social care sector as we are still focussing on disease based and acute focused care. Training does not include how to coordinate care across sectors. Another barrier is that we are still focussing on interprofessional learning frameworks that are acute orientated and do not include key concepts of integrated care such as care coordination across sectors and health promotion and disease prevention. There is also a lack of understanding of what integrated care is and how training in integrated care is different to interprofessional learning.

> "Nursing is so acute care focused; it makes it very difficult for students to actually think outside acute care".
>
> "Most nurses have worked in acute care, so they do not understand integrated care".
>
> "Often when students from different disciplines are brought together to learn, the focus is on acute care topics, the students are usually within the first or early years of their training. It is difficult to program and is not always a priority".

Another barrier is that we are not training our vocationally trained workforce together with our higher education trained health professionals leading to gaps in understanding of these roles and referral process to the types of sectors they work in.

> "Without appropriate enabling employer practices and settings, there is the potential for multidisciplinary care teams to result in the formation of new siloes rather than working in a truly connected way[6]."

Enabling factors

Macro level

Solutions to implementing integrated care into curriculum include.

- The development of a global framework and competencies to understand what is required to train our workforce in integrated care.
- Targeting leadership and culture to promote enabling and authorising environments at the service level has been identified as a critical complement to system-level reform6.
- The development of post graduate programs to upskill university and vocational care curriculum leads on understanding integrated care including how and why and what needs to be incorporated into curriculum.
- The development of postgraduate programs to upskill those responsible for providing supervision to health and social care students on placement across different settings. Once again to focus on understanding integrated care including examples of how to incorporate this into practice in the workplace.
- Implement legislation where students do not have to always be supervised by their discipline while on placement and look at broader placement opportunities to include community and social care settings.
- We need better alignment between education/training for health professionals and accreditation/registration bodies.
- Upskilling accreditation bodies about the importance of integrated care and understanding what it means and how to do it.
- We need to promote to governments about the need to train and upskill leaders in health and not assume they have the knowledge of integrated care and how to do it.

References - Australia

1. Australian Bureau of Statistics. Population [Internet]. www.abs.gov.au. Australian Bureau of Statistics; 2024. Available from: https://www.abs.gov.au/statistics/people/population
2. Australian Bureau of Statistics. Health conditions and risks | Australian Bureau of Statistics [Internet]. www.abs.gov.au. 2022. Available from: https://www.abs.gov.au/statistics/health/health-conditions-and-risks
3. Australian Institute of Health and Welfare. Health system overview [Internet]. Australian Institute of Health and Welfare. 2024. Available from: https://www.aihw.gov.au/reports/australias-health/health-system-overview
4. Shifting the Dial: 5 year productivity review - Productivity Commission Inquiry Report [Internet]. Pc.gov.au. 2017. Available from: https://www.pc.gov.au/inquiries/completed/productivity-review/report
5. Health. Unleashing the Potential of our Health Workforce – Scope of practice review [Internet]. Australian Government Department of Health and Aged Care. 2023. Available from: https://www.health.gov.au/our-work/scope-of-practice-review
6. Dashboard, Summary Statistics - Metrics [Internet]. hwd.health.gov.au. Available from: https://hwd.health.gov.au/resources/dashboards/nhwds-summary-metrics.html
7. Health. Our work related to the rural health workforce [Internet]. Australian Government Department of Health and Aged Care. 2023. Available from: https://www.health.gov.au/topics/rural-health-workforce/related-work
8. AHPRA. Regulating Australia's health practitioners [Internet]. AHPRA. 2024. Available from: https://www.ahpra.gov.au/

The State of Education and Training in Integrated Care in Chile

By Dr Osvaldo Artaza

Country context

Chile is a unitary democratic republic. In the year 2023, the total population of Chile was 19,629,590. The population of individuals over 65 years old accounted for 13.5% of the total, with a ratio of 74.1 elderly individuals (65 years and older) per 100 individuals under 15 years old. The population of potentially active individuals aged 15 to 64 represented 68.4%, with a dependency ratio of 46.3 potentially inactive inhabitants per 100 potentially active inhabitants. The per capita income is US$15,355, and the poverty rate at the individual level is 6.5%. Estimates of multidimensional poverty incidence at the household level stand at 13.4%, with a Gini coefficient of 0.491.

The literacy rate is 99.2%, the unemployment rate is 8.7%, and the Human Development Index is 0.855. The percentage of the population with internet access was 90.2%. Life expectancy at birth for the year 2023 was 81.2 years. Infant mortality is 6.5 per 1000 live births. The maternal mortality ratio is 15 per 100,000 live births, and women, on average, have 1.5 children throughout their reproductive lives. The leading causes of mortality are non-communicable diseases such as cancer and cardiovascular diseases.

In Chile, 70% of the population aged 15 and older lives with multimorbidity, meaning the presence of two or more chronic conditions simultaneously. There is a high prevalence of obesity, hypertension, and diabetes in the country.

In Chile, since the military dictatorship (1973-1989) concluded with the termination of the National Health Service established in 1952, there exists a segmented, fragmented, and inequitable health system. Within this framework, a public insurance system covering 86% of the population (National Health Fund - FONASA) coexists with multiple private insurance schemes (ISAPRES) catering to 14% of the population. While the majority of health care provision in hospitals falls under the public sector, ambulatory care is evenly split between public and private providers.

The private sector operates on market principles, incentivising the consumption of healthcare services. On the other hand, the public sector faces challenges in addressing the needs of individuals and their communities due to various issues, including insufficient funding, organisational shortcomings, and the presence of a phenomenon known as multiple capture. This involves pressures from the healthcare market to generate increased service consumption, influences from clientelist interests of political parties, the presence of strong corporate interests, and the dominance of a hospital-centric biomedical paradigm.

Public expenditure on health represents 5.17% of the gross domestic product (GDP) and 15.47% of the total public expenditure. Out-of-pocket spending on health constitutes 28.87% of the total health expenditure. Only 23% of public spending is allocated to financing Primary Care, with the majority directed towards public hospitals.

In Chile, the delivery of health services constitutes a human resource-intensive economic sector, representing 46.3% of the public sector workforce (Annual Report on Public Employment 2012-2021 DIPRES). This sector is characterised by a highly feminised workforce (69%), with an average age. Currently, there is a rate of 3.1 doctors, 3.8 registered nurses, 2.0 physiotherapists, 1.5 dentists, 4.0 psychologists, and 12.4 higher-level health technicians per 1000 inhabitants. Approximately 24% of doctors are foreign nationals, with a preference for working in primary care (about 40% of first-level healthcare providers are foreigners).

As of December 2022, the staffing of the public network of Health Services and Municipal Primary Care totals 268,697 employees, showing a 96% increase from 2013 to 2022. Regarding the composition of the workforce as of December 2022, 59% is concentrated in the hospital network of Health Services (157,992 employees), and 41% corresponds to Municipal Primary Care (110,705 individuals). Due to the COVID-19 pandemic, the public health sector's workforce increased by 23%; however, significant gaps persist in the number and distribution of professionals, particularly in medical specialities, mental health professionals, and personnel for emerging areas such as rehabilitation, ambulatory major surgery, and home hospitalisation.

Given the limited oversight of the Ministry of Health over the labour market, health professionals, especially specialist doctors, tend to concentrate on areas with higher consumption of healthcare services. The Ministry of Health has insufficient capacity to alter the practices of health personnel and redirect their skills towards the new health challenges posed by demographic and epidemiological shifts.

Education and training focused on integrated care

During the dictatorship, higher education in Chile, which was primarily state-funded and free, transitioned to being predominantly private (83% of enrollment) and fee-based. Following the restoration of democracy in 1990, a system of state-backed bank loans was introduced to facilitate university access. Finally, in response to citizen pressure, particularly from student mobilisations, a tuition-free system was established in 2016 for students from households belonging to the lowest 60% of income earners in the country.

In Chile, higher education aims to prepare and educate students at an advanced level in sciences, arts, humanities, and technologies, as well as in the professional and technical fields. The prerequisite for admission is a secondary education diploma. Higher education instruction encompasses various levels of educational programmes through which it is possible to obtain degrees such as higher-level technician, professional titles, academic degrees, or university degrees and their equivalents. The higher education system is composed of the technical-professional subsystem and the university subsystem.

The university subsystem in Chile comprises 60 universities officially recognised by the state. It includes state universities established by law, non-state universities belonging to the Council of Rectors, and private universities recognised by the state. The technical-professional subsystem encompasses state technical training centres, as well as private professional institutes and technical training centres recognised by the state.

Professional education provides general and scientific training, leading to the attainment of a professional degree, a bachelor's degree, or both. Professional careers are offered at universities and professional institutes, with the majority having an approximate duration of five years. Certain professional degrees, as stipulated by law, require the prior acquisition of an academic degree, and in such cases, the degrees are conferred by universities.

Technical education is geared towards developing skills for employment in a specialized field either professionally or as a self-employed individual. Technical programs typically have a minimum duration of four semesters.

The total enrollment in higher education for the year 2022 is 1,301,925 students, considering undergraduate, postgraduate, and post-degree levels. In 2022, undergraduate enrollment constitutes 93.1% of the total enrollment, postgraduate enrollment is 4.2%, and post-degree enrollment is 2.7%. Based on the type of institution, in 2022, universities account for 59.3% of the total enrollment, followed by professional institutes at 30.5%, and, finally, technical training centres at 10.1%. Currently, state universities only represent 16% of the total enrollment.

In the year 2022, there were a total of 220,000 undergraduate students enrolled in health-related programs (45,000 in the first year, including 7,600 in nursing and 3,000 in the first year of medicine) The enrollment of first-year students in 12 health professional programs, between the years 2010 and 2022, has increased by a total of 9.5%, with the most significant growth observed in Obstetrics and Gynecology (+156.5%), Pharmacy and Chemistry (+103.6%), and Occupational Therapy (+94.1%).

Examining the progression of graduates, it is evident that all programs have shown an increase between the years 2010 and 2021, with an overall variation of 67.5%. Changes in the university offerings are influenced by market forces, given the limited regulatory influence of the Ministry of Health over universities.

The Ministry of Education, through the Higher Education Undersecretariat, formulates policies for higher education and coordinates the state entities within the system. However, this leadership is weak in comparison to the predominant influence of the market. The university system is primarily regulated by supply and demand, and the State has focused on ensuring the quality of the system through a robust National Quality Assurance System for Higher Education. This involves national qualifying exams, such as the National Medical Knowledge Examination (EUNACOM), and a national registry accrediting individual providers.

Enabling factors and barriers

Macro Level

The country expresses its commitment to integrated care through policies issued by the Ministry of Health, as guided by the current care model, legislation safeguarding patient rights, and a quality care accreditation system. This system is currently incorporating specific aspects related to person-centered care.

However, these efforts prove insufficient considering the market's impact on the training of healthcare professionals and the dominance of the hospital-centric paradigm within the Chilean healthcare system. Professional associations are more concerned with their participation in the market and the social and economic status of their members. Patient associations focus on issues related to access to diagnostic and therapeutic procedures, with some emerging to seek funding for high-cost health technologies, at times with questionable cost-effectiveness. Participation in healthcare is primarily formal, utilitarian, and often clientelist. Consequently, despite a declared intent to move towards integrated care, this objective has only been partially achieved.

Meso Level

At the intermediate level, processes of change are observed within academic groups, some health faculties, and numerous local efforts that have not yet been properly systematized and shared.

To strengthen the change process towards integrated care in Chile, the following aspects are crucial:

1. Ministry of Health's influence in defining the profile of health students' graduation and the subsequent adjustment of curricular frameworks.
2. Incentives for territorial work in primary care and for establishing genuine mechanisms for people's participation at all levels of the healthcare system.
3. Shifting the accreditation system for health education quality away from an exclusively biomedical perspective. National qualifying knowledge exams should adopt an integrated care perspective, and the accreditation system for providers should extend beyond patient safety considerations.

4. Aligning Chile's declared care model with structural transformations that support integrated care, including an increase in funding proportion for integrated action and care in the territories, incorporation of new disciplines and interdisciplinary capabilities, and ongoing training for human resources in integrated care capacities.

Micro Level

Professions maintain a monodisciplinary identity rooted in the biomedical paradigm, and the interpersonal practices among healthcare personnel, as well as their interactions with individuals and communities, remain highly traditional, hierarchical, paternalistic, and paternalistically oriented.

The pandemic served as a strong catalyst for a change in thinking that must be sustained over time. This necessitates political will, financing, and the persistent implementation of actions as state policies.

References

1. Perfil de País - Chile [Internet]. Health in the Americas. 2022. Available from: https://hia.paho.org/es/paises-2022/perfil-chile
2. World Bank Open Data [Internet]. World Bank Open Data. 2015 [cited 2025 Feb 12]. Available from: https://datos.bancomundial.org/indicator/NY.GDP.PCAP.CD?locations=CL
3. Informe de Desarrollo Social 2023 [Internet]. Available from: https://www.desarrollosocialyfamilia.gob.cl/storage/docs/ids/Informe-desarrollo-social-2023.pdf
4. Banco Central [Internet]. si3.bcentral.cl. Available from: https://si3.bcentral.cl/bdemovil/BDE/Series/MOV_SC_ML3
5. Índice de Desarrollo Humano 2022: Chile mantiene primer lugar en la región, con desafíos persistentes en reducción de desigualdades | Programa De Las Naciones Unidas Para El Desarrollo [Internet]. UNDP. Available from: https://www.undp.org/es/chile/noticias/indice-de-desarrollo-humano-2022-chile-mantiene-primer-lugar-en-la-region-con-desafios-persistentes-en-reduccion-de-desigualdades
6. Rediseño en el abordaje de personas con multimorbilidad crónica: desde la fragmentación al cuidado integral centrado en las personas [Internet]. Elsevier.es. 2016 [cited 2025 Feb 12]. Available from: https://www.elsevier.es/es-revista-revista-medica-clinica-las-condes-202-pdf-S0716864021000651
7. El recurso humano en el sector de la Salud en Chile: Categorías, magnitudes y remuneraciones en sector público de salud. bcncl [Internet]. 2020 [cited 2025 Feb 12]; Available from: https://www.bcn.cl/asesoriasparlamentarias/detalle_documento.html?id=79406
8. BOLETÍN N°1 -2023 REGISTRO NACIONAL DE PRESTADORES INDIVIDUALES DE SALUD [Internet]. [cited 2025 Feb 12]. Available from: https://www.supersalud.gob.cl/documentacion/666/articles-22777_recurso_3.pdf
9. Chile B del CN de. Biblioteca del Congreso Nacional de Chile [Internet]. Portal de la Biblioteca del Congreso Nacional de Chile. 2014 [cited 2022 Jun 6]. Available from: https://www.bcn.cl
10. Pareja Pineda C, Mac-Clure O, Pérez Vásquez C, Pareja Pineda C, Mac-Clure O, Pérez Vásquez C. Acceso a la educación universitaria y gratuidad: movilidad educacional y movilidad territorial en una región no metropolitana de Chile. Calidad en la educación [Internet]. 2021 Dec 1;(55):41–81. Available from: https://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0718-45652021000200041&lang=es
11. Perfil del pais | SITEAL [Internet]. Unesco.org. 2018 [cited 2025 Feb 12]. Available from: https://siteal.iiep.unesco.org/pais/chile#Marco%20normativo%20y%20estructura
12. Informe de Matrícula 2023: La matrícula en Educación Superior creció 3% en 2023, y suma casi 140 mil estudiantes de Pueblos Originarios [Internet]. Subsecretaría de Educación Superior. 2023. Available from: https://educacionsuperior.mineduc.cl/2023/07/11/informe-de-matricula-2023-la-matricula-en-educacion-superior-crecio-3-en-2023-y-suma-casi-140-mil-estudiantes-de-pueblos-originarios/
13. Caracterización de Profesionales de la Salud en Chile [Internet]. Superintendencia de Salud, Gobierno de Chile. 2024 [cited 2025 Feb 12]. Available from: https://www.supersalud.gob.cl/difusion/665/w3-article-21962.html
14. Sistema Nacional de Aseguramiento de la Calidad de la Educación Superior (SINACES) - Consejo Nacional de Educación [Internet]. Consejo Nacional de Educación. 2023 [cited 2025 Feb 12]. Available from: https://cned.cl/institucional/sistema-nacional-de-aseguramiento-de-la-calidad-de-la-educacion-superior-sinaces/

15. Solicitud de mediación por daños ocasionados en una atención de salud otorgada por prestadores de salud privados - Solicitud de mediación por daños ocasionados en una atención de salud otorgada por prestadores de salud privados [Internet]. Servicios. Superintendencia de Salud, Gobierno de Chile. 2024 [cited 2025 Feb 12]. Available from: https://www.supersalud.gob.cl/servicios/669/w3-article-7407.html

16. Orientaciones para la implementacion del modelo de atencion integral de salud familiar y comunitaria Dirigido a Equipos de Salud Subsecretaría de Redes Asistenciales División de Atención Primaria [Internet]. Available from: https://www.minsal.cl/portal/url/item/e7b24eef3e5cb5d1e0400101650128e9.pdf

17. Nacional B del C. Biblioteca del Congreso Nacional | Ley Chile [Internet]. www.bcn.cl/leychile. 2012. Available from: https://www.bcn.cl/leychile/navegar?idNorma=1039348

18. Ley N° 21.541 - Ley N° 21.541 [Internet]. Regulación. Superintendencia de Salud, Gobierno de Chile. 2024 [cited 2025 Feb 12]. Available from: https://www.supersalud.gob.cl/normativa/668/w3-article-14436.html

19. Guía Práctica para el Proceso de Acreditación de Prestadores Institucionales de Salud [Internet]. Available from: https://www.superdesalud.gob.cl/observatorio/671/articles-8981_guia_practica_acreditacion.pdf

20. Orientación en Salud. Superintendencia de Salud, Gobierno de Chile. Available from: https://www.supersalud.gob.cl/difusion/665/w3-propertyvalue-6060.html

21. Artaza O, Fábrega R, Torres V, Monsalve C, Méndez C. Hacia un sistema de acreditación de la calidad para una atención integrada y centrada en las personas en Chile. International Journal of Integrated Care. 2023 Dec 28;23(S1):108–8.

22. Alianzachilenadeagrupacionesdepacientes.cl. 2025 [cited 2025 Feb 12]. Available from: https://alianzachilenadeagrupacionesdepacientes.cl/agrupaciones-2/

23. Méndez CA, Vanegas López JJ. La participación social en salud: el desafío de Chile. Revista Panamericana de Salud Pública [Internet]. 2010 Feb [cited 2021 Apr 25];27(2):144–8. Available from: https://iris.paho.org/bitstream/handle/10665.2/9717/a09v27n2.pdf?sequence=1&isAllowed=y#:~:text=En%20el%20caso%20de%20Chile

24. Fernández1 L, Barría M, Campodónico L, Báltica Cabieses, Castillo L, Ferrari ID, et al. Universidades por el territorio: Acción colaborativa de transformación del pregrado. International Journal of Integrated Care. 2023 Dec 28;23(S1):474–4.

25. Artaza O, Isabel De Ferrari, Güida C, Víctor Fernández. Experiencia chilena de desarrollo de capacidades para la atención integrada en salud en la formación de profesionales. International Journal of Integrated Care. 2023 Dec 28;23(S1):109–9.

26. Andrea C. MIIM : aprendizaje colaborativo y experiencia multiprofesional : desarrollo del aprendizaje entre estudiantes que participaron del curso MIIM I de la Universidad de Chile el año 2015. Uchilecl [Internet]. 2015 [cited 2025 Feb 12]; Available from: https://repositorio.uchile.cl/handle/2250/173321

27. Soto L, Soto J, Riquelme F. Hacia un modelo de atención en salud para el siglo XXI: breve historia del modelo de atención integrada en Chile. Revista Médica Clínica Las Condes. 2021 Jul;32(4):373–8.

28. Martínez M, Sapag JC, Zamorano P, Muñoz P, Varela T, Téllez Á. Contribución de una estrategia de atención centrada en la persona con multimorbilidad al Modelo de Atención Integral de Salud Familiar y Comunitario en Chile. Revista médica de Chile. 2022 Jun;150(6):782–7.

29. Artaza O, Méndez C. [cited 2025 Feb 12]. Available from: https://repositorio.udla.cl/xmlui/bitstream/handle/udla/936/Sistemas_y_servicios_de_salud_Ediciones_UACh%20%281%29.pdf?sequence=1&isAllowed=y

30. Escuela de Salud Pública lanza recopilación de experiencias participativas realizadas en pandemia - Escuela de Salud Pública [Internet]. Uchile.cl. 2022 [cited 2025 Feb 12]. Available from: https://saludpublica.uchile.cl/noticias/189165/lanzamiento-de-recopilacion-de-experiencias-participativas-en-pandemia

The State of Education and Training in Integrated Care in England, UK

By Dr Niamh Lennox-Chhugani

Country context

The **population** of England was 60.2 million in mid-2022. Results of the 2021 Census showed that 18.6% or 11 million people were aged over 65 years. The age dependency ratio in the UK in 2022 was estimated as 58. In 2018, the ONS estimated that the old age dependency ratio which measures the number of people eligible for state pension per 1000 working age people in 2022 would be 285.7 rising to 366.4 in 2040. Between 2019/20 and 2021/22, the average poverty rates in England (22%), Wales (22%) and Scotland (21%) had converged to around the same level, although poverty rates were much lower in Northern Ireland (16%). There are huge variations in poverty rates across England with a distinct north-south division.

The Human Development Index for the whole of the UK in 2021 was 0.929, ranging from 0.973 in Greater London to 0.901 in the North East of England. **Life expectancy** at birth in 2018 to 2020 was estimated to be 79.3 years for males and 83.1 years for females in England, this compares with 74.1 years for males and 78.7 years for females in the most deprived areas of England. The Health Profile for England Report 2021 reported that the leading **causes of morbidity** based on years lived with disability (YLD) for men were musculoskeletal disorders, depression, and diabetes and for women musculoskeletal disorders, headache and gynaecological disorders. Their report highlighted the increasing burden of dementia and Alzheimer's disease and cancer as well as a plateauing in prevalence of high risk behaviours linked to ill-health such as smoking, drinking, obesity and hyper-tension. These are compounded by wider determinants including the rise in inequalities outlined above. A study of multi-morbidity (people living with more than one long-term condition) in England published in 2023, found that the overall prevalence of multiple long term conditions (MLTCs) was 14.8% in 2020 and 68.2% in those aged 80 year and over. Men and people living in the most deprived areas were more at risk of MLTCs.

The **National Health Service (NHS) in England**, is a taxation funded Beveridge system which provides comprehensive healthcare aimed at improving, preventing, diagnosing and treating both physical and mental health problems with equal regard to all based on clinical need not ability to pay and is free at the point of use, except in limited circumstances. It aims to work in partnership with other agencies and organisations such as those planning and providing social care. Total healthcare expenditure in the UK in 2021 accounted for 12.4% of gross domestic product (GDP). Social care is not universally covered in England in the same way as healthcare. It is means tested and an assessment of needs is conducted by local authority social care. The total expenditure on social care in England was £27 billion in 2020/21 with a shift over the last 5 years away from funding residential care to funding at-home care far all age groups. Increases in funding however have failed to keep up with increasing costs of provision leading to a widening funding gap.

Whilst responsibility for health and social care was devolved to the governments of Scotland, Wales and Northern Ireland in 1998, in the case of England, the UK Parliament retains oversight of health and social care through the Department of Health and Social Care (DHSC) with responsibility shared with NHS England, which is an arms length executive agency. Since 2014, policy in England has promoted population health and integrated care and since 2022, responsibility has been delegated to **Integrated Care Systems** for the planning and delivery of health and care services in 42 areas of England. Since 2023, these systems collaborate across nine statutory joint committees for the planning and delivery of specialised services.

Healthcare provision of hospital and community care is dominated by NHS provider trusts. Primary care is provided by general practitioners by means of contracts with NHS England. Private providers also provide some services to the NHS through contracts and service level agreements. All services are free at the point of use. Despite this, even healthcare provision can be fragmented as citizens move between hospital, community care and general practice, from mental to physical health services and from children's services to adult's services. Much of this fragmentation is due to structural and functional dis-integration including fragmented information.

The **NHS workforce** in England employs close to 1.4 million people, in the equivalent of around 1.2 million posts with nurses making up the largest group (26%). It accounts for two-thirds of all expenditure on healthcare. A number of shortfalls in workforce have been noted in England with particular gaps in general practitioners. England has about 7.8 GPs per 10,000 people compared to an OECD average of 10.8. In July 2023, NHS England published the NHS Long tern Workforce Plan aimed at addressing an expected shortfall of between 260,000 and 360,000 staff by 2036/37. It has three priority areas related to (1) training (2) retaining and (3) reforming the workforce in healthcare and models the workforce by setting (hospital, community, primary care, mental health).

Adult social care is provided by around 18,000 providers in England, 36% of which have only 1-4 employees and is dominated by private for-profit and voluntary sector provision (independent). Of the currently filled **posts in adult social care**, 79% are employed in the independent sector, 8% by local authorities and 8% by the NHS. Integration across health and social care in England, whilst a focus of current policy, remains limited and reliant on local relationships of collaboration.

Education and training focused on integrated care

Universities provide under-graduate and most post-graduate training for regulated and registered health and social care professionals in England. These institutions are accredited. Accreditation is the official certification that a school/college/ university or a course has met standards set by external regulators. Non-traditional routes such as apprenticeships are being developed and expanded under the current NHS Long Term Workforce Plan. NVQ (National Vocational Qualification) are work-based qualifications and are common in health and social care and awarded by organisations such as City and Guilds.

Through its Future Workforce funding stream Health Education England (HEE), recently subsumed into NHS England, directly commissions or financially supports the following education routes:

1. 'Volume' education to supply future registered professionals:
    b. Degree-level programmes (for example, paramedics and Healthcare Science practitioners)
    c. Higher level pre-registration programmes (for example NHS-based pharmacy, clinical psychology)
    d. Post-registration specialist training programmes which lead to qualifications recordable with regulatory bodies (for example Specialist Community Public Health Nurses)
5. 'Return to Practice' education programmes aimed at encouraging participation in the workforce from non-working and lapsed registrants to supply future registered professionals
6. Other 'formal' education required to develop those already in the workforce so that they can take on further identified roles, such as:
    a. Post-registration programmes which do not lead to recorded or registered qualifications or 'protected titles' but which support specialist practice and workforce role transformation (e.g., District Nursing, Advanced Practitioners)
    b. Specific programmes for new roles for which regulatory arrangements have yet to be clarified (e.g., Physician Associates).

NHS England also funds education aimed at enabling new or existing staff to continue their professional development through its Workforce Development funding stream. In agreed cases, NHS England covers tuition fees for some programmes. However, in most cases, tuition fees are self-funded by the student, usually through a student loan. Work is currently underway within NHS England to ensure consistency in determining the eligibility and levels of funding available from NHS England for tuition. Clinical placement costs incurred as part of training are reimbursed to providers through an annual tariff arrangement. In the financial year 2022-23, HEE had a budget of £5bn for health workforce education and training. Until 2016, bursaries were provided to support students studying for a healthcare professional degree.

There are 10,000 undergraduate medical school places available each year across the UK with nearly 27,000 applicants in 2023. The Medical Schools Council (MSC) recommended in a report in 2021 that the number of available places expands to 14,500 to ensure a sustainable workforce in the UK. In 2023, 24,000 students were accepted onto nursing degree programmes according to UKAS from 56,000 applicants. A draft of the analysis underpinning the NHS Long Term Workforce Plan leaked in 2023 showed that the NHS in England needed an additional 20% of student places for allied health professionals to keep up with population health demand.

Responding to the shift to population health and Integrated care in planning and provision in England, there has been some slow change in education and training of health and social care professionals. This is specifically mentioned under the Reform section of the NHS Long term Workforce Plan (2023):-

> "We will need to reform how we educate and train our staff, to support the ambitious level of expansion set out in this Plan, and ensure that we train the healthcare professionals of the future – professionals with generalist skills, who can work effectively in multidisciplinary teams. The future will also see more staff in new and enhanced roles, who will both be able to maximise their own skillset and free up the time of staff in traditional roles to maximise theirs. We will work with clinical leaders to ensure the impact of these new roles on ways of working is used to best effect."

Manchester Metropolitan University offer an Integrated Health and Social Care BA (Hons). The General Medical Council (GMC) Outcomes for Graduates (2018) includes reference to (1) leadership and team working – students will explore how doctors contribute to the management and leadership of the health service, and (2) communication and interpersonal skills – students will discover how to communicate openly, honestly and effectively with patients and their relatives, carers and other advocates, as well as with colleagues. The medical degree at Edgehill University focuses on how doctors work with other disciplines in health and social care to deliver high quality, person-centred care in year 3. Team working and person-centred care are explicitly referenced in most nursing degree curricula. Many universities now offer 4-year MSc nursing degrees. Some offer modules that are taught with other disciplines, mainly Allied Health Professionals. Most social work degrees include modules on interprofessional working and collaboration. Increasing number of medical degree courses talk about "integrated clinical practice" referring to inter-disciplinary learning across medical disciplines.

At post-graduate level, the University of Suffolk have a MA/PgC/PgD Professional Practice: Integrated Care which can be taken by module. City University have an MSc aimed at any professional working in health and care in Leading Integrated Care although it is not clear if this course is being continued in 2023-24.

Continuing Professional Development for professionals employed in the NHS is funded and is significant proportion provided through NHS England (formerly HEE). Education and training for social care professionals is more fragmented with some centralisation under the British Association for Social Workers. eLearning for Healthcare (NHSE) run courses such as Introduction to Integrated Care Systems for Pharmacy Professionals programme for single professional groups.

The London School of Paediatrics has developed the Programme for Integrated Child Health (PICH) for paediatric and GP trainees in the UK. Interprofessional courses run by NHSE include the Population Health Fellowship Programme.

The Personalised Care Institute is a virtual organisation that includes royal colleges, medical institutions and healthcare professional membership associations and provides CPD training to emerging and new roles (termed Additional Roles by NHSE) in the context of integrated care such as social prescribers, link worker and care coordinators. This learning is mainly elearning provided by PCI accredited providers. Training requirements for these roles are usually set out in service level agreements.

Moderators of education and training evolution in England

National and ICS level

There has been a policy commitment for integrated care systems in England since 2014. This has been reinforced by widespread restructuring of the health system (NHS) and partnership with social care through the new Integrated Care Boards. The ICB's are legally accountable for the promotion of integrated care in their localities. These ICBs are, through their Joint Forward Plan, accountable for describing "how the ICB will apply education and training as an essential lever of an integrated workforce plan that supports the delivery of services in the short, medium and long term. The plan should articulate the role of education and training in securing healthcare staff supply and responding to changing service models, as well as the role of trainees in service delivery". Centralized planning and funding of education and training creates opportunities for Integrated care education and training at scale but there are reports that workforce shortages and variations between ICSs are effecting the take up of available education and training at post-graduate and CPD levels. Professional regulators are only beginning to explore the impact of new care models on training and ongoing development for their respective professions.

Organisation level

In England, models of integrated care have been pioneered at some scale since 2013 and are now rolled out through the Integrated Care Partnerships in 42 ICSs. The link to higher education institutions (HEIs) as the providers of under-graduate and post-graduate training remains largely unchanged and works through NHS provider trusts for health and local authorities and individual care providers for social care. This fragmentation presents a challenge when planning workforce transformation across the integrated care system. There is also a scarcity of expertise in integrated care in HEIs across England with some notable exceptions. There are still few opportunities provided by HEIs for inter-disciplinary education and training.

Individual practitioner level

One of the most cited barriers to inter-disciplinary education and training on integrated care is that of professional identities. Whilst this is a key barrier, others include a lack of protected time for education and training that is not mandated by an employer or a core requirement of professional registration. Lack of funding of integrated care education and training is also a challenge particularly for those in non-professional and unregulated roles in health and social care.

References

1. ONS. Population estimates for the UK, England, Wales, Scotland, and Northern Ireland - Office for National Statistics [Internet]. www.ons.gov.uk. 2024. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/
2. Age dependency ratio (% of working-age population) - United Kingdom | Data [Internet]. data.worldbank.org. Available from: https://data.worldbank.org/indicator/SP.POP.DPND?locations=GB
3. Joseph Rowntree Foundation. UK Poverty 2024: The essential guide to understanding poverty in the UK | Joseph Rowntree Foundation [Internet]. www.jrf.org.uk. 2024. Available from: https://www.jrf.org.uk/uk-poverty-2024-the-essential-guide-to-understanding-poverty-in-the-uk#_-poverty-across-the-uk
4. Office for National Statistics. National life tables – life expectancy in the UK - Office for National Statistics [Internet]. www.ons.gov.uk. 2021. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/nationallifetablesunitedkingdom/2018to2020
5. Health Profile for England 2021 [Internet]. fingertips.phe.org.uk. Available from: https://fingertips.phe.org.uk/static-reports/health-profile-for-england/hpfe_report.html#summary-12---causes-of-morbidity
6. Valabhji J, Barron E, Pratt A, Hafezparast N, Dunbar-Rees R, Turner EB, Roberts K, Mathews J, Deegan R, Cornelius V, Pickles J. Prevalence of multiple long-term conditions (multimorbidity) in England: a whole population study of over 60 million people. Journal of the Royal Society of Medicine. 2024 Mar;117(3):104-17.
7. Department of Health and Social Care. The NHS Constitution for England [Internet]. GOV.UK. 2023. Available from: https://www.gov.uk/government/publications/the-nhs-constitution-for-england/the-nhs-constitution-for-england
8. Prendergast T. Healthcare expenditure, UK Health Accounts - Office for National Statistics [Internet]. www.ons.gov.uk. 2023. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthcaresystem/bulletins/ukhealthaccounts/2021
9. Social care in a nutshell [Internet]. The King's Fund. Available from: https://www.kingsfund.org.uk/insight-and-analysis/data-and-charts/social-care-nutshell
10. Social Care 360 [Internet]. The King's Fund. Available from: https://www.kingsfund.org.uk/insight-and-analysis/long-reads/social-care-360
11. Governing England. UK Parliament Report. Third Report of Session 2022-23. Public Administration and Constitutional Affairs Committee. Available from: https://publications.parliament.uk/pa/cm5803/cmselect/cmpubadm/463/report.html#heading-2
12. Anderson M, Pitchforth E, Edwards N, Alderwick H, McGuire A, Mossialos E. United Kingdom: Health System Review 2022 [Internet]. eurohealthobservatory.who.int. 2022. Available from: https://eurohealthobservatory.who.int/publications/i/united-kingdom-health-system-review-2022
13. Dunn P, Fraser C, Williamson S, Alderwick H. Integrated care systems: what do they look like? - The Health Foundation [Internet]. www.health.org.uk. 2022. Available from: https://www.health.org.uk/publications/long-reads/integrated-care-systems-what-do-they-look-like
14. NHS England» Specialised commissioning 2024/25 – next steps with delegation to integrated care boards [Internet]. www.england.nhs.uk. Available from: https://www.england.nhs.uk/long-read/specialised-commissioning-2024-25-next-steps-with-delegation-to-integrated-care-boards/

15. The Health Foundation. NHS workforce projections 2022 - The Health Foundation [Internet]. www.health.org.uk. 2022. Available from: https://www.health.org.uk/publications/nhs-workforce-projections-2022

16. British Medical Association . Pressures in General Practice Data Analysis [Internet]. The British Medical Association. 2024. Available from: https://www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/pressures/pressures-in-general-practice-data-analysis

17. NHS England. NHS Long Term Workforce Plan [Internet]. www.england.nhs.uk. 2023. Available from: https://www.england.nhs.uk/publication/nhs-long-term-workforce-plan/

18. Skills For Care. The state of the adult social care sector and workforce in England [Internet]. www.skillsforcare.org.uk. 2022. Available from: https://www.skillsforcare.org.uk/adult-social-care-workforce-data/Workforce-intelligence/publications/national-information/The-state-of-the-adult-social-care-sector-and-workforce-in-England.aspx

19. Miller R, Glasby J, Dickinson H. Integrated Health and Social Care in England: Ten Years On. International Journal of Integrated Care [Internet]. 2021;21(4). Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8555479/

20. NHS Education Funding Guide [Internet]. Health Education England. 2020. Available from: https://www.hee.nhs.uk/our-work/education-funding-reform/nhs-education-funding-guide

21. Education and training tariffs 2023 to 2024 [Internet]. GOV.UK. Available from: https://www.gov.uk/government/publications/healthcare-education-and-training-tariff-2023-to-2024/education-and-training-tariffs-2023-to-2024

22. Medical and dental intakes - Office for Students [Internet]. Officeforstudents.org.uk. Office for Students; 2022 [cited 2024 Sep 10]. Available from: https://www.officeforstudents.org.uk/for-providers/finance-and-funding/health-education-funding/medical-and-dental-intakes/

23. UCAS Application Stats For 2023 Entry Medicine - The Medic Portal [Internet]. www.themedicportal.com. Available from: https://www.themedicportal.com/blog/ucas-application-stats-for-2023-entry-medicine/

24. Medical Schools Council, The expansion of medical student numbers in the United Kingdom. London: MSC, 2021.

25. Statistical releases – daily Clearing analysis 2023 [Internet]. UCAS. 2023. Available from: https://www.ucas.com/data-and-analysis/undergraduate-statistics-and-reports/statistical-releases-daily-clearing-analysis-2023

26. Campbell D. NHS staff shortages in England could exceed 570,000 by 2036, leaked document warns. The Guardian [Internet]. 2023 Mar 26; Available from: https://www.theguardian.com/society/2023/mar/26/nhs-england-staff-shortages-could-exceed-570000-by-2036-study-finds

27. General Medical Council. Outcomes for graduates 2018 [Internet]. 2018. Available from: https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018_pdf-75040796.pdf

28. NHS England» Guidance on updating the joint forward plan for 2024/25 [Internet]. www.england.nhs.uk. Available from: https://www.england.nhs.uk/long-read/guidance-on-updating-the-joint-forward-plan-for-2024-25/

29. Integration pioneers leading the way for health and care reform [Internet]. GOV.UK. Available from: https://www.gov.uk/government/news/integration-pioneers-leading-the-way-for-health-and-care-reform--2

30. Richardson H. Professional identity as a barrier to inter-agency working? A meta-ethnography of research conducted with professionals working in UK children's services. Journal of Children's Services. 2023 May 5. https://doi.org/10.1108/JCS-01-2022-0001

The State of Education and Training in Integrated Care in Ireland

By Dr Dominika Lisiecka

Country context

Census of Population 2022[1] – Summary Results – key points

1. Irish population is increasing. It is the first time in 171 years that **Ireland's population exceeded the five million threshold**. There were 5,149,139 people in the State on Sunday, 03 April 2022, an 8% increase since April 2016.
2. The **average age of the population increased** from 37.4 in 2016 to 38.8 in 2022.
3. The population includes 2,544,549 males and 2,604,590 females.
4. The number of people with **dual Irish citizenship** was 170,597 which represents a 63% increase from 2016.
5. There was a **drop** from 87% to 83% in the proportion of people who reported their health was good or very good since 2016. In 2022, 52% of people aged 35 to 39 reported very good health, compared with 61% in 2016. In contrast, there was a small increase in the proportion of people aged 75 and over reporting very good health in 2022 compared with the previous census.
6. A total of 1,109,557 people reported experiencing **at least one long-lasting condition** or difficulty to any extent, accounting for 22% of the population. Of these, 407,342 (8% of the population) reported experiencing at least one long-lasting condition or difficulty to a great extent or a lot. A further 702,215 (14% of the population) reported a long-lasting condition or difficulty to some extent or a little. There were more females than males in each of these three categories.
7. **Carers: The number of unpaid carers increased by 53%** to over 299,000. Growth was also recorded in the number of hours of unpaid care provided each week, with the largest increase among persons providing care for 43 hours or more per week. People aged between 50 and 59 were the group most likely to be providing regular unpaid care.
8. 711,379 people reported that they regularly engaged in helping or **voluntary work** without pay in one or more of five different activities.
9. Approximately a third of all workers (747,961 people) **worked from home** for at least some part of their week.
10. Almost **80% of households had a broadband internet connection** in 2022, up from 71% in 2016.

The Healthy Ireland Survey: Population health[2]

The Healthy Ireland Survey is an annual survey conducted with a representative sample of individuals aged 15 and older living in Ireland, typically involving over 7,500 participants. The data collected from these surveys is crucial for informing policy development and implementation, as well as for monitoring, measuring, and evaluating the progress of various components of the Healthy Ireland Framework[3]. Additionally, the survey data supports Ireland in fulfilling international reporting obligations to organizations such as the OECD, the EU, and the WHO.
A representative sample of 7,455 people aged 15 and older living in Ireland were interviewed between November 2021 and July 2022. Topic included: General health, Smoking, Alcohol, Weight management, Health service utilisation, Dental and oral health, Skin protection, Menstrual health and period poverty, Suicide awareness, Impact of COVID-19 on health behaviours. Selected outcomes from each section are presented below:

- According to the survey, 31% of respondents reported having a long-standing illness or health problem lasting six months or more. Participants indicated whether they had been medically diagnosed with one or more of 25 common conditions. The most frequently reported conditions included high blood pressure (7%), diabetes (5%), arthritis (5%), asthma (4%), psychiatric diagnoses such as anxiety or depression (3%), and high cholesterol (3%).
- Among those aged 25-34, smoking is most prevalent, with 18% of the population identifying as smokers. This marks a decrease from 23% in 2015, reflecting a downward trend in smoking rates.
- In the survey, 67% of Irish respondents over the age of 15 reported consuming alcohol in the past six months. Among those who had consumed alcohol, 55% reported drinking at least once a week, while 32% stated they drank multiple times a week.
- The findings from this wave of the survey indicate that 41% of the population reported having a normal weight, 35% identified as overweight, and 21% reported being obese. Additionally, 2% of respondents indicated that they were underweight.
- In this wave of the survey, 71% of respondents reported visiting a GP in the previous 12 months, with an average of 3.8 visits per person among those aged 15 and older. This average includes individuals who had not visited a GP. Both the proportion of people visiting a GP and the average number of visits have increased compared to the 2021 survey, where 66% reported GP visits with an average of 3.3 visits per person. However, these figures are still lower than those recorded in 2019, when 73% had visited a GP, with an average of 4.5 visits per person.
- In the past 12 months, 13% of individuals aged 15 and older were admitted to a hospital as in-patients, a figure consistent with 2019 (12%). Older adults, particularly those aged 75 and above, were most likely to be admitted, with nearly 24% of this age group spending time in the hospital as in-patients during the same period. Additionally, 13% of all respondents aged 15 and older reported using an emergency department in a public hospital, while 3% used an emergency department in a private hospital. This represents an increase compared to the 2017 survey, where 10% used public emergency departments and 2% used private ones.
- In the survey, 81% of respondents reported having good dental health, with 34% rating it as very good and 47% as good. Only 3% described their dental health as bad, while the remaining 16% considered it average. These figures have remained largely consistent since the last measurement in 2018.
- According to the survey, 86% of respondents frequently use at least one form of sun protection during the summer months while in Ireland.
- The survey revealed that 24% of eligible respondents had experienced at least one issue indicative of period poverty.
- According to the survey, 67% of respondents reported knowing someone who had died by suicide, with 14% indicating that the person was someone close to them. Additionally, 6% of respondents stated that they had attempted to take their own life at some point in the past.

The Health System

The Health Service Executive (HSE), Ireland's publicly funded healthcare system, has been responsible for delivering health and personal social services since its establishment on January 1, 2005. Starting in February 2024, the HSE is implementing a major reorganisation into six new HSE Health Regions4. These regions are designed to ensure better alignment of hospital and community healthcare services based on local population needs, supporting the Sláintecare vision of an integrated health and social care service[5]. Sláintecare, a 10-year health reform plan, is reshaping healthcare delivery in Ireland by striving for equal access to services based on patient need rather than financial capability[5]. While the HSE Board continues to govern these regions, local decision-making and service planning will be empowered at the regional level.

The HSE Health Regions Implementation Plan[4] outlines clear objectives, key actions, and timelines with stakeholder engagement to guide the implementation process. In addition to facilitating the integration of community and acute care, the Health Regions aim to enhance local decision-making and promote service planning based on the needs of specific populations.

The Irish health service is undergoing significant reform to meet the evolving healthcare needs of its population. Primary care services are now organized into community healthcare networks, each serving approximately 50,000 people. Most chronic condition care is being delivered within these communities. The National Framework for the Integrated Prevention and Management of Chronic Disease (2020-2025)[6] outlines the strategy for reforming chronic disease management in Ireland. It introduces specialist ambulatory care hubs, which provide general practitioners with access to diagnostics, specialist services, and expert consultations directly within the community.

The National Service Plan[7]

The National Service Plan 2024 continues to advance the HSE's progress toward achieving universal healthcare, aligning with both government goals and the Sláintecare vision. By prioritising patient-centered care and enhancing primary and community health services, the Department of Health and the HSE are collaborating to implement new care models that enable individuals to maintain their health within their homes and communities for as long as possible. The overarching aim is to realise Sláintecare's goal of a universal health system that delivers appropriate care in the right place at the right time. The establishment of six new HSE Health Regions aligns with the Oireachtas Committee on the Future of Healthcare Sláintecare Report (2017)5 recommendations, which emphasize that regional bodies should oversee the planning and provision of integrated health and social care services. The National Service Plan outlines the health and social care services to be provided to the people of Ireland this year.

The government has allocated a budget of €23.5 billion to support this initiative, representing a 4.6% increase over the previous allocation. Of the total budget, €2.8 billion is provided by the Department of Children, Equality, Disability, Integration, and Youth for specialist disability services, while the remaining €20.7 billion is allocated by the Department of Health. This funding will support the addition of 683 new Whole Time Equivalent (WTE) staff for disability services and 2,268 WTEs for other health and social care services. The HSE's focus for 2024 is to improve access to urgent and emergency care; prioritise waiting lists; continue to enhance mental health and disability services and build on existing partnerships to develop and improve services.

Key Priorities for 2024

Hospitals

- The development and implementation of a three-year Urgent and Emergency Care (UEC) Plan (2024-2026)[8]
- Delivery of an additional 22 beds to bring total critical care capacity to 352 beds
- Completion of phase 1 of the development of major trauma centres
- Increasing activity targets in the areas of inpatient, day case, outpatient and GI scopes by 5% above the 2023 outturn.
- Addressing waiting lists and times. The multiannual Waiting List Action Plan[9] aims to reduce and reform waiting lists, spanning acute and community settings beyond urgent and emergency care.
- The plan for improving access to urgent and emergency care focuses on implementing the first-year commitments of the new multiannual Urgent and Emergency Care (UEC) Plan. This plan is centered on four key pillars: hospital avoidance, emergency operations, in-hospital operations, and discharge operations. In parallel, long-term initiatives will address essential needs such as increasing healthcare capacity, expanding the number of GPs providing care, and introducing key digital systems to support integrated care delivery.

Community

- The Enhanced Community Care (ECC) Programme[10] will continue its nationwide rollout, ensuring more people can access healthcare services within their local communities rather than relying on acute hospitals. Key measures include:
- Providing over 141,000 patient contacts through 28 Integrated Care Programme for Older Persons community specialist teams.
- Delivering over 228,000 patient contacts through 28 Integrated Care Programme for Chronic Disease community specialist teams.
- Completing up to 240,000 community radiology tests, alongside 161,000 tests across areas such as echocardiography, spirometry, and natriuretic peptide blood tests, totaling over 400,000 diagnostic tests.
- Additionally, through Older Persons' Services, 22 million home support hours will be provided to 54,100 individuals.

Mental Health

- The National Service Plan 2024 is dedicated to promoting the population's mental health, with a particular focus on early intervention for children, adolescents, and adults. Key priorities include enhancing early intervention for child and adolescent mental health services, improving early interventions in adult mental health care, and expanding access to person-centered mental health services. The targets for mental health services in 2024 surpass those set for 2023, with the goal for the number of children and adolescents seen in 2024 being 25% higher than the 2023 figures.

Disability

- The National Service Plan 2024 continues its collaboration with patients and service users to further develop resilient and responsive health and social care services that meet the needs of those they serve. An extensive and ambitious programme is underway to improve timely access to various services, including day care, respite, multidisciplinary care, residential services, home support, neurorehabilitation, and personal assistance services. Additionally, there will be a strategic focus this year on targeted recruitment and retention efforts for the workforce in disability services, addressing a critical need in this sector.

Education and training focused on integrated care

Universities in Ireland are accredited and provide under and postgraduate training for registered health and social care professionals. The Nursing and Midwifery Board of Ireland approves education programmes for nurses and midwives. The Higher Education Authority has a statutory responsibility for the effective governance and regulation of the higher education system. The Higher Education Authority is the statutory agency responsible for the allocation of exchequer funding to the universities, institutes of technology, and other higher education institutions. The Medical Council regulates medical doctors in Ireland. CORU - Regulating Health & Social Care Professionals body mandates the registration for Dietitians, Occupational Therapists, Medical Scientists, Radiographers and Radiation Therapists, Social Care Workers, Social Workers, Speech and Language Therapists, Optometrists and Dispensing Opticians, Physiotherapists, Podiatrists/ Chiropodists.

In the future CORU will also regulate: Clinical Biochemists, Counsellors and Psychotherapists, Orthoptists. Psychologists. Registration is a system in which each professional is formally recognized by a designated body as competent to practice within their field under a legal framework. Unlike voluntary registration systems, this is a legally mandated process, meaning that all individuals who wish to practice must be registered. Those who practice without registration can face legal prosecution.

In 2023, the government announced a major expansion in third-level education for key healthcare and therapy fields[11]. Starting in September 2023, this expansion includes:

- An increase of 100 undergraduate places in key therapy areas, with 50 of these places available in Northern Ireland.
- The launch of Post-Leaving Cert courses to train speech and language therapist assistants across five Education and Training Boards, with an estimated 120 students expected to enrol.
- The provision of 665 additional places in fields such as medicine, nursing, pharmacy, and other essential healthcare courses, including 200 nursing places in Northern Ireland.

Additionally, 415 new places will be created in higher education institutions within the State, distributed as follows: Clinical Measurement Science (32 places), Medical Science (20 places), Medicine (60 places), Nursing and Midwifery (208 places), Occupational Therapy (24 places), Radiation Therapy (5 places), and Speech & Language Therapy (20 places).

Moderators of education and training evolution in Ireland

National level

In the Republic of Ireland, the Department of Health is responsible for health policy development and the Health Service Executive has statutory responsibility for the management and delivery of health and personal social services[12].

- The mission of the Department of Health in Ireland is to enhance the health and wellbeing of the population by:
- Supporting individuals in leading healthy and independent lives
- Ensuring the provision of high-quality and safe health and social care services.
- Building a more responsive, integrated, and person-centered health and social care system
- Promoting efficient and effective management of health and social care services while ensuring optimal use of health system resources[13].

Undergraduate studies (medicine, nursing, AHP)

- Many courses emphasize person-centered approaches and multidisciplinary team (MDT) collaboration, yet few offer coursework dedicated specifically to integrated care. Opportunities for interprofessional learning and teaching are present, but placements often remain uni-disciplinary, limiting exposure to truly integrated care settings. New educational programs, including those at the undergraduate level, are being developed with a focus on digital health solutions.

Postgraduate studies

Postgraduate studies often emphasise clinical specialization, with relatively limited coursework specifically focused on integrated care, though new programs are being developed nationally. Interprofessional master's degrees, certificates, and diplomas are available, offering more opportunities in this area.

Examples include:

- Munster Technological University- Kerry, in collaboration with IFIC, offers the Principles of Integrated Care - Special Purpose Award (Level 9, 15 credits), which runs online each semester (commenced in January 2022). This is the first educational program designed to support new or existing staff in delivering integrated care.
- Trinity College Dublin offers the MSc in Health Policy and Management, a two-year program that includes a core module on Integrated Care Systems (10 credits).
- Trinity College Dublin also provides the MSc/Postgraduate Diploma in Specialist Nursing – Gerontological Nursing (a two-year program). In the first year, the program features a core module titled 'Principles of Integrated Care in Gerontological Nursing'.

Organisation level

Models of integrated care are expanding, with numerous local initiatives supporting integrated care across the country. However, the education system at the undergraduate level remains largely unchanged, with a stronger commitment to integrated care emerging at the postgraduate level. There are still few programs specifically focused on integrated care, particularly regarding its implementation.

Individual practitioner level

At the macro level, funding is no longer the primary issue; instead, the real challenge lies in accessing the necessary skills. According to Mr. Joe Ryan, National Director of Operational Performance and Integration at the HSE, "Last year we had the go-ahead to hire about 15,000 people, we managed to recruit about 5,500."14 Workforce shortages remain a significant concern. While Continuing Professional Development (CPD) is mandated by professional bodies, there is no specific requirement for training in integrated care. Some roles, such as Clinical Specialist (Allied Health Professionals), include dedicated time for research and education. The HSE offers funding for education and upskilling, particularly for healthcare professionals working in integrated care teams, and funded PhD opportunities in practice-based research in IC are beginning to emerge. A lack of integrated digital healthcare records is seen as a significant barrier to the development and application of integrated care.

References

1. CSO. Key Findings - CSO - Central Statistics Office [Internet]. www.cso.ie. 2023. Available from: https://www.cso.ie/en/releasesandpublications/ep/p-cpsr/censusofpopulation2022-summaryresults/keyfindings/
2. Home, Irish Social Science Data Archive [Internet]. Www.ucd.ie. Irish Social Science Data Archive; 2022. Available from: https://www.ucd.ie/issda/data/healthyireland/healthyirelandsurvey2022/
3. Department of Health. Gov.ie - Healthy Ireland Framework 2019-2025 [Internet]. Www.gov.ie. 2019. Available from: https://www.gov.ie/en/publication/e8f9b1-healthy-ireland-framework-2019-2025/
4. Government approves HSE Health Regions Implementation Plan [Internet]. Www.gov.ie. 2023 [cited 2025 Feb 12]. Available from: https://www.gov.ie/en/press-release/2e705-government-approves-hse-health-regions-implementation-plan/
5. Committee on the Future of Healthcare Sláintecare Report An Coiste um Chúram Sláinte sa Todhchaí Tuarascáil maidir le Cúram Sláinte [Internet]. 2017. Available from: https://data.oireachtas.ie/ie/oireachtas/committee/dail/32/committee_on_the_future_of_healthcare/reports/2017/2017-05-30_slaintecare-report_en.pdf
6. HSE. National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020-2025 Integrated Care Programme for the Prevention and Management of Chronic Disease [Internet]. 2020. Available from: https://www.hse.ie/eng/about/who/cspd/icp/chronic-disease/documents/national-framework-integrated-care.pdf
7. Our 2024 National Service Plan [Internet]. HSE Staff. Available from: https://healthservice.hse.ie/staff/news/staff-news-listing-page/our-2024-national-service-plan/
8. HSE Urgent and Emergency Care Operational Plan 2024 [Internet]. About.hse.ie. 2024 [cited 2025 Feb 12]. Available from: https://about.hse.ie/publications/hse-urgent-and-emergency-care-operational-plan-2024/
9. Waiting List Action Plan - 2024 [Internet]. Www.gov.ie. 2024. Available from: https://www.gov.ie/en/publication/f4944-waiting-list-action-plan-2024/
10. HSE. Enhanced Community Care [Internet]. HSE.ie. 2023. Available from: https://www.hse.ie/eng/services/list/2/primarycare/enhanced-community-care/
11. Ministers Harris and Donnelly announce significant third level expansion for key healthcare and therapy areas [Internet]. Www.gov.ie. 2023 [cited 2025 Feb 12]. Available from: https://www.gov.ie/en/press-release/714b7-ministers-harris-and-donnelly-announce-significant-third-level-expansion-for-key-healthcare-and-therapy-areas/
12. Book (eISB) electronic IS. electronic Irish Statute Book (eISB) [Internet]. www.irishstatutebook.ie. 2004. Available from: https://www.irishstatutebook.ie/eli/2004/act/42/enacted/en/html
13. Department of Health Statement of Strategy 2021-2023 [Internet]. www.gov.ie. Available from: https://www.gov.ie/en/organisation-information/0fd9c-department-of-health-statement-of-strategy-2021-2023/
14. HMI. Shared Values and Vision most important of nine pillars of Integrated Care [Internet]. Health Manager. 2022. Available from: https://healthmanager.ie/2022/03/shared-values-and-vision-most-important-of-nine-pillars-of-integrated-care/

The State of Education and Training in Integrated Care in Ontario, Canada

By Dr Anne Wojtak

Country context

Ontario Demographic Context

Canada is the world's second largest country by land mass and its geography is subdivided into 10 provinces and 3 territories. In 2023, it had a total population of 40,528,396 people[1]. The province of Ontario, located in Central Canada, is the second largest of the provinces by geographic area and is the most populous, with a total population in 2022 of 15,500,632[2], representing 38% of the Canadian population. Toronto is Canada's largest city with a population of 2.8 million people. Almost 48% (7 million people) of the province's population lives in the urban and suburban geographic area around the City of Toronto, known as the Greater Toronto Area.

The proportion of Ontarians aged 65 years or older represents approximately 18% of the province's population and this is expected to increase to almost 22% by the year 2046[3]. The population of individuals aged 15-64 representing potentially active persons constituted 66.5% of the population in 2022, and this is expected to decrease to 63% by year 2046[4]. The per capita income is $55,550 CAD5 with an unemployment rate of 6.2% in January 2024[6]. In 2021, life expectancy at birth was 82.34 years[7] and infant mortality was 4.5 per 1000 live births[8].

Ontario has a highly ethnically and linguistically diverse population. According to the 2021 Census, 20.0% of households speak two languages at home and 5.7% of households speak three languages or more at home. In total, more than 25.0% of households in Ontario are multilingual, a higher percentage than in the other provinces or territories. Ontario is also the province that generally receives the largest number of immigrants annually[9], with 30% of the total population being immigrants from other countries.

Approximately 25% of the Ontario population lives with multimorbidity for chronic diseases, with rates differing by income quintile, particularly for individuals with COPD, diabetes, mental health, and or heart failure[10]. Chronic diseases cause approximately three-quarters of deaths in Ontario, with cancers, cardiovascular diseases, chronic lower respiratory diseases, and diabetes being the most common causes of chronic disease deaths (approximately 64% of deaths)[11].

Health System Context

Canada is governed through a constitutional monarchy and a parliamentary democracy[12]. Canada's Constitution prescribes the system of laws and principles that outline the nature, functions, and limits of Canada's system of government, both federal and provincial[13]. Under the country's constitution, healthcare is primarily a provincial and territorial responsibility, however the federal government retains some responsibility for healthcare, including funding in the form of federal-provincial transfer payments and setting standards under the Canada Health Act[14]. This means that instead of a single national health insurance plan, Canada has 13 provincial and territorial health care insurance plans. The provincial and territorial governments are responsible for the management, organization, and delivery of health care services for their residents[15].

At a federal level, publicly funded health care insurance was established in the late 1950s. The Hospital Insurance and Diagnostic Act of 1957 gave the Canadian government authority to enter into an agreement with the provinces to establish a comprehensive, universal plan covering acute hospital care and laboratory and radiology diagnostic services. Nine years later, the Medical Care Act of 1966 extended health insurance to cover doctors' services[16]. In 1984, the Canada Health Act replaced previous hospital and medical insurance acts. The new Act established criteria and conditions related to insured health services and extended health care services that the provinces and territories must fulfill to receive the full federal cash contribution under the Canada Health Transfer funding agreement[16]. The Canada Health Act prescribes 5 conditions under which provinces and territories must deliver health care services to their population, including requirements that the health systems be publicly administered, comprehensive, universal, portable, and accessible[17]. The Act further disallows extra-billing or user fees for medically necessary hospital and doctors' services, although 'medically necessary' services are not defined. It is up to the provincial and territorial health insurance plans, in consultation with their respective physician colleges or groups, to determine which services are medically necessary for health insurance purposes. If a service is not considered to be medically required, the province or territory need not cover it through its health insurance plan18. As a result, health services such as pharmacare, home care, long-term care, dental care, eye care, and other auxiliary services fall outside of the Canada Health Act with coverage and payment models varying by province or territory.

Canada's healthcare system is predominately public, with 70% of healthcare funding coming from the public-sector and the remaining 30% from the private-sector[19]. In 2023, Canada spent 12.1% of its gross domestic product on health expenditures[20],which is second only to the US among OECD countries. In Ontario, the proportion of the provincial budget spent on health care is approximately 38% or about $5,340 CAD per person[21]. The majority of funds are spent on costs related to hospitals, physicians and drug coverage.

Policy Development for Integrated Care

Over the past 15 years, Ontario's government has made successive policy changes with the goal of advancing health system integration. In 2007, the provincial government created 14 Local Health Integration Networks (LHINs) responsible for regional administration of publicly funded healthcare services, including hospitals, long-term care homes, home and community care agencies, community support services agencies, mental health and addiction agencies, and community health centres. LHINs were established by the Local Health System Integration Act (2006), to achieve an integrated health system and enable local communities to make decisions about their local health systems[22]. This model of regionalization in Ontario differed from the regional health authority model adopted in other provinces in that LHINs did not directly govern or deliver health care services. While LHINs had specific responsibilities that included developing strategies to improve integration of local health systems, in reality the goals for integration of the system were not clearly defined and the Office of the Provincial Auditor found that most LHINs performed below expected levels[23].

In 2012, the province launched a new model for improving coordination and delivery of care for seniors and others with complex and chronic health conditions called 'Health Links'. Health Links were intended to enable voluntary collaboration between providers with a strong, central role for primary care and a 'low rules' environment. Local partner organizations such as primary care, home care and hospitals were invited to submit business plans to receive funding to support improved coordination of care[24]. The program started with 26 early-adopter Health Links in December 2012, and 82 sites were in operation throughout the province by the end of 2015[25]. A formal evaluation of the Health Links model in 2018 indicated that greater attention needed to be paid to local dynamics and processes among partner organizations and that a lack of intentional design and coordinated planning across these multiple local partnerships was not sufficient to achieve better integrated care at a system level[26].

In 2019, a newly elected provincial government made a significant shift in the policy direction for healthcare with the introduction of the Connecting Care Act that provided for the transition of the 14 LHINs to a new provincial agency called 'Ontario Health' and established plans for the creation of Ontario Health Teams. Local partner organizations were invited to voluntarily submit applications and undergo an assessment process to become an approved Ontario Health Team (OHT). The requirements to become an approved OHT included that specific sectors must be involved, specifically primary care, acute care and home and community care, and that patients and caregivers be engaged in the OHT development. The provincial government launched this strategy with the approval of an initial 24 OHTs in 2019, followed by a continuous process to approve successive cohorts of OHTs over the next 4 years. As of January 2024, there are 58 approved OHTs covering all geographic regions of the province[27]. The goal of the OHT model is to advance integrated health and social care at a local level for an attributed population. At maturity, OHTs are expected to be clinically and fiscally accountable for population health for their regions. Although initially the OHTs were established with a low-rules environment similar to Health Links, over time the provincial direction and deliverables have become more prescriptive. All 58 OHTs have been provided with a modest budget for administrative and project support to achieve established deliverables, as well as to enable engagement of community members and local primary care.

Education and training focused on integrated care

Canada has among the highest proportion of its working-age population who have graduated from either university or college in the G7 industrialized countries. Among people aged 25-64, 57.5% have graduated from a post-secondary institution. Nearly 33% of Canadians of working age had a university bachelor's degree or higher in 2021. Over the past 30 years, there has been a growing gap between men and women in educational attainment. In the age group of 25-34 years, nearly 40% of Canadian-born women have a bachelor's degree or higher, compared with a little more than 25% of Canadian-born men[28]. The level of education among Ontario residents is similar to that of Canada as a whole.

Ontario has 23 publicly assisted universities, 24 colleges, and more than 500 registered career colleges and institutions[29]. Like health care, education is a provincial and territorial responsibility under the Canadian Constitution. In Ontario, the Ministry of Colleges and Universities is responsible for legislation and oversight of post-secondary institutions, while the Ministry of Education is responsible for primary and secondary schools. Post-secondary education is subsidized through provincial governments. In 2022, provincial funding made up 24% of university revenues[30], with most of the remaining revenue coming from tuition costs paid by students. In 2021/22 there were 920,145 students enrolled in a post-secondary institution in Ontario[31].

In 2020, the number of individuals who completed healthcare programs accounted for 11.6% of all post-secondary graduates, which represents a 5.8% decline compared with the previous year. Enrollment and graduation rates were significantly impacted by the COVID-19 pandemic. This drop was more pronounced among college graduates (-10.3%)[32]. During the pandemic, many students were unable to complete in-person clinical placements required for graduation from healthcare programs, which caused delays in graduation. This decline in new graduates combined with a spike in people leaving their professions due to burnout has resulted in an escalating health human resource crisis. The provincial government has since been taking measures to increase enrolment in medical and healthcare education[33], expedite credentialling of foreign-trained health professionals, and recruit more qualified healthcare professionals from other jurisdictions. Despite these efforts, there is no foreseeable end to the health human resource crisis.

References

1. Government of Canada SC. The Daily — Canada's population estimates, third quarter 2023 [Internet]. www150.statcan.gc.ca. 2023. Available from: https://www150.statcan.gc.ca/n1/daily-quotidien/231219/dq231219c-eng.htm
2. Ontario Demographic Quarterly: Highlights of first quarter [Internet]. ontario.ca. 2024. Available from: https://www.ontario.ca/page/ontario-demographic-quarterly-highlights-first-quarter
3. Ontario Demographic Quarterly: Highlights of first quarter [Internet]. ontario.ca. 2024. Available from: https://www.ontario.ca/page/ontario-demographic-quarterly-highlights-first-quarter
4. Ontario Demographic Quarterly: Highlights of first quarter [Internet]. ontario.ca. 2024. Available from: https://www.ontario.ca/page/ontario-demographic-quarterly-highlights-first-quarter
5. Statistics Canada. Income of individuals by age group, sex and income source, Canada, provinces and selected census metropolitan areas [Internet]. Statcan.gc.ca. 2020. Available from: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110023901
6. Government Of Canada SC. Unemployment rate by province and territory, January 2024 [Internet]. www150.statcan.gc.ca. 2024. Available from: https://www150.statcan.gc.ca/n1/daily-quotidien/240209/mc-a001-eng.htm
7. Life expectancy at birth in Ontario 2019 [Internet]. Statista. Available from: https://www.statista.com/statistics/587808/life-expectancy-at-birth-ontario/
8. Government of Canada, Statistics Canada, Gouvernement du Canada, Statistique Canada. Statistics Canada: Canada's national statistical agency / Statistique Canada : Organisme statistique national du Canada [Internet]. Statcan.gc.ca. 2012. Available from: https://www150.statcan.gc.ca
9. Government of Canada SC. Multilingualism of Canadian households [Internet]. www12.statcan.gc.ca. 2023. Available from: https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-X/2021014/98-200-X2021014-eng.cfm
10. Rosella L, Kornas K. Putting a Population Health Lens to Multimorbidity in Ontario. Healthcare Quarterly. 2018 Oct 31;21(3):8–11.
11. The Burden of Chronic Diseases in Ontario Key Estimates to Support Efforts in Prevention [Internet]. 2019. Available from: https://www.publichealthontario.ca/-/media/Documents/C/2019/cdburden-overview.pdf?rev=eab30dfb319a4978b82d04b61e731863&sc_lang=en
12. House of Commons. The Canadian Parliamentary System [Internet]. www.ourcommons.ca. 2017. Available from: https://www.ourcommons.ca/procedure/our-procedure/ParliamentaryFramework/c_g_parliamentaryframework-e.html
13. House of Commons. The Canadian Parliamentary System [Internet]. www.ourcommons.ca. 2017. Available from: https://www.ourcommons.ca/procedure/our-procedure/ParliamentaryFramework/c_g_parliamentaryframework-e.html
14. Legislative Services Branch. Canada Health Act [Internet]. Justice.gc.ca. 2019. Available from: https://laws-lois.justice.gc.ca/eng/acts/c-6/
15. Government of Canada. Canada's health care system [Internet]. Government of Canada. 2023. Available from: https://www.canada.ca/en/health-canada/services/canada-health-care-system.html

16. Dunlop M. Health Policy | The Canadian Encyclopedia [Internet]. Thecanadianencyclopedia.ca. 2006. Available from: https://www.thecanadianencyclopedia.ca/en/article/health-policy
17. Branch LS. Consolidated federal laws of Canada, Canada Health Act [Internet]. laws-lois.justice.gc.ca. 2017. Available from: https://laws-lois.justice.gc.ca/eng/acts/c-6/page-1.html#h-151441
18. Current funding | Healthcare Funding [Internet]. healthcarefunding.ca. Available from: https://healthcarefunding.ca/key-issues/current-funding/
19. Government of Canada. Canada's Health Care System [Internet]. Government of Canada. 2024. Available from: https://www.canada.ca/en/health-canada/services/health-care-system/reports-publications/health-care-system/canada.html
20. Canadian Institute for Health Information. National Health Expenditure Trends | CIHI [Internet]. www.cihi.ca. 2024. Available from: https://www.cihi.ca/en/national-health-expenditure-trends
21. Government sector health expenditures per capita Canada by province 2019 [Internet]. Statista. Available from: https://www.statista.com/statistics/436343/governmental-health-spending-per-capita-canada-by-province/
22. LHINs-Local Health Integration Networks [Internet]. Available from: https://www.auditor.on.ca/en/reports_en/en15/3.08en15.pdf
23. LHINs-Local Health Integration Networks [Internet]. Available from: https://www.auditor.on.ca/en/reports_en/en15/3.08en15.pdf
24. Ontario Newsroom [Internet]. news.ontario.ca. Available from: https://news.ontario.ca/en/backgrounder/22834/about-health-links
25. Health Links - HSPN [Internet]. HSPN. 2022 [cited 2025 Feb 11]. Available from: https://hspn.ca/evaluation/health-links/
26. Health Links - HSPN [Internet]. HSPN. 2022 [cited 2025 Feb 11]. Available from: https://hspn.ca/evaluation/health-links/
27. Ontario Health Teams | ontario.ca [Internet]. www.ontario.ca. Available from: https://www.ontario.ca/page/ontario-health-teams
28. Go to college or university in Ontario [Internet]. ontario.ca. Available from: https://www.ontario.ca/page/go-college-or-university-ontario
29. Statistics Canada. Profile table, Census Profile, 2021 Census of Population - Canada [Country] [Internet]. www12.statcan.gc.ca. 2022. Available from: https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&DGUIDList=2021A000011124&GENDERList=1
30. Romard R, Robinson R. Back from the brink Restoring public funding to Ontario's universities [Internet]. 2023. Available from: https://policyalternatives.ca/sites/default/files/uploads/publications/Ontario%20Office/2023/11/back-from-the-brink.pdf
31. Canada: university/college enrollment, by province 2019 [Internet]. Statista. Available from: https://www.statista.com/statistics/447802/enrollment-of-postsecondary-students-in-canada-by-province/
32. Government of Canada SC. The Daily — Canadian postsecondary enrolments and graduates, 2020/2021 [Internet]. www150.statcan.gc.ca. 2022. Available from: https://www150.statcan.gc.ca/n1/daily-quotidien/221122/dq221122e-eng.htm
33. Ontario Newsroom [Internet]. news.ontario.ca. Available from: https://news.ontario.ca/en/release/1002882/province-helping-more-ontario-students-become-doctors-at-home-in-ontario

The State of Education and Training in Integrated Care in Scotland, UK

By Helen Rainey

Country context

Scotland has been a devolved nation of the United Kingdom since 1998 with the Scottish Government having power and responsibility for the majority of Public Services in Scotland which includes health and social care.

Scotland is made up of a mixture of urban, rural and island communities and has an estimated population of 5.5 million and it is estimated to grow to 5.7 million by 2039. National Records for Scotland (2018) suggest that by 2039 it is estimated that 25% of the population are expected to be over the age of 65.

Scotland is recognised as having a lower life expectancy than the other countries of the United Kingdom and has one of the lowest in Western Europe (Scottish Public Health Observatory, 2023). The experience of multiple disadvantages, including a minority experiencing severe multiple disadvantages, is contributing to a growing gap in health outcomes. In 2012, Barnett et al. highlighted that 20% of people have multimorbidity, with the prevalence of this being almost 40% higher in most deprived areas of Scotland compared to the least deprived.

There is evidence from Miall, Fergie and Pearce (2022) that since 2012-2022, there has been a stagnation in life expectancy in comparison to the previous 10 years, where there had been some improvements noted, particularly in reducing deaths from cancer, cardiovascular disease, alcohol deaths and suicide. They suggest that some of the worsening mortality rates and widening inequalities since 2012 will have been exacerbated further by the COVID-19 pandemic.

The Scottish Government (2022) highlight that over the next 20 years will see an ageing population, a continuing shift in the pattern of disease towards long-term conditions and growing numbers of older people with multiple conditions and complex needs and the impact of this on them and their immediate carers. They have also highlighted that the number of drug-related deaths has increased substantially over the last 20 years, with 4.6 times as many drug-related deaths in 2020 compared with 2000. In relation to alcohol consumption in 2020, adults in Scotland drank an average of 9.4 litres of alcohol per head which is 18.0 units per adult per week. This is the lowest level in 26 years. However, it's still nearly 30% more than the low-risk guidelines of 14 units. Finally, 62% of adults in Scotland were overweight or obese, which has remained stable since 2008. However, in 2019, 30% of children in Scotland (ages 2-15) were at risk of being overweight, approximately half of which are at risk of obesity.

As previously highlighted, health and social care are fully devolved to Scotland from the UK Government. To fund public services, the Scottish Government receives a Block Grant from the UK Government and has tax-raising powers. 85% of funding to Local Authorities is from the Scottish Government.

There are 14 local health boards within Scotland and 32 local government organisations that have a statutory duty for social care and social work. Within Scotland, there is universal health care coverage, which includes no co-payments for prescriptions. In 2002, free personal care for the over 65 was introduced, which has since been extended to under 65 for people living with dementia.

In 2011 the Christie Commission proposed four priorities for reform of public services in Scotland. These were:

- A shift towards prevention and early intervention to prevent negative outcomes.
- Greater integration of public services at a local level bringing public, third and independent sector partners together with communities to deliver outcomes that matter to people.
- Greater investment in the people who deliver services through developing the workforce and effective public sector leadership.
- Improved performance through greater transparency, innovation and use of digital technology.

This then led to the Public Bodies Joint Working (Scotland) Act 2014. Local authorities and health boards were required by law to work together to plan and deliver adult community health and social care services. From this, integrated governance arrangements for health and social care were established in 2015, with 31 health and social care partnerships being established. In delivering the integration scheme, the partnership could choose between the Body Corporate model or Lead Agency arrangement. 30 Integration Authorities used the Body Corporate model and established distinct legal entities under the direction of the Integration Joint Board. Only one chose the Lead Agency arrangement.

Once the arrangements were established it allowed for:

- Integrated budget for health and social care
- A single chief accountable officer has oversight of the delivery
- All adult care groups +/- children's services & criminal justice
- Strategic and locality planning and commissioning based on population needs
- Nine national outcomes for health and well-being to be met to ensure that the outcomes are meaningful to people and their local area

In 2013, Scotland also introduced the Social Care (Self-directed Support) (Scotland) Act 2013. This act is the law that enables local authorities to provide support to certain carers and social care services to people who need them. It aims to promote rights and give people more choice and control over how they receive their support and applies to both adults and children. Individuals have a right to choice, control and flexibility of social care to meet personal outcomes.

From 2014 Health and Social Care Partnerships offer four options for social care:

- **Option 1:** Taken as a direct payment.
- **Option 2:** Allocated to an organisation that the person chooses, and the person is in charge of how it is spent.
- **Option 3:** The person chooses to allow the council to arrange and determine their services. There is a 20:80 split of direct provision v commissioned from independent/voluntary sector providers
- **Option 4:** a mix of these options chosen for different types of support

Following the COVID-19 Pandemic, the Scottish Government (2021) commissioned an independent review of Adult Social Care. The remit of the review was to recommend improvements that could be made to adult social care support in Scotland, particularly in terms of the outcomes achieved by and with people who use services.

The report highlighted 3 things that should change to secure better outcomes. These are:

1. Shift the paradigm
2. Strengthen the foundations
3. Redesign the system

Following this, the Scottish Government proposed a National Care Service (Scotland) Bill which would allow Scottish Ministers to transfer social care responsibility from local authorities to a new, national service. The Scottish government had described this as the "biggest public service reform in Scotland since devolution". This could include adult and children's services and areas such as justice and social work. As the Bill progressed, there was growing criticism of it and in January 2025 it was announced that the proposed Bill would be reformed with the plan for a national service being removed and Local Authorities maintaining responsibility for social care. The reformed Bill now proposes smaller changes which includes the establishment of a dedicated advisory board and it will proceed with Parts 2: Health and Social Care Information and Parts 3: Reforms Connected To Delivery And Regulation Of Care of the Bill.

The Third Sector

The Third sector in Scotland plays a key role in the delivery of health and social care. It is involved in nearly every area of local life – housing, advice, support, sports, representation, arts, education, health, care, environment and more. Some of the key attributes of the Third sector are:

- positive community purpose
- run by an unpaid (or mostly unpaid) committee
- not set up to distribute profit to shareholders
- not affiliated to a political party or a government body.

Third-sector interfaces (TSIs) offer a single point of access in each local authority area in order to develop the third sector, increase social enterprise, build relationships with community planning partners and support volunteering and volunteers.

In Scotland, there are 25,199 Charities on the Scottish Charity register with 208,977 paid members of staff by Scottish Charities.

Health and Social Care Workforce

The health and social care workforce is the largest in Scotland with over 400,000 people working in many different roles and settings

The establishment of a National Workforce Strategy for Health and Social Care in Scotland (2022) aims to achieve a sustainable, skilled workforce with attractive career choices where all are respected and valued for the work they do. This highlights 5 pillars of the workforce journey

- Plan
- Attract
- Train
- Employ
- Nurture

The strategy highlights that the Scottish Government continues to work towards achieving Fair Work across both Health and Social Care.

Education and training focused on integrated care

Macro

There a number of Continuing professional Development programme to support the health and social care workforce. These tend to be delivered through the national organisations including NHS Education for Scotland and Scottish Social Services Council. Further Education Colleges, Universities and local organisations also offer and deliver CPD. These offerings tend to be leadership and quality improvement focused and not specific to integration.

In 2021 the NHS Scotland Academy opened to offer accelerated training for a wide range of health and social care roles and professionals. At present there are some induction resources for social care professionals however most of the training appears to be clinical and advancing practice focused.

Meso

There are post-graduate pre-registration programmes for vocational programmes across Scotland which are all guided by the standard of their specific governing bodies. There are other post-graduate programmes that focus on clinical specialism and advanced practice roles. These are all programmes that will encourage and support interprofessional learning, at this time there is nothing specific to integrated care in the programme specifications.

From a nursing perspective over the past few years there have been Graduate Diploma (SCQF level 9) and Post graduate Certificate (SCQF Level 11) in Integrated Community Nursing programmes developed.

The MSc Leading people-centred integrated care programme provides a progressive pathway of master's level studies for working professionals. It is intended for people involved in planning, commissioning or providing care and support across health, social care, housing, independent and third sectors and for those who have a role in education, regulation, inspection or assuring the quality of integrated services and practice. Creating the conditions, leadership, value and people and communities are at the heart of the programme.

There are other post graduate programmes within Scotland related to health and care, leadership and person-centred care however none of these programmes appear to have explicit modules/ reference to integrated care.

Micro

In Scotland the undergraduate curricula for medicine, nursing, AHP's, Pharmacy and Social Work is informed by the education and training requirements of the regulatory bodies. Although interprofessional learning is an essential component of all programmes, at this time, there is nothing specific to integrated care.

There are some undergraduate programmes within Scotland that attract the broader Health and Social Care workforce which have core integration components in the curriculum.

For staff working in Social Care, there are Scottish Vocational Qualifications at various Scottish Credit and Qualifications Framework (SCQF) levels from 5-10, which promote collaborative working and leadership capabilities but not specific to integration. There is currently a consultation for a new Scottish Vocational Qualification at SCQF Level 7 on Integrated Health and Social Care.

There are National Certificates, Higher National Certificates and Higher National Diploma qualifications in Social Services and also Health Care to support grassroot education which can provide pathways into vocational and other degree programmes.

The education for social prescribing link workers appears to be all in-house education.

References

1. Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. The Lancet [Internet]. 2012 Jul;380(9836):37–43. Available from: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)60240-2/fulltext
2. Scottish Government. Christie Commission on the Future Delivery of Public Services - gov.scot [Internet]. www.gov.scot. 2011. Available from: https://www.gov.scot/publications/commission-future-delivery-public-services/
3. Miall N, Fergie G, Pearce A. Health Inequalities in Scotland: trends in deaths, health and wellbeing, health behaviours, and health services since 2000. 2022 Nov 2;
4. Social Care (Self-directed Support) (Scotland) Act 2013 [Internet]. Legislation.gov.uk. 2013. Available from: https://www.legislation.gov.uk/asp/2013/1
5. Scottish Government. Public Bodies (Joint Working) (Scotland) Act 2014 - Explanatory Notes [Internet]. Legislation.gov.uk. 2025 [cited 2025 Feb 11]. Available from: https://www.legislation.gov.uk/asp/2014/9/notes
6. Key points - ScotPHO [Internet]. www.scotpho.org.uk. Available from: https://www.scotpho.org.uk/population-dynamics/health-and-life-expectancies/key-points/
7. Adult social care: independent review [Internet]. www.gov.scot. Available from: https://www.gov.scot/publications/independent-review-adult-social-care-scotland/
8. Scottish Government. Health and social care: national workforce strategy [Internet]. www.gov.scot. 2022. Available from: https://www.gov.scot/publications/national-workforce-strategy-health-social-care/

The State of Education and Training in Integrated Care in The Netherlands

By Dr Ruben van Zelm, Mariëlle van Wijngaarden, Thieme Stap

Country context

The Netherlands has a of 17.8 million people (2023, CBS.nl). The overall health status can be called good, with a life expectancy at birth if 80 years (m) and 83 years (f) and an experienced health status of good/very good in 70% of the population. Despite these numbers, 21,5% of the population experiences psychological problems, 33% has one or more chronic diseases, and 15.7% of the population (and growing) are obese. (cbs.nl, accessed 08-02-24).

Four healthcare laws are the basis of the healthcare system in the Netherlands. 'The Health Insurance Act (which provides for hospital care) and the Long-Term Care Act (which focuses on other types of care) account for the bulk of the healthcare budget available in the Netherlands.

The Long-Term Care Act is a national act governing healthcare throughout the Netherlands. In implementing the Health Insurance Act, private health insurance companies play a key role in a system based on "regulated competition" and a number of specific public requirements.

The Social Support Act and the Youth Act provide for other forms of care and support. The roughly 400 municipalities in the Netherlands are primarily responsible for enforcing these 2 acts.' (Zorginstituut Nederland, 2024). These laws operationalise the values within the healthcare system: solidarity, access for all, high-quality services. In 2022, 10% of the gross domestic product was spent on healthcare. In total, 111.000 people are employed in healthcare, of which 4.3% MD's and dentists, 19.1% nurses, and 12.2% allied health professionals (2021, cbs.nl, accessed 08-02-24).

Education and training focused on integrated care

There are three types of formal education: 1) Universities ('wo'), 2) Universities of applied sciences (Higher Professional Education, 'hbo'), and 3) Secondary vocational education ('mbo'). They all provide undergraduate and post-graduate training for regulated and registered health and social care professionals in the Netherlands. HBO and WO provide education on EQF level 5-8. In some cases, there are (private) educational organisations that also provide accredited education, mainly in CPD training.

As far as we know, there are no specific training programs on integrated care in undergraduate education. In most programs, elements of integrated care, for example, 'interprofessional collaboration', are a part.

Several educational policy reports highlight the need for learning to provide integrated care (Medical Specialist 2025 FMS, Medical Training Report 2020 NFU). Therefore, initiatives arise about learning to provide integrated care. However, these initiatives are mostly embedded and thus 'hidden' within curricula.

There are several master programs focused on improving health and social services, including on specifically focused on integrated care design, the Master Integrated Care Design, see https://www.internationalhu.com/master-programmes/master-integrated-care-design.

In continuing professional development, several initiatives for learning about integrated care exist, for example, the 'Jan van Es Institute for primary care towards integrated care' (https://jvei.nl/). This institute organises webinars addressing specific topics, such as population-based care. There are also disease-specific programs, such as ParkinsonNet, that mainly focus on the disease but also incorporate cross-boundary working.

Enabling factors

(Policy commitment, practice of IC at scale, professional body commitment, funding and organisation of education and training)

One enabling factor related to education on integrated care is that the professional bodies (for example, the Dutch Association of Medical Specialists (FMS)) mention integrated care as a shared goal.

Another factor is that funding is available for research in integrated care. For example, ZonMw (a large agency that facilitates and finances research and innovation in health, healthcare, and well-being) has several funding options for research on (elements of) integrated care.

About the International Foundation for Integrated Care (IFIC)

The International Foundation for Integrated Care (IFIC) is a not-for-profit foundation dedicated to improving the lives of people and communities by advancing the science, knowledge, and adoption of integrated care around the world.

Our vision is that individuals, families, and communities benefit from person-centred, coordinated care and support that enables them to live healthy and fulfilling lives. We work to overcome the fragmentation in health and care systems by promoting models of care that are holistic, co-produced, continuous, coordinated, equitable, and sustainable.

As the leading international voice for integrated care, IFIC brings together researchers, health and care professionals, policymakers and people, families and communities. We provide a unique platform for collaboration, knowledge exchange, and innovation to drive system change.

IFIC delivers impact through:

- **The International Journal of Integrated Care (IJIC)** – our open-access, peer-reviewed publication sharing global evidence and best practice
- **International conferences and regional networks** – connecting people and ideas across sectors and borders
- **The Integrated Care Academy** – offering education and training to develop the workforce needed for transformation
- **Applied research and implementation support** – bridging policy and practice to build more effective and sustainable care systems
- **Knowledge platforms and solutions** – enabling shared learning and practical action across our global community

IFIC is recognised for its excellence, transparency, collaborative partnerships, and commitment to open access and continuous quality improvement.

United Kingdom
Annexe Offices
Linton Rd
Oxford OX2 6UD
United Kingdom

The Netherlands
The Base B
Evert van de Beekstraat 1-104
Schiphol Airport 1118CL
The Netherlands

Email: info@integratedcarefoundation.org
Linkedin: mylinkd.in/IFICInfo
Facebook: facebook.com/IFICinfo
Vimeo: vimeo.com/integratedcare
Bluesky: @IFICinfo

IFIC International Foundation for Integrated Care

STATE OF EDUCATION REPORT

The State of Education and Training in Integrated Care Worldwide

IFIC Integrated Care Academy