Transformational change in healthcare: an examination of four case studies

Kate Charlesworth[1,2] MBBS(Hons), MPH, FAFPHM, PhD Candidate

Maggie Jamieson[1] BA, MPH, PhD, Associate Professor

Rachel Davey[1] BSc(Hons), MMedSci, PhD, Director

Colin D. Butler[1] BMedSci(Hons), BMed, DTM&H, MSc, PhD, Australian Research Council Future Fellow

[1]Faculty of Health, University of Canberra, Locked Bag 1, ACT 2601, Australia.
  Email: Maggie.Jamieson@canberra.edu.au; Rachel.Davey@canberra.edu.au; Colin.Butler@canberra.edu.au
[2]Corresponding author. Email: u3112211@uni.canberra.edu.au

Abstract

Objectives. Healthcare leaders around the world are calling for radical, transformational change of our health and care systems. This will be a difficult and complex task. In this article, we examine case studies in which transformational change has been achieved, and seek to learn from these experiences.

Methods. We used the case study method to investigate examples of transformational change in healthcare. The case studies were identified from preliminary doctoral research into the transition towards future sustainable health and social care systems. Evidence was collected from multiple sources, key features of each case study were displayed in a matrix and thematic analysis was conducted. The results are presented in narrative form.

Results. Four case studies were selected: two from the US, one from Australia and one from the UK. The notable features are discussed for each case study. There were many common factors: a well communicated vision, innovative redesign, extensive consultation and engagement with staff and patients, performance management, automated information management and high-quality leadership.

Conclusions. Although there were some notable differences between the case studies, overall the characteristics of success were similar and collectively provide a blueprint for transformational change in healthcare.

What is known about the topic? Healthcare leaders around the world are calling for radical redesign of our systems in order to meet the challenges of modern society.
What does this paper add? There are some remarkable examples of transformational change in healthcare. The key factors in success are similar across the case studies.
What are the implications for practitioners? Collectively, these key factors can guide future attempts at transformational change in healthcare.

Introduction

If had asked people what they wanted, they would have said a faster horse. (attributed to Henry Ford)

. . .it is time for radical, fundamental, transformational change. . .small scale incremental change is not enough. (National Health Service (NHS) White Paper arguing for transformational change of the UK's NHS[1])

Modern medicine has had many successes. However, the current health and social care systems are failing to address the key health challenges of our time (obesity, type 2 diabetes, cardiovascular disease, health inequalities), are failing in their environmental responsibilities and are poorly equipped to meet future health challenges.[2–5] Therefore, healthcare leaders in Australia and around the world are calling for a transition to a new system with new sources of value and new sites and models of care.[1,3–10] This would not occur overnight (estimates suggest at least a decade[4,11]), but it would result in a fundamentally new system rather than 'tinkering' within the existing model, as has occurred to date in the NHS.[7] Transformational change is difficult and complex, particularly in systems providing essential services, in which people are understandably risk averse.[7] However, there are some exceptional examples of transformational change in healthcare. The aim of this article is to examine four such examples, three of which are international and so offer

particular lessons for Australia, asking the question, 'How did they do it?'.

Methods

This paper resulted from the exploratory phase of doctoral research investigating the characteristics of a future sustainable health and social care system, and the transition towards it. The aim was to identify several recent examples of transformational change in healthcare, and to examine the high-level characteristics of them, to inform the next phase of study. The case study method is appropriate for gaining insights into large, complex systems such as healthcare.[1,2]

Seven potential case studies were identified during the preliminary doctoral research period. During that period, key texts[3–5] were examined to generate ideas and then several literature searches were conducted on specific topics, including environmental sustainability of healthcare, emerging trends in health care and transformational change in health care. Of the seven cases, one was excluded because insufficient information was available. Four of the remaining six cases were selected because they best met two criteria: (1) large-scale and systemic transformational change; and (2) demonstrable evidence of achievement.

The four case studies were investigated separately using multiple sources of evidence for each,[12,13] including PubMed literature searches, organisational reports and other key documents, videos of interviews, speeches and conference presentations of senior organisational leaders and telephone correspondence with an expert on Southcentral Foundation.

For each case study, information about the main features under the headings of 'key enabling factors' and 'characteristics of successful transformation' was sought. For the analysis, the raw data were reduced and the key factors for each case study were displayed in a matrix.[13] Themes were colour coded, revealing common features across the cases, preliminary conclusions were drawn and the raw data revisited to verify the emerging themes. The results are presented in narrative form.[13]

Results

Case study 1: Southcentral Foundation (Alaska, USA)

Southcentral Foundation is an Alaska Native-owned not-for-profit health and wellness organisation serving ~60 000 Alaska Native and American Indian people.[14]

In the 1980s the Alaskan healthcare system was very poor. It was grossly inefficient, with exceptionally long waiting times to see family doctors, escalating emergency room activity, and 'atrocious' health outcomes with low life expectancy and endemic chronic illness.[15] There was no capacity for innovation or integration of care.[16]

Then in the late 1990s, Southcentral Foundation (one of several Alaskan Native healthcare providers) underwent radical transformation of its health system in which it 're-thought and redesigned every single aspect of care', including recruitment, training, deployment, models of care, monitoring and performance management and designing and building facilities.[17] In the new *Nuka* (the native word for strong living things[11]) system of care, Southcentral Foundation primary care doctors lead teams of health workers who develop and maintain long-term relationships

with their 'customer–owners' (patients). There is a strong focus on well being and prevention of illness, including programs addressing domestic violence, obesity, substance abuse, diabetes and heart disease.[11]

Southcentral Foundation has achieved remarkable results: since the late 1990s they have reduced hospital emergency room visits by 42%, hospital days by 36%, speciality care by 58% and routine doctor visits by 30%. At the same time, in Anchorage Natives from 2000 to 2010, binge drinking fell by 30%, suicides fell by 66%, strokes fell by 62%, deaths from heart disease and cancer were reduced to about the national average and there were marked improvements in infant mortality, childhood asthma and immunisation outcomes.[11] How did they do it? Here we examine the factors central to their achievement.

In the 1990s, following decades of American Indian advocacy for self-determination, demonstrable failure of the existing system and the introduction of more progressive legislation, the Alaska Native leadership of Southcentral Foundation seized the opportunity afforded by tribal authority to start contracting health and related services from the federal government. This began in 1987. Although there was notable progress over the following years, Southcentral Foundation only owned parts of the system: 'you can't just fix one part of the system and expect big changes'.[18] The big changes (a whole system transformation) occurred in the late 1990s when Southcentral Foundation assumed ownership of the entire health care delivery system.[18,19]

Southcentral Foundation leaders undertook very extensive consultation from the outset. Storytelling is a strong Alaska Native tradition and, for 12 months, the leaders of Southcentral Foundation engaged in 'deep listening' of the stories and expectations of customer–owners and employees in focus groups, interviews, surveys, meetings and many other forums.[4,19] Based on the consultation process, they developed a clear vision, mission, key points and operating principles.[19] They determined that their core business was humans and relationships[19] and planned for a system that valued the patient more than the doctor.[15]

The transformation was undertaken by 'intentional design': they started modestly, progressively took over further parts of the health service[4] and consulted constantly with the workforce.[15] There were significant setbacks during implementation, including stress on providers, resignations and retirements; however, in time, primary care 'grew and grew'.[14]

Finally, Southcentral Foundation uses sophisticated data and performance management systems. Their 'Data Mall', which commenced in 2003, is an intranet system that provides real-time feedback and performance data. It can segment out centralised data by clinic, team and provider and so identify both best practice and particular areas for improvement. There are also training and education tools, support for innovation and improvement teams in each division.[18]

Case study 2: the response to human immunodeficiency virus (Australia)

In the mid-1980s, human immunodeficiency virus (HIV) emerged as a major epidemic throughout the world. The Australian response was bold and decisive with the initiation of many effective HIV prevention initiatives and policies. During the mid-late 1980s, the incidence of HIV in Australia declined

steadily, in stark contrast with patterns of HIV in most other countries, and was considered a remarkable public health achievement.[20] Here we examine the key reasons for Australia's relative success.

First, HIV was a new, rapidly emerging and severe threat. It was a risk not only to homosexual and injecting drug-user (IDU) groups, which were affected first, but also to the wider community. This threat to the broader community may have been a major catalyst for federal funding.[21] However, most analysts focus on the public concern, mobilisation and action by 'affected communities' that obliged state and national governments to respond 'quickly, generously and creatively'.[22]

In Australia in the 1970s and 1980s, several politically active groups emerged (women, Aboriginal people, gay and lesbians) so that when HIV emerged in the 1980s, there was 'ingrained' political mobilisation and structures in place.[20,22] This grass-roots activism pressured governments,[22] and many community groups were actually funded directly by the government to educate and provide materials and services to their peers.[21,23]

The Australian response was also creative:

...there evolved a distinctive Australian approach to the disease. We did not follow the usual medical approach to an epidemic disease...[23]

The government funded needle and syringe exchanges and clinical services at gay venues, as well as IDU, sex industry and homosexual peer-based organisations to provide needles and syringes, condoms and education services to their peers.[21]

There was considerable resistance to the government funding such radical and controversial programs. In the 1980s, Australians were not accustomed to frank public discussion of 'prostitution, anal sex and illicit drug use'.[22] The federal health minister at the time was prepared to depart from conservative political practices and consult with and include representatives of affected groups, such as male homosexuals, on national working parties and committees.[21] Several states also acted decisively. Political actions ensured a coordinated national approach, including the establishment of political structures that helped build broad parliamentary and public understanding and acceptance of the need for sometimes controversial measures.[22] As the federal health minister at the time later recalled, 'it was not easy and it was controversial all the way'.[23]

Case study 3: mental health services (UK)

During the past three decades, mental health services in the UK have undergone a radical shift from institutional care (asylums) to community-based care. Specifically, there were three main phases: (1) the de-institutionalisation of asylums; (2) the development of care coordination and community service systems; and (3) the development of diversified services and delivery to meet local needs.[24]

As in the other case studies, the previous system of care was very poor. There was vocal public and professional concern about the detrimental effect of long-term institutional care, and many well-publicised instances of neglect and ill-treatment in asylums. Institutional care was also seen as being financially unsustainable. At the same time, there was significant progress

in pharmaceutical management, whereby mental illness could increasingly be treated rather than just contained, which greatly facilitated community-based care. Together, these factors are regarded as the impetus for change.[24]

There were then several early failed models of care, seemingly unsuccessful because they merely shifted the setting, creating institutionalised community care. Later models recognised that complete redesign of the entire system was required: innovations across service delivery, staff roles and financial models. In service delivery, case management was implemented, with care coordinators, multidisciplinary teams and individualised care plans, but with the flexibility for local providers to innovate depending on local geography and requirements.[24] There was a culture change in staff roles such that consultants led new multidisciplinary teams in a model of distributed responsibility. New types of workers assumed more support work, allowing professional staff to extend their skills and take on more responsibility (e.g. prescribing). It has been found that staff are more satisfied with this collaborative approach.[25] Finally, novel financial structures were needed to facilitate the change.[24]

As in the previous cases, authors commented on the requisite leadership. A change process of this scale is not linear and requires high-quality, stable leadership in order to manage unexpected demands and challenges. Further, national and regional networks for sharing learning and support were useful. Finally, at different stages, political leadership was also important.[24]

Case study 4: the Veterans Health Administration (USA)

In the final case study, we reflect on the remarkable story of the Veterans Health Administration (VHA).[26] In the 1990s, the VHA was described as increasingly dysfunctional, notorious for providing, 'fragmented and disjointed care, which was expensive, difficult to access, and insensitive to individual needs.'[27] From 1995 to 1999, the VHA was systematically re-engineered and transformed into a healthcare system for veterans recognised for its high-quality, patient-centred care. It is now considered among the best in America.[26,27]

As in the other case studies, the preceding healthcare system was very poor: it 'had to change'.[28] In this context, the incoming Under Secretary for Health and his management team developed a clear and strategic vision for change. They carefully cultivated a sense of urgency because of the risk that if the VHA did not change, it would become obsolete.[28] They published and distributed to staff a series of documents entitled 'Vision for change' and 'Prescription for change', which identified the problems and set out the solutions.[27,28] From the outset, they involved frontline clinicians in the planning and integration[27] and communicated constantly about the rationale for and progress of change.[26]

The changes were transformative. The operational structure transitioned from one that was hospital and clinic based into a series of regional integrated service networks.[28] The networks were both the funding and accountability units for performance measures. Although there was clear specification of the overall objectives, the decentralisation of authority to these regional networks for daily operational decisions meant that senior network leaders could be held accountable for progress.[27,28] This greatly improved the timeliness, quality and accountability of decisions.[27]

Although these were significant achievements, much of the literature about the VHA focuses on the importance of their electronic health records (EHR). The VHA EHR operate across the entire system, storing data, providing real-time error checking and clinical decision support, as well as performance data, and being the mechanism for optimising and standardising clinical practice. The VHA EHR have been described as among the best in the country.[28] One author asserted that:

> ...while other, related considerations – governance, time, funding and politics – combined to cause the VA's success, the IT solution was the key.[29]

These changes resulted in in-patient admissions falling by more than 350 000 a year[30] and a seminal 2003 study finding that the department outscored Medicare's fee-for-service program for the quality of preventive, acute and chronic care.[31] The VHA was subsequently described as 'an innovative transformation that is among the most profound of any organisation in American history'.[32]

Discussion

In the past decade, several papers from the USA have addressed transformational change in healthcare.[8,10] Although our findings are broadly consistent with these papers, the present article examines more diverse, international case studies, including two that, in our view, are the most ambitious and recent examples of transformational change in healthcare. The following discussion summarises the common themes that have arisen from this review and then considers in more detail the issues around leadership and complex systems.

The first observation is that in three of the four case studies the preceding system was very poor and, in the remaining case (the Australian HIV response), there was a severe threat to the broader community. That is, repeatedly, there was a clear impetus for change. This was also identified in one of the reviews from the USA.[10] Following from this, a well-communicated narrative (with evidence-based arguments) about why change is needed[24] and a clear vision of how things will be different, is necessary.[27]

In most cases there was also exceptional engagement and consultation with patients and staff. Southcentral Foundation, which completely redesigned its system around the needs and expectations of its customer–owners and then worked closely with staff to achieve it, is the best example. Most of the others had a similar focus; for example, 'there is no such thing as too much communication about the proposed changes'.[27] In the mental health services case study in which there was relatively poor communication, it was recognised that a better understanding was needed of professional resistance to change and a greater willingness to work with this group:

> There is a fine line between resolute leadership...and an overly directive approach to achieving change.[24]

As noted by several authors, a key advantage of this approach is that practitioners themselves often provide ideas and leadership and can be usefully engaged in problem solving.[10,25]

Another recurring theme is performance management. Most authors, both in the present and previous studies, agree that an overarching vision for change is required, but this must be combined with clear delineation of responsibility and appropriate performance measures and incentives.[8,10,27] This includes financial accountability:

> Alignment of finances with desired outcome is essential in any change effort.[27]

Notably, in all four cases, radical redesign of the entire system was necessary. In the examples of both Southcentral Foundation and mental health services, partial changes or those that occurred within the existing system largely failed, and it was not until complete ownership was assumed (Southcentral Foundation) and new models of care were developed (mental health services) that the desired health outcomes were achieved. Indeed, it could be argued that the most comprehensive redesign (Southcentral Foundation) also achieved the most remarkable health improvements.

It should be also noted that in several cases (Southcentral Foundation and VHA), the system redesign was greatly facilitated by sophisticated data management. Integrating health information communication technology into practice is requisite for system redesign.[8]

Leadership, including that from or within governments, was discussed frequently and three main themes emerged.[1,21–24,26–28,32] First, leaders must be focused on the end goal (quality of care) above all else,[10,32] not be distracted by situational circumstances and have the capacity to manage unforeseen problems.[27] Second, the qualities required for effective leadership are changing. Traditionally, leaders exerted power to create change through the 'dominant' approach of positional (hierarchical) authority. However, in the new world, power increasingly comes from connecting with people and the ability to influence networks, a focus on shared purpose and a commitment to a common cause. Modern leaders in healthcare need to be able to operate across both.[1]

Third, leaders need to be able to understand and work in complex systems. It was noted that health organisations are complex adaptive systems and that trying to change them 'creates unexpected dynamics and changes elsewhere'[24] and that 'a complex adaptive systems perspective can facilitate change efforts, as organisations, stakeholders and interventions often act in unexpected ways'.[8] One group asserts that these skills should also be required of senior clinicians.[25] The Under Secretary for Health of the VHA certainly attributed their success to the science of working in systems and teams: 'The achievement is more sociological than technological.'[30]

Finally, it became clear throughout the course of this review that transformation is a process of continual evolution.[24] High-performing organisations were those that created continuous learning organisations with iterative changes being sustained and spread across the system.[8,10] In addition to the other factors discussed, it is this culture of 'openness to the future' of organisations (such as Southcentral Foundation) while staying true to their values that makes them exemplars of transformational change.

Competing interest

The authors declare they have no conflicts of interest.

References

1   Bevan H, Fairman S. The new era of thinking and practice in change and transformation: a call to action for leaders of health and care. United Kingdom NHS Improving Quality. Leeds: UK Government White Paper; 2014.

2   Sustainable Development Unit. Carbon footprint update for NHS in England 2012. Cambridge, United Kingdom Sustainable Development Unit; 2013.

3   Hanlon P, Carlisle S, Hannah M, Lyon A. The future public health. Maidenhead, UK: Open University Press 2012.

4   Hannah M. Humanising healthcare: patterns of hope for a system under strain. Axminster, UK: Triarchy Press; 2014.

5   Schroeder K, Thompson T, Frith K, Pencheon D. Sustainable Healthcare. Chichester: Wiley-Blackwell, BMJ Books; 2012.

6   Ratnanesan A, Howarth P. Future solutions in Australian healthcare. White paper: innovative ideas and strategies for sustainable healthcare. Sydney: Energesse; 2014.

7   Corrigan P, Parish M. Going with change: allowing new models of healthcare to be provided for NHS patients. London: Reform Research Trust; 2014.

8   Doebbeling BN, Flanagan ME. Emerging perspectives on transforming the healthcare system: redesign strategies and a call for needed research. *Med Care* 2011; 49(Suppl): S59–64. doi:10.1097/MLR.0b013e31821b57eb

9   Ham C. Reforming the NHS from within: beyond hierarchy, inspection and markets. London: The King's Fund; 2014.

10 Van Deusen Lukas C, Holmes SK, Cohen AB, Restuccia J, Cramer IR, Shwartz M, Charns MP. Transformational change in health care systems: an organizational model. *Health Care Manage Rev* 2007; 32: 309–20. doi:10.1097/01.HMR.0000296785.29718.5d

11 Graves B. Lower costs and better outcomes: a system of care built on relationships. *BMJ* 2013; 347: f5301. doi:10.1136/bmj.f5301

12 Yin RK. Enhancing the quality of case studies in health services research. *Health Serv Res* 1999; 34: 1209–24.

13 Ritchie J. Not everything can be reduced to numbers. In Berglund CA, editor. Health research. Melbourne: Oxford University Press; 2001. pp. 149–73.

14 Driscoll DL, Hiratsuka V, Johnston JM, Norman S, Reilly KM, Shaw J, Smith J, Szafran QN, Dillard D. Process and outcomes of patient-centered medical care with Alaska Native people at Southcentral Foundation. *Ann Fam Med* 2013; 11(Suppl 1): S41–9. doi:10.1370/afm.1474

15 United Kingdom NHS Fife and International Futures Forum. Shining a different light: a report on the visit of Southcentral Foundation to NHS Fife. 2010. Available at: http://www.internationalfuturesforum.com/publications [verified 17 June 2015].

16 Gottlieb K. The Nuka system of care: improving health through ownership and relationships. *Int J Circumpolar Health* 2013; 72: 21118.

17 Eby D. Dr Doug Eby on integrated healthcare design. Online Vimeo. 2013. Available at: https://vimeo.com/58727522 [verified 17 June 2015].

18 Our People, Our Strength. Southcentral Foundation 30-year report. Anchorage: Southcentral Foundation; 2012.

19 Gottlieb K, Sylvester I, Eby D. Transforming your practice: what matters most. *Fam Pract Manag* 2008; 15: 32–8.

20 Plummer D, Irwin L. Grassroots activities, national initiatives and HIV prevention: clues to explain Australia's dramatic early success in controlling the HIV epidemic. *Int J STD AIDS* 2006; 17: 787–93. doi:10.1258/095646206779307612

21 Hulse GK. Australia's public health response to HIV and HCV: a role for 'affected' communities. *Drug Alcohol Rev* 1997; 16: 171–6. doi:10.1080/09595239700186461

22 Bowtell W. Australia's response to HIV/AIDS 1982–2005. Sydney: Lowy Institute for International Policy; 2005.

23 Blewett N. World AIDS Day memorial service speech. 2013. Available at: https://www.youtube.com/watch?v=REv6oC1jYUE [verified 17 June 2015].

24 Gilburt H, Peck E, Ashton B, Edwards N, Naylor C. Service transformation: lessons from mental health. London: The King's Fund; 2014.

25 Vize C, Humphries S, Brandling J, Mistral W. New ways of working: time to get off the fence. *Psychiatr Bull* 2008; 32: 44–5. doi:10.1192/pb.bp.107.016279

26 Fooks C, Decter M. The transformation experience of the Veterans Health Administration and its relevance to Canada. *Healthc Pap* 2005; 5: 60–4. doi:10.12927/hcpap..17388

27 Kizer KW, Dudley RA. Extreme makeover: transformation of the Veterans health care system. *Annu Rev Public Health* 2009; 30: 313–39. doi:10.1146/annurev.publhealth.29.020907.090940

28 Perlin JB. Transformation of the US Veterans Health Administration. *Health Econ Policy Law* 2006; 1: 99–105.

29 Anderson M. Lessons learned from the Veterans Health Administration. *Healthc Pap* 2005; 5: 30–7. doi:10.12927/hcpap..17380

30 Payne D. Culture change matters more than technological change, US healthcare expert tells integrated care summit. *BMJ* 2012; 344: e3178. doi:10.1136/bmj.e3178

31 Jha AK, Perlin JB, Kizer KW, Dudley RA. Effect of the transformation of the Veterans Affairs health care system on the quality of care. *N Engl J Med* 2003; 348: 2218–27. doi:10.1056/NEJMsa021899

32 Kizer KW, Pane GA. The 'new VA': delivering health care value through integrated service networks. *Ann Emerg Med* 1997; 30: 804–7. doi:10.1016/S0196-0644(97)70053-2