Making Public Health a Part of Every Integration Plan

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Abstract

The notion of integrated care has evolved over the years and has begun to recognise the need to take a more population-oriented approach to promote public health, prevent ill-health and secure wellbeing for populations. Yet, for the most part, public health has remained somewhat separate to the planning and purchasing of health and social care services and, as a result, public health interventions have often tended to operate in separate silos to traditional care provision. This article supports the case for a 'fifth wave' in the evolution of public health to address population health and raise awareness of the societal value of good health, recognising the importance of social networks and the benefit of focusing on both health and wellbeing. By examining three international case studies, the paper concludes that the move towards more place-based accountable care systems is required to enable the transformational change necessary to adequately respond to today's health system challenges.

1. Introduction

The integration agenda has become a central element in the reform of the health and care system around the world. The common aim has been to redesign care systems so that they are more 'person-centred' and which better co-ordinate care and services around people's holistic needs. Given the demographic changes in society, the focus of integration policies has been motivated by the need for support to older people with long-term care needs, on developing more co-ordinated care systems that tackle chronic illness, and to address the need of those with comorbidities.

Tackling these issues is rightly important, but the integrated care agenda has a broader purpose in bringing benefits to all people where care and services remain fragmented. The ability to improve care and outcomes to population groups such as children and young people, to adults with mental health conditions, or to those living in hard to reach communities require strategies that promote health and/or facilitate preventative action.

Our understanding of the components of integrated care has evolved over time to recognise that such population groups should no longer be targets for specific disease-control interventions but must seek to empower and engage people and communities to become co-producers of care (Ferrer, 2015; WHO 2016). More broadly, the notion of integrated care has gone beyond the borders of the health and care system to think more strategically about how to embrace the social determinants of ill-health (Goodwin et al, 2017). For example, in the need to take a more assets-based approach to promote public health, prevent ill-health and secure wellbeing for populations.

2. The Importance of Public Health within Integrated Care Programs

Public health and integrated care share common objectives including:
- the promotion of health and healthy environments;
- preventing illness;
- treating and managing disease; and
- improving quality of life.

Yet, for the most part, public health has remained somewhat separate to the planning and purchasing of health and social care services and, as a result, public health interventions have often tended to operate in separate silos in the provision of health and social care. A less typical response has been to think more broadly about the positive benefits that may accrue from the integration of care between public health and more person-centred approaches to health care.

The importance of bringing strategies of health promotion and prevention into the lexicon of integrated care is particularly important since it is the most vulnerable people within societies who are the most in need of better integrated services, yet the least likely to receive them (Ovretveit, 2011). For example, people living in remote or disadvantaged communities are more likely to develop complex long-term health problems (particularly mental health problems) much earlier in life than was previously recognised. For example, the landmark study of the population of Glasgow in Scotland found that people living in more deprived communities were presenting in primary care with a greater number of co-morbid conditions and much earlier in life (Barnett et al, 2012).

Developing systems of integrated care must recognise that the pathology of multi-morbidity starts in childhood and is conditioned by the socio-economic determinants of ill-health such as lower incomes, poorer housing, reduced educational attainment, social isolation, and higher levels of smoking and alcohol consumption. Any integrated care strategy that seeks to co-ordinate care better around people's needs must also combine with it a focus on primary prevention and health promotion.

A wider array of inter-sectoral partnerships must be developed to deal effectively with these issues. The importance of incorporating a public health perspective is, therefore, essential to enable integrated care programs to meet their objectives since:

- public health underlines the idea that health is a collective responsibility. It emphasises the need for effective partnerships between everyone who contributes towards population health outcomes to maximise the overall benefit to the widest number of people;
- delivery of healthcare becomes underpinned by a population healthcare approach and the development of integrated care solutions that deal with complex care needs. Consideration, then, must be given to how the 'whole system' interacts within networks of care and so enables the development of more effective care pathways that otherwise might become limited in dealing with particular issues in isolation; and
- public health practise aims to be equitable, empowering, effective, evidence-based, fair and inclusive - aims which are realisable through effective integration.

The implication of this argument is that public health teams, and the role of the voluntary and community sector, should be imperative to the integration agenda. They enable a better understanding of the needs of local communities and can deliver distinct and specialist services that are pro-active in promoting health and wellness and help to enhance care outcomes. Involving public health also underlines the idea that health is a collective responsibility.

Yet, for the most part, public health has remained somewhat separate to the planning and purchasing of health and social care services and, as a result, public health interventions have often tended to operate in separate silos in the provision of health and social care. For example, in England, the NHS' 5 Year Forward View set out the need for a "*more activist prevention and public health agenda*" implying that public health should be at the heart of the integration agenda (NHS, 2014, p.36). To truly improve people's outcomes, the policy paper argued that integration must be as much about health as it is about healthcare, focused on prevention, early intervention and promoting wellness and resilience. Yet, the strategies outlined for scaling-up public health services have remained separated from the organisational models put forward to achieve more integrated care systems such as multispecialty community providers (MCPs) and primary and acute systems (PACs).

3. The 'Fifth Wave' of Public Health: Towards Population Health Management

The role of public health in care systems has evolved in a series of 'waves' since the genesis of the public health movement in the UK in the 1830s (Hanlon et al, 2011). The diagram below sets out the theory of the four waves of public health (see Figure 1):

- Wave 1: During the structural wave improved sanitation was achieved. This laid the foundation for robust health protection with the separation of sewerage from dwellings and was instrumental in delivering a notable improvement to population health.
- Wave 2: The biomedical wave brought the medical advances that had a dramatic impact on reducing infant mortality, through the elimination of small pox and diphtheria through vaccinations.
- Wave 3: During the clinical wave there was an increased understanding of lifestyle related risk factors. The causal link between smoking and lung cancer and consumption of high amounts of animal fat and heart disease led to health promotion activities such as marketing campaigns.
- Wave 4: The social wave brought a greater understanding of societal inequalities and the determinants that can influence outcomes.

Figure 1: The four 'waves' of evolution in public health
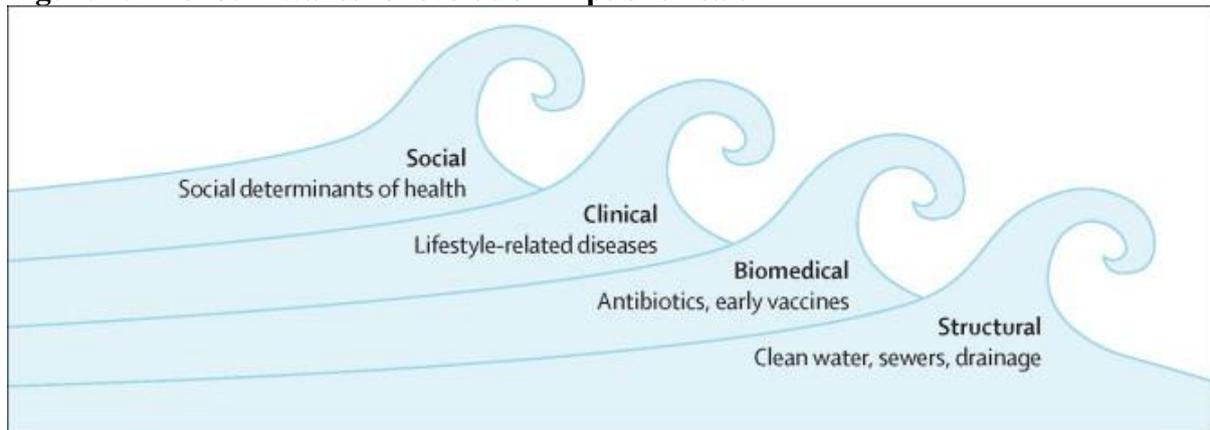
Hanlon *et al* (2011) strongly advocate for a *fifth wave* that brings a focus to health policy makers to address population health and raise awareness of the societal value of good health, recognising the importance of social networks and the benefit of focusing on both health and wellbeing. In practical terms, this agenda has two key characteristics: first, the need to take a population-health approach to care and, second, to focus on health promotion and ill-health prevention.

Population health represents an approach to health care that seeks to improve the health outcomes of a group of individuals, including the distribution of such outcomes with the group. Population health, therefore, does not refer to national populations but to distinct communities and local populations where care delivery can be planned and delivered to truly reflect on local circumstances and needs. Hence, a population health approach seeks to focus on the key priorities for improving health and wellbeing with a specific focus on tackling inequalities in care, addressing services for hard-to-reach groups, and promoting social justice.

Evidence from high performing care co-ordination schemes internationally suggests that population health management is a key design element in making integrated care effective (Goodwin et al, 2013, 2014). Having an explicit understanding of the health needs of communities, supported where possible by data that can provide intelligence on the priorities that should be addressed or the individuals and localities at specific risk, is essential. Without such knowledge, integrated care programmes have the potential to miss the target of their interventions. For example, as can often happen in care management schemes where many 'at risk' people may remain undetected.

There has also been an evolving trend internationally to develop more of a 'place-based' approach to integrated care that focuses on delivering 'accountable care' to specific populations. For example, and returning to the experience of England, their most recent set of reforms (known as *Sustainability and Transformation Plans*) has encouraged a new drive for significantly more ambitious, population-based, initiatives that introduce new models of integrated health and social care with the purpose of improving health and wellbeing as well as the efficiency of services (Alderwick et al, 2016).

Achieving substantial and lasting improvements in population health will therefore require a concerted effort. One way in which this may be encouraged is through the development of a set of guiding and actionable principles (see Box 1).

Box 1: A framework of actionable principles to integrate public health into integrated care delivery and planning (adapted Institute of Medicine, 2012)

- Promoting health and preventing ill-health to individuals, families and local communities
- Shared goal of population health improvement
- Community engagement in defining and addressing population health needs
- Aligned leadership with collective governance
- Sustainability by establishing a shared infrastructure
- A commitment to building relationship for enduring value and impact
- Sharing data and collaborating in data analysis

4. Three International Case Examples

4.1 The NUKA Health System, Alaska, USA

One of the most successful international examples to have demonstrated significant and sustained improvements in population health is the Nuka Health System in Alaska. During the mid-1990s, local people determined that their care system should be directly governed and owned by local people, but at the same time developing a 'shared responsibility' between the local community and care providers to promote physical, mental and spiritual wellbeing. Prevention and promotion lies at the heart of the services provided and a 'walking with communities' ethos developed in how care services should be designed and delivered. The system operates with local people acting as 'consumer-owners' meaning that the care system is governed and accountability to local people (Gottlieb, 2013).

Investment was made in establishing a range of primary care centres such that they offered an inter-disciplinary set of services including primary care, dentistry, optometry, physical therapy, behavioural health, outpatient services and residential treatment for adolescents and women. A specific focus was placed on including traditional healing and complementary medicine valued by local people, together with home health, health education and specific programmes to support the elderly and children.

Key results since 1997 include:
- increased enrolment in primary care from 35% to 95% of the population;
- same day access for routine appointments, down from 4 weeks;
- waiting lists for behavioural health consultations eliminated;
- increased patient and staff satisfaction with a greater respect to culture and traditions;
- reduction in staff turnover by 75%;
- significant reduction in the unnecessary use of specialist care and treatment including a 36% reduction in hospital days; 42% reduction in visits to the emergency department; and a 58% reduction in treatment at specialist clinics; and
- improved care outcomes for people with cancer, obesity, diabetes, and dental caries; plus reduced levels of child abuse, child neglect, domestic violence, substance abuse and suicide (Gottlieb, 2013).

4.2 Gesundes Kinzigtal, Germany

Another important international example of how this has been achieved with significant success is in the approach undertaken in Kinzigtal, Germany. For this community, a guiding coalition of over one hundred community partners has been brought together to promote population-health to a community of 35000 people. Prevention and promotion activities underpin the goal to achieve

'Healthy Kinzigtal' across the range of providers and shared accountability for population-health outcomes is shared across the group through a 'shared health gain' contract. Not only has this 'whole system' approach seen demonstrably improvements in quality of life amongst its population, it is also significantly reducing costs (Groene and Hildebrandt, 2017).

The system is run as a joint venture between a regional health management company (Optimedis AG) in cooperation with a physicians' network (Medical Quality Network – Physicians Initiative Kinzigtal). Since January 2006, GK has been contractually responsible for population health care and it cooperates with almost 100 providers including general practitioners, specialists, hospitals, psychotherapists, nursing homes, ambulatory home health agencies (social care), and physiotherapists. It has more recently included agreements with pharmacies, health and sports clubs, gyms, companies with workplace health promotion programs, adult education centres, self-help groups and local governments.

A key feature to GK has been the development of a 'shared health gain' approach by means of a shared savings contract. Achieving this involves realizing savings within the Kinzigtal region compared to German standardised costs (average and risk-adjusted costs across all sickness funds) and to a reference period before the intervention. The budget is 'virtual' in the sense that providers continue to be paid directly by the sickness funds (it does not come through GK) but if the sickness funds spend less on the insured Kinzigtal population compared to the national average then the 'savings' are shared between the sickness funds and GK.

The integrated care system has enabled key strategies to be developed that bring partners together to provide services differently. For example, through individual treatment plans and goal-setting agreements between doctors and patient; a focus on patient self-management and shared decision-making; and follow-up care and case management supported by a system-wide electronic patient record. Prevention and promotion activities play a key part, for example through a health schools programme, health in the workplace, awareness raising campaigns and community-driven festivals that celebrate health and wellness.

Key results since 2006 include:
- Higher-levels of patient satisfaction and self-reported positive changes in health behaviour and quality of life;
- Decreased comparative mortality of 50% within 2.5 years of enrolment in GK (1.76% death rate compared to 3.74 in comparator group)
- Decreased lengths of stay and overall bed days in hospitals, though increased overall admissions;
- Improved contribution margin of €151 per person per year in the first three years of operation in the integrated care population
- Reduced overall costs to the insurer including a morbidity-adjusted efficiency gain between 2007–2010 of more than 16% of total costs (including pharmaceutical, hospital, nursing, emergency, physiotherapist and sick leave costs) (Groene and Hildebrandt, 2017).

4.3 Canterbury, New Zealand

The care system in Canterbury, New Zealand, has undertaken a considerable transformation to embrace an 'accountable care' approach through the forming of alliances between different partners in care, including community ad voluntary groups. As a result of its changes over a period of more than ten years, the health system has enabled greater care and support to be provided in people's homes and communities with a moderation in demand for hospital care, especially amongst older people. (Charles, 2017).

The Canterbury experience began in the recognition that it was an under-performing health economy with highly fragmented care services and growing, and uncontrolled, hospital admissions rate. Following a series of workshops held with patients, clinicians and managers a new and unifying vision of care emerged of 'one system, one budget' which sought to reconnect care providers. This was initially achieved through the development of improved care pathway protocols of patients (the *Health Pathways* initiative) and supported by a formal alliance of healthcare leaders, professionals and providers from across the health system (the Canterbury Clinical Network) (Dolan et al, 2017).

This community-based and population-health focused approach was later enshrined in 2010 in three guiding principles for their health system: to support people to take greater responsibility for their own health; to support people to stay well in their own homes and communities; and to enable people to receive timely and appropriate care for their complex needs. In February 2011, the transformed health system was put to the test following a serious earthquake, though the long-term impact of that was to accelerate thinking and initiatives for community-based care (Gullery and Hamilton, 2015).

Today, Canterbury's health system is supporting more people in their homes and communities and has moderated demand for hospital care, particularly among older people. Compared with the rest of New Zealand, Canterbury has lower acute medical admission rates; lower acute readmission rates; shorter average length of stay; lower emergency department attendances; higher spending on community-based services; and lower spending on emergency hospital care. Improving the interface between primary and secondary care has led to better-quality referrals, reductions in waiting times and reduced spending on pathology and imaging tests (Charles, 2017).

Key learnings from the Canterbury experience include (after Dolan et al, 2017):
- Be people-centred and create a powerful sense of identity;
- Create a vision, and key principles, that shape collective behaviours and actions;
- Ignite passion and commitment;
- Encourage continuous improvement;
- Develop integrated networks of care that empower and enable change;
- Empower and trust people to deliver the solution

5. Conclusions

Whilst there is great work happening internationally to demonstrate how public health can be interwoven pro-actively into integrated care strategies, it remains difficult for many purchasing authorities to invest in prevention and promotion activities. Often, the opportunity to invest in long-term prevention and health promotion strategies is offset by: the need to act quickly; uncertainties over how to implement such strategies effectively; and the associated lack of belief that a good enough 'return on investment' can result given the realities of financial constraints and rapidly rising demands for care.

Yet it is in times of financial austerity, when budgets are being stretched, and where the underlying agenda is to deliver more for less, there has never been a stronger argument for investing in primary health care and other services in a way that can help keep people well and so support them to live healthier lives, to self-care, and to remain independent and active and ultimately stay out of hospital and long-term care facilities. The challenge is to make it happen at scale so that a real change can be made to the way health and care services are delivered. Yet, in that challenge, it appears that sustained and substantial impact requires relentless hard work at the local level where major change emerges through a combination of marginal gains over time (Bohmer, 2016).

What the emerging evidence tells us is that care systems that have effectively created a population health-based approach delivering community-based integrated care have perhaps the greatest

potential for transformational change to meet the "Triple Aim" of improving care experiences and care outcomes whilst reducing costs of care. This will require the ongoing development of accountable care systems where multiple health and social care providers come together into new forms of collective governance arrangements and risk-sharing frameworks that work with and alongside local communities. The development of such systems is, to-date, rare as they are faced with continual and significant challenges that require committed and sustained leadership, and take considerable time to develop and mature.

Acknowledgments

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