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Corresponding Author:

Paresh Dawda
Department of Health Services Research & Policy,
Building 62A, Mills Road,
Australian National University,
Acton ACT
Australia
paresh.dawda@anu.edu.au

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SUMMARY

Health care, particularly primary care, is being delivered in an increasingly complex environment. The expectations of consumers, funders and policymakers are growing; the demographics and complexity of clinical care are changing as a result of multi-morbidity and poly-pharmacy; and funding sources are increasingly limited. Jugaad is a colloquial Hindi word that translates as “*an innovative fix; an improvised solution born from ingenuity and cleverness.*” Jugaad (frugal) innovators share a set of principles that allow them to innovate solutions despite the complexity and challenges of the environment. Applying those principles in primary health care may complement strategies used by leaders to meet the challenges of the changing healthcare landscape.

Key Words

Innovation; change management; primary care

In early 2016, while attending a European healthcare conference, I was inspired by a keynote presentation delivered by Prof Jaideep Prabhu from the Judge Business School in Cambridge, UK. He spoke about ‘jugaad’ (frugal) innovation and illustrated the concepts with examples and stories of innovators, mostly from emerging economies like India. Jugaad is a colloquial Hindi word

that translates as “*an innovative fix; an improvised solution born from ingenuity and cleverness.*”¹ The presentation left me reflecting on what role jugaad innovation may have to play in the rapidly changing primary care environment. This editorial is a synthesis of my reflections, but the principles may be applied more broadly in health care, and to the problems of fragmentation and the lack of integration that most developed health and social systems are struggling to resolve.

Healthcare systems in developed nations are striving to achieve four main goals; namely, to improve outcomes of care, improve the patient experience, increase the joy of working for staff, and achieve all of this at the same or lower unit cost. The increased spending on health care, together with changing population demographics that include an ageing population with greater prevalence of chronic medical conditions and multi-morbidity, requires care to be delivered differently. Current models of funding and delivering care are suboptimal. Furthermore, growing financial pressures in developed nations’ health systems are creating a sense of urgency. For example, the United Kingdom’s National Health Service (NHS) is facing a decade of austerity measures² and estimates anticipate a funding gap of £30 billion a year by 2020.³

As suggested in the same *Financial Times* article,³ the issues are international but a comparatively high proportion of public money spent on the NHS means its experiences are more visible than those of many other health systems. Australia is no exception, and there are several health reforms underway. There is a review underway of more than 5,700 items on the Medicare Benefits Schedule (MBS) with a focus said to be on improving outcomes rather than savings;⁴ however, at the same time there is a freeze on MBS indexation until July 2020, and alternative bundled payment models are to be piloted for those with complex and chronic medical conditions beginning in July 2017.

In health care, innovation is widely discussed and expected. Innovation has many definitions, one of which is “doing things differently, and doing different things to create a step change in performance”.⁵ The step change is important because it challenges the culture of the organisation or system in which the innovation takes place.

Investment for innovation in health care is substantial. The United States federal government’s investment in research and development in health care is only second to defence research and development; however, the impact has been variable.⁶ Many factors influence innovation in health care. Multiple stakeholders or players is one of those factors, and competing priorities add to the challenges. Another barrier is funding to facilitate innovation and is often complicated by multiple third-party payers, which may or may not also include the end user (consumer). Policy and regulations can create roadblocks to innovation. Consumers are expecting better patient experience and outcomes of care and healthcare providers are required to be more accountable. At the same time, overall funding pressures on health care are creating a sense of urgency.

Organisations and start-ups in emerging markets face such challenges all the time and despite those pressures, there are multiple examples of innovation in such markets. Understanding the mindset of those innovators and their approaches to overcome the constraints offers an opportunity to rise to the challenges being faced in healthcare delivery in countries like the US, the UK, and Australia. Researchers have observed and studied these innovators’ mindset and have coined the term ‘jugaad’ (frugal) innovation.¹ While it has characteristics of innovation as we know it, jugaad innovation also has unique attributes. Most importantly and critically, jugaad is more flexible, responsive, and cheaper than traditional research and development programs. Prabhu and colleagues have described six principles that characterise jugaad innovation:¹

- **Seek opportunity in adversity** – adversity is reframed as a source of innovation;
- **Do more and better with less** – illustrated by a high degree of resourcefulness in the face of scarcity working within available resources;

- **Think and act flexibly** – status quo is constantly challenged through non-linear thinking that explores all options for transformative changes;
- **Keep it simple** – creative simplicity is a core philosophy aiming for good enough solutions that are subsequently improved on rather than perfection and over-engineering;
- **Include the margin** – actively seeking to serve underserved or marginal customers and add value by using processes such as co-creation; and
- **Follow your heart** – emotional intelligence using intuition, empathy, and passion is a guiding principle.

In primary healthcare these principles can be applied to the resourcing of an innovation, the innovation itself (such as a novel service delivery model), or in a technology or product that is used during service provision.

An excellent example of this approach is illustrated by the Chunampet Rural Diabetes Prevention Project,⁷ an innovative diabetes program in India. Diabetes in India is a growing problem with more than 62 million people suffering with type 2 diabetes and the prevalence of undiagnosed diabetes is thought to be even greater than this.⁸ Rural India receives woefully inadequate medical services even though 70 percent of the population lives in rural areas. Much of the rural population lives below the poverty line, which makes it enormously challenging to deliver high-quality, accessible, and equitable care.

However, the Chunampet project⁷ overcame this with a tele-diabetology van equipped with basic diagnostic facilities and video-conferencing equipment connected by a satellite dish to a tertiary diabetes care centre. The workforce comprised trained technicians/optometrists and unemployed youth put through a focused training program after recruitment. Ophthalmologists and podiatrists remotely reviewed screening images of foot and retinal scans, and endocrinologists produced care plans following video consultations. Local volunteers helped with follow through of the care plan. Where necessary, care was escalated to regional centres or a tertiary centre. It was provided either free of charge or heavily subsidised.

The setup of these services employs all the jugaad principles:

1. The collaboration with Indian Space Research Organisation to secure free communication in the most remote areas where neither mobile nor wireless services were available—an example of thinking and acting flexibly and doing more with less through collaborative partnerships.
2. The use of local workforce with highly focused training creating employment opportunities for some, and for others, an opportunity to become part of a volunteer workforce fuelled by intrinsic motivation and a shared purpose (follows the heart and creates multiple win-wins).
3. A simple and flexible service set up to optimise use of local resources to an underserved population (includes the margin).

During a recent visit to the US, I visited three different organisations operating community health centres. All of them were dealing with complexities of service delivery models in their efforts to provide accessible services to populations that could not afford to receive care through the usual channels. One observation of the jugaad mindset is that it typically services a deprived market. Each of the aforementioned US organisations had complexities of multiple payers and a constant threat that policy change and direction may lead to destabilisation. None of the organisations were motivated by profits, but by a deep passion to make a difference in their communities. They were cognisant of the need for revenue, but money was not their driver, and hence they found unique ways of making the constraints work for them rather than against them. For example, one centre had a business model that provided cross-subsidisation where a profitable pharmacy business's profits subsidised the more expensive clinical services.

The development of the service models provided bottom-up solutions by spending time in the field rather than in research and development labs trying to perfect the model. Common to the development of all the models was a focus on getting good enough solutions and using a flexible trial and error approach to improving upon those solutions. Within their structures, the three organisations had embedded roles to proactively plan for the unexpected. For example, one of the centres had a

director of innovation and transformation, whose role was to scan the horizon for changes that may impact the center's model of care and proactively respond to those changes.

Jugaad innovators' stories are inspiring. The challenges facing primary health care include meeting growing expectations of consumers, funders, and policy makers. There is tremendous drive to improve quality and safety, improve consumer experience, provide more personalised care, have shared decision making, reduce over-treatment but avoid under-treatment—all within an environment of limited funding, fragmentation with lack of clinical and professional integration, changing demographics, and increasing complexity of multi-morbidity and poly-pharmacy.

There is no doubt that the world of primary care is full of complexity, but so is that of the jugaad innovator. Perhaps it's time for primary care leaders to adapt a jugaad mindset, as a complimentary strategy, and in doing so, guide the development of future models of care.

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