Embracing Challenge
Delivering Change

Health, Equality and the Economy

Edited by Cathy Gormley-Heenan and Elaine Lackermeier
# Contents

1. **Introduction** - Cathy Gormley-Heenan  
2. **The COVID-19 Context**  
3. **1. What is the context for health policy in Northern Ireland?** - Deirdre Heenan and Derek Birrell  
4. **2. What is the cost of healthcare in Northern Ireland?** - Richard Johnston  
5. **3. Why are there still health inequalities in Northern Ireland and what needs to be done?** - Goretti Horgan  
6. **4. How can we build supportive environments for people living with severe mental illness in Northern Ireland?** - Gerard Leavey  
7. **5. What should we do about transgenerational trauma in Northern Ireland?** - Siobhan O’Neill, Edel Ennis and Margaret McLafferty  
8. **6. Do we need a new policy approach to tackling drugs in Northern Ireland?** - Vanessa Gstrein  
9. **7. Why is Northern Ireland ‘the poor relation’ in terms of physical activity?** - Marie Murphy  
10. **8. What should be the nutrition priorities for the Northern Ireland healthcare system for both young and old?** - Helene McNulty  
11. **9. What can we do to improve social care in Northern Ireland?** - Ann-Marie Gray  
12. **10. What can be done to support older people and their families when moving into a care home?** - Assumpta Ryan  
13. **11. What difference will health technology make to healthcare in Northern Ireland?** - Jim McLaughlin  
15. **13. What sort of education do we need for our healthcare system in Northern Ireland?** - Louise Dubras  
17. **15. Contributors’ contact details**
New Decade, New Approach (NDNA), a new Health Minister for Northern Ireland (the UUP’s Robin Swann), a renewed commitment to addressing the plethora of problems within the health and social care system in Northern Ireland coupled with the outworking and implications of the global pandemic in COVID-19 has meant that this report on health policy and its associated recommendations could not be timelier. The issues facing us do not need rehearsing again. We know the challenges facing health and social care. And as the Department of Health has said, the solutions are also challenging because ‘they require sustained investment to address backlogs and build our workforce, as well as the radical reshaping of services’.

The funding provided in NDNA does not appear to be enough already.

It is of course important to note that many of the problems we face predated the collapse of the power sharing institutions early 2017. They were not simply caused by three years of a political vacuum, albeit they were exacerbated by it. In the absence of a Health Minister, questions were asked about who was actually setting health policy in Northern Ireland1. But there have been plenty of health policy reviews over the years, so in many ways health policy had already been set. As Birrell and Heenan point out in chapter 1, Northern Ireland has a long history of health reviews and recommendations but implementation has been problematic. The policy direction in these reviews has been consistent, to shift service provision away from hospitals and towards care in the community, as close to home as possible.

We have taken this one step further. Drawing on extensive expertise in the health and social care system from across Ulster University, our report Health, Equality and the Economy sets out what we believe health policy in Northern Ireland needs to focus on, beyond reducing waiting lists, building a workforce and reshaping services away from hospitals towards the community. From our Ulster University Economic Policy Centre perspective, Richard Johnston points out in chapter 2, much of the focus to date has been on healthcare spending, that is, how much more do we need, on what do we need to spend it specifically and over what term?

Of course, greater efficiencies are made infinitely easier through the mainstreaming of healthcare innovations. As Jim McLaughlin notes in chapter 11, it is now obvious that we are entering into the age of Healthcare 4.0 with challenges that need to be urgently met. Key to these challenges is the uplifting and training of our workforce in the use of digital healthcare technologies. Efficiencies can also be accelerated through a more personalised approach to medicine. Tony Bjorson’s chapter 12 emphasises the need to incorporate genomic education as a core component in all clinical education pathways to drive more evidence-based diagnoses, treatments and medicines optimisation.

And these are just a few examples.

Our contributors could have said much, much more, but we’ve kept it brief for now. Policy briefs should be brief! We look forward to our continued engagement with you and, of course, with our partners QUB and Pivotal on this. The contact details for all of our contributors are included in chapter 15. Do get in touch.

We at Ulster University have asked ourselves the important questions that need to be answered in terms of health policy for Northern Ireland and have presented them here as a series of question-based chapters, reflecting the key issues, key research undertaken and key recommendations for consideration. We’ve brought these various recommendations together at the end of this report as our contribution to the current policy debate on the future of health and social care policy in Northern Ireland.

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**HEALTH, EQUALITY AND THE ECONOMY**

Health inequalities in the context of COVID-19
Goretti Hargrave

While the coronavirus was called a great equaliser, evidence quickly emerged that socioeconomic inequalities in health profoundly impacted deaths and morbidity from the virus. People in deprived areas living on lower incomes are more at risk of serious illness if they contract the virus but also more likely to live in crowded accommodation and work in low paid jobs which cannot be done from home1. There is, of course, nothing new about poor and disadvantaged people being disproportionately impacted in a pandemic.

In Northern Ireland, the majority of deaths among over 75’s are in the least deprived parts of the region. While this might seem counterintuitive, it is because there are fewer who live to be over 75 in the most-deprived areas. By contrast, the ratio of deaths among under-65s in the most-deprived areas is 2.5 times that of deaths in the least-deprived areas. The two areas of health inequality discussed in chapter 3, (the impact of air pollution and unequal access to reproductive healthcare) have both featured prominently during the pandemic. Studies have suggested that long-term exposure to air pollution before the pandemic is linked with more severe symptoms from COVID-19 and a greater risk of death2.

In Northern Ireland Early Medical Abortion (EMA) was provided legally for the first time, ensuring hundreds of women have the option, for the first time, to end a pregnancy safely and legally. This is a significant step towards ensuring that women facing life-threatening circumstances have access to abortion care in the region. EMA, as a result of campaigning. But this must change. Community-based psychiatric services have been severely reduced and the voluntary sector organisations will face severe cuts to services unless government moves quickly to provide some financial scaffolding. Compassion and social justice must be central to the much heralded ‘new normal’.

**Mental health in the context of COVID-19**
Siobhán O’Neill, Edel Ennis, Margaret McAlefferty

The lockdown measures resulting from the COVID-19 pandemic brought increases in anxiety. Most people adjusted well to the stress of the restrictions. However, for a minority the stress of the pandemic resulted in crisis, stress that was overwhelming, or trauma.

Existing health inequalities were amplified. Those who suffered abuse or lived in poverty were more affected. The individuals were those already at risk of mental illness, and their vulnerability may have been exacerbated. The groups most affected by the virus included people with adversities such as poor physical health, anxiety and depression, and those with lower socioeconomic status.

Experiences of the virus brought physical illness with possible neurological consequences, but also uncertainty, stigma and isolation from social supports. Restriction of health care interventions may have worsened conditions for many who had mental illnesses. The rituals of grief and bereavement were disrupted. Children and young people were denied opportunities to attend school, play and meet friends at critical stages of their development. Those in deprived areas were worst affected, through factors such as limited access to digital technology and Wi-Fi, and poor outdoor play spaces in high density housing areas. Healthcare staff faced heightened trauma.

We must urgently identify those most affected and provide timely mental health interventions for people from the economic implications of the pandemic and allowing children and young people to return to the stability of school, with support in place for those who are most at risk, are key elements of the mental health response.


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**Health policy in the context of COVID-19**
Deirdre Heenan, Derek Burrell

The arrival of COVID-19 in early 2020 delivered a massive shock to an already stressed health and social care system in Northern Ireland. Whilst it is too early to know the full impact of the pandemic, it is clear that there will be long-term impacts on the design and delivery of care. Against a backdrop of relatively few ICU beds, critical staff shortages and low employee morale, meeting the needs of Coronavirus patients has stretched this system to its limits. The rapid reconfiguration of services and resources not only affected patients with Coronavirus but had significant knock-on effects on the care provided across every aspect of life, work and relationships. Most of us will become aware of our own mental fragility due to the loss of social connections, and the sometimes mundane but overwhelming, or trauma.

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Physical activity in the context of COVID-19
Marie Murphy
COVID-19 has had dramatic global effects on almost every aspect of life including physical activity. Lockdown and social distancing have brought significant challenges and opportunities for physical activity and has placed it firmly on the public health agenda.

During lockdown, public health guidance and legislation discouraged people from leaving their home. Notably in the UK, Ireland and elsewhere government messaging promoted physical activity with messages indicating that one of the few reasons people were permitted to leave home was ‘one form of exercise a day... for example a run, walk, or cycle’ (Boris Johnson, 23 March 2020) or ‘to take brief individual physical exercise within 2km of your home’ (Lea Varadkar, 27 March 2020)

Emerging evidence suggests that for many, walking and cycling increased during lockdown. Additional free time (from not working or working from home with no commute), a reduction in other leisure time options (sport, gyms, swimming pools) and the promotion of exercise as a justifiable reason for leaving the house (permission to be active) are likely to have contributed to these changes. However, working remotely from home is also to have decreased incidental daily activity including commute and activity during the work day.

For those who got their physical activity from playing sport or through using leisure facilities (gyms, sports clubs, swimming pools), the closures are likely to have decreased physical activity. Likewise school-aged children who gain significant proportions of their daily physical activity at school (curricular PE and extra-curricular sport, break time activity) and in their recreational pursuits (sports clubs, gymnastics class, swimming lessons etc) are likely to have faced greater challenges in achieving or maintaining physical activity for those considered vulnerable and shielding at home, including adults over 70 years old, the lockdown period is also likely to have decreased physical activity.

As it became clear that obesity and other health conditions were associated with poorer prognosis from COVID-19, there was an increased public health focus on the need to get or keep people active. What also became evident was the mental health effects of lockdown. Given the proven benefits of regular physical activity to good mental health and its capacity to reduce anxiety and depression there has never been a more pressing need to promote physical activity.

Health inequities in physical activity may have increased during lockdown with the socially disadvantaged less likely to have access to gardens or green space for being active. In this regard, the importance of keeping parks and public spaces open during times of restricted opportunities for physical activity is vital. As the pandemic continues and the possibility of a ‘second wave’ are considered it is now, more than ever, vital that we ensure people have the knowledge, skills and resources to maintain physical activity during future lockdowns.

The pandemic has underscored the need for a joined-up approach for the promotion of physical activity through a bespoke Physical Activity Strategy for Northern Ireland called for in chapter 7.

Social care in the context of COVID-19
Anne-Marie Gray
Social care, and care homes in particular, have certainly been in the spotlight as a result of the COVID-19 pandemic. The deficiencies of the social care systems across the UK during the pandemic have been well documented. These include delays in ensuring adequate PPE provision, the health care of residents in care homes, the discharge of COVID-19 positive patients from hospitals to care homes and the pay and working conditions of staff.

However, as discussed in the social care chapter in this report, the pandemic has simply brought into sharp focus the consequences of the neglect of adult social care over many decades. A recent Health Foundation report referred to adult social care as one of the biggest public policy failures of a generation. But this could be a watershed moment for social care.

During COVID-19, there has been huge outsourcing of support for social care workers from a public that became more informed about what they do and the pressures they encounter on a daily basis.

We also know that previous research, as detailed in chapter 9, shows that the public are in favour of reform of adult social care, including a more universal approach. Ultimately, fundamental and comprehensive reform is needed, including how social care is funded. The degree of change required cannot be achieved within the current models of health care operating anywhere on these islands. But two areas in particular discussed in this report need urgent attention – the privatisation and fragmentation of the care home sector and the social care workforce.

Care Homes in the context of COVID-19
Assumpta Ryan
Based on data from the Northern Ireland Statistics and Research Agency (NISRA), it is estimated that deaths of care home residents account for approximately half of all COVID-19 related deaths in Northern Ireland. A similar picture has emerged elsewhere. In June 2020, The London School of Hygiene and Tropical Medicine reported that care home residents accounted for over 40% of known COVID-19 deaths in England. Although no assumptions can be made in relation to where or when the disease was contracted, there is no doubt that the pandemic has had a devastating impact on people living in care homes and on the families and staff who support them.

Care homes are people’s homes and the transmission of COVID-19 between some of the frailest members of society, many of whom are living with dementia, is especially difficult to prevent. While accepting the vulnerability of care home residents, the impact of COVID-19 underlines the need for care home staff to be given timely and appropriate support to safely and effectively care for residents, particularly those at the end of their lives.

The COVID-19 experience of care homes indicates the need for more accessible financial support, better partnership working between NHSP and social care as well as support with staff shortages and in the provision of psychological support to residents, relatives and staff. A well-resourced supply chain of PPE, joined up, timely, and coherent guidance that is feasible to implement in long-term care settings; access to regular and efficient testing for staff and residents and accurate clinical information on hospital discharges are all key to a whole system response that will be required to prevent future avoidable deaths in the event of further waves of the pandemic.

Health Technology in the context of COVID-19
Jim McLaughlin
The COVID-19 pandemic has introduced both challenges and opportunities within the digital health technology environment in Northern Ireland. Of note, innovations included the introduction of remote clinical e-working, virtual clinics, specialist implementation via expert panels (to introduce systems like Track and Trace and Symptom Checking/Stop Covid-19 Apps), diagnostic solutions, and modelling including lockdown/relaxation predictions, health and economy implications, and emergency need.

At this has required teams across the academic, business and clinical areas to work collaboratively, share new forms of leadership and embrace the Healthcare 4.0 reforms as highlighted in the Closing the Digital Gap 2019 and NI E-Health 2016 Strategy reports. The importance of robust ‘UX designed smart systems’ and the utilisation of Artificial Intelligence has received much attention, particularly within validation and trial phases of devices and software to allow high-quality uptake that delivers high-quality decision-making with low false positives/negatives.

COVID-19 has fully tested e-health to the limit, demonstrated the importance of the Electronic Record Systems, shown the need for more and better systems and highlighted the need to improve our standards in relation to logistics, presentation data, robust decision making to help with patient flow and also allow commercial opportunities to develop within the pandemic Living Lab environment.

Our more generic e-health challenges in Northern Ireland have been strongly highlighted in relation to broadband/4G/SIG infrastructure, the need for e-prescriptions implementation and the importance of data access to aid emergency pandemic decision as well as develop rapid innovation.

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Chapter

What is the context for health policy in Northern Ireland?

Deirdre Heenan, Derek Birrell

This chapter identifies the key influences which have contributed to current health policy in Northern Ireland and provides a brief overview of the major issues. A series of commissioned reports which have diagnosed problems and made recommendations for change have had a significant impact on the direction of travel. The formulation of health policy in the Programme for Government through the adoption of a performance methodology, Outcomes Based Accountability (OBA) is also summarised. The broader context of the funding arrangements for health care is briefly outlined and a comparison is drawn with finance and performance in the rest of the UK. Perennial issues such as waiting lists, workforce planning and modernisation are considered. An important contextual background is the structural integration of health and social care in Northern Ireland, resulting in the terminology the HSC in Northern Ireland, as compared to NHS England, NHS Scotland and NHS Wales.

BACKGROUND

The Health and Social Care (HSC) system in Northern Ireland serves a population of 1.8 million. People live in urban, semi-rural or rural communities. Responsibility for population health and wellbeing, and the provision of health and social care, is devolved to the Northern Ireland Assembly from the United Kingdom government in Westminster. As in other parts of the United Kingdom, the Northern Ireland health service operates based on the founding principles of the National Health Service - the provision of care according to need, free at the point of access and beyond, funded from taxation. However, since the advent of devolved government, England, Scotland, Wales and Northern Ireland have adopted different structures and functions within their systems to meet these responsibilities. Thus, they vary in features such as: arrangements for planning and contracting of care; levels of investment in public health, primary and community care versus hospital provision; funding models, incentives; use of the independent sector; managerial structures; and, the role of the headquarters function.

Northern Ireland requires 9% more expenditure than England to meet health needs.

THE COMMISSIONED REPORTS


This review considered funding, use of resources and performance management systems and made recommendations for the separation of commissioning/purchasing from the provision of services. It was adopting a model from England to sharpen incentives, drive performance and reduce costs and was implemented through the commissioning role of the Health and Social Care Board and the provider role of the Five Health and Social Care Trusts.


A further review of finance and efficiency identified continuing low productivity and raised doubts if purchaser-provider split was working. A calculation was made that Northern Ireland required 9% more expenditure than England to meet health needs.

Transforming Your Care (2011)

This major review of Health and Social Care was critical of how needs were being met and made 99 recommendations for improvements. The major recommendation proposed a shift in provision and resources from the acute care sector to primary, community and social care sectors. It suggested 10 acute hospitals could be reduced to between 5 to 7 major hospital networks. It strongly recommended enhancing the integration of health and social services.

Right Time, Right Place: Donaldson Report (2014)

This major inquiry had an original focus on governance and serious adverse incidents investigations; however, it broadened into a short but wider analysis of problems with Northern Ireland HSC. Donaldson criticised a failure to implement the TYC recommendations, particularly finding that the commissioning system was not working and should be replaced. Another recommendation was the need to strengthen the patient voice. It also made the interesting observation that Northern Ireland had no established think tank for health and social care.

The Government responded with a commitment to abolish the Health and Social Care Board and its commissioning role, but this has not yet been implemented.


This was a very influential report on the configuration of HSC services setting out principles and aims for a future configuration. Bengoa suggested that the benefits of integration had not been fully explored and recommended reinforcing the combined activities of health and social care with a more in-depth integration. The triple aim of better health, quality and value is now well-accepted throughout the UK; however in Northern Ireland Bengoa went one step further. He advocated the quadruple aim by adding improving the work-life for those who deliver care. Attention was drawn to the need to support transformation and promote the integration between health and social care with the intention to reduce emergency care and hospital admissions. The actual model that was recommended was an accountable care system (ACO). Such systems were experimented with in England, but proved controversial and were withdrawn.

Health and Wellbeing 2026 – Delivering Together

This strategy document was a speedy response to Bengoa but had to operate in the context that Bengoa was not a specific blueprint suggesting structural reorganisation. Delivering Together was focused on four guiding principles:

- building capacity in the community and prevention;
- a public health focus;
- providing more support in primary care with practice-based pharmacy and multi-disciplinary teams in GP practice;
- reforming community and hospital services with initiatives such as acute care at home.

There was no specific recommendation on the configuration of acute hospitals and advocated better management structures including more emphasis on the voice of the patient.
THE INFLUENCE OF OUTCOME-BASED ACCOUNTABILITY METHODOLOGY

The Programme for Government prepared by the Executive in 2016 was based on a performance management methodology, Outcome Based Accountability (OBA) which differed from other outcomes-based approaches. OBA required setting desired or imagined outcomes and working backwards to set out a small number of statistical indicators. The draft Programme for Government in 2016 set out 14 outcomes which were very general in nature, each with 3/6 indicators and this was presented as a policy programme. The health outcome was described as “we enjoy long healthy, active lives” with another social outcome “we care for others and we help those in need”.

Five indicators were linked to the health outcomes:

- Healthy life expectancy at birth;
- Preventable mortality;
- Percentage of population with GHQ 12 scores >4, signifying possible mental health problems;
- Satisfaction with health and social care;
- Gap between highest and lowest deprivation quintile in healthy life expectancy at confidence of population aged 60 years or older.

OBA has been criticised for using very general or vague projected outcomes and treating indicators as causes. Following the collapse of the Executive, Departments produced a delivery plan based on the outcomes and indicators to be used by a returning Executive. In practice the action plan for health had a focus on health inequalities and improving mental health and patient feedback, but did not produce any policies related to waiting lists, integration, hospital configuration, elective care or emergency care. As well as OBA influencing limited policy development, major resources have been devoted to training the staff of public health, as a crucial component in ensuring good outcomes, population health is largely determined by economic, social and environmental factors.

The main components of the transformation programme are:

- Hospital reconfiguration - this is carried out through a networking of services on a specialist location basis rather than any decision on status of hospitals;
- Service configuration reviews have been or are being conducted in areas of stroke care, cancer care, neurology services, pathology services, urgent and emergency care.

Alongside this, seventeen Integrated Care Partnerships (ICPs) have been established in geographic areas of each of the five trusts. These are non-statutory and consist of representative inter-professional committees to develop projects in the five fields of diabetes, stroke, respiratory illness, the frail elderly and palliative care. Most projects are short term and with approved trust funding. Projects have evolved to date with a strong community development focus in areas such as social prescribing.

WAITING LISTS

Waiting lists have been a perennial issue for all four countries of the UK over the past decade, with all struggling to meet targets and maintain any previous improvements. Waiting lists in Northern Ireland are by far the worst in the UK. Despite relatively similar approaches to waiting times, large differences have emerged.

Statistics published by the Department of Health10 reveal a continuing deterioration of both outpatient and inpatient waiting times. All Northern Ireland waiting time targets are currently being breached. Waiting list sizes have also increased and patients are waiting a very long time for treatment. There is increasing concern that this escalating problem is causing significant risk to patients and may result in increased disease and preventable deaths.

The Department of Health figures show that as of 30 June 2019, a total of 299,436 patients were waiting for a first consultant-led outpatient appointment. This is 3.7% [10,682] more than at 31 March 2019 (288,754) and 8.5% (23,552) more than at 30 June 2018 (275,884).

299,436 patients waiting for a first consultant-led outpatient appointment.

Over a third of patients – 35.2% [103,450] – were waiting more than a year for a first consultant-led outpatient appointment, an increase of 3.3% on the same quarter last year (when there were 98,598 patients). The number of people (103,480) waiting over a year for a consultant-led outpatient appointment in Northern Ireland, represented 100 times more than in England, with a population 30 times greater.

WHAT ARE THE CAUSES?

In recent years a number of studies and reviews have identified the key causes escalating waiting lists in Northern Ireland:

- Rising demand due to an ageing population;
- Growing demand in emergency care has meant elective care beds are increasingly being used to care for emergency patients;
- The weaknesses of the commissioning system have also contributed to longer waiting times;
- A lack of beds has created a growing unplanned admissions cancellation rate which over the last 12 months on average exceeded 30% (as high as 50%) with many urgent admissions cancelled;
- Workforce issues such as insufficient numbers of doctors, nurses and other health professionals, along with recruitment issues and the historical reliance on expensive agency staff, are widely acknowledged as the key causes of delays in accessing elective care in some specialties;
- The reduction in the use of the independent sector, as a consequence of reduced funding for waiting list initiatives over the last 18 months, has had a major impact on waiting times. Historically, the Health and Social Care Board (HSCB) has provided non-recurrent funding for waiting time initiatives through a variety of private care providers, to reduce the numbers of patients waiting for treatment. In 2010/11, the HSC spent around £23m on independent sector treatment. By 2013/14, this had risen to £72m.

35.2% waiting more than a year for a first consultant-led appointment.

- In July 2014, a moratorium was placed in the use of the independent sector due to financial pressures. While the moratorium was lifted and funding released in 2015, it has not been possible to identify the number of patients treated in the sector. This change has nevertheless negatively impacted on waiting times;
- The failure to implement reforms, set out in a series of reviews, has led to a piecemeal approach to service improvement rather than a programme of transformation;
- The political vacuum since January 2017 offers little prospect of immediate relief for anxious patients. The additional funds agreed by Westminster in the DUP/Conservative confidence and supply agreement which were to be targeted at waiting time pressures and support for the implementation of the reform agenda have yet to materialise. With no agreed budget for health, no minister and waiting times deteriorating over every quarter in the last year, HSC Trusts have fought to maintain existing services, with smaller budgets, while being required to make efficiencies;
- Austerity and short-term financial planning.

In his latest report on waiting lists across the four UK nations, Appleby11 noted that demand for secondary care in Northern Ireland is not significantly higher than in the remainder of the UK and that it would explain the huge disparity in waiting times.

THE TRANSFORMATION OF HSC

The Programme for Transformation has operated through a Transformation Implementation Group (TIG) and although intended to be led by the HSCB is largely led by the Department of Health. The Programme has operated in two contexts, the lack of adequate funding and the absence of a Minister.

Number of people waiting over a year for a consultant-led outpatient appointment 100 times more than in England.
In research for the King’s Fund, Appleby aimed to ascertain rises in response to technical change, demography, rising user number of key factors. They must meet a level of demand that sustainable reductions in waiting times should be based on a interventions and initiatives were doomed to failure. Long-term could be addressed through a series of short-term ad-hoc assumption that waiting lists were simply a backlog which has been contended that policies based on the erroneous maintain healthcare services was placing significant strain on in every area of Northern Ireland. They noted that increasing 7,000 vacancies across the system which included 3,000 An ongoing issue in Northern Ireland has been poor workforce reductions in waiting times. These were: with no one size fits all solution. However, several factors emerged as significant when achieving and sustaining reductions in waiting times. These were: • a sustained focus on the task, organisationally and through management and clinical effort; • an understanding of the nature of waiting lists and how they form part of a whole system of care; • the importance of detailed information, analysis, forecasting, monitoring and planning; • the development of appropriate capacity. Addressing the waiting list in a sustainable way involved rigorous scrutiny of the logistics processes. This involved looking at patients’ pathways, attempting to streamline and simplify, identifying bottlenecks and pinch-points for individual patients, and then using the whole-system hospital perspective to work out, for example, the best way of handling the interaction between elective and emergency flows. These large scale strategic interventions were supported by a number of smaller measures to improve efficiency, including the careful management of beds, maximising day-case activity, ensuring the full use of theatres, and effective discharge planning, including investment in convalescent step-down facilities to free up beds for elective cases 15.

WORKFORCE PLANNING

An ongoing issue in Northern Ireland has been poor workforce planning resulting in shortages of key staff groups, a costly reliance on temporary staff, and a misfit between the workers available and those that would be needed if the service were to meet its aspirations to change. The Northern Ireland Audit Office (NIAO) recently counted annual locum doctor spend as £83 million in 2017–18. In November 2019 there were 7,000 vacancies across the system which included 3,000 nurses and midwives (Belfast Telegraph, 23rd November). This accounted for more than 10% of all spending on doctors in every area of Northern Ireland. They noted that increasing amounts being spent on employing locum doctors to maintain healthcare services was placing significant strain on already stretched Trust budgets. Despite the urgent need for more strategic, innovative and forward-thinking initiatives to reduce reliance on locum doctors, the NIAO found that the Department and Trusts have made no tangible progress in implementing effective solutions to reduce the heavy reliance on locums 15.

Around 7,000 vacancies including 3,000 nurses and midwives.

In 2018, the Department of Health published a long-awaited workforce strategy 16. It is a far-reaching and aspirational document, with an impressive level of ambition around bringing new types of staff into the workforce and expanding people’s skills. However, it contains little discussion of the exact numbers of key staff groups needed and the exact mechanisms by which these will be secured. A process to come up with indicators is mentioned, but it is unclear how this will be achieved.

FINANCE

Health and social care funding is the single largest area of public expenditure in Northern Ireland. In 2016–17, the total budget was £14.9 billion, accounting for 46% of the Executive’s overall budget. Some £3.6 billion of this (£2.2 billion) was allocated to the Health and Social Care Board (HSC Board) and Public Health Agency (PHA) to commission services from the HSC Trusts (the Trusts) and other bodies (NIA, 2018)17.

Funding for the HSC comes mainly through the Barnett Formula which is calculated substantially on expenditure in England and a population basis. The Northern Ireland Office (NIO) has discretion to allocate Barnett funding to meet locally determined priorities. Currently Northern Ireland expenditure per capita on health is not so different from other countries of the UK and is lower than in Scotland. The Department has expressed the view that health and social care trusts face a £20 million deficit and cannot afford to do more things with the fixed budget 18.

Some additional resources for health have been made available through the DUP Confidence and Supply Agreement. It would also be possible to invest more in health through either efficiency gains, reducing expenditure elsewhere or increasing revenue from the regional rate or new taxes.

An alternative is a style of shared leadership based on rational approach as envisioned by various experts, yet progress has been slow and uneven. There is a need to transform services in a way that builds on the integrated system of health and social care and joins the dots to the wider healthcare system. The most recent political vacuum has created a huge hiatus in health, but many of the problems in the system are enduring and pre-date the collapse of the devolved structures. Waiting lists in Northern Ireland are substantially worse than in the rest of the UK, this is not simply a backlog in the numbers of people waiting for care but reflective of systemic failures in health and social care. Northern Ireland’s performance figures are dire with few if any strategies designed to address these issues.

In these times of heated debate about the future of health and social care in Northern Ireland and the doomsday stories that abound about its imminent collapse, it is crucial to understand how the system performs as a whole and how it can be improved. Having a clear framework for characterizing what is, and isn’t evidence-based health policy is a prerequisite for a rational approach to making policy choices, and it will help to focus the debate on the most promising approaches.

HSC funding single largest area of public expenditure in Northern Ireland.

In his study comparing the NHS across the four nations of the UK, Greer suggested that the management style in Northern Ireland was top-down and centralised. He referred to the system in Northern Ireland as a permissive management style which was markedly different from the markets approach in England, localism in Wales and professional elite system of Scotland. Within Northern Ireland delivery and decision-making in healthcare rests extensively with quangos with a substantial number of non-executive nominated members whose role is unclear. It is also difficult to ascertain if and how these nominated members represent user groups.

In his 2014 review of the Northern Ireland Health Service, Sir Liam Donaldson memorably observed that the people he interviewed had no consistent answer as to who was in charge of, or, on, the health system. He suggested that abolishing the commissioning body, the Health and Social Care Board, would reduce complexity and cut administration costs. In 2016, the then Health Minister announced plans to abolish the body with associated savings of approximately £30 million per annum. To-date though this body still exists and future plans for it are unclear. However, in their review Heenan and Dayan found a markedly different picture with a broad consensus that health and social care was run by the Department of Health with an almost vice like grip. Both reviews commented on the very traditional and quite bureaucratic management model. This emphasis on centralised control can greatly dampen those working at the local level and was thought to impede change. The alternative is a style of shared leadership based on inspiration, motivation and trusting those working in the system to make good judgments and innovate as appropriate.

POLICIES AND MODERNISATION DEBATE

Northern Ireland has been relatively slow to adopt a number of GB policies and strategies, such as the creation of modernisation and transformation of the health and social care policy agenda. Key policies and agendas include:

• Personalisation - to date in NI there has been relatively limited use of direct payments or individual budgets;
• Co-production - this remains underdeveloped in terms of participation in the decision-making process, compared with NHS Foundation Trusts’ governance arrangements;
• Hospital reconfiguration - proceeding with recommendations to reduce numbers of acute hospitals.

CONCLUSION

Northern Ireland has a long history of grand reviews with the reality falling well short of expectations. The policy direction in these reviews has been consistent, to shift service provision away from hospitals and towards care in the community, as close to home as possible. The challenges facing health and social care are well documented. The last government agreed with the need for radical change, as envisioned by various experts, yet progress has been slow and uneven. There is a need to transform services in a way that builds on the integrated system of health and social care and joins the dots to the wider healthcare system. The most recent political vacuum has created a huge hiatus in health, but many of the problems in the system are enduring and pre-date the collapse of the devolved structures. Waiting lists in Northern Ireland are substantially worse than in the rest of the UK, this is not simply a backlog in the numbers of people waiting for care but reflective of systemic failures in health and social care. Northern Ireland’s performance figures are dire with few if any strategies designed to address these issues.

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14. Ibid.
18. Pengelly, J. (2019) ‘With a fixed budget we can only do more in some areas by doing less in others’. Available at: www.health-ni.gov.uk/budgetstatement

PATIENTS WAITING FOR A FIRST CONSULTANT-LED OUTPATIENT APPOINTMENT.

Waiting more than a year for a first Consultant-led outpatient appointment.

NUMBER WAITING OVER A YEAR FOR CONSULTANT-LED OUTPATIENT APPOINTMENT.

100 TIMES MORE THAN ENGLAND

299,436

Patients waiting for a first consultant-led outpatient appointment.

9%

More expenditure than England to meet health needs

9%

Northern Ireland requires

AERIAL LOCUM DOCTOR SPEND REACHES

£83 MILLION

PLANNED ADMISSIONS AND CANCELLATION RATE EXCEEDS

30%

AROUND

7,000

VACANCIES INCLUDING

3,000

NURSES AND MIDWIVES

HSC FUNDING

SINGLE LARGEST AREA OF PUBLIC EXPENDITURE IN NORTHERN IRELAND

35%

9%

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HEALTH, EQUALITY AND THE ECONOMY

What is the cost of healthcare in Northern Ireland?

Richard Johnston

The healthcare system in Northern Ireland has reached a critical point. An increasing population, longer life expectancy, more complex and interrelated healthcare requirements are placing more demands on the health service than ever before.

Waiting lists far exceed those in other parts of the UK and Ireland, and nurses took industrial action for the first time in 103 years. Unfilled vacancies present a serious challenge and the reliance on temporary staff to fill permanent posts is an inadequate long-term strategy. In terms of remedies, much of the focus so far is on healthcare spending - how much more, on what and over what term? But will more funding solve the problems?

What we must remember in these debates is that each pound spent is either a pound of taxpayer’s money or a pound borrowed by the UK Government, which represents a cost for future generations. Someone will pay for the public services that we demand as a society, either now or later.

There are always more demands on public services than available resources and it is an unsolvable task for those attempting to satisfy as many of those demands as possible within the budget granted to them. The question that we must ask ourselves is whether taxpayer’s pounds are being spent in ways that deliver the best value?

Nurses take industrial action in Northern Ireland for the first time in 103 years.

COSTING PUBLIC SERVICES IN NI

In 2018/19, public services in NI cost £29.1bn to deliver. As a society, we paid £18.5bn in taxation, resulting in a fiscal deficit of £10.6bn in NI. On a per capita basis, NI has the highest level of public spending per capita – close to £13,000 per person annually. We would pause to think about the challenge that figure presents. All of the road, rail and technological infrastructure, education, policing, justice, healthcare demands and much more - must be delivered within this budget envelope. This is a significant challenge in itself for public servants and politicians.

The Department of Health was allocated £6.1bn in 2019-20, which is half of the available DEL budget. The rate of increase in spending is rapid, 6.8% per annum, or £1.1bn more being spent annually than three years ago. It is the largest and fastest growing area of expenditure that is within the control of the NI Executive, demonstrating the priority that is given to healthcare. Other Departments have increased spending at more modest rates and two (Communities and Economy) have reduced expenditure, which will have helped to fund the increase in healthcare spending.

In terms of reform, the Bengoa report and others provide a road map of the reforms that are necessary. Beyond that, we must think more radically about what we would be prepared to make do with less of, in order to fund increasing healthcare requirements. Alternatively, would we be willing to pay more in rates? How would domestic ratepayers or businesses react? After all, it is those who lose services or are required to pay more in taxation that are likely to be the most vocal. Our tax policy stance is an area for discussion – we may wish for Scandinavian levels of public service, but they come at a price that is more than what we are currently paying. This will be one of the key issues for NI’s Fiscal Council to consider when it is created later in 2020.

Public services in Northern Ireland cost over £29 billion to deliver.

THE HEALTHCARE BUDGET - A RAPID GROWTH PRIORITY

The NI Executive has devolved control of £12.3bn of the budget, which is referred to as Departmental Expenditure Limits (or DEL). The remainder of expenditure is on matters that are reserved for Westminster and include items such as pensions and benefits. These are referred to as Annually Managed Expenditure (or AME) of £10.1bn plus the accounting adjustment and non-identifiable expenditure noted above.

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SPENDING MORE THAN THE UK AVERAGE

NI spent £2,306 per person in 2017-18 on healthcare, which is less than Scotland, similar to Wales and more than the UK and English averages. On that basis, it would be reasonable to expect similar outcomes to Wales, but this is not the case in terms of waiting lists, mental health spending or unfilled vacancies. This would suggest that additional funding is one aspect of the solution, but reform and efficiency savings are the other side of the same coin.

Identifiable Expenditure per capita on healthcare (£), UK countries, 2013-14 to 2017-18

Source: Public Expenditure Statistical Analysis

FOCUSING ON SOLUTIONS

The draft Programme for Government (2016-21) focussed on improving wellbeing for all as the key priority for Government. The Department of Health’s budget allocation is the largest of the NI Departments and has increased more rapidly than any other in recent years. It is clear that healthcare is the priority, as illustrated by the scale of expenditure and rate of growth.

NI’s population is both growing and aging. With that comes increasing demands on the healthcare sector in terms of dealing with illness and interrelated and complex healthcare needs. It is clear that demands are only going to continue to increase. However, we must focus on the fact that every pound is someone’s pound, there is no source of ‘free’ money and therefore we have an obligation to ensure that we do our best with the available budgets.

IMPLEMENTING REFORMS

In terms of reform, the Bengoa report and others provide a road map of the reforms that are necessary. Beyond that, we must think more radically about what we would be prepared to make do with less of, in order to fund increasing healthcare requirements. Alternatively, would we be willing to pay more in rates? How would domestic ratepayers or businesses react? After all, it is those who lose services or are required to pay more in taxation that are likely to be the most vocal. Our tax policy stance is an area for discussion – we may wish for Scandinavian levels of public service, but they come at a price that is more than what we are currently paying. This will be one of the key issues for NI’s Fiscal Council to consider when it is created later in 2020.

£2,306 per person on healthcare.

18 Source - Department of Finance. Figures include the accounting adjustment of £2.3bn (such as funding Government borrowing) and NI’s contribution to UK non-identifiable expenditure of £2.6bn (these include defence etc which are shared out across the UK regions on a per capita basis).
USING TECHNOLOGY BRILLIANTLY
Automation has played a significant role in boosting private sector productivity and in general, reducing the cost and increasing the quality of a range of goods and services. There are, as yet, potentially unexploited gains to be realised in NI. Big data, wearable technologies and the Internet of Things all provide opportunities for rapid progress in the healthcare arena. Research now proves that Artificial Intelligence can outperform doctors at diagnosing certain cancers and fractures. Faster and more accurate diagnoses can reduce costs and complications and it will be imperative for the healthcare sector to become a rapid adopter of new technologies, something which is a challenge for large public sector organisations.

NUDGING IN THE RIGHT DIRECTION
Alongside the increased use of technology, there is a better understanding of human behaviour and how behavioural economics can be used to help healthcare consumers make better choices that can ultimately reduce the cost of healthcare delivery. For example, evidence shows that sending a text saying that every missed appointment costs the Health Service £160 resulted in a 25% reduction in missed appointments as people realised the implication of failing to turn up. This is just one simple example, but there are many others that could be employed.

BE GRATEFUL FOR OUR STARTING POINT
We should also be careful not to lose sight of the fact that some of the problems that we discuss here are, in both relative and historical terms “good” problems to be dealing with. Longer life expectancy is to be celebrated, low infant mortality and high immunisation rates are all successes. Therefore, let’s face into the challenges safe in the knowledge that it is from a strong foundation and do our best with the resources at hand.

MONEY MATTERS, ALONGSIDE SO MUCH MORE
The clear conclusion of this short article is that the demands on the healthcare sector are increasing and progressively more complex, a trend that is likely to continue over the next few decades. Funding has increased significantly but continuing to roll out the existing form of healthcare to a larger population is unrealistic, unless it is funded by large tax or borrowing increases. Additional funding will help to solve some of the challenges in the immediate term, but it is the implementation and delivery of a long-term sustainable strategy that is required for NI.

£160 cost to Health Service for every missed appointment.

STARK CHOICES
Implementing reforms and boosting efficiency will undoubtedly mean closures or reductions in certain services and in specific geographies. Tough decisions will be required in terms of the location of these services on a regionally balanced basis, indeed we may need to spend more to balance services across NI for the good of society. The UK government has floated the idea of newly trained doctors being tied to working in the NHS for four years or being asked to repay the cost of their training (which exceeds £220k). The British Medical Association and junior doctors are quite understandably, unhappy with the suggestion. Other questions include the value that the public sector might place on resources used in private practise. These are obviously very emotive subjects but are based on the principal of those who use the resources paying for them until the cost to taxpayers is balanced. For context, the recent and very welcome pay parity announcement by Minister Swann will cost c£109m per annum, which exceeds the annual budget of the NI Ambulance service, or would add more than £100 to every domestic ratepayers bill if the revenue was to be raised locally. These are tough decisions with clear budgetary implications.

In closing, what we must do as a society is to support some of these hard decisions that increase efficiency, reduce waste and duplication and encourage our citizens to become more responsible users of healthcare services. There is no “silver bullet”, however, open conversations, robust evidence-based policy making, application of technology, better data and informed user choices can help to improve healthcare services and outcomes for society alongside higher levels of funding. How we adapt and make best use of this new environment during the 2020’s will determine our fortune in the longer term.
Why are there still health inequalities in Northern Ireland and what needs to be done?

Goretti Horgan

KEY ISSUE

While there have been remarkable improvements in health over the last century, these have not been experienced equally. People’s health continues to be influenced by the circumstances of their birth, their childhood, what they eat, where they live and work.

Health inequalities originate from inequalities in vulnerability and exposure to health risks by social groups—both between and within countries. Across varying measures of social standing—including level of education, occupation, or income—those who are more socially advantaged are likely to live longer, and in better health, than individuals from lower socioeconomic backgrounds.

Here in Northern Ireland, this means that while male life expectancy at birth has continued to improve, men living in the most deprived areas of the region are likely to die seven years before their counterparts in the least deprived, while the inequality gap between women in the most and least deprived areas is 4.5 years.

Figures for Healthy Life Expectancy (HLE) and Disability Free Life Expectancy (DFLE) over the same period are even worse: women and men in the least-deprived areas are likely to have over 14 years more healthy years of life than those in the most-deprived areas.

Increasingly, health inequalities are analysed within the context of the United Nations Sustainable Development Goals (SDGs) which were endorsed by 193 countries, including the UK, at the Seventy-fifth United Nations General Assembly in New York, September 2015. The SDGs are based on the principle of advancing equity and leaving no one behind in the process of economic, social and environmental development. All of the goals are inter-connected and each needs to take account of the other in working to meet targets.

This chapter looks at two areas of growing concern which the SDGs identify as contributing to overall health inequalities and which have received relatively little attention here in Northern Ireland. These are inequalities in the impact of air pollution on health and inequalities in access to sexual and reproductive health care. As with all concerns of the SDGs these inequalities intersect to exacerbate overall health inequalities.

KEY RESEARCH

Impact of air pollution on health inequalities

Ambient (outdoor) air pollution is a major environmental health problem, estimated to cause 4.2 million premature deaths worldwide per year in 2016; this mortality is due to exposure to small particulate matter of 2.5 microns or less in diameter (PM2.5), which cause cardiovascular and respiratory disease, and cancers. While such pollution impacts everyone in low-, middle-, and high-income countries, there are major inequalities between and within countries in relation to exposure to, and impact of, air pollution. The World Health Organization estimates that 9 out of 10 deaths from air pollution are in low and middle income countries, but this does not mean that those of us living in rich countries like the UK or Ireland need not be concerned. Indeed, in the WHO list of countries and cities in Europe that have fine-particle air pollution levels above 10 micrograms per cubic metre, the UK features large, with 30 cities having levels above that limit. Derry-Londonderry is one of those cities, with the same air pollution level as London. Here in NI, high levels of exposure to oxides of nitrogen, including ammonia, are as concerning as are levels of fine particulates. NI has the highest levels of ammonia emissions in the UK. The agriculture sector contributes 94% of all ammonia emissions in NI. In very low concentrations, ammonia is not harmful to human health. However, when ammonia emissions combine with pollution from industries and transport (for example diesel fumes) they form very fine particulate matter (PM2.5), which can be transported significant distances.

Chronic exposure to higher levels of fine particulate matter have been found to impact vascular function, “which can lead to myocardial infarction, arterial hypertension, stroke, and heart failure.” It is notable that in a very large population-based cohort with up to 25 years of follow-up, small particulate matter was associated with mortality at concentrations as low as 5 micrograms per cubic metre, which is half the limit recommended by WHO.

Evidence linking air pollution to non-infectious respiratory diseases is even stronger. Exposure to various air pollutants has been related to asthma, chronic obstructive pulmonary disease (COPD), and lung cancers. Systematic reviews and meta analyses have shown that air pollution is related to mortality, hospitalisation and A&E visits in patients with COPD.

9 out of 10 deaths from air pollution are in low and middle income countries.

Pfeffer et al., using data from the London COPD Cohort, followed for 20 years, showed a consistent association between higher levels of nitrogen oxides and an increased incidence of COPD exacerbations.

The agriculture sector contributes to 94% of all ammonia emissions in NI.

Both in relation to cardio-vascular and respiratory conditions, the impact of air pollution on health differs according to socio-economic conditions. In Northern Ireland in 2016/17, for example, the percentage gap in the standardized hospital admission rates for respiratory conditions, between residents of the most deprived areas and the least deprived areas is 93%. When we look only at under-75 year-olds with respiratory conditions, the gap rises to 113%. These gaps have increased since 2013/14.

Reproductive Health

Air pollution is closely associated with reproductive health, especially healthy foetal development. For example, meta analyses have found that maternal exposure to fine particulate air pollution increases the risk of preterm birth and low birth weight. Systematic reviews also found statistically significant associations between prenatual exposures to oxides of nitrogen and fine particulates and the risk of wheezing and asthma development in childhood. There is also some evidence that infant mortality rates are increased as a result of exposure to air pollution.

For example, when the government of China piloted interventions to reduce air pollution, infant mortality fell by 20% in the two cities chosen for the interventions.

Reproductive health inequalities have been researched by Ulster University researchers in recent years, partly in response to SDG 5 on promoting gender equality, to the Convention on the Elimination of Discrimination Against Women (CEDAW) and to growing calls from civil society for policy development in relation to sexual and reproductive health. Since 2013, researchers have explored access to contraception and abortion in NI; the results indicate clear inequalities between British and Northern Ireland and within the region.
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Because the 1967 Abortion Act was never extended to NI, women seeking abortions have had to travel to Britain to end unwanted pregnancies. There has been a concern that access to abortion services in Britain was available only to those with higher incomes, but it was impossible to access any data to confirm or negate that view. But the introduction of free NHS abortions in England for women from NI seems to have confirmed that this was, indeed, the case. Department of Health statistics for April to June quarter of 2018 showed the number of women from NI having [now free] abortions in that quarter was 66%, up on the same quarter in 2017, when they had to be paid for privately.

However, our ESCPR-funded research with women who used abortion pills obtained over the internet found that a quarter in 2017, when they had to be paid privately.

In keeping with figures for GB and Ireland, just over a quarter of women of reproductive age were using prescribed contraceptives in any one year. The greatest users were aged 20–24 with those less than 16 least likely to have a contraceptive dispensed. There was no evidence that the level of deprivation in the area in which the woman lived was related to her use of prescribed contraceptives. However, after adjustment for patient and other practice characteristics, practices operating in the least deprived quintile prescribed 6% more contraception.

The study found that the combined oral contraceptive (COC) pill and progestogen-only pill (POP) were the most frequently dispensed methods of contraception and, in the years examined, there was a decrease in dispensation of the COC in favour of an increase in the POP. It is important to note that typical failure rates of these methods are 9%, compared with long acting reversible contraceptive (LARC) methods such as the progestogen-only implant 0.05% and levonorgestrel intrauterine contraception 0.2%. The contraceptive methods dispensed varied with the deprivation in the area in which the woman lived. In the least deprived quintile, Emergency Contraception (EC) was dispensed 20% less and the contraceptive injection 12% less compared to the most deprived quintile. Conversely there was 5% greater rate of use of the COC in the least deprived quintile compared to the most deprived quintile.

As we can see, access to LARC is limited. This makes little economic sense since contraception is considered the single most cost-effective intervention in healthcare. Public Health England estimates that every £1.00 invested in the provision of contraception achieves a £9.00 saving across the public sector.

KEY RECOMMENDATIONS

There is currently a unique opportunity to develop an integrated sexual and reproductive health service for Northern Ireland that can reduce gender inequalities while enhancing protection of women and children’s health. The decriminalisation of abortion in the region means that a new service will have to be developed. ARK (NI’s social policy hub, a partnership between UU and QUB) held a series of roundtables with doctors and midwives to explore what kind of service would be best.

The health professionals agreed that a community-based integrated sexual and reproductive service, such as that in Scotland where women can self-refer and receive an appointment within a few days is needed. Women accessing an Early Medical Abortion (EMA) in Scotland are able to obtain LARC methods such as implants or progestogen-only injections at the same appointment where they are receiving their abortion medication was emphasised. A fast-track appointment is made for those women who choose an intrauterine method.

Just over a quarter of women of reproductive age were using prescribed contraceptives in any one year.
How can we build supportive environments for people living with severe mental illness in Northern Ireland?

Gerard Leavely

KEY ISSUE
Over the past decade, parity of esteem between mental health and physical health services has become a significant policy issue in the United Kingdom but with little evidence that the life chances of people with mental illness has improved. While mental illness carries 22% of the total healthcare burden, it only receives 12% of the health care budget.

People with severe mental illness (SMI) die much younger than the general population. In part, this is due to high rates of suicide among people with SMI. Additionally, they are vulnerable to poor physical health including obesity, type 2 diabetes and CHD. Some of these problems are associated with anti-psychotic medication and lifestyle behaviours such as unhealthy diets, cigarette, alcohol use and high levels of physical inactivity. Developing new approaches to suicide prevention in this population and increasing the strength and long-term effectiveness of lifestyle interventions of people with SMI is a public health priority.

Weight gain and obesity are major problems for people with severe mental illness.

People with severe mental illnesses such as bipolar disorder or psychosis are at particularly high risk of suicide. This population has particularly poor physical health as a result of medication side effects, lifestyle-related risk factors and socioeconomic determinants. The high prevalence of smoking, alcohol and substance misuse and other lifestyle-related risk factors, contributes to a 15-20 year gap in life expectancy among people with severe mental illnesses.

Despite this, people with severe mental illnesses are less likely to receive medical care preventive care, such as routine cancer screening.

The substantial costs to the health system and the wider economy caused by smoking, obesity, physical inactivity, alcohol misuse and substance abuse are well established. For example, smoking rates among people with a mental illness are three times higher than among the general population. People with severe mental illnesses (SMI) who smoke are just as likely to want to quit as the general population, but tend to be more addicted and experience greater barriers to quitting. Similarly, weight gain and obesity are major problems for people with severe mental illness, some of which can be attributed to psychotropic medications, increasing the risk of developing diabetes or cardiovascular diseases, and contributing to low quality of life.

Other interwoven and modifiable risk factors associated with the poor physical health of people with SMI include low self-esteem, other mental illnesses such as bipolar disorder or psychosis, and substance abuse are well established. For example, people with severe mental illnesses (SMI) who smoke are just as likely to want to quit as the general population, but tend to be more addicted and experience greater barriers to quitting. Similarly, weight gain and obesity are major problems for people with severe mental illness, some of which can be attributed to psychotropic medications, increasing the risk of developing diabetes or cardiovascular diseases, and contributing to low quality of life.

The high prevalence of smoking, alcohol and substance misuse and other lifestyle-related risk factors contribute to a 15-20 year gap in life expectancy among people with severe mental illness.

KEY RESEARCH
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The high prevalence of smoking, alcohol and substance misuse and other lifestyle-related risk factors contribute to a 15-20 year gap in life expectancy among people with severe mental illness.
FAMILY INVOLVEMENT
Family involvement in mental health services range from the provision of general information on the mental health service and assessments to family psycho-social and educational interventions and international policies and good practice guidelines highlight the need for families to be involved and actively participated in psychiatric services. Thus, families can encourage adherence to treatment, recognize and respond to signs of relapse and assist seeking contact with health services and general practice detection of suicidality. BMC Psychiatry. 16 (1). 22

Other evidence indicates that informational/promotional materials are insufficient to engage the population in regular exercise. The results of international interventions that highlight the benefits of physical activity are needed. When combining physical activity consultations with nutritional information using implementation intention prompts, (and plans for action) in small group sessions physical activity and wellbeing can increase in obese and overweight populations. These types of interventions should be professionally designed and delivered leading to effective adherence and longer-term improvement to physical fitness. Additionally, autonomy and social support were identified as critical factors for effectively engaging people with severe mental illness in regular exercise while past research indicates that scant attention is paid to the role of influential others and a safe and comfortable environment.

KEY RECOMMENDATIONS
• Families provide most of the care and should be the greatest beneficiaries of care. If families assume much of the responsibility of managing the illness and support all of people with SMI, it appears sensible and fair that they are fully equipped to do so, including being informed about the challenges of caring and providing the necessary care to access community emergency services. This can be done through community and voluntary services, primary care and/or mental health services.

• Multi-disciplinary teams within primary care make this provision more possible.

• While it is crucial that the ‘insider’ knowledge of families is brought into the decision-making, caregivers must also be better informed about the physical health needs associated with SMI and how to assist in adopting health-promoting behaviour. This can be done through community and voluntary services, primary care and/or mental health services.

• Family engagement with health improvement interventions can be improved if barriers or concerns about the treatment are addressed early and, motivational interviewing is provided to highlight the perceived benefits of participation which although targeted to clients, may additionally benefit families.

• People living with severe mental illness should have their physical health needs met by regular physical health care assessments. Importantly, physical health and healthy lifestyle promotion should be provided across all sectors. While assessment within primary care is important, the voluntary and community sectors must be engaged in health promotion and incentivized to promote good physical health among their service users.

To summarize, prolonging the lives of people with severe mental illness and improving their quality of life requires more strongly integrated services and interventions. This does not require radically new and expensive systems of care but rather, improving the existing environments and support systems. The voluntary and community sector, and primary care are central to this change.


The relapse rate in schizophrenia can be reduced by 20% if relatives of schizophrenia patients are included in the treatment. 89. For instance, it has been shown that belief in a higher power is associated with better suicide prevention. 90. Nevertheless, the involvement of families is paramount, as they can contribute significantly to the prevention of relapse. 91. Social isolation, low self-esteem and stigma contribute to the development of functional impairment, which in turn negatively affects physical health. 92. The devaluation of family perspectives by clinicians led to families being left to cope alone by services following hospital discharge.
Chapter

What should we do about transgenerational trauma in Northern Ireland?
Siobhan O’Neill, Edel Ennis and Margaret Mc Lafferty

KEY ISSUE
Northern Ireland’s history of violence has resulted in high rates of mental illness, and trauma related mental illness among those who were exposed to the Troubles.1,2,3,4 The generation who were worst affected are now parents and grandparents, however the rates of mental illness and suicide in young people who did not directly experience the conflict are high.5 There is therefore concern that we are seeing the effects of transgenerational trauma. The conflict also had an additional indirect impact, since it was related to an increase in other types of childhood adversities such as poverty, family dysfunction and parental mental illness.6 The literature on childhood adversities typically refers to Adverse Childhood Experiences, or ACEs. Such “ACEs” surveys generally include questions related to family violence, neglect, physical and sexual abuse, as well as parental mental health problems, substance abuse and criminality within the family setting. The number of ACEs experienced is calculated. However, this practice has come under scrutiny recently, with many believing that rather than providing a score, the impact of childhood adversities must extend to consider other factors12, such as the clustering, severity and duration of adversities.13

Whilst a recent report stated that there is no population data of ACEs in NI, there is comparable data available from the NISHS.14,15,16,17,18,19,20 These studies included questions assessing childhood adversities which are similar to those examined in ACE studies and additionally, economic adversity, physical illness, parental death and other parental loss during childhood. In comparison to the estimate in the SBNI report, that 36%-53% of the NI population have not experienced childhood adversities, the NISHS reports that 68% of the NI population never endured such experiences. However, when childhood adversities were experienced, they had a very detrimental impact on mental health and suicidal behaviour. At 8.6%, economic adversity was particularly high in NI, in comparison to other countries,21 and there were strong associations with a range of mental health problems.22

The elevated rates of post-traumatic stress disorder (PTSD) in the NI population are often attributed to the effects of Troubles-related trauma exposure.23 However, McLafferty et al. 24 found that childhood maltreatment was a greater risk factor. Furthermore, while those who experienced conflict or those who had a mental health problem were more likely to have suicidal thoughts, plans or attempts, individuals who experienced childhood adversities along with these conflict related traumas and psychopathology were even more likely to report suicidal behaviour.25 Parental mental illness was particularly related to suicidal behaviour, and if childhood adversities could be minimised, then psychopathology and suicidality could be reduced significantly in the population. Specifically, substance disorders could be reduced by 10.4% if family violence was eradicated, mood disorders could be reduced by 10% if sexual abuse did not occur, and suicidality could be reduced by 6.5% by eradicating physical abuse. These findings demonstrate the value of early intervention and prevention programmes for those most at risk and are relevant to efforts to address NI’s suicide rate. Childhood adversities rarely occur in isolation and with multiple adversities were more likely to have a range of mental health problems and suicidal behaviour.26,27,28 Social networks were protective, and reduced the impact of trauma on mental health, however those who experienced adversity were less likely to have those supportive social networks.29

Those people who grew up during the worst years of the Troubles in NI reported the highest rates of neglect and family violence, and this impact on intra-family relationships may have resulted in the trans-generation transmission of trauma. A generation of people, who are now parents, were exposed to both childhood adversities and also trauma as a result of incidents that were part of the conflict. Parental mental illness carries a high risk of mental illness in the child via several mechanisms. Researchers have discovered the potential for biological transmission of trauma in the form of changes to the child’s capacity to manage stress and self-regulate. These biological changes can occur in utero, when a mother is exposed to stress, and also in changes to the surface of the DNA pre-conceptually.29,30

36%-53% of the NI population have not experienced childhood adversities, the NISHS reports that 68% of the NI population never endured such experiences.
Evidence suggests that the emotional impact of trauma can result in poor attachments that will increase the likelihood of mental illness and increase the likelihood of further adversity for the child.

In keeping with the theories of transgenerational trauma in NI, there is also evidence of elevated rates of mental illness, and indeed suicidal behaviour, in the current generation of young people who were not directly exposed to the worst years of violence. A Student Wellbeing Study (UUSWS) commenced in 2013 as part of the WMH consortia’s research into student mental health and wellbeing. High rates of mental illness and suicidal behaviour were revealed in the student population. Risk factors included childhood adversities and poor parenting practices. While many of the participants in the NISHS grew up during the Troubles, the majority of a cohort in the UUSWS were born after the conflict ceased.11,12

Whilst childhood adversity, at all low levels, promote resilience and provide people with coping skills to draw upon in later years, the high levels in the NI population who were parented by the generation affected by the Troubles constitute trauma exposure which can over time result in toxic stress. Toxic stress in childhood impacts on the child biological stress response systems creating hypervigilance, poor coping skills and behavioural difficulties, which, if not addressed appropriately are conditions that can lead to mental illness.13

Trauma informed practice, and trauma-informed ‘treatments’, when delivered in early years and primary school settings, can have a powerful impact on reversing these effects, and reduce the risk of lifetime mental illness and suicidal behaviour. ‘Trauma informed’ or ‘trauma focused’ approaches to the delivery of care and treatment for children, or that incorporate elements of behaviour in a classroom for example, may be viewed as an alternative to the traditional psychiatric model used to conceptualise and understand mental illness and wellbeing. The approach acknowledges the biological impact of trauma on the body and brain, and the potential for trauma to adjust and integrate the way the whole system responds to stress. It is also a whole systems approach in that it considers the ‘systems’ within which education, care and treatment are delivered and advocates for an understanding of how individuals operate to deliver care within these systems.14 Trauma informed care includes education and awareness raising regarding the impact of trauma. It also means preventing trauma and the early identification of those who may be affected. Finally, it means the delivery of evidence-informed trauma specific assessments and interventions. Trauma focused interventions have several key components. They address the impact of trauma on the body which can lead to hypervigilance and an exaggerated stress response, and use therapies which train the individual to self-regulate in response to stress, whilst avoiding stimuli which could potentially activate the stress response. They place importance on the development of safe spaces for young people and prioritise one to one attachment relationships and building trust. For PTSD the National Institutes for Health and Care Excellence recommend trauma focused Cognitive Behavioural Therapy (CBT) or eye movement desensitisation and reprocessing (EMDR).15

The Adaptation and Development after Persecution and Trauma (ADAPT) model may also be of value in the implementation of trauma informed practice in the ‘post conflict’ context of NI. This module characterises stable societies as having five core pillars which promote psychological well-being and good mental health. These are: safety and security, human bonds and social networks, justice, roles and identities, and world views and belief systems. Conflict and political violence are disruptive to these principles and according to this model they must be repaired in order to restore community mental health and individual recovery.16 NI is currently undergoing a process whereby the issues relating to the legacy of the conflict, particularly issues of justice and truth, are being discussed and negotiated. The destabilising impact of this, and the effect on those with trauma related mental illness has been outlined by O’Neill and Hamber.17 A trauma informed approach to managing the legacy of the conflict would incorporate the elements identified above, and importantly adopt a victim and survivor- centred perspective, with due consideration to the impact on the victim, and their journey through the system. In keeping with a trauma informed approach, the institutions should screen people for mental illness and trauma-related conditions and facilitate treatment.

Some work has already been undertaken to guide NI organisations in the implementation of trauma informed care to reduce the impact of transgenerational trauma. For example, Bunting et al18 outlined the principles of trauma informed care and how it applies to the child welfare system. McAliskey and O’Neill 19 also provided as series of recommendations, which include parenting programmes, and structured programmes to address the impact of co-occurring adversities. They highlight the need for practitioners to deliver trauma informed care within the community context of violence and deprivation, economic adversity, parental loss and parental mental illness, and advocate a focus on early intervention and prevention. Resilience building is also part of trauma informed practice, and evidence-informed resilience programmes which are founded on sound theoretical frameworks are recommended. Examples include the ‘Saving and Empowering Young Adolescents in Europe (SEYE)’ intervention a These need to be delivered in schools and early years settings as a mandatory element of the school curriculum in order to have a broad impact.

Toxic stress in childhood impacts on the child biological stress response systems creating hypervigilance, poor coping skills and behavioural difficulties.

NI had the World Mental Health survey’s highest recorded rate of Post-Traumatic Stress Disorder, ahead of war-hit regions such as Israel and Lebanon, at a yearly cost to the public purse of around £175m.
The current national policy, the 2017 Drug Strategy, focuses on reducing demand, restricting supply, promoting recovery and taking global action. The government in Northern Ireland has responsibility for setting and delivering local strategy, particularly in areas of portfolio responsibility such as health, social care and education.

Northern Ireland’s most recent drug and alcohol strategy expired in 2016 and has not been renewed in the absence of an Executive and a sitting Assembly. The five year strategy, the New Direction for Alcohol and Drugs Phase 2 was devised around five pillars: prevention and early intervention, harm reduction; treatment and support; law and criminal justice; and monitoring, evaluation and research. A review of Phase 2 was completed in October 2018. This review focused on outcomes and implementation of the strategy and did not set out proposed future directions for alcohol and drug policy in Northern Ireland.

In the last decade, there have been significant developments that must be addressed by the new policy for Northern Ireland. They include:

- the increase in drug related deaths;
- the challenges posed by new psychoactive substances (NPSs) such as ‘Spice’, many of which emerged initially as legal alternatives to controlled substances but are now banned;
- new sources of drug supply such as web-based illicit drug market;
- the threat posed by synthetic opioids such as fentanyl;
- complications arising from an increasing trend in polydrug use;
- the misuse of pharmaceutical and counterfeit pharmaceutical drugs; and,
- an ageing cohort of drug users with complex co-morbidities.

Do we need a new policy approach to tackling drugs in Northern Ireland?

Vanessa Gstrein

KEY ISSUE

Drug and alcohol use and misuse represents a costly social and economic burden that demands effective policy responses. Northern Ireland’s most recent drug and alcohol policy expired in 2016. Since its development significant new challenges have arisen, particularly in relation to changes in drug use patterns and the emergence of new drugs and dark web drug markets. This chapter sets out some of those issues before presenting evidence-based alternatives to the current criminal justice-led policies which have failed to curb drug use, drug availability or drug-related deaths. A case is made for supporting a paradigm shift to policy focused on health-based outcomes which would directly contribute to the achievement of several key indicators in the Programme for Government, including reductions in health inequalities, crime and preventable deaths.

The use and misuse of drugs in Northern Ireland is a pressing public policy issue. Drug-related deaths among men have doubled in the last decade. In 2015 Northern Ireland’s share of UK drug misuse deaths was 3.39%, while NI’s population was 2.84% of the total UK population - a disparity of 19%. Moreover, the impact of drugs is not spread evenly in the community. The reduction of health inequalities is a key priority area for public health in Northern Ireland with alcohol and drug related indicators being responsible for some of the largest inequality gaps. According to the Health Inequalities Report 2019, those living in the most deprived areas are four and a half times more likely to experience drug-related and alcohol-specific mortality.4

The financial cost of drug and alcohol misuse in Northern Ireland also poses a significant burden, having been estimated to be over a £1 billion per annum.5 Responsibility for addressing the harms associated with drug and alcohol use is shared between Westminster and the devolved administrations. The UK government sets the overall strategic direction and provides the legal framework for illicit drugs through the Misuse of Drugs Act 1971 and the more recent Psychoactive Substances Act 2016.6

The harms of criminalisation

The UK Government’s 2017 Drugs Strategy prioritises criminal justice approaches, with the lead agency being the Home Office. This contrasts with the Republic of Ireland where their new national strategy is characterised as a ‘health-led response’ to drug and alcohol use.7 Criticism has been levied at the UK Government’s approach by two Parliamentary Committees which published reports in recent months.8 Both the Health and Social Care, and the Scottish Affairs Committees challenged the Government on its failure to stem the rising tide of drug-related deaths and called on the Government to consider the decriminalisation of drug possession for personal use as one part of a comprehensive approach to drugs that placed priority on public health and harm reduction.

Drug use is increasing world-wide, with an estimate that some 275 million used an illicit drug in 2016. These calls were in line with international and local research evidence on the effects of criminalisation of drug use, which identifies the following issues:

- Punitive approaches have not decreased drug use nor have had a proven deterrent effect.10
- It is estimated that globally $100bn is spent annually on law enforcement responses to drug use, and that this effort largely targets low level, nonviolent drug offenders.11 In the UK, the majority of drug offences relate to possession, and the majority of those to cannabis, taking valuable police time and resources.12
- Drug policies are often based on the premise that all drug use is dangerous thereby failing to distinguish between drug use and drug misuse. This leads to the blanket application of laws and punitive sanctions that are not related to whether the drug use is problematic or not.13
- The majority of drug use does not lead to addiction or long-term problematic use. The UNODC estimates that 85% of people who use drugs do not experience a drug use disorder,20 and,
- Criminalisation of drug use affects employment prospects, access to housing and entrenches stigma which, among other things, deters people from seeking treatment.21

Alternatives to the criminalisation of drug use have been adopted in a number of countries, with the Portuguese model having received considerable attention. Portugal decriminalised the use of all drugs for personal use in 2001 and re-directed funding from the enforcement of law into significant investments in health and treatment services. Portugal now has one of the lowest mortality rates for drug-related deaths in Europe.
Research has found that Portuguese policy has led to reductions in problematic drug use, drug-related harms (deaths and infectious disease transmission), burdens on the criminal justice system, and increased uptake of drug treatment.26 Northern Ireland’s new health strategy has been influenced by the Portuguese model. Members of both the Scottish Affairs and the Health and Social Care Committees made visits to Portugal as reflected in their respective reports.27

Table 1 Drug-induced mortality rate among adults (15-64 years) (latest year available, reported 2019)

<table>
<thead>
<tr>
<th>Country</th>
<th>Rate per 100,000 (2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>4.9</td>
</tr>
<tr>
<td>Ireland</td>
<td>6.0</td>
</tr>
<tr>
<td>Portugal</td>
<td>6.9</td>
</tr>
</tbody>
</table>


**European Average: 2.2**

Expanding public health approaches

Public health approaches to drug use focus on the use of data and evidence to inform policy and practice. The focus on evidence allows for the development of interventions that are tailored for, and responsive to, local circumstances. Health-led approaches can also serve to remove stigma that is compounded by the criminalisation of drug use. Northern Ireland’s New Strategic Direction for Alcohol and Drugs Phase 2 recognised the benefits of harm reduction approaches and made investments in substitute prescribing, needle and syringe programmes and naloxone provision. During the strategy period there were considerable pressures around implementation of these approaches, particularly in relation to waiting times for the provision of substitution treatment.27

International research demonstrates the effectiveness of harm reduction interventions in reducing the harms associated with drug use.28 These can be particularly effective in working with marginalised and at-risk populations who may be experiencing co-morbidities, but also serve to reduce harms to, and the costs borne by, wider communities. Such interventions which should be considered in the context of the challenges facing Northern Ireland, include:

- Expansion of needle syringe programmes;
- Better supported opioid substitution treatment;
- Heroin assisted treatment;
- Drug consumption rooms;
- Improved drug treatment programmes; and,
- Specific programmes for prison populations, including focusing on support upon release.

Given the high levels of prescription drug misuse (both legally and illegally obtained) experienced in Northern Ireland, the new policy must focus on the development of strategies to address this issue.29

**KEY RECOMMENDATIONS**

Drug use is best addressed as a health issue rather than a criminal justice one. Northern Ireland’s approach to drug policy should support recent calls from the UK Health and Social Care Committee and the Scottish Affairs Committee that policy must be led by public health approaches.

Northern Ireland’s most recent drug strategy expired in 2016. The new drug policy must be evidence-based: this includes subjecting criminal justice approaches to rigorous evaluation as to their effectiveness, alongside public health interventions.

Effective evidence-based drug policy would prioritise:
- Consultation on decriminalisation of drug possession for personal use;
- Improved access to drug treatment; and
- Investment in proven harm reduction interventions: opioid substitution treatment, heroin-assisted treatment, drug consumption rooms, naloxone distribution, needle syringe programmes, and support for prison populations.

A robust drug policy must be underpinned by quality research and evaluation to ensure policy continues to be evidence-based. Investment must be made in ongoing research during the course of the strategy as new challenges arise, knowledge evolves and evidence improves.

The adoption of an evidence-based, health-led drug and alcohol policy will contribute to the achievement of a number of key indicators in Northern Ireland’s Draft Programme of Government, including the reduction of health inequalities. Research shows that punitive approaches to drug use have not had a deterrent effect or contributed to increased drug use. It is therefore recommended that the balance of investment in this area be shifted to support health outcomes, reducing pressure on the criminal justice system and focusing support on problematic drug use and its complications through proven public health interventions.

In 2015 Northern Ireland’s share of UK drug misuse deaths was 3.39%, while NI’s population was 2.84% of the total UK population - a disparity of 19%.

Regular physical activity reduces the risk of developing, and can help manage, over 20 non-communicable diseases or conditions.

Given the multiple benefits of physical activity and the high prevalence of physical inactivity it is not surprising that physical activity has been referred to as the “best buy for public health.” As a result, most countries have developed comprehensive national physical activity strategies or plans to provide a focus for multisectoral actions at the individual, social and environmental levels. These strategies include targets and timescales for each action and an evaluation framework including surveillance which tracks progress towards the goal of “more people more active more often.”

The Global Observatory for Physical Activity (GoPA) recommends that every country have a standalone national physical activity plan created and endorsed by the government. The plans should not only endorse the benefits of achieving the recommended level of physical activity, but also encourage the promotion of physical activity and regularly monitor the prevalence of health-promoting physical activity. A bespoke national physical activity plan provides a framework for effective and feasible policy actions across multiple sectors and allows shared ownership of cohesive targets by different government departments.

Northern Ireland has not had a standalone Physical Activity strategy since the expiration of the Be Active Be Healthy – The Northern Ireland Physical Activity Strategy 1996-2002. Although one of the two key objectives of A Fit Future for All 2012-2022 is to increase physical activity levels in line with the UK guidelines, this is an overweight and obesity prevention strategy which does not focus on the importance of physical activity to many other health (mental health, cardiovascular disease, type 2 diabetes, cognitive decline).

Social (loneliness and isolation) and environmental benefits and does not recognise the potential of physical activity to address 13 of the 17 World Health Organisation’s 2030 Sustainable Development Goals. In a similar vein, Sport Matters 2009-2019 is a strategy for sport and physical recreation which focuses on improving participation performance and places for sport and active recreation. Neither of these plans adequately capture the multiple domains in which physical activity occurs, nor the range of stakeholders whose cooperation is required to produce a meaningful increase in population level physical activity.

England, Scotland, Wales and Ireland, along with many other countries in the developed world, have bespoke physical activity plans/strategies. Although methodological variance in measurement may account for some of the differences in population level physical activity, it is noteworthy that England, Scotland and Wales, who have all had standalone physical activity plans for several decades, report higher levels of participation than Northern Ireland (Table 1).

These physical activity plans provide a roadmap for, and guide actions on, increasing population level physical activity. This is in line with the Bangkok Declaration made by the International Society for Physical Activity and Health (ISPAH) which calls for nations to “develop, resource and implement integrated national action plans” creating a movement towards a single physical activity policy in place of multiple policies.

### Why is Northern Ireland ‘the poor relation’ in terms of physical activity?

Marie H Murphy

This paper draws upon an unpublished review of NI policy and strategy on physical activity undertaken by the author in conjunction with Prof Mark Tully (UU), Dr Ruth Hunter (QUB) and Emily Romeril (QUB intern with Department for Communities (DfC) Sport Branch).

**KEY ISSUE**

Only 53% of adults in Northern Ireland (61% of males and 51% of females) meet current recommendations for physical activity. There is a secular trend towards inactivity. People in the UK are around 20% less active now than in the 1960s. If current trends continue, we will be 35% less active by 2030. In Northern Ireland, as in other countries, there are inequalities in physical activity, with girls, women, older adults, socioeconomically disadvantaged groups and people with disabilities and chronic diseases, all having higher levels of inactivity.

Sound evidence generated over the past 60 years has shown that regular physical activity reduces the risk of developing, and can help manage, over 20 non-communicable diseases or conditions including heart disease, stroke, type 2 diabetes, obesity, breast and colon cancers and hypertension.

In addition, it contributes to improved mental health increasing mood, wellbeing and quality of life; reducing depression and preventing cognitive decline including dementia.

Physical inactivity is the fourth leading cause of death worldwide. It is estimated to be responsible for one in six deaths and is estimated to cost the UK £7.4 billion annually. In 2002, the DHSSPS estimated that a lack of physical activity was responsible for over 2,100 deaths and 1.2 million working days lost each year.

In addition to the individual physical and mental health benefits, increasing population level physical activity has the potential to contribute to the global sustainability agenda by reducing the use of fossil fuels, improving air quality, decreasing congestion and increasing the safety of roads and public spaces. From a societal perspective, increasing physical activity has been shown to increase community engagement, improve social cohesion and decrease loneliness and isolation.

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Table 1 Proportion of adults meeting current physical activity guidelines

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Male</th>
<th>Female</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>Northern Ireland</td>
<td>55%</td>
<td>61%</td>
<td>51%</td>
<td>Health Survey 2016/17</td>
</tr>
<tr>
<td>England</td>
<td>66%</td>
<td>64%</td>
<td>68%</td>
<td>Active Lives Survey 2018</td>
</tr>
<tr>
<td>Scotland</td>
<td>66%</td>
<td>70%</td>
<td>60%</td>
<td>Scottish Health Survey 2018</td>
</tr>
<tr>
<td>Wales</td>
<td>58%</td>
<td>64%</td>
<td>53%</td>
<td>National Survey for Wales 2016</td>
</tr>
<tr>
<td>Ireland</td>
<td>46%</td>
<td>54%</td>
<td>38%</td>
<td>Healthy Ireland Survey 2019</td>
</tr>
</tbody>
</table>

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* Physical activity is any bodily movement produced by skeletal muscle expending energy. It can be undertaken for personal transport (getting from A to B) at work (occupation-related), in or around the home (domestic) and for recreation (sport and leisure pursuits).
Physical activity can and should be integrated into environment where people live, work, are educated and play.

Reversing current trends, increasing population physical activity and reducing the inequalities in physical activity participation requires urgent action. In 2018, the World Health Organisation published a Global Action Plan on Physical Activity (GAPA) 2018-2030 recommending a ‘systems-based’ approach which includes policy actions aimed at improving the social, cultural, economic and environmental factors that support physical activity, as well as individually focused approaches. GAPA 2018-2030 is built around four objectives (creating physically active societies, creating active environments, creating active policies and creating active people). The global plan could provide a framework for a NI Physical Activity Plan.

Physical activity has traditionally been considered as the responsibility of the health or sport sectors but it is clear that increasing activity across multiple domains requires cross-departmental cooperation with health, education, communities, environment, infrastructure, finance, justice and others all being involved and fully committed to creating a more physically active society. Physical activity can and should be integrated into the environment where people live, work, are educated and play but this is only likely to occur if there is a cohesive co-created government-led policy with joint up actions created and owned by multiple stakeholders. Increasing population level physical activity will take time so a physical activity plan requires bipartite support to ensure continuity beyond changes in government.

A fragmented approach to physical activity policymaking which has resulted in a mismatch of unaligned objectives and in many cases a lack of measurable outcomes. In total thirty policies, plans or frameworks which include objectives, aims or outcomes relating to increasing physical activity or reducing inactivity were identified. These policies were published by seven different government departments - The Office of the First Minister and Deputy First Minister (OFMDFM), Department for Communities (DfC), Department for Education (DfE), Department of Health (DoH), Department for Infrastructure (DfI), Department of Agriculture Environment and Rural Affairs (DAERA), and the Department of Justice (DoJ). Each policy was reviewed and all aims, objectives, actions, targets and indicators were extracted. Table 2 provides an overview of this policy review.

The findings of this review suggest a fragmented approach to physical activity policymaking which has resulted in a mismatch of unaligned objectives and in many cases a lack of measurable outcomes. In several instances, physical activity was included as part of an objective but was not accompanied by an action or target. The promotion of physical activity was dispersed with multiple agencies citing the importance of exercise, physical activity and sport but few providing concrete actions, baseline data and realistic time-phased targets.

The move from multiple policies to a single policy has already been achieved in the Republic of Ireland. The Plan for Physical Activity “Get Ireland Active National Physical Activity Plan (NPAP)”7 was produced in 2016 and is viewed internationally as a world-class example of a single encompassing physical activity plan. Creating a single policy out of a range of phased targets.

Table 2 provides an overview of this policy review. Additional emphasis for children and young people should be placed on children’s psychological and physical wellbeing. This includes programmes which encourage healthy eating and active habits, particularly for those children who are most at risk of poverty.
<table>
<thead>
<tr>
<th>Department</th>
<th>Strategy Title</th>
<th>Published</th>
<th>Timescale</th>
<th>Physical Activity Related Objectives/Aims</th>
<th>Document Access</th>
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</thead>
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<tr>
<td>Service Frameworks (All), Respiratory Health and Wellbeing, Cancer Prevention, Treatment and Care, and Cardiovascular and Wellbeing Learning Strategy (Both People Mental Health and Wellbeing)</td>
<td>various</td>
<td>various</td>
<td>2015-2019</td>
<td>Various including Physical activity local intervention trainings should be provided for Health and Social Care Staff. Training should be facilitated for early years providers to assist them in implementing physical activity and nutrition programmes. (PHE) should develop child-friendly standards which include the need to promote physical activity. (PHD) should work together to promote opportunities for physically active play. The public should be provided with information and support so that they can engage in health enhancing physical activity for the promotion of healthy lifestyles.</td>
<td><a href="https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/respiratory-2015-19.pdf">Source</a></td>
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<td>Healthy Child, Healthy Future: A Framework for the Universal Child Health Promotion Programme in Northern Ireland</td>
<td>2010</td>
<td>n/a</td>
<td>Support parents to get the balance right between encouraging play and physical activity whilst minimising the risk of injury</td>
<td><a href="https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/obesity-fit-family-healthy-child-healthy-future-physics.pdf">Source</a></td>
<td></td>
</tr>
<tr>
<td>Building on active travel future for Northern Ireland</td>
<td>2015</td>
<td>2015-2049</td>
<td>Making urban areas in Northern Ireland more accessible for people using the bicycle, Improve opportunities for social interaction, Improve opportunities to participate in public health.</td>
<td><a href="https://www.infrastructure-ni.gov.uk/sites/default/files/publications/transportation%20%28final%20version%2C%20approach%20to%20regional%20transport%20future%20-%20a%20new%20transport%20strategy%20for%20northern%20ireland.pdf">Source</a></td>
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<td>A strategy for greenways</td>
<td>2016</td>
<td>n/a</td>
<td>Improve and sustainability by creating opportunities for exercise in developing greenways.</td>
<td><a href="https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/physical-activity-applying-all-our-health.pdf">Source</a></td>
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<tr>
<td>Developing a sustainable transport future: A new approach to regional transport</td>
<td>2012</td>
<td>n/a</td>
<td>Improve health by increasing levels of physical activity</td>
<td><a href="https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/physical-activity-applying-all-our-health.pdf">Source</a></td>
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<tr>
<td>Northern Ireland Forestry: A strategy for growth, sustainability and a strategy to develop the forestry related land use potential of our forests 2009</td>
<td>2006 and 2009</td>
<td>n/a</td>
<td>Creating a statutory right of production access to forests, to give greater freedom to cyclists and horse riders to use forests</td>
<td><a href="https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/physical-activity-applying-all-our-health.pdf">Source</a></td>
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<tr>
<td>Department of Justice</td>
<td>Sport and Recreation</td>
<td>n/a</td>
<td>n/a</td>
<td>Sport and recreation, including Physical education, is provided for all individuals who are convicted in prison, and is organised so that all processes from the opportunity to participate.</td>
<td><a href="https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/physical-activity-applying-all-our-health.pdf">Source</a></td>
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</table>

**KEY RECOMMENDATIONS**

Northern Ireland urgently needs a government-led standalone physical activity plan which draws upon WHO recommended best practice to address the growing challenge of physical inactivity. This plan should encompass actions created and owned by multiple stakeholders and incorporate a monitoring and evaluation framework, which includes surveillance of population physical activity to track progress against targets. The review and renewal of the exemplary Irish National Physical Activity Plan 2016-2020 may provide an opportunity for an all-island approach to this shared challenge. In addition to the physical and mental health benefits of increased activity, the development of a standalone physical activity plan would contribute to the WHO sustainable development goals through multiple government policy objectives such as environment (sustainable transport/active travel), community engagement, social cohesion and inclusion.

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6. International Society for Physical Activity and Health (2016) the Bangkok Declaration on physical activity for global health and sustainable development, Bangkok: 6th ISPAH
What should be the nutrition priorities for the Northern Ireland healthcare system for both young and old?

Helene McNulty

**KEY ISSUES**

There are two key nutrition priorities requiring policy decisions – one affecting health in very early life, the other in middle to late life. The first can be readily solved by a simple nutrition solution, albeit one that is now over 20 years overdue. The second is more complex and requires interaction of nutrition with other disciplines. The key issues are:

1. **Policy on folic acid for women to prevent NTD – current policy is not going nearly far enough.** A population-based policy of mandatory fortification of food with folic acid, alongside existing policy recommending women to take folic acid supplements before and in early pregnancy, would have important and immediate benefits in terms of preventing neural tube defects (NTD) in Northern Ireland.

2. **Policy to address dementia in ageing – policy needs to involve multidisciplinary interventions targeted in local communities in middle and late life.**

**KEY RESEARCH**

1. **Folic Acid for women to prevent NTD**

   **Why this is an issue: the evidence**

   Nearly 30 years ago it was proven beyond doubt that folic acid supplementation of mothers in early pregnancy could protect against neural tube defects (NTDs) in their babies. These are major birth defects occurring as a result of failure of the neural tube to close properly in the first few weeks of pregnancy, leading to death of the foetus or newborn, or to various disabilities involving the spinal cord, the most common form of which is spina bifida. The conclusive evidence that folic acid could prevent NTD has led to clear folic acid recommendations for women of reproductive age which are in place worldwide. To prevent NTD, women are recommended to take 400 micrograms per day of folic acid from preconception until the end of the first trimester of pregnancy. However, implementing this recommendation into practice is problematic.

   Folic acid refers to the synthetic form of the B-vitamin known as folate. Natural forms of folate are found in plant and animal foods (e.g. green leafy vegetables, asparagus, beans, legumes, and liver), whereas folic acid is bound in the human diet only in fortified foods and supplements (tablets). Folic acid is more bioavailable compared with an equivalent amount of the vitamin eaten as naturally occurring food folates.

   Folate is essential for important biological processes and is particularly important for pregnancy and fetal development, but it plays several other roles in human health through the lifecycle, from childhood to preventing chronic disease in middle and older age, including cardiovascular diseases and cognitive dysfunction.

   Current folic acid policy to prevent NTD is problematic in the UK, Ireland and other European countries. For the past 25 years, policy has been recommending women to take a supplement containing folic acid from before conceiving until the 12th week of pregnancy. Despite active health promotion campaigns over many years, this approach has had little impact in preventing NTD.

   The lack of success of this policy is primarily because women typically start taking folic acid after the period of neural tube closure (i.e. the 3rd to 4th week of pregnancy). For many women, the early period when folic acid is protective against NTD will have passed before folic acid supplements are ever started. Thus, folic acid supplementation to prevent NTD is only effective for individual women who take their supplements as recommended, but it is not an effective public health strategy for populations, because in practice very few women take folic acid at the correct time.

   The way forward for policy in this area in Northern Ireland is food fortification. Food fortification can be conducted on a mandatory (i.e. regulated) or voluntary basis (i.e. at the discretion of individual food manufacturers). Folic acid fortified foods, like folic acid supplements, are highly effective as a means of optimising folate levels in individual women who are regular consumers of fortified foods (e.g. breakfast cereals).

   When folic acid fortification is undertaken on a population-wide basis via a policy of mandatory fortification, it has proven itself to be effective in reducing rates of NTD. Over 85 countries worldwide to date (including the USA, Canada and Australia) have passed regulations for the mandatory fortification of staple foods with folic acid in order to prevent NTD. International evidence shows that rates of NTD have declined by between 27% and 50% in the USA, Canada and Chile in response to mandatory folic acid fortification of food.

   In contrast, in the UK, Ireland and other European countries, policy to prevent NTD (i.e. based on folic acid supplementation) has had little or no impact in preventing NTD, despite active health promotion campaigns over many years promoting folic acid. This has resulted in an unacceptably high rate of NTD in European countries, recently estimated to be 1.6 times higher than in regions of the world with mandatory folic acid fortification policies in place.

2. **Address dementia in ageing**

   **Why this is an issue: the evidence**

   Cognitive function in ageing has become a global public health priority as it has important implications for independence and quality of life among older adults. With the prevalence of dementia predicted to triple by 2050, it is important to identify those people at greatest risk of developing cognitive impairment, an early predictor of dementia.

   A comprehensive report published in The Lancet recently highlighted the potential for effective dementia prevention through targeted interventions to modify risk factors that could transform the future for society. Despite expectations that ageing populations globally would lead to large increases in the number of adults with dementia, recent evidence from Europe and the United States suggests that the prevalence of dementia in some counties may in fact be stabilising (or even declining), as a result of improved health in middle life and the potential protection afforded by better educational attainment in early life.

**Rates of NTD in Ireland are among the highest in the world.**

Women are recommended to take 400 micrograms per day of folic acid from preconception until the end of the first trimester of pregnancy.
Deprived social environments are known to breed social isolation, psychosocial stress and limited access to resources and health services, all of which can potentially interact with individual susceptibility to cognitive dysfunction. A notable study from Ulster University recently addressed this issue. Teams from Nutrition and Geography & Environmental Sciences at Ulster worked together and with colleagues from Trinity College Dublin, Maynooth University and clinicians from the health services in Northern Ireland and the Republic of Ireland.

The findings of this study, published in the Journal of the American Geriatric Association, were based on novel analysis of data collected as part of our Trinity-Ulster and Department of Agriculture (TUDA) study of over 5,000 older people across the island of Ireland. The study used novel, geo-referenced, address-based techniques to map and link participants to official socioeconomic indicators of deprivation for Northern Ireland and the Republic of Ireland. This was one of the first studies of its kind to use geospatial methodology in a cross-jurisdictional manner to integrate socioeconomic and health data from two nationally independent datasets and two separate health systems.

Surprisingly, the results showed that compared with people in the least deprived areas, older people living in the most deprived areas in Ireland North and South had:

- spent three years less in formal education as teenagers and young adults
- higher rates of smoking and higher alcohol consumption
- higher rates of obesity
- higher blood pressure
- higher risk of diabetes
- higher rates of depression and anxiety

Even after all these factors were taken into consideration in the analysis of the study results, older people living in the most deprived areas were found to be at 40% higher risk of having cognitive impairment compared with a person of the same age living in the least deprived areas. This suggests that societal factors relating to the living environment, such as income inequality and access to resources, may be implicated in the poorer health outcomes.

The way forward for policy in this area in Northern Ireland implementing appropriate policy based on dementia prevention strategies and interventions has the potential to transform lives. This is one of the first studies of its kind to use geospatial methodology in a cross-jurisdictional manner to integrate socioeconomic and health data from two nationally independent datasets and two separate health systems.

Potential effective dementia prevention through targeted interventions to modify risk factors in communities with the greatest area-level socioeconomic deprivation.

This research has the potential to help shape policy to improve health in older adults in Northern Ireland, generally and specifically in the area of preventing dementia. The findings identify the potential for effective dementia prevention through targeted interventions to modify risk factors in communities with the greatest area-level socioeconomic deprivation.

KEY RECOMMENDATIONS

Policy on folic acid for women to prevent NTD:

- Current policy in this area in the UK, Ireland and most European countries involves recommendations for women to take folic acid supplements. This policy is largely ineffective, with powerful evidence showing that there has been no change in NTD over the 23-year period that the current strategy has been in place.
- A policy of mandatory folic acid fortification (in place in 85 countries worldwide) would be highly effective in preventing NTD in Northern Ireland. International evidence shows that wherever such a policy has been introduced, it has proven to be effective in reducing the rates of NTD in that country.
- New policy to introduce mandatory fortification is needed. Because rates of NTD in the island of Ireland are among the highest in the world, this is arguably more urgent for Northern Ireland than elsewhere in the UK.

Policy to address dementia in ageing:

- Future policy to improve health in ageing should involve multidisciplinary approaches in local communities.
- Priority should be given to policy that tackles the inequalities in health in older age through targeting disadvantaged communities. People living in areas of greatest socioeconomic deprivation may benefit from targeted interventions aimed at improving modifiable risk factors for cognitive impairment and risk of dementia.
- Ideally policy should consider the life-course model of modifiable risk factors for dementia recently proposed, whereby efforts to prevent dementia in later life would involve strategies to tackle the early prediction of dementia – greater education in early life, better cardiovascular health in middle age.
Across the UK the social care system is in crisis and publicly funded social care has become a threadbare safety net for those with the highest needs.

KEY RESEARCH
Funding of adult social care
Unlike the NHS, adult care and support is not free at the point of delivery. For people requiring residential or nursing care in NI there is not just a test of need but also a test of means. This is also the case in other parts of the UK with the exception of Scotland which removed the means test for personal care for people over 65 in 2002. This means test, and the use of housing assets in particular, is deeply unpopular and perceived as unfair. The Expert Panel reviewing adult social care in NI concluded it was unjustified for people to have to contribute towards the cost of care in a care home yet someone with the same assets could receive domiciliary care for no cost.

It recommended that where a person could contribute to the cost of care they should have to do so regardless of the setting. However, it is unlikely that such an extension of charges would be well received by the user or the public, nor is there evidence that this is the best way to proceed. The Northern Ireland Life and Times Survey found little support for the idea of means tested care with the greater support for care to be provided free at the point of use paid for by a special tax over the person’s lifetime. This preference applied across all income groups and was echoed by members of the NI Citizen’s Assembly on Adult Social Care.

Interestingly, in an apparently increasingly divided United Kingdom, research by the Health Foundation found that a majority among all sections of the public, and the four countries of the UK, see adult social care as a collective responsibility and would like additional funding for adult social care to be raised in the same way, as additional funding for the NHS - collectively and progressively. These are important findings as transformative change requires public endorsement.

Access to publicly funded social care support is shrinking as diminishing budgets have seen services prioritised to those with the highest needs leading to growing unmet need.

Service Provision
Access to publicly funded social care support is shrinking as diminishing budgets have seen services prioritised to those with the highest needs leading to growing unmet need. Users of social care and unpaid carers are bearing the brunt of many of the pressures. A 2019 survey of NI carers showed that around 272,000 people - around 1 in 5 - are providing care for a family member or friend, over 58,000 more than the 2019 Census records show. 30% of carers also have childcare responsibilities for a non-disabled child under 18 and the majority are combining work with caring. As in other parts of the UK, some carers (28%) reported that the care and support arranged by social services had been reduced over the previous year. NI lags behind other parts of the UK in terms of positive policy developments for carers - for example, there have been no measures paralleling the Cross Government Carers Action Plan for England or the increase in the rate of Carers Allowance in Scotland. The current Caring for Carers Strategy is over 13 years old. Effective support is vital but the basis of this is to be user assessments which are care-blind and a statutory basis for care assessments with adequate resources to respond to those assessments.

Self Directed Support (SDS) is being expanded in NI with the aim of providing greater control for users and a more personalised approach in adult social care. More people are being encouraged to take Direct Payments. A number of concerns about SDS were raised in the report of the Expert Panel on adult social care reform. These include the level of personal budget, limited brokerage support and perceived administrative burden on users. A recent report on the experiences of users of SDS by the Patient Client Council found examples of positive outcomes but reiterates some of these concerns. At this relatively early stage in the roll out of SDS there are lessons for policy makers from experiences elsewhere in the UK particularly with regard to the need for advice and support for users and the realistic concerns users hold about the risks of holding a direct budget in the context of cuts to budgets and workforce shortages. It is useful also to be mindful of research showing that service users tend to be less interested in the structures of care and being able to access different care markets and more concerned about the quality of services they receive and experience.

Social Care Workforce
Across the UK more people work in social care than in the NHS. In Northern Ireland the social care sector supports over 41,000 jobs directly including managers and support staff as well as those people directly providing care. The majority of these jobs (60%) are in domiciliary care where over three quarters of workers are employed by the independent sector. The figures above do not include workers employed privately by users in receipt of Direct Payments. However, there are major problems recruiting and retaining social care workers. While pay and terms and conditions are more favourable in the statutory sector, overall care workers are among the lowest paid in the labour market. As noted in the Health and Social Care Workforce Strategy, the outsourcing of care to the private sector has led to competition between providers almost exclusively on price resulting in a ‘race to the bottom’. Investment in learning and improvements also tends to be more limited in the independent sector. The low status, pay and a lack of investment in care workers has been identified as a major factor creating risks to users’ human rights.11

Ann-Marie Gray

What can we do to improve social care in Northern Ireland?

Across the UK the social care system is in crisis and publicly funded social care has become a threadbare safety net for those with the highest needs.

KEY ISSUE
Adult social care refers to care and support for people who need it because of age, illness, disability or other circumstances. It ranges from help with essential daily activities, such as eating and washing, to participation in all aspects of life, such as work or socialising. Care can be provided in people’s homes, to enable independent living or help with recovery after illness and, if home care is no longer an option, to provide for people to live in supported housing, residential or nursing homes.

There has been much less discussion of the challenges facing social care in Northern Ireland than health care. The strong public affection for and attachment to the NHS has ensured that it has remained firmly on the political agenda but the same cannot be said for social care. Major reviews into the transformations of health and social care systems have focused overwhelmingly on health care. Yet, right from the inception of the services in the 1940s the ‘fault line’ between health care which is free at the point of use and social care which is means-tested, has remained a fundamental source of inequity and unfairness.12

1. Expert Panel reviewing adult social care in NI 
2. Social Care Workforce

Access to publicly funded social care support is shrinking as diminishing budgets have seen services prioritised to those with the highest needs leading to growing unmet need.
Most observers believe that better pay is the critical factor in addressing workforce shortages, but working conditions are also a factor. Workers often do not get the training and support they need to carry out complex and challenging tasks and there is limited opportunity for progression.

Northern Ireland is well placed to begin to address these workforce challenges as worker registration and prescribed training standards are most advanced. But there remain significant problems with regard to comprehensive information particularly on the independent sector. A priority for action, building on the opportunities created by the care worker registration process, should be investment in a more comprehensive workforce dataset (similar to that which exists in England) which would provide critical information for future planning and investment.

272,000 people - around 1 in 5 - are providing care for a family member or friend, over 58,000 more than the 2011 Census records show.

In Northern Ireland the social care sector supports over 41,000 jobs directly, including managers and support staff as well as those people directly providing care. The majority of these jobs (60%) are in domiciliary care where over three quarters of workers are employed by the independent sector.
Chapter 10

What can be done to support older people and their families when moving into a care home?

Assumpta Ryan

KEY ISSUE

The population of the world is ageing and internationally, there is an increasing trend for older people with complex care needs and dementia to reside in care homes.3 There are approximately 421,000 people aged over 65 living in care homes across the UK.2 In Northern Ireland, the Health and Social Care Board sets the regional tariff for the 13,897 nursing and residential places in Northern Ireland, leaving limited room for competition between care providers.5 In many geographical areas, the demand for care home beds exceeds supply.

There are approximately 421,000 people aged over 65 living in care homes across the UK.

Most care home residents have cognitive impairment, often alongside physical and mental health conditions, and are consequently a highly dependent and vulnerable group of people.

Most care home residents have cognitive impairment, often alongside physical and mental health conditions, and are consequently a highly dependent and vulnerable group of people.

Recent media reports highlighting neglect and abuse have heightened public concern for the safety and welfare of older people in these settings. Problems recruiting and retaining staff to work in care homes do little to allay these concerns. Whilst there is evidence to suggest that older people who receive high quality care thrive within the care home environment, there is also a consensus that more can be done to improve quality of life.

The move to life in a care home is very stressful for older people and their families and the need for support and guidance at this time has been repeatedly highlighted in the literature.4,5 There is evidence to suggest that older people who receive high-quality care thrive within the care home environment, but there is also a consensus that more can be done to improve quality of life.

Perceptions of the legitimacy, desirability and reversibility of the move, as well as an individual’s perceived control, degree of choice and active acceptance of the placement all have an impact on the experience of the move. Some older people associate care home residency with dependency and mortality, whereas others have reported feelings of relief and improved quality of life following relocation.3

This suggests that the distress and deterioration often associated with the move can be decreased by supportive transition practices.

Older adults rarely initiate or engage with discussion about the move to a care home. Instead, decisions are largely made by family members and health or social care professionals.6 However, there is evidence to suggest that greater involvement in the decision-making process can ease the negative feelings surrounding the move.7 Residents who were admitted to care homes ‘against their will’ and those who felt that they ‘had no choice’ were more likely to experience sadness, depression and anger compared with individuals who relocated willingly.6,7 In particular, good communication can enhance the move for residents and families, allowing them to feel confident in their decisions, able to ask questions and make suggestions without fear of repercussions. On the other hand, poor communication can lead to uncertainty, worry and anxiety.6,7

KEY RESEARCH

Impact of the move on older people

Health and social care practitioners and nursing home staff have a key role to play in supporting older people and their families during the transition to life in a care home. Open communication and shared decision-making involving residents, relatives and staff is central to developing and maintaining positive relationships. Braviviss et al.6 undertook a systematic literature review of 25 studies identifying factors that impacted on residents’ transition and psychological adjustment to longer-term care. Positive adjustment was reported to be influenced by older people being able to retain personal possessions, continue valued social relationships and establish new relationships within the care facility. This is supported by Ryan & McKenna17 who highlighted the significance of ‘the little things,’ in maintaining the dignity and identity of residents and which are often overlooked in care homes. Individuals who are new to the care home environment value a consideration of lifetime rituals, routines and food preferences while also benefitting from maintaining links with their community and creating a new community within the care home environment.18

Helping older people and their families to ‘find home’ in a care home is a major challenge. Nakiewa et al.8 identified ambiguities concerning the nursing home as 1) a home and a place to live 2) a social environment in which residents experience most of their social life and 3) an institution where professional health care is provided and regulated.

Cooney20 interviewed 61 residents in long term care settings and identified four factors as critical to finding ‘home’: ‘continuity’, preserving personal identity, ‘belonging’ and being active and working. More recently, Moore & Ryan21 interviewed 48 residents and 44 staff to explore the extent to which residents felt ‘at home’ in their care homes. The authors found that care homes can and are perceived as home by many residents and the move can be seen as a positive life event. ‘Care home staff with knowledge and understanding of residents’ life stories, routine and preferences’ were central to the concept of ‘harmful care’ but this was difficult to maintain in a restrictive environment with a high turnover of staff.

While the importance of standards was recognised by all staff members who took part in the study, they nonetheless felt that too many rules and regulations can contribute to a harmful environment and that the focus on documentation detracted from time with residents.

Several studies have highlighted a lack of privacy, restrictions, limited opportunity for social interaction and regimented practices as major challenges which place care home residents at risk of loneliness and isolation.22 There is no doubt that institutional restrictions, standardised routines and strict risk management policies can threaten an individual’s independence and autonomy. Paddick & Hod23 argue that when independence is removed from a person’s life, they can feel defeated and depressed leading to self-doubt about their ability to care for themselves. Moreover, low expectations can lead to reduced capabilities and can be self-fulfilling, causing deterioration in health and cognitive ability and in some cases, a loss of the will to live.24 Contrastingly, Koppitz et al.25 reported that some older adults liked the routine of a care home and were happy that they no longer had to grapple with household tasks but instead enjoyed having staff on hand to attend to their needs.

Several studies have highlighted a lack of privacy, restrictions, limited opportunity for social interaction and regimented practices as major challenges which place care home residents at risk of loneliness and isolation.
Impact of the move on families

The move to a care home not only has a profound impact on the lives of older people, but also on the lives of their families. While the move reduces the physical demands of a caregiving role, it does not necessarily reduce the distress experienced by family carers at such a difficult time.21 Family members often find it challenging to adjust to the transition as they are unclear of their new roles and responsibilities. Feelings of guilt, regret, sadness and a sense of failing in one’s duty all add to the distress experienced by families at this time.22 The value of maintaining family relationships following the move to a care home, both for residents and relatives has been well documented.23 Despite evidence of the positive aspects of life in a care home from the perspective of older people and their families, the public image of care homes has been repeatedly damaged by media reports of very poor care and neglect.

Various studies have recommended the need for residents, relatives and staff to have an open and frank discussion about how to negotiate relationships, roles and boundaries, how to sustain the relationships between residents and relatives and how to value and access care knowledge and expertise.24 However, Williams et al.25 argued that an antagonistic relationship can develop between staff and relatives. Many relatives find it difficult to adjust from their previous role as carer to visitor and struggle to carve out a new role for themselves in the care home environment.26 Good communication is recognised as integral in forming good staff-family relationships and can facilitate the move for residents and families, familiarising shared decision making and creating an environment where early concerns can be expressed and addressed before the attention wanes.

Families need patience and understanding from care home staff who recognise and value their actual and potential contribution to the care home environment. However, families also need to demonstrate sensitivity to staff difficulties and concerns. Increased communication and sharing of information between families and staff has the potential for an improved working relationship that can only prove beneficial to all concerned.

The World Health Organisation advocates that international healthcare systems need to be better organised around older people’s needs and preferences designed to enhance their intrinsic capacity and integrated across settings and care providers.27 A human rights approach has the potential to recognise and promote autonomy of older people to be centre stage in decision making processes about all aspects of their care. However, recognising that most older people would prefer to stay at home, due consideration should be given to the needs of family members, many of whom no longer have the psychological or physical ability to continue supporting an older relative who may wish to remain at home and ‘age in place’.

Despite evidence of the positive aspects of life in a care home from the perspective of older people and their families, the public image of care homes has been repeatedly damaged by media reports of very poor care and neglect. Such reports are very distressing for current and prospective residents and their families and it is important that examples of best practice are also shared by the media. Improving educational and career opportunities is key to the recruitment and retention of staff with the knowledge, skills and attitudes required to care for some of the most vulnerable people in our society. Equally, a partnership approach recognising and valuing the contribution of residents, relatives and staff to the creation of a ‘homey’ environment would be a positive starting point in changing the narrative around life in a care home.

KEY RECOMMENDATIONS

Admission to a care home is a major life event and one which requires engagement and preparation by older people and their families. Many families need to consider all their options and health and social care professionals and care home staff have a key role to play before, during and after the move. In determining quality of care, the research suggests a need to recognise the extent to which older people actually feel at home in their care home. Although older residents have psychological and social needs, these often remain unmet as a result of a preoccupation with the physical aspects of care or the failure of staff to understand the significance of the ‘little things’ from the perspective of residents and relatives. The evidence suggests that care home staff may benefit from educational opportunities designed to facilitate a greater emphasis on ways of making residents and their families feel ‘at home’.

There is widespread agreement in the literature that care home environments are unnecessarily restrictive. There is a need to move from a ‘risk averse’ environment to a ‘risk aware’ one where residents need for and right to autonomy, independence and choice are upheld with due consideration to potential risk. This can best be achieved through open and honest dialogue between residents, relatives and staff and through meaningful engagement with other key stakeholders such as regulatory bodies and advocacy groups.

The ‘My Home Life’ Leadership Support and Practice Development Programme, led by Ulster University aims to improve quality of life for people living, dying, working and visiting care homes. Working in collaboration with key stakeholders (residents/relatives/staff, home-owners, AgeNI, RCIA and statutory bodies), this programme develops the leadership skills of care home managers while also translating research into tangible and robust changes to practice.

In doing so, the programme supports government policy and regulatory standards which recommend greater voice, choice and control for care home residents and their families. Many families wish to continue providing care to their relatives after the placement and it is important that care home staff recognise this in order to provide them with a sense of belonging and attachment to the care home community.

Developing caring partnerships is crucial if the resources and support of care home staff and families are to be maximised for the benefit of residents. However, this is unlikely to occur unless both parties recognise one another’s unique contribution and work in partnership to make this happen. It is important that care home staff understand the factors influencing the decision about entry to care and are sensitive to the range of feelings and emotions associated with this transition. It is also important for care staff to be aware of the expectations on care staff and that their expectations are realistic as a failure to communicate concerns and anxieties openly from the beginning can lead to greater problems down the line.

Good quality care is best delivered by care home staff who have gained a deep understanding of the resident and a good working relationship with the family. For family members to play as full a role as possible, they need to be involved in the assessment, planning, implementation and evaluation of care. They need regular and meaningful information to guide their participation in care, if they wish to do so. ‘Time’ for the resident and the family is the most important contribution care home staff can make in building and maintaining a caring relationship. It is important that care staff understand resident’s thoughts and feelings and to provide stimulating activities for the resident. However, the availability of more time has major implications for staffing levels.

27. Ryan & McKenna (2017).
32. Ryan & McKenna (2017).
What difference will health technology make to healthcare in Northern Ireland?

Jim McLaughlin

KEY ISSUE

A new generation of robust healthcare technology solutions are becoming essential to address growing healthcare cost and patient safety challenges due to a global ageing population, an increase in chronic conditions, global health economics, and increasing demand for earlier diagnosis and predictive analysis. Current monitoring techniques are inherently inconvenient to patients, designed without user-needs addressed, produce high false-positive/negative rates, often are not clinically relevant and do not meet the increasing demand for accurate data to aid patient-flow through our healthcare systems. However, practical controlled patient monitoring has been proven to reduce Emergency Room visits by 15%, emergency admissions by 20%, bed-days by 14%, and mortality rates by 45% in the general population.

Practical controlled patient monitoring has been proven to reduce Emergency Room visits by 15%, emergency admissions by 20%, bed-days by 14%, and mortality rates by 45% in the general population.

This overview will detail the need for the full adoption of our NI Health Innovation strategy that will follow on from NI MATRIK Transforming Your Care and various Department of Health Digital Health initiatives as well as benchmark against national and international government led programmes.

KEY RESEARCH

Technology is reshaping our lives in so many ways, both professionally and personally. In many ways, it is obvious how technology is changing the way we manage and treat health issues, automatic defibrillators, electronic care record systems, wearables, implantables, online record sharing, robotic surgery, scanning and diagnostic tools, alongside biotech developments such as stem cell R&D.

Major recent developments include the Abbott Freestyle Libre, which wirelessly monitors glucose levels via a 2-week arm-positioned pad that has changed the lives of diabetics who had to pin-prick blood samples regularly. Also, FDA has approved the Proteus Digital Health digestible sensor. The ingestible sensor communicates with a wearable sensor patch if a drug is taken, then the information is transmitted to a smartphone or tablet of the caretaker or the patient. We will also soon see a needleless fully implanted 12-year pacemaker within the heart to improve on current pacemakers, and heart-pumps are looking more of a reality.

From 3D printed drugs, to virtual reality for medical training and pain management, right through to using artificial intelligence to root out therapies from molecular databases – one thing is clear, the pace of technological advancement is speeding up, and in this highly regulated industry there is now a real need for policy-makers and regulators to keep pace with this progress in order to allow patients to fully benefit.

Today, the global life-sciences sector is in the midst of significant and rapid change, which presents both opportunities and challenges. Driving this change are supply and demand side pressures, lifestyle choices, longevity, costs and a rise in chronic conditions such as heart failure, diabetes, obesity and dementia. In confronting these realities, traditional ways of working will become outdated. The drive for cost-effective solutions in the Health Service, combined with the regulatory approvals process can mean that uptake is slow.

Our healthcare systems within the UK are currently undergoing significant and rapid change in an attempt to respond to a growing, ageing population with increased incidence of chronic illness. This is despite shortfalls in funding within the National Health Service (NHS) expected to reach over £30bn by 2021. Various actions have been debated that may help alleviate pressure, with productivity savings being a key focus. Reduced turnover costs, shorter length of hospital stay and development of innovative new models of care-delivery have been suggested as ways to increase efficiency, which is a key element of the UK Governments Ageing Challenge.

A step change and better adoption of the digital age is required to create such efficiencies.

New and emerging medical technologies, advances in pharmaceuticals and biological sciences, ageing populations and the rising costs of healthcare delivery are driving major change in regions across the world, and these are now part of a range of strategies in Northern Ireland including Transforming your Care which was initiated in 2011. As a result of this, new global markets are opening and new opportunities are emerging for product-based and service-based Northern Ireland companies to grow even more significantly than in recent years, for clinicians to improve healthcare for patients and for researchers to produce findings of value to life Sciences companies globally.

There is huge potential to better support the adoption and diffusion of innovation, to access patient-data to inform the development phase, and to involve patients in trials and early access schemes for the treatment of chronic diseases, such as heart failure and cancer. The industry is changing, and many countries are driving forward innovative new practices to adapt. NI must do likewise so that we can compete in this challenging environment. At the core of this will be research, innovation, commercialisation and government support.

A May 2018 publication by the Office for Life Sciences reports that the UK is considered a global hub for life sciences, with 5,649 life sciences businesses the majority (82%) of which are SMEs with a presence in the UK, generating turnover of over £70bn and employing 240,900 people.

Approximately 123,900 (51% of the industry total) are employed in the Med Tech sector of which 97,300 (40%) are employed in 2,604 Core Med Tech businesses. Within the Med Tech sector, the segment of digital health is the largest, accounting for 10,000 jobs in 491 businesses with a turnover of £1.2bn.

New and emerging medical technologies, advances in pharmaceuticals and biological sciences, ageing populations and the rising costs of healthcare delivery are driving major change in regions across the world.
The report notes “the digital health segment has strong growth potential. The global market for digital health was estimated to be worth £70bn in 2016 and is expected to almost double to £150bn by 2020 with mobile health applications and devices forecast to show the fastest growth.” Notably, the digital health segment is cited as being a “relatively young industry with 27% (131) of the businesses incorporated in the last 5 years and 54% or 260 in the last 10 years, this compares with 17% (1,099) and 29% (1,851) respectively for all life science businesses.”

Northern Ireland is part of the overall UK Life Sciences sector. The UK is currently a world leader in Life Sciences (pharmaceuticals, medical biotechnology, and medical technology), ranking 2nd in the world after the US. The UK Life Science industry is growing faster than the economy as a whole and is a key source of high-skill, high-tech jobs. R&D expenditure in the industry is valued at almost £3.5bn and life sciences manufacturing accounts for 8% of the UK total (by gross value added).

The strategic importance of Life and Health Science for Northern Ireland has been recognised at the highest level through key strategy and policy documents for the region. Programme for Government (PG) 2011-15, Economic Strategy for Northern Ireland 2012, Transforming Your Care and Health and Social Care towards more modern and improve health and social care services for everyone. Memorandum of Understanding between the Department of Health, Social Services and Public Safety and Invest NI to drive Innovation and Collaboration in the sector, Economy and Jobs Initiative Task and Finish Group to better exploit the economic opportunities from Connected Health for the health and social care (HSC) sector.

The development of Northern Ireland’s IHS sector requires a focused approach that leverages existing strengths while also remaining open to opportunities emerging from outside of Northern Ireland. That approach will take into consideration long term societal trends that demonstrate a significant long-term shift for healthcare including:

- an increasing focus on the need for personalised care and prevention;
- the shift towards a partnership model of care where patients will play an active part in determining their own care and support needs;
- greater focus on prevention, earlier diagnosis and better treatments;
- building the capability to help people manage multiple chronic conditions at once.

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One of the key recommendations of the Economy and Jobs Initiative Task and Finish Group (2013) was to establish a Hub to co-ordinate and drive projects and programmes coming out of the overall agreed strategy. The Health Innovation Research Alliance Northern Ireland (HIRAN1) has now been set up and has started to fulfil such a role. The UK government has identified this area as a key challenge within its UK Industry Strategy and has identified large funding under an Ageing Grand Challenge. NIT intends to grow on its areas of expertise, world-class knowledge and strong industry sector to further develop its already strong global position.

Finally, there are a range of key enabling technologies and processes required to capitalise on the opportunities arising from these demands across sectoral markets. Newly proposed Belfast City Council and Derry City Council City Deals are addressing many of these by establishing new health-based centres of excellence with strong underpinning innovation pathways. These centres, which include digital health technologies and personalised medicine approaches, will act as drivers for strong innovation productivity via clinical based living labs, improved data science strategies and enhanced academic, business and clinical collaboration.

Key indicators of success that are already rapidly developing with this sector include:

**Academia:**
- 2014 Research Excellence Framework – UU and QUB achieved impressive life sciences results
- 1,000+ people in centres of excellence attracting £50m+ funding

**Public Sector:**
- Every £1 of HSC R&D funding generates an additional £4.14
- Unique integrated health and social care is a positive that has yet to realise a benefit for the sector as a whole

**Private Sector:**
- 130 mostly indigenous companies employing around 9,000 people – averaging 10% growth per annum in last 3 years
- Highly export focussed sector – around 10% of Northern Ireland exports, growing by average 12% per annum
- £1bn value to local economy and is 90% export orientated

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The global market for digital health was estimated to be worth £70bn in 2016 and is expected to almost double to £150bn by 2020 with mobile health applications and devices forecast to show the fastest growth.
Most drug development assumes that patients with a specific condition will respond similarly to a particular drug and patients generally receive the same first line treatment - however this approach may be less than 60% effective.

Personalised medicine is a global priority driven by the practical impact of the completion of the human genome project. Its objective is to ensure the correct patient is treated with the most fitting medicines for them according to their personal genetic profile at the most appropriate time. It also offers new gene therapy approaches to correct genetic errors that cause disease in the first place using new genome editing treatments (e.g. CRISPR) for example.

KEY RESEARCH

Our genome can be viewed as the language used to write the instruction manual for building a human. The English language contains 26 letters combined to construct words and sentences and sometimes we make spelling mistakes that disrupt the meaning of a sentence. All life forms use a universal biologic language written as an instruction manual for how to build, sustain and repair life. That language uses a genetic alphabet composed of four letters A, C, G and T that spell sentences known as genes in the genome of the cells. Our trillions of cells divide, often daily, rewriting their entire inherited copy of 3.2 billion letters in their genomes - a momentous task, and not surprisingly, some mistakes occur when copying the 3.2 billion letters. Such biological spelling mistakes are referred to as single nucleotide polymorphisms (SNPs) or mutations. These changes (SNPs) mostly have no effect, but some cause minor or serious disease. We inherit part of our genome from our mother and part from our father along with many of their unique genetic spellings (SNPs). Our genome is unique to each of us, and it directs our development from embryos through to old age. In combination with our individual life experiences and exposures to chemicals, lifestyle, diet and other factors, our genes determine what diseases we may develop and how we respond to treatment. Exposure to radiation, chemicals, in food or the environment can cause mutations in our body’s (somatic) cells genome leading to disease. The longer we live, the more times our cells divide, and the greater the likelihood of a mutation occurring. It is possible to now sequence (read) the 3.2bn letters of our genome for a relatively modest cost (~£800) and analyse it to determine what diseases we may likely develop or which drugs we may respond to. Based on this information, we can choose to modify our lifestyles to try and prevent or delay the onset of disease. Personalised medicine not only relies on the reading of our genomes, it requires the collection of large amounts of personal clinical and lifestyle data supported by underpinning technologies such as consumer apps, digitally enabled wearables, and imaging. This approach generates massive amounts of data that needs specialist data storage, data analytics skills and biomedical knowledge to interpret it. This “big data” and its analyses is the bedrock of personalised medicine and the sector requires the interaction between medicine, genomics, data analytics, and artificial intelligence disciplines.

In pursuit of personalised medicine, the UK 100,000 Genomes Project is completing the sequencing of the whole genome of 70,000-100,000 people with rare diseases and cancers, with regional recruitment coordinated by the Northern Ireland Genomics Medicine Centre. Highlighting its importance, plans to undertake whole genome sequencing of all children at birth to check risk of genetic diseases and offer “predictive, personalised” care was announced in November 2019 by Matt Hancock (UK Health Secretary). The Academy of Medical Sciences also highlighted the need to embed genomics and personalised medicine into the clinical education curriculum for all healthcare professionals, and stated that the NHS needs to adopt a multidisciplinary approach and include all staff in the patient pathway - from geneticists, bioinformaticians, nurses and clinical specialists. Regionally, since 2013 personalised medicine research and teaching has been strongly supported by Ulster University’s Northern Centre for Personalised Medicine which is a multidisciplinary collaborative project. Its objective is to ensure the correct patient is treated with the most fitting medicines for them according to their personal genetic profile at the most appropriate time. It also offers new gene therapy approaches to correct genetic errors that cause disease in the first place using new genome editing treatments (e.g. CRISPR) for example.

KEY ISSUE

Personalised medicine, also referred to as precision or stratified medicine, is a move away from a ‘one size fits all’ approach to the treatment and care of patients with a particular condition, to one which uses new approaches to better manage patients’ health and target therapies to achieve better outcomes in the management of a patient’s disease or predisposition to disease.

Most drug development assumes that all patients with a specific condition will respond similarly to a particular drug and patients will generally receive the same first line treatment based on the so-called blockbuster approach to medicine, even though it may only be 30 to 60% effective – a massive waste and sub-optimal treatment. Personalised medicine aims to improve how disease is diagnosed and treated based on an individual’s genes, protein profiles and clinical state. Using genomics for diagnostic characterisation, different subtypes of patients with a given condition can be identified, with treatment more accurately tailored to them as depicted in Figure 1.

Figure 1. Comparison of current blockbuster and personalised medical approach (Source NHS England)
The £72 per head differential in Primary Care Prescribing cost between England and Northern Ireland may reflect an increased disease burden in Northern Ireland or it may be more likely to occur because prescriptions are free in Northern Ireland but not in England. It is widely accepted that projected increases for healthcare render it unsustainable, with policymakers facing difficult choices regarding patients’ access to care and medicines.

**AGING POPULATION**

The problem is driven partly by an increasing aging population due to medical advances that has allowed us to live longer, but longer with more chronic diseases and increased treatment burden. In the UK there are 1.4 million people aged >65, projected to increase to 1.9 million by 2020 and to 3.5 million by 2033, more than doubling over 25 years. The over >65-year age group is by far the largest and most expensive users of the health service as they suffer more chronic disease (Figure 3). Two or more diseases occurring simultaneously in an individual is referred to as multimorbidity which increases with age necessitating multiple treatments.

**MEDICATION - THE MOST COMMON TREATMENT**

The number of prescribed medications increases with multimorbidity as we age leading to a prescribing cascade and polypharmacy. Polypharmacy refers to the concurrent use of multiple (usually more than five) medications by one individual. Among patients aged 65 years and above, 39% received 1-5 medications; 44% received 6-10; and 14% received more >10. Polypharmacy is associated with increased incidence of adverse drug reactions (ADRs) and avoidable medication-related hospitalisations, accounting for 10% of hospitalisations in the UK, and 8.6 million hospitalisations per year in Europe. In addition, up to 10% of hospital-based patients also experienced an ADR as a consequence of in-hospital prescription medications. Polypharmacy can be therapeutically beneficial (appropriate polypharmacy) or problematic (inappropriate polypharmacy). Appropriate polypharmacy is defined as prescribing for a person for complex conditions or for multiple conditions in circumstances where medicines use has been optimised by medication review and where the medicines are prescribed according to best evidence.

Inappropriate polypharmacy can occur if medicines are prescribed without good evidence, or if (considering the person’s views and preferences) the risk of harm from treatments is likely to outweigh the benefits. Polypharmacy is hazardous because of interactions, the demands of medicine-taking (pill burden) can be unacceptable to the person causing lack of compliance; or medicines may be prescribed to treat the side effects of other medicines when alternative solutions are available to reduce the number of medicines prescribed.

In many cases a patient may be on 10 or more concurrently prescribed medications and identifying drug-drug and drug-disease interactions are at the limits of what is possible during a short GP or medicines review consultation. In Northern Ireland community Pharmacists are paid a fee (approximately £280) to undertake a very limited number of medication reviews for a limited number of the high-risk patients, with numbers of reviews capped per practice, and insufficient time to undertake appropriate medication reviews and lack of appropriate computational aids – its needs to dramatically change not only for current practice but in particular if genomics based decisions are to be included as part of the prescribing practice.

There were 41.8 million prescription items dispensed in Northern Ireland in 2018/19 (data for primary care only). The relationship between age/gender and prescribing cost in Northern Ireland in 2018/19 (data for primary care only).

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THE DRUGS DON’T WORK

The serious problem of waste is further compounded by the current blockbuster approach to drug development that assumes all patients with a condition respond similarly to a drug. Similarly diagnosed patients generally receive the same first line treatment that is frequently only 30 to 60% effective.10 The fact that most prescription medications are not effective for possibly 30-70% of patients treated needs urgently addressed. Even worse, some prescription drugs cause harm due to adverse drug reactions (ADRs) and 5-10% of hospitalisations are medicine-related.11 A new generation of biologic-based drugs are sometimes prescribed to treat specific cancers, arthritis and cystic fibrosis that are very effective but only in a subset of patients. For example, biologic-based drugs used to treat rheumatoid arthritis are among the most expensive prescribed medications, with patients treated for up to 6 months common practice before their lack of clinical efficacy is recognised and treatment is stopped or switched. Personalised medicine is not only relevant for prescription medication optimisation, it has utility also across many clinical areas and surgical specialties with potential for modification of treatment e.g. fracture patients depending on bone health as well as predicting the course of scoliosis. Clinical areas and surgical specialties with potential for medication optimisation, it has utility also across many clinical areas and surgical specialties with potential for modification of treatment e.g. fracture patients depending on bone health as well as predicting the course of scoliosis.

Informed by outcomes from clinical trial population-scale reviews informed by outcomes from clinical trial population-scale reviews informed by outcomes from clinical trial population-scale reviews informed by outcomes from clinical trial population-scale reviews informed by outcomes from clinical trial population-scale reviews informed by outcomes from clinical trial population-scale reviews informed by outcomes from clinical trial population-scale reviews

KEY RECOMMENDATIONS

Multiple reviews of care delivery in Northern Ireland have provided recommendations for improving the management of healthcare and medicines optimisation including the Transforming Your Care Report20, the Bengal Report21, the Health and Wellbeing 2026 Delivering Together Report22. Initiatives involving pharmacists working alongside GPs was announced with a plan to have 300 primary care-based pharmacists in post by 2020 to assist GPs and improve the safety of prescribing, and to give GPs more time for patient consultations. With over 8.6 million avoidable medication-related hospital admissions in Europe each year due to adverse medication reactions23 there needs to be a significant expansion of medicine reviews informed by genomic data. Clinicians and patients are faced with challenging decisions when deciding which medications will provide benefit as recommended by a diversity of guidelines, and this will be further compounded by the availability of genomic data on all patients. The increased availability of individually targeted treatments should reduce waste, enable cheaper more representative clinical trials, but individualised targeted medications will be just as expensive, with the same major dilemma: who or what benefits is different for the individual versus society generally. To reduce waste and to enable the realisation of the opportunities presented by personalised medicine, new clinical decision tools need developed and adopted by the NHS, and there is a critically important need to incorporate genomic education as a core component in all clinical education pathways to drive more evidence-based diagnoses, treatments and medicines optimisation in the NHS.

In the UK there are 1.4 million people aged >85, projected to increase to 1.9 million by 2020 and to 3.5 million by 2035, more than doubling over 25 years.

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20. Ibid
25. Ibid
HEALTH, EQUALITY AND THE ECONOMY

Chapter 13

What sort of education do we need for our healthcare system in Northern Ireland?

Louise Dubras

DECLARATION

This piece is written unashamedly from a General Practice and medical perspective.

KEY ISSUE

The global population is growing and ageing and demonstrates increasingly complex multimorbidity. From 2016 onwards the global number of over 65 year olds exceeded the number of children for the first time in history. The number of over 85 year olds at 43.1% between 2004 and 2014.2 Furthermore, our society now faces the challenge of Multimorbidity - individuals rarely suffer from a single long-term condition, and frequently we see patterns of morbidity with a single individual living with Type 2 diabetes, obesity, cardiovascular disease and osteoarthritis as an example. The evolution of medicine over the last 50 years has seen the erosion of the “generalist” role and the development of increasing “sub speciality” healthcare teams in hospitals, with consequent fragmentation of the delivery of care, and failure to care for the whole patient. Even though the recent move to deliver more whole person care in the community through MDTs is welcome, this continued pattern of delivery in secondary care has not improved outcomes or experiences for patients. The four Chief Medical Officers of the United Kingdom have recently made a welcome and urgent call for a return to Generalism as a way of addressing the challenges presented by the rise of Multimorbidity.

The workload of General Practice in the UK has increased with the consultation rate increasing by 10.5% between 2007-8 and 2013-14, with the consultation rate highest in over 85 year olds.3 Their Lancet study looked at 101 818 352 consultations of GPs and practice nurses, and together with the rising consultation rate also demonstrated an increasing duration of consultations, such that over the time period of the study there was an overall increase in workload of 16%. In simple terms, GPs are doing more.

KEY RESEARCH

A recent review of Medical School places in Northern Ireland outlined the age and gender balance of doctors in Northern Ireland, their current career pathways, the vacancy rates in a wide range of specialty training programmes and the need to grow the medical workforce by 3.8-4% per year over the coming 10 years in order to keep pace with the demands required by this growing, ageing population. It concluded that a minimum of 100 additional medical school places were required as soon as possible, with a recommendation that this number be reviewed within five years.4 Certainly, at present, Northern Ireland is ranked 3rd of 4 in the number of doctors per head of population in the United Kingdom, with 3.47 doctors per thousand population compared to a mean of 3.76 per thousand.5

The situation is further highlighted by the stark figures for spend on hospital locum doctors, which rose by 190% between 2011-12 and 2017-18, from £28.4m to £83m. This spend of £83m represents some 3% of the overall hospital budget, but underlying this are subtler issues such as continuity of care, and reduced morale of doctors.

A minimum of 100 additional medical school places were required as soon as possible.

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Our society now faces the challenge of Multimorbidity - individuals rarely suffer from a single long-term condition, and frequently we see patterns of morbidity.
The British Medical Association views the employment of locum doctors as an indicator for consultant post-vacancy rates, and in 2019, this is regarded as 15%. The current locum spend in the Western Trust is 22% of the total medical pay bill. These figures make no reference to General Practice, where locums frequently cannot be sourced, and where practices are closing because of recruitment difficulties. There has been a reduction in the number of GP practices in femagrant from 18 in 2016 to 10 in 2019, and a reduction in the number of GPs from 44 to 35 in the same time period. Again, in simple terms, fewer GPs are trying to do more.

The morale of the NHS workforce is noted to be low: healthcare professionals are under increasing pressure delivering care to patients with complex needs whether in primary, secondary or community care settings. The more vacancies exist, the more the existing workforce are under pressure, and increasing numbers also report taking time off-work with stress-related problems, and this is across the entire workforce, not just doctors. Junior doctors tend to take breaks in their training after Foundation years because of the pressure they experience, and other doctors plan to reduce their hours or leave the NHS altogether. Starling points to the value of Multidisciplinary teams as one innovative approach to supporting healthcare professionals and delivering care to patients. Northern Ireland has committed to funding and implementing such Multidisciplinary teams in General Practice including Pharmacists, Social Workers, other Allied Health Professionals, Physician Associates and Advanced Nurse Practitioners, and The Royal College of General Practitioners (RCGP) welcomes the development of the Multidisciplinary team whilst advising a cautionary note that GPs must be adequately resourced and supported to integrate these new professionals into the team, and to lead these teams. Furthermore, the RCGP do not see the expansion of the wider team as a substitute for increasing the numbers of GPs.

This is challenging when the time available for each consultation is constrained. The WHO also notes that the morale of the healthcare worker improves when they are able to provide person-centred care, yet the more time pressure the clinician faces, the less person-centred they are likely to be, and a vicious circle develops. Increasingly too, health professionals recognise that the traditional “biomedical model” of healthcare is no longer fit for purpose, and that the rise of non-communicable disease requires increasing input from public health and the development of a “social” approach to providing the complex care. The development of the role of the Physician Associate (PA) is seen as one way to ameliorate the workforce crisis in the United Kingdom. A PA works “in conjunction with, and complementary to, the existing medical team”, and the Royal College of Physicians notes the value of the PA providing continuity of care in a ward or department of a hospital where junior doctors in training tend to rotate in and out of particular settings. PAs however have a limited scope of work and cannot currently prescribe. Whilst invaluable providers of healthcare, there remains an ongoing need for doctors to lead these diverse clinical teams and manage the complex multimorbidity referred to at the start, and to manage the decision making and comanagement risks associated with providing this complex care. We also face a technical revolution as increasingly we and our patients interact with Artificial intelligence and robots, and we have ever more sophisticated data to enable us to provide evidence-based healthcare to patients. We face global challenges such as climate change and the emergence of new pathogens such as Novel Coronavirus.

Medical and healthcare education must therefore develop a structure curriculum in such a way as to enable students to learn to be caring competent generalists, capable of working flexibly in a wide variety of settings, with the emerging technology they require, yet still able to provide the humane and human whole person care that patients will always seek from them.

The next question is how and where to educate these doctors and clinicians. All health professionals must learn from patients, and I have demonstrated that patients are the “optional extra” which received very limited funds. Still there is little funding for the “social prescribing” approach. We need those doctors in General Practice: can we grow GPs? The evidence suggests there is potential, although medical schools cannot mandate their graduates’ career paths. Taking medical students into Graduate Entry programmes and ensuring that a significant proportion of their learning takes place “in General Practice” increases the likelihood that those students will choose General Practice careers.

It is imperative that Northern Ireland’s universities are enabled to deliver a diverse local healthcare workforce for the 21st Century. To do that, their continued partnership with Health and Social Care must be further enhanced whilst recognising that increasingly, care and interventions are provided by a wide range of organisations in our communities.

There should be parity of educational funding for all healthcare professionals, so we move beyond the current “two tier” value accorded to medical education over that of our other essential health care professionals. Community and General Practice settings require sufficient infrastructure to deliver authentic and meaningful learning in the fields of health professions education, and those delivering this education need to be assured adequate protected time to prepare, access and learn assessors.

### Key Recommendations

While recognising the essential contribution of all members of the clinical workforce, there remains the (at times) uncomfortable fact that we need more doctors, globally, in the UK, and in Northern Ireland.

We need those doctors in General Practice: can we grow GPs? The evidence suggests there is potential, although medical schools cannot mandate their graduates’ career paths. Taking medical students into Graduate Entry programmes and ensuring that a significant proportion of their learning takes place in General Practice increases the likelihood that those students will choose General Practice careers.

It is imperative that Northern Ireland’s universities are enabled to deliver a diverse local healthcare workforce for the 21st Century. To do that, their continued partnership with Health and Social Care must be further enhanced whilst recognising that increasingly, care and interventions are provided by a wide range of organisations in our communities.

There should be parity of educational funding for all healthcare professionals, so we move beyond the current “two tier” value accorded to medical education over that of our other essential health care professionals. Community and General Practice settings require sufficient infrastructure to deliver authentic and meaningful learning in the fields of health professions education, and those delivering this education need to be assured adequate protected time to prepare, access and learn assessors.

### GS must be adequately resourced and supported to integrate these new professionals into the team, and to lead these teams.

So what about Patient Outcomes in the context of the skill mix and morale of the workforce, and the provision of continuity of care? The World Health Organisation (WHO) cites extensive evidence that patient outcomes are best when the workforce can provide person-centred care, and continuity of care. The latter is not necessarily from the same individual, but healthcare records must enable safe and accurate and timely transfer of information from one carer to another.
Conclusion: Key Recommendations for Consideration

Cathy Gormley-Heenan

Our contributions on health, equality and the economy have considered the context in which health policy is made, the costs and opportunity costs of health policy decisions, issues of health inequality, mental health, transgenerational trauma, drugs, nutrition, physical activity, adult social care, technologies, personalised medicine, and healthcare education.

Although wide-ranging in content, they are connected in the scale of their ambition to ensure better outcomes for patients and a better health and social care environment for everyone.

They make concrete suggestions and policy recommendations which, if implemented, would go some serious way to addressing the aspirations as set in the New Decade, New Approach (NDNA) document and our previous programme for government.

To summarise, we have distilled the various contributions down to 10 key recommendations:
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PHILANTHROPY SUPPORTING RESEARCH

Philanthropy has an increasingly significant role in helping us to pursue our ambitions without compromise. With support from our global community of alumni and friends, it enables us to transform our research to position Northern Ireland as a world-leader in higher education impact.

It allows us to do exactly what Universities should do – to respond to real world challenges and to drive economic and societal impact.

We are currently raising funds to enhance our world-class research in the following areas:

- **Pancreatic Cancer**
  - Professor John Callan’s award-winning microbubble research is paving the way for more effective pancreatic cancer treatment. Professor Callan and his team were winners in the Life and Health Sciences section of Invent 2018.

- **Stroke Services**
  - A recent report by Dr Niamh Kennedy ‘Struggling to Recover’ developed in partnership with the Stroke Association has been used by government to feed in to the reshaping of a new stroke services strategy looking at the long-term care and support of stroke survivors in Northern Ireland.

- **Diabetes**
  - Professor Peter Flatt is an internationally respected authority in the field of regulatory peptides, glucoregulatory drugs and experimental diabetes research, earning him the accolade of No 1 insulin researcher in the UK.

- **Childhood Cancer**
  - Dr Kyle Matchett leads the only group of researchers working on childhood cancer in Northern Ireland. He is currently working on several research projects aimed at finding new and kinder ways of treating children suffering from acute myeloid leukaemia.

Pancreatic cancer survival rates have not improved in the last 40 years

There are currently over 1.2 million stroke survivors living in the UK

Diabetes costs the NHS more than £27 million a day

Incidence rates of acute myeloid leukaemia have risen by 29% in the past 25 years

Whatever you choose to support, your gift will play a huge part in tackling today’s global challenges and realising tomorrow’s breakthroughs.

If you are interested in hearing more about any area of our work, please contact Caroline Armstrong, Deputy Director (Fundraising) in the Development and Alumni Relations Office at c.armstrong1@ulster.ac.uk or 02895367513

ulster.ac.uk
We at Ulster University have asked ourselves the important questions that need to be answered in terms of health policy for Northern Ireland and have presented them here as a series of question-based chapters, reflecting the key issues, key research undertaken and key recommendations for consideration.

We’ve brought these various recommendations together at the end of this report as our contribution to the current policy debate on the future of health and social care policy in Northern Ireland.