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Stewardship Actions for Market issues in the National Disability Insurance Scheme: A Review of the Evidence

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Abstract

As the Australian National Disability Insurance Scheme (NDIS) progresses through its implementation, calls for stewardship of the new disability market increase. As a personalisation scheme, the condition of the disability service markets are tied to the ability for people with disability to access care services. Market conditions such as thin markets, market gaps and market failure threaten the public policy goals of increased choice and control for NDIS participants. We review the evidence for interventions and other market stewardship actions that can be taken by government to steward a quasi-market that provides care or welfare services. We assess the breadth and quality of the evidence base and apply these findings to the case of the Australian NDIS. We conclude that there is sufficient evidence to take actions to steward the NDIS market, but that considerable resources and governance capacity are needed to do so.

The National Disability Insurance Scheme is widely regarded as one of the most ambitious reform agendas in recent Australian history. Internationally, it is part of a growing trend towards 'personalised' care, where individuals have more say in the design and type of supports they receive from government (Needham, 2010). While the NDIS promises to improve the lives of more than 400 000 Australians with a disability and their families (Productivity Commission, 2011), the scheme has been marred by a range of implementation challenges (ANAO, 2016; Carey et al., 2017a, 2017b; Productivity Commission, 2017). In particular, there has been much concern over thin markets and market gaps (Carey et al., 2017a; Joint Standing Com¬mittee on the NDIS, 2018; NDIA, 2016a; Productivity Commission, 2017, 2011). Under the choice-of-provider model adopted by the NDIS implementers, meaningful choice and control for participants depends on local 'market structure,'. That is, the availability of multiple, competing providers. Market deficiencies, such as 'thin' markets and market gaps, therefore threaten the public policy goal of increasing choice and control for people with disability (Carey et al., 2017c). More broadly, they present challenges for equity; individuals in particular geographic areas or with less common needs may receive poor quality services or no service at all (Carey et al., 2017c).

In response to growing concerns over the development of markets within the NDIS, key bodies such as the Productivity Commission and the National Disability Insurance Agency (NDIA) have begun discussing the need for 'market stewardship' (NDIA, 2016a; Productivity Commission, 2017). Market stewardship broadly refers to efforts to address market deficien-cies, such as thin markets, market gaps or other market failures, and is also known as market shaping (Carey et al., 2017a; Gash et al., 2013). While the need for market stewardship is widely recognised, in the scheme design it is clearly envisioned that the National Disability Insurance Agency (NDIA) will *only* intervene when it can be demonstrated that market failure has occurred (Productivity Commission, 2011). This poses difficult questions about how the NDIA can detect market deficiencies and what strategies it can use to address them. It also means the NDIA must attempt market stewardship before commissioning services to address market gaps. In this paper we draw together the international literature on effective quasi-market interventions in order to shed light on this problem. We analyse interventions that have been

effective or have theoretical promise internationally and determine their applicability to the NDIS context.

Background

Markets have become a common feature of public sector service provision internationally (Cutler and Waine, 1997; LeGrand and Bartlett, 1993). So-called 'quasi-markets' proliferated under new public management approaches to public service provision – a paradigm that emphasises the use of market philosophies and business sector practices in the delivery of government funded services (LeGrand and Bartlett, 1993; Osborne, 2010). Proponents of new public management argued that markets could deliver services more efficiently than government; through competition governments can improve service quality while reducing costs (Girth et al., 2012; LeGrand and Bartlett, 1993). Supply-side factors have been accompanied by demand-side drivers including the desire to give citizens a greater choice in the design and delivery of the services they utilise (Girth et al., 2012). Markets, it has been argued, give citizens greater choice through facilitating services provision by a diverse range of providers (rather than one government provider) (LeGrand, 2007).

In recent years, traditional market mechanisms such as voucher systems, that are familiar to social welfare history, has emerged under the guise of 'personalisation' programs. In personalised schemes, users 'purchase' services that meet their needs (in some cases via vouchers rather than budgets) (LeGrand, 2007; Needham and Glasby, 2015; Williams and Dickinson, 2016). The trend towards personalisation has occurred in the UK, Germany, Scandinavia and the Netherlands, amongst others (Askheim, 1999; Askheim et al., 2014; Brennan et al., 2017). One aim of the personalisation agenda is to move away from a 'one size fits all' service model, to a situation where citizens can choose services that best meet their needs – sometimes referred to as 'particularism' (Anttonen, 2012; Carey and Crammond, 2017). Another goal is to remove the split between purchasers and consumers of services that is the defining characteristic of 'quasi-markets', in the hope of encouraging end-users to ration or 'trade off' services to achieve their most-valued goals (Productivity Commission, 2011).

Australia has recently embarked on one of the most ambitious personalisation schemes in the form of the National Disability Insurance Scheme. Under the NDIS, a AU $22 billion scheme, approximately 460 000 individuals who have a significant and permanent disability will receive personalized funding budgets (Collings et al., 2016; Productivity Commission, 2011). The scheme will be fully implemented across Australia by 2020, including in urban, rural and remote localities and across a diverse range of disability types and ages (Collings et al., 2016; Productivity Commission, 2011). Under the new model individuals are given funding packages, determined by their level of need and self-defined goals, with which to purchase services (Productivity Commission, 2011). While personalised budgets have been used in other countries, the Australian experience differs in several important ways.

The NDIS has been designed as a market system from the ground-up, rather than introducing an element of competition into existing funding arrangements. It is not one market for a single broad type of service, but rather a complex structure of markets for different supports. The scheme covers all people with significant and permanent disability and aims to cover all their reasonable and necessary support needs (other than those covered by public or private insurance schemes or Australia's universal health system). This complex market structure may produce hidden market deficiencies, such as market gaps (a lack of meaningful alternatives) and thin markets (economically inefficient markets). As a national scheme, its geographical reach is considerable, presenting unique challenges in responding to needs of participants in regional and remote areas. There is no easily accessible block-funded alternative for participants with more complex needs, a feature in many personalised care schemes in countries such as the UK (Carey et al., 2018a; Malbon et al., 2018). Under the design of the scheme, the NDIA can only intervene to commission services where market failure has been demonstrated. Finally, the NDIS uses fixed prices and actuarial modelling in the allocation of resources to citizens, conducted through a federally owned statutory agency – the National Disability Insurance Agency (Productivity Commission, 2017, 2011). This means that interventions and potential levers are different in the NDIS than international counterparts.

Despite the growth of public service markets in various forms, problems persist (Lowery, 1998). Many examples of monopolies, market gaps or other market failures have emerged, from childcare (Sumsion, 2012) to employment (Considine and O'Sullivan, 2015), and disability (Needham, 2013). As a result, there is growing interest internationally in determining the most effective ways to intervene in public service markets (personalized or other) through 'stewarding' or 'market shaping' efforts (Trevor L. Brown et al., 2006; Cogan et al., 2005; Gash et al., 2013; Girth et al., 2012; Hudson, 2015; Scotton, 1999). In their

seminal work on the topic, Gash and others (2013) outlined a range of principles for market stewardship:

- Engage closely with users, provider organisations and others to understand needs, objectives and enablers of successful delivery
- Set the 'rules of the game' and allowing providers and users to respond to the incentives this creates
- Constantly monitoring the ways in which the market is developing and how providers are responding to these rules, and the actions of other providers
- Adjust the rules of the game in an attempt to steer the system (much of which is, by design, beyond their immediate control) to achieve their high-level aims (Gash et al., 2013, p. 6)

While these principles are informative they tell us little about the actual practice of market intervention (i.e. what specific actions do government agencies take to shape the market). Hence, there is a need to expand on these principles through identifying and/or determining specific stewardship actions.

Methods

We searched both the peer-reviewed and grey literature in order to understand what market-shaping activities have been tried and detect patterns in what is, and is not, effective. We took a thematic approach – synthesizing qualitative insights from empirical case studies (Dixon-Woods et al., 2005). Thematic approaches to meta-analysis seek to uncover concepts and their meanings from the data (rather than pre-determining them), using interpretive approaches to ground the analysis in that data (i.e. existing studies). Thematic approaches are useful for hypothesis generation and explanation of particular phenomena, though provide less of a picture of the context and quality of the individual studies that comprise the review (Dixon-Woods et al., 2005).

The review sought to answer the questions:

What thin market interventions in social care have been shown to be effective?

What different attempts have been made to intervene in thin social care markets?

Searches were run in the following databases: Google, Google Scholar, HMIC, Medline, Assia Proquest, EBSCO, Social Care Online, Social Sciences Citation Index, Sociological Abstracts EMBASE, ISI Citation Index. The following search strings were used:

- (Thin market OR market gap OR undersupply OR underserv* OR market failure OR asymmetry) AND (care OR quasi-market OR quasi market)
- (Market stewardship OR market shaping OR market levers OR market management) AND care)
- (Personalisation OR personal* care OR personal* budgets OR individual service funds OR individual* care OR individual* budget) AND market
- (interven* OR stewardship OR management) AND (quasi-market OR quasi market OR public service market OR care market OR employment market)

Inclusion criteria were: publication between 1990-2018 (selected on the basis of market reforms commencing in 1990), empirical research, published in English and meets the criteria for relevance or rigour. Articles that did not meet the criteria for relevance or rigour were excluded:

relevance – whether it can contribute to theory building and/or testing; and

rigour – whether the method used to generate that particular piece of data is credible and trustworthy.

In total, 675 sources were identified and 63 met our selection criteria (see Fig. 1 and Table 1). Sources were coded qualitatively, with insights into what interventions were tried to address which market gaps extracted. Eight of these papers were 'intervention research', which sought to understand the effectiveness of a specific market intervention. The remaining empirical research was not specifically focused on determining the outcomes of market shaping activities but nonetheless provided important insights. Given the small number of empirical sources, commentary and/or theoretical contributions were also analysed for potential market interventions. These are presented and discussed separately in this paper. The papers examined a wide variety of market areas (health, education, social care) and approaches (i.e. contract and commissioning, personalisation).

Once data extraction was complete, findings were analysed against the NDIA's statement on 'Market Opportunity and Intent' (NDIA, 2016b), which outlines potential stewardship responsibilities and governance. The report provides an overview of how markets within the NDIS will ideally function (see Fig. 2). Stewardship activities identified in the literature were mapped against these market goals

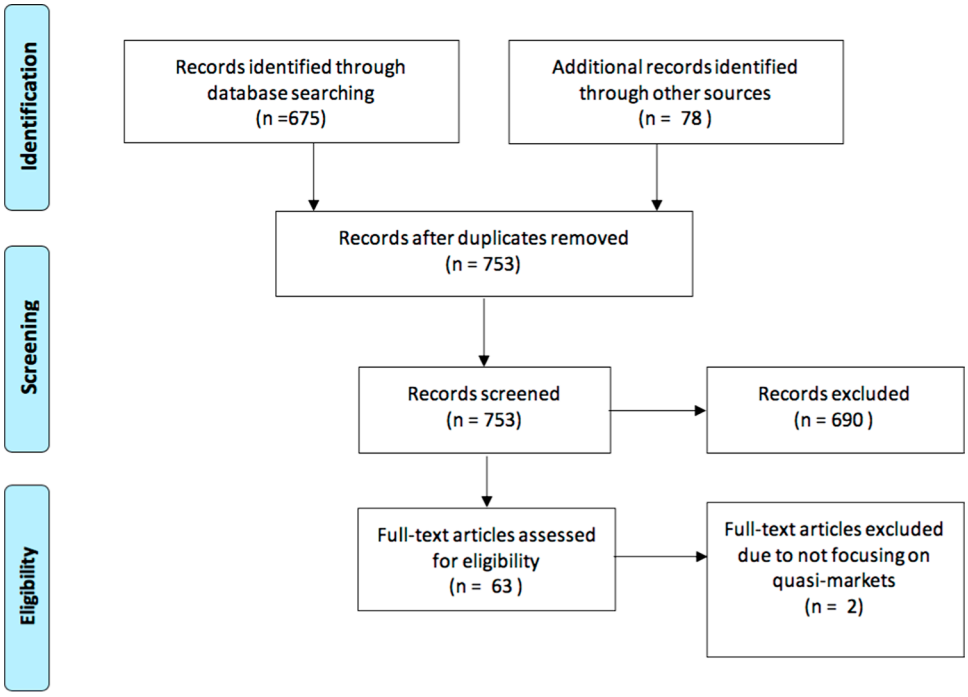

Figure 1: Prisma diagram of search results.

in order to identify ways in which government could steward markets in accordance with particular aims. An additional category was added – stewardship activities that were aimed specifically at addressing equity. This was added because of growing concern around equity in the scheme.

Quality of Evidence

Findings from the research are summarised in Table 2. To construct the table, stewardship activities were analysed against the goals of the NDIS markets (NDIA, 2016a), and where corresponding evidence was not found through the review, cells were left blank. We also added a section on shaping markets for equity. Our analysis took account of the quality of evidence provided, noting where interventions and findings were empirically grounded and where there were non-empirical theoretical suggestions. The literature on care market stewardship activities was too small to focus solely on personalisation markets, hence the findings outlined in Table 1 are drawn from efforts to intervene in any form of quasi-market focused on care. In our discussion of how such approaches could be leveraged within the context of the NDIS, our recommendations attempt to unpack how to adapt stewardship activities within a personalised scheme. However, it is worth noting that stewardship activities (empirical and theoretical) are sourced from a wide range of markets, which is a potential limitation of the study.

Findings

Our review found that information sharing stewardship activities are most often recommended in commentaries about market shaping, with one empirical study to support this (Destler and Page, 2010). Information sharing attempts to address information asymmetry in the market (i.e. where providers do not know levels of demand, or users cannot identify services), and is a very common form of market intervention in non-quasi markets. A wide range of stewardship activities were suggested or trialled to address market asymmetry, from market position statements (Bjornstad and Brown, 2004; Department of Health and Social Care, 2018; Feiock, 2002; Hake, 2016; Institute of Public Care, 2016; Needham et al., 2018), establishment of e-markets (Institute of Public Care, 2016; NDIA, 2016a), provider promotion events (Institute of Public Care, 2016) and open accounting within schemes (Needham et al., 2018). However, we also found that careful attention must be paid to the quality of market position statements and the information provided. If it is not robust, it risks being unhelpful to providers and market shaping efforts will be ineffective (Broadhurst and Landau, 2017).

Table 1. Quality and number of source.

Categories	Number	References
Intervention studies	4	(Baxter et al., 2013; Hotz and Xiao, 2011; Ranerup, 2007; Temple, 2006)
Empirical studies with results pertaining to market shaping	16	(Abbott et al., 2009; Allen and Petsoulas, 2016; Barber et al., 2018; Beach, 2017; Broadhurst and Landau, 2017; Cleveland and Krashinsky, 2009; Cooper et al., 2011; Destler and Page, 2010; Gash et al., 2013; Girth et al., 2012; Iizuka and Uchida, 2017; Kastberg, 2008; Schmidt et al., 2016; Sood et al., 2017; Tibandebage and Mackintosh, 2005)
Non-empirical studies	41	(Ahgren, 2010; Anessi-Pessina et al., 2004; Ardley and Chen, 2017; Australian Parliament Joint Standing Committee on the NDIS et al., 2018; Bagley et al., 1996; Barile et al., 2014; Baxter et al., 2011; Bel et al., 2010; Bennett and Ferlie, 1996; Beresford, 2008; Bergmark, 2008; Bertolin, 2011; Bjornstad and Brown, 2004; Bloom et al., 2014, 2008; Trevor L Brown et al., 2006; Brown and Potoski, 2004; Cogan et al., 2005; Crawford, 2010; Dassiou et al., 2015; Department of Health and Social Care, 2018; Dixon et al., 2003; Feiock, 2002; Girth et al., 2012; Grubb, 2003; Hake, 2016; Hudson, 2015; Institute of Public Care, 2016; Jaworski et al., 2000; Laing and Cotton, 1995; NACA Equity of Access & Outcomes Internal Wokring Group, 2017; National Audit Office, 2012; NDIA, 2016b; Nichols, 2012; Niemietz, 2015; Niklasson, 1996; Pacura, 2014; Penn, 2007; Poterba, 1994; Scotton, 1999)

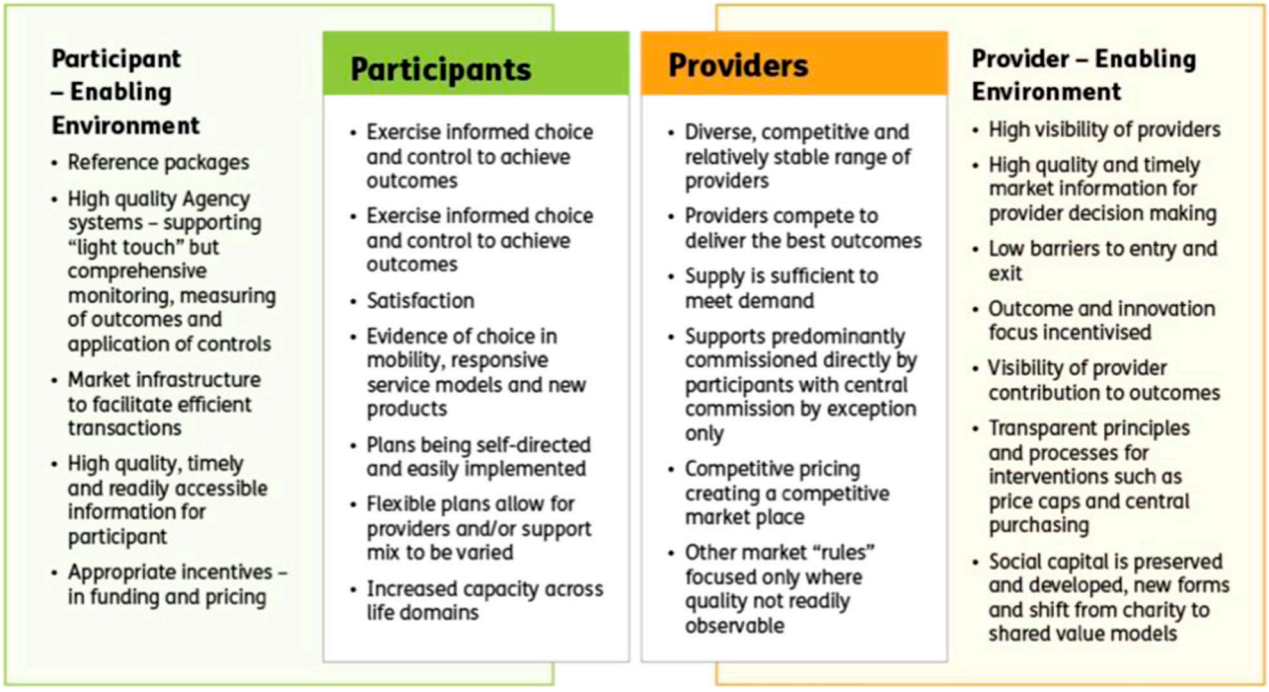

Figure 2: Goals of NDIS markets (NDIA, 2016b).

A number of studies highlighted the limitations of central management of care markets. While not a personalisation market, Temple (2006) provides an important analysis of centralised efforts to direct markets. Temple's study highlights the ways in which the limited market knowledge at the 'top' can mean that efforts to steward markets go awray. In this instance a market gap was identified by government, and providers were incentivised to move into a particular service area through a targeted funding program. However, with its limited information government wrongly identified the gap and demand did not support the new levels of supply generated. The money also had tight timelines on expenditure, which is frequently the case with targeted funding calls. This created inefficiencies in the market which, coupled with low demand, created poor quality services. Temple (2006) argues that a better approach would be to have increased market intelligence and information in order to allow each provider the opportunity to consolidate their own market position.

Issues with central management of quasi-markets also emerged in the area of pricing (Allen and Petsoulas, 2016; Gash et al., 2013). Within the NHS, flexible pricing and decentralisation of authority regarding pricing enabled commissioners to help organisations to re-purpose or shift their services to meet different market demands (Allen and Petsoulas, 2016). This was done by enabling a financial buffer through pricing. While overall this led to a rise in costs, the authors argue that the benefits in terms of market responsiveness and effectiveness were worthwhile. Gash and others (2013) also found that central price setting tends to be at the wrong levels. Rather, given the geographical spread and diversity of needs that quasi-markets are required to service, decentralisation of pricing is likely to enable markets to be more responsive and effective.

The review also identified a range of stewardship activities that could be ineffective or damaging. The most notable is Temple (2006), discussed previously, which offers a warning against central management of quasi-markets. Several other studies found that using third parties to boost choice/control and competition was ineffective (though using brokerage was effective to address issues of equity or niche needs) (Abbott et al., 2009; Sheaff et al., 2013). Providers were found to sometimes compete for brokers or third parties rather than clients (Sheaff et al., 2013). However, one intervention study (Schmidt et al., 2016) found third party brokers to be effective.

We also found instances where stewardship activities complicates other market issues. For example, boosting regulation to deal with quality issues reduced market competition (Hotz and Xiao, 2011). Similarly, when subsidies are offered there is some evidence that providers create services which are not fit-for-purpose (Temple, 2006; Boocock, 2017). Again, this points to the limits of centrally managed systems. Some authors observe that it is difficult for governments to set effective incentives centrally without creating perverse market behaviour or outcomes (Temple, 2006; Boocock, 2017). Similarly, central price setting boosted service quality (as organisations have to compete on the basis of quality, rather than price) (Cooper et al., 2011), while other studies highlighted the importance of flexible price setting for addressing market gaps (Allen and Petsoulas, 2016; Schmidt et al., 2016)

These findings highlight that there is no 'one size fits all' approach to market shaping, or hard and fast rules. With regard to market shaping efforts as a whole, Destler and Page (2010) surveyed local areas undertaking a range of market shaping activities. They found that while overall governments which undertook market shaping activities had some impact statistically, there were no clear patterns regarding types or combinations of stewardship activities and their effectiveness. This research is an important reminder that markets are highly interdependent, and actions need to be responsive to different contexts.

Discussion

In this section we relate our findings to the context of the NDIS quasi-market. The NDIS is a program in active implementation and as such, the market stewardship or shaping actions are part of an emerging and iterative approach, shifting in response to market needs (NDIA, 2016b). Our review initiated a number of suggestions for market shaping for the NDIS quasi-market, particularly for enhancing equity in the scheme.

Price is one of the major levers for market shaping in the NDIS. There is a complicated system of price setting in the NDIS. Firstly, there are different pricing rules depending on the sort of budget administration that a participant undertakes. NDIS budgets can be administered by the participant ('self-managed'), or be managed by the NDIS, or a combination of both (Productivity Commission, 2011). If an NDIS participant is 'self-managed' then they can negotiate prices directly with a service provider, using NDIA prices as a guide. When a participant's budget is administered in conjunction with NDIA the prices are far less flexible and at times fixed (Productivity Commission, 2017). The majority of participants are NDIA managed or co-managed,

Table 2. Stewardship activities and their application to the NDIS.

NDIS Market goal (NDIA, 2016a)	Successful empirical stewardship	Failed empirical stewardship	Theoretical stewardship
Users			
Exercise informed choice and control to achieve outcomes	Use of and funding of brokerage organisations can boost choice and control (Schmidt et al., 2016) Web-based platform to support client decision making (Ranerup, 2007)	Using third party providers was not successful in boosting choice and control (Allen and Petsoulas, 2016). Sheaff (2000) found that brokers tended to work towards the needs of the third party not the client	Skilled independent brokers (Beresford, 2008)
Satisfaction	More regulation boosted quality (but reduced numbers of providers and competition) (Hotz and Xiao, 2011)		Creation of league tables (Bagley et al., 1996; Dassiou et al., 2015)
Evidence of choice through mobility	Web-based platform to support client decision making (Ranerup, 2007) Use of and funding of brokerage organisations can boost choice and control (Schmidt et al., 2016)		Creation of league tables (Bagley et al., 1996; Dassiou et al., 2015) Creation of e-market place and provider promotion events (Institute of Public Care, 2016)
Responsive service models	Demand-side policy that decreases patient sharing costs. Decreasing the cost meant patients sought more services, which drove innovation (Iizuka and Uchida, 2017)		Use information from individual assessments and reviews to build knowledge of market gaps (Institute of Public Care, 2016) Actively solicit bids from other markets/areas (Brown and Potoski, 2004)
New products	Demand-side policy that decreases patient sharing costs. Decreasing the cost meant patients sought more services, which drove innovation (Iizuka and Uchida, 2017) Nurturing and mentoring providers (Girth et al., 2012)		Use financial incentives for innovation (Institute of Public Care, 2016) Create target product/service profiles (i.e. that govt knows there is a demand for and the market can then provide) (Institute of Public Care, 2016)
Plans being self-directed and easily implemented			

Flexible plans allow for providers and/ or support mix to be varied		
Providers		
Diverse, competitive but stable range of providers		Using price to encourage new market entrants (Dassiou et al., 2015) Financial sustainability checks (Hudson, 2015)
Providers compete to deliver best outcomes		
Supply is sufficient to meet demand	Provide consistent information on supply and demand (Schmidt et al., 2016)	Provide consistent information on supply and demand (Bjornstad and Brown, 2004; Department of Health and Social Care, 2018; Feiock, 2002; Hake, 2016; Institute of Public Care, 2016; Needham et al., 2018)
Supports predominately commissioned directed by participants	Web-based platform to support client decision making (Ranerup, 2007)	Creation of e-market place and provider promotion events (Institute of Public Care, 2016)
Competitive pricing creating a competitive market place	Flexible price setting (Allen and Petsoulas, 2016; Schmidt et al., 2016)	
Market rules that boost quality	More regulation boosted quality (but reduced numbers of providers and competition) (Hotz and Xiao, 2011) Fixed prices boost competition over quality (Cooper et al., 2011)	Creation of league tables (Bagley et al., 1996; Dassiou et al., 2015)
Equity interventions (author added)	Additional subsidies for vulnerable groups (Schmidt et al., 2016) Government was able to direct payments to particular geographical areas to build up staff and expertise through increased demand (also supported by providers being able to take clients from anywhere). (Baxter et al., 2013)	Provider of last resort (Joint Standing Committee on the NDIS, 2018) Greater funding given to people in areas of more need. This ultimately reduced quality and can lead to the creation of services that have no demand. Suggesting that decisions should not be made centrally and a decentralised system is needed. (Boocock, 2017) Force organisations take on contracts in different areas (Brown and Potoski, 2004)

with self-managed participants making up just 7% of NDIS participants (NDIA, 2017), meaning that the majority of the NDIS quasi-market operates under fixed prices. Secondly, these prices are set by the NDIS actuaries, a body separate to both the NDIA and to the Department of Social Services. According to the (*NDIS Act*, 2013) expenditures must 'represent value for money' and the 'long term sustainability of the scheme'(*NDIS Act*, 2013) (section 34). As Carey et al. (2018a, p. 4) point out, this means that "the NDIA is not authorised to set prices in response to market issues". Further, many of the stewardship activities examined in our review such as Allen and Petsoulas (2016) and Schmidt et al. (2016), also require there to be flexible pricing arrangements that are responsive to local market conditions. At this stage, it is (at best) unclear whether the NDIS actuaries can take local market conditions into account when price setting, and it is certainly not legislated that they must. We suggest expanding the criteria for price setting in the NDIS Act (2013), or finding another way to ensure that pricing can be responsive to local market failures and thin markets. This could include devolving price setting responsibilities to those with more market intelligence.

In addition to pricing, another major lever for market shaping is information sharing about local quasi-market conditions (supply and demand information). Our review found empirical work by Destler and Page (2010), in the context of thin market management for autonomous schools, which demonstrated positive impacts when information sharing about market conditions. Further, much theoretical work supported information sharing in quasi-markets (Bjornstad and Brown, 2004; Department of Health and Social Care, 2018; Feiock, 2002; Hake, 2016; Institute of Public Care, 2016; Needham et al., 2018). In line with theory and empirical research, the NDIS could release data or more detailed position statements on supply and demand at a local level across Australia (i.e. LGA level nationwide). This will enable service providers to position themselves to meet gaps in the market where service provision is dangerously low or absent. There has been concern that such detailed market position statements will pave the way for 'profiteering' providers, so we recommend coupling detailed market position statements with powerful regulation over the quality of service provided through the NDIS Quality and Safeguard Commission.

Information sharing about market conditions is not possible if the data on market conditions in the NDIS is not being collected. While the trials of the NDIS included a full evaluation by Mavromaras et al. (2018) (of some market conditions, but also of equity in access and qualitative responses from participants, providers and other stakeholders), the national scheme has no government funded independent processes for monitoring and evaluation beyond financial oversight (Carey et al., 2018a). This presents issues for market stewardship, but also for external and democratic scrutiny of the scheme. Currently, the NDIS participants that are missing out on their NDIS supports because they cannot secure services are uncounted (Joint Standing Committee on the NDIS, 2018). This gap in data collection, or transparency of data, in the NDIS presents major barriers to increased information sharing, something we know is crucial for shaping robust quasi-markets.

Market shaping must go beyond ensuring minimum protections and efficient use of resources and extend to ensuring that public good is fairly distributed. As a national policy, the Australian federal government is ultimately accountable for maintaining equity of access to the NDIS (Malbon et al., 2019; Malbon et al., 2016). Simultaneously, we also know that problems of equity in access are arising in many areas of the NDIS (Carey et al., 2017; Mavromaras et al., 2018). In our review a number of stewardship activities were tested or suggested for increasing equity in quasi-markets (Baxter et al., 2013; Boocock, 2017; Brown and Potoski, 2004; Schmidt et al., 2016). The recommendations from these papers include:

- Additional subsidies for vulnerable groups (Schmidt et al., 2016)
- Government was able to direct payments to particular geographical areas to build up staff and expertise through increased demand (also supported by providers being able to take clients from anywhere). (Baxter et al., 2013)
- Provider of last resort (Joint Standing Committee on the NDIS, 2018)
- Greater funding given to people in areas of more need (Boocock, 2017)
- Force organisations take on contracts in different areas (Brown and Potoski, 2004)

Not all of these stewardship activities are appropriate for the NDIS system. For example, additional subsidies for vulnerable groups is more difficult to operationalise than additional payments for providers who provide service to more vulnerable (and potentially more resource intensive) NDIS participants. Similarly, additional funding in transport budgets for people living in remote and regional areas is necessary (Carey et al., 2017c). Our review also indicates that the newly established Quality and Safe Guards Commission must have the power to

respond to complains about service quality. This would mean the creation of a formal process and method of recourse between the Commission and the NDIA, which could require revisions to the NDIS Act.

We find that it may be useful to think of NDIS funds as a set of 'vouchers' that can only be used to fund specific care and support activities, rather than a traditional marketisation system. This is true in the sense that NDIS funds may only be spent on NDIS approved activities and providers. We note that rules around NDIS funds are more flexible for 'self-managed' NDIS participants (12% of participants) who may choose to pay a service provider whether the provider is registered with the NDIS or not, and at a price negotiated between the provider and client. So while the NDIS is not a 'perfect' voucher system, some direction may be found in the management of markets in voucher systems such as avoiding information failures (Steuerle et al., 2000) as well as the more complex aspects of quality and safeguarding that the NDIA faces (Daniels and Trebilcock, 2005, p. 226):

> …one of the principal virtues of voucher systems is the competition that they are intended to elicit on the supply-side of voucher-assisted markets, thus requiring a significant number of competing providers and relatively free entry. Most of the rationales for any form of government intervention at all in the programmatic sectors under review are implicated in determining what restrictions, if any, should be placed on qualifying suppliers and new entrants(i.e. distributive justice, social externalities, and paternalism).

Above all, our review points to the significant capacity required within the main implementation body for the NDIS (the NDIA) in order to carry out such a diverse array of market shaping and stewarding functions across the many markets and sub-markets nationally. A lack of capacity has been noted by several high profile reviews of the agency (ANAO, 2016; Commonwealth Ombudsman, 2018; Joint Standing Committee on the NDIS, 2018) and acknowledged by government (Australian Government, 2018). Greater resources, and a lifting of the staffing cap, on this agency is critical to securing effective market stewardship.

While we have made a range of recommendations regarding the stewardship of the NDIS, research on adaptive governance highlights that stewardship activities need to shift as implementation shifts (Carey and Crammond, 2015). That is, an approach that may work well at one stage of the implementation of the NDIS could over time become a constraint. There is a need for responses to be as adaptive as the market they seek to influence (Carey and Harris, 2016).

Conclusion

Many principles for market shaping and stewarding have been developed in an effort to ensure quasi-markets meet their diverse policy goals. This review has sought to go beyond these principles and collate actual evidence of what governments and government agencies can do in practice to steward quasi markets. Based on the results we sought to develop understanding of how this evidence relates specifically to the markets under the NDIS. We found a number of key activities the main implementation agency of the NDIS could undertake, in addition to other critical bodies such as the NDIS Quality and Safeguards Commission. However, in order to effectively pursue these activities across jurisdictions, providers and population groups considerable resources are needed.

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