

# Beyond integrated care

Thomas Plochg<sup>1,2</sup>, Stefania Ilinca<sup>3</sup> and Mirko Noordegraaf<sup>4</sup>



## Abstract

Integrated care tops the health care agenda. But more integration alone will not remedy the crisis in health care, and there is a danger in the increasingly prevalent conceptualization of care integration as a goal in itself rather than as an instrument for improving performance. Operating integrated care systems, staffed by an overly specialized medical workforce, is unsustainable in terms of human and financial resources and is likely to produce little benefit for patients with multi-morbidity. An alternative approach involves health care leaders going beyond integrated care and nurturing transformative change from within the medical workforce instead. To be fit for purpose, the doctors must be encouraged and facilitated to customize their expertise to current and expected future burdens of disease. This would lead to more adaptive doctors who could actively support people in healing and managing their own health. Integrated care should be conceptualized as one possible lever for transformative change rather than its endpoint.

## Keywords

integrated care, sociology of professions, systems thinking

## Introduction

Integrated care tops the health care agenda. Collaboration between health care professionals working in different settings is considered critical for overcoming the fragmentation and accompanying flaws in the delivery of health care.<sup>1,2</sup> The basic imperative is the changing burden of disease as reflected in the ageing of populations, and the transition from acute single diseases towards multiple long-term ones.<sup>3–5</sup>

The core pitfall of integrated care is that it takes the existing professional organization of medical expertise into specialties and sub-specialties for granted. Driven by technical specialization, expertise has been solidified in an ever-growing number of medical specialties,<sup>6</sup> continuing a historic trend and maintaining the principles of specialization.<sup>7</sup> The result is a ‘system of professions’, with organizational and occupational autonomies with specialties isolating themselves from each other and outside worlds.<sup>8</sup>

Whilst specialization largely explains the success of medicine over the last decades, it has also led to fragmentation in health care provision. This is the problem that integrated care is called upon to fix. The more specialized health care becomes, the more that coordination and collaboration are needed. Can greater integration create sustainable care while specialization remains the major driver behind the professional organization of medical expertise? Is excessive medical

specialization and the resulting medical specialist expert model so out of sync with today’s burden of disease that it needs to be transformed?

## What is integrated care?

Integrated care refers to the bringing together of inputs, delivery, management and organization of services as a means of improving access, quality, patient satisfaction and efficiency.<sup>9</sup> It aims to reduce fragmentation by enhancing coordination and collaboration between care professionals. Medical decisions should be made in organizational contexts that enable doctors to integrate activities with those of their colleagues or other health care professionals for the benefit of the patient.

<sup>1</sup>Assistant Professor, Department of Public Health, Academic Medical Center, University of Amsterdam, Amsterdam, the Netherlands

<sup>2</sup>Director, Netherlands Public Health Federation (NPHF), Utrecht, the Netherlands

<sup>3</sup>Researcher, Health and Care Unit, European Centre for Social Welfare Policy and Research, Vienna, Austria

<sup>4</sup>Professor, Utrecht School of Governance, Utrecht University, Utrecht, the Netherlands

## Corresponding author:

Thomas Plochg, Department of Public Health, Academic Medical Center, University of Amsterdam, Meibergdreef 9, 1100 DD Amsterdam, the Netherlands.  
Email: t.plochg@amc.uva.nl

In this way, doctors can provide a coordinated, vertical continuum of services to a particular population or community in an effective and accountable manner.

Despite the fact that integrated care has been extensively researched, its benefits are still unclear. On the one hand, research evidence suggests that integration can be achieved and improve performance. Notable examples are the Veterans Health Administration, Kaiser Permanente and Healthy Kinzigtal.<sup>10-12</sup> On the other hand, various systematic reviews on integrated care are less decisive.<sup>13,14</sup> There is a paucity of high-quality evidence available on the different elements of integrated care models, and even more limited evidence on transferability of such models to different systems.<sup>15</sup>

It has been suggested that this lack of evidence has to do with the variety of theories and conceptualizations. Integrated care is an abstract concept that has multiple meanings.<sup>15</sup> Frequently, the concept means different things to different people working in different health care systems, rendering integrated care too context specific to allow for generalizations.<sup>16</sup>

### *Beyond integrated care*

The reason for the equivocal evidence on the effectiveness of integration efforts is the existing *exploitation* of a medical specialist model that is outdated. The core problem does not lie in the complexities of coordination and reconciliation of medical inputs and processes, formidable as they may be. Rather, it emerges from the reductionist approach to the multi-morbidity of many patients.

The majority of hospital doctors specialize on a single disease, organ, treatment or technology. As a consequence, multi-morbid patients must consult a multitude of doctors. A patient with diabetes, chronic obstructive pulmonary disease, obesity and heart failure will likely consult a pulmonologist, internist, ophthalmologist and cardiologist. In the USA, Medicare beneficiaries with three or more conditions in the US consult at least three up to 16 doctors per year, which increases with the number of conditions.<sup>17</sup> A more recent German study found that multi-morbid patients had more than twice as many contacts per year with doctors than those without multi-morbidity (36 vs.16), and visited more doctors per year (5.7 vs. 3.5).<sup>18</sup>

In view of the trends in multi-morbidity prevalence, it is doubtful whether more integrated care will improve the performance of health care. The key concern is that integration takes for granted the current fragmentation in health care provision, overlooks the causes and instead addresses the symptoms. Even more worrisome is that the increased focus on integration in research and policy circles shifts interest and attention away

from fragmented care provision due to over-specialization. In this sense, integrated care may help prolong the role and position of existing specialties by implicitly assuming that for each patient with multi-morbidity, a considerable number of doctors have to be employed. This is a self-enforcing vicious circle whereby increased specialization will necessitate the operation of ever-more complex integrated care systems that are likely to exhaust the available human and financial resources.

Integrated care builds upon classic linear organization principles that other industries are abandoning. Public and private sectors are reorganizing themselves using new principles, which include shifting the focus to the upstream of problems and substitute linear (take-make-dispose) for *circular* or *complex* (take-make-reuse) ways of problem-solving and organizing.<sup>19-21</sup> Instead of maintaining linear sequences (problem-solution-problem-solution-etc.), these new principles stress the importance of embedding organizational action within dynamic systems that embody the adaptive and connected nature of policies and services.

Trying to resolve today's problems in health care with the approaches of the past will not work. Multi-morbidity cannot be managed by isolating and treating each morbidity by linearly organized specialist interventions anymore, due to complexity, interrelation with other diseases and strong correlation to socio-economic conditions.<sup>22,23</sup> Health care policy should move beyond integrated care and attempt to address the root causes of the problem of fragmentation in health care provision.

### *Integrated care as a lever for transformation*

Instead of exploiting the existing system of medical specialties by building integrated systems around them, policy and research should *explore* how to design out waste due to changing burdens of disease and transform the system accordingly, building upon the reconfiguration of medical professionalism and drawing upon the new complex organization principles as applied and experimented with in other sectors. This should result in the better use of doctors and more appropriate medical action, thus creating more viable health care systems.

Integrated care is a potential lever for reconfiguring medical professionalism. Then, integrated care would no longer codify vested medical specialties but facilitate multi-specialty groups of medical professionals to learn from each other and become adaptive. When doctors start innovating and accommodating their expertise to the local contexts where they are working, when they can guide patients throughout their treatment and support them in managing their own health, then they will be equipped to handle the future challenges of health

care. Collaboration and coordination in itself is not enough. What is needed is collaboration and coordination leading to adaptive doctors who are better fit for purpose. This will reduce the number of specialists involved in a patient's care which will lead to human and financial benefits.

## Conclusion

Specialization remains the hidden crisis in health care, while policy and research recognize the effects but not the causes of increasing fragmentation and have focused intensively on care integration. If health care systems are to be sustainable, this crisis can no longer be ignored. Integrated care is part of the answer as it can be the lever to train adaptive doctors, better prepared for a dynamic future. But it is not the solution and it should not overshadow the need to reconsider the organization of health care systems and professions.

## Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## References

1. Ham C, Dixon J and Chantler C. Clinically integrated systems: the future of NHS reform in England? *BMJ* 2011; 342: d905.
2. WHO Europe. *Strengthening people-centred health systems: a European framework for action on integrated health services delivery* (CISHD). Copenhagen: WHO Regional Office for Europe, 2016.
3. Jones DS, Podolsky SH and Green JA. The burden of disease and the changing task of medicine. *N Engl J Med* 2012; 366: 2333–2338.
4. Bierman AS. Averting an impending storm: can we reengineer health systems to meet the needs of ageing populations? *PLoS Med* 2012; 9: e1001267.
5. Barnett K, Mercer SW, Norbury M, et al. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *Lancet* 2012; 380: 37–43.
6. General Medical Council (GMC) Intelligence Unit Research. Specialties, sub-specialties and progression through training; the international perspective, [www.gmc-uk.org/Specialties\\_subspecialties\\_and\\_progression\\_through\\_training\\_the\\_international\\_perspective.pdf\\_45500662.pdf](http://www.gmc-uk.org/Specialties_subspecialties_and_progression_through_training_the_international_perspective.pdf_45500662.pdf) (2011, accessed 21 February 2017).
7. Weisz G. *Divide and conquer. A comparative history of medical specialization*. New York: Oxford University Press, 2006.
8. Abbott A. *the system of professions. An essay on the division of expert labor*. Chicago: University of Chicago Press, 1988.
9. Groene O and Garcia-Barbero M. Integrated care. A position paper of the WHO European office for integrated health care services. *Int J Integr Care* 2001; 1: 1–16.
10. Jha A, Perlin J, Kizer K, et al. Effect of the transformation of the Veterans Health care system on the quality of care. *N Engl J Med* 2003; 348: 2218–2227.
11. Ham C, York N, Sutch S, et al. Hospital bed utilisation in the NHS, Kaiser Permanente, and the US Medicare programme: analysis of routine data. *BMJ* 2003; 327: 1257.
12. Hildebrandt H, Pimperl A, Schulte T, et al. Pursuing the triple aim: evaluation of the integrated care system *Gesundes Kinzigtal*: population health, patient experience and cost-effectiveness. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz* 2015; 58: 383–92. (in German).
13. Nolte E and Pitchforth E. *What is the evidence on the economic impacts of integrated care*. Copenhagen: European Observatory on Health Systems and Policies, 2014.
14. Ouwens M, Wollersheim H, Hermens R, et al. Integrated care programmes for chronically ill patients: a review of systematic reviews. *Int J Qual Health Care* 2005; 17: 141–146.
15. Nolte E and McKee M. In: Nolte E and McKee CM (eds) *Integration and chronic care: a review Caring for people with chronic conditions. A health system perspective*. London: European Observatory on Health Systems and Policies Series, 2008, pp.64–91.
16. Kodner DL and Spreeuwenberg C. Integrated care: meaning, logic, applications, and implications – a discussion paper. *Int J Integr Care* 2002; 2: e12.
17. Pham HH, Schrag D, O'Malley AS, et al. Care patterns in medicare and their implications for pay for performance. *N Engl J Med* 2007; 356: 1130–1139.
18. van den Bussche H, Schön G, Kolonko T, et al. Patterns of ambulatory medical care utilization in elderly patients with special reference to chronic diseases and multimorbidity – results from a claims data based observational study in Germany. *BMC Geriatrics* 2011; 11: 54.
19. Stahel WR. *The performance economy*. London: Palgrave, 2006.
20. Ellen MacArthur Foundation. *Towards the circular economy. Economic and business rationale for an accelerated transition*. Isle of Wight: Ellen MacArthur Foundation, 2012.
21. The Health Foundation. *Complex adaptive systems: research scan*. London: The Evidence Centre on Behalf of the Health Foundation, 2010.
22. Wade DT and Halligan PW. Do biomedical models of illness make for good healthcare systems? *BMJ* 2004; 329: 1398–1401.
23. Starfield B. Point: the changing nature of disease: implications for health services. *Med Care* 2011; 49: 971–972.