

# Occasional paper no. 23

---

Mapping the creation of public value: The case of  
child nutrition in remote Indigenous communities

Professor John Alford  
Sophie Yates

state**services**authority



---

The Australia and New Zealand School of Government and the State Services Authority of Victoria are collaborating on a partnership to build connections between new thinking, practice and implementation in public administration. The Occasional Paper series is part of the partnership program.

### **About the Australia and New Zealand School of Government**

ANZSOG is a consortium of governments, universities and business schools from Australia and New Zealand. It represents a bold commitment on behalf of member governments to strengthen the management and policy capacity of their respective public sectors.

ANZSOG is a world-class centre that provides tailored learning opportunities for future leaders of the public sector. ANZSOG's purpose is to encourage improved public sector decision making, leadership and policy outcomes for the benefit of the whole society. In doing so, the School also plays a key role in promoting public service as a profession of great social value.

ANZSOG has three core activities:

- executive education courses including an Executive Master of Public Administration degree;
- a case study program; and
- a research program

These programs aim to deepen knowledge and understanding of government and to disseminate that understanding to the wider community – for the benefit of the whole society.

**Contact us at:**

ANZSOG  
email: [anzsog@anzsog.edu.au](mailto:anzsog@anzsog.edu.au)  
phone: +61 3 8344 1990  
fax: +61 3 9349 5849

**Postal Address:**

PO Box 230  
Carlton South  
Victoria 3052  
Australia

**Web address:**

[www.anzsog.edu.au](http://www.anzsog.edu.au)

### **About the State Services Authority**

The State Government of Victoria has vested the State Services Authority with functions designed to foster the development of an efficient, integrated and responsive public sector which is highly ethical, accountable and professional in the ways it delivers services to the Victorian community.

The key functions of the Authority are to:

- identify opportunities to improve the delivery and integration of government services and report on service delivery outcomes and standards;
- promote high standards of integrity and conduct in the public sector;
- strengthen the professionalism and adaptability of the public sector; and
- promote high standards of governance, accountability and performance for public entities.

The Authority seeks to achieve its charter by working closely and collaboratively with Victorian public sector departments and agencies.

**Contact us at:**

State Services Authority  
Email: [info@ssa.vic.gov.au](mailto:info@ssa.vic.gov.au)  
Phone: +61 3 9651 1321  
Fax: +61 3 9651 0747

**Postal Address:**

3 Treasury Place  
Melbourne  
Victoria 3002  
Australia

**Web address:**

[www.ssa.vic.gov.au](http://www.ssa.vic.gov.au)

Published: November 2012

---

## Series foreword

The Australia and New Zealand School of Government and the State Services Authority are collaborating on a partnership that draws together a broad network of policy-makers, practitioners and leading academics.

The partnership is designed to build connections between new thinking, research and practice in public policy and public administration.

The Occasional Papers explore the challenges and opportunities in public administration. They showcase new ideas and offer new insights into issues facing the public sector.

Written by either academics or public servants, the papers bring together the academy with public policy practitioners.

We trust that you find the Occasional Papers stimulating and thought provoking. All papers in the series are published on the ANZSOG and SSA websites.

**Professor Allan Fels AO**

Dean

Australia and New Zealand School of Government

**Bruce C Hartnett**

Chair

State Services Authority

## About the author/s

### Professor John Alford

John Alford is Professor of Public Sector Management at ANZSOG, on extended secondment from the Melbourne Business School (MBS). As well as leading the subject 'Delivering Public Value' in ANZSOG's Executive MPA, Professor Alford teaches a number of executive programs for the School. He has also lectured at universities in the Netherlands, Germany, the United Kingdom, Thailand, Germany and the United States.

Among his publications are articles in leading international journals and numerous book chapters. His two most recent books are:

- *Rethinking Public Service Delivery: Managing with External Providers* (2012 – co-author with Janine O'Flynn)
- *Engaging Public Sector Clients: From Service-Delivery to Co-Production* (2009) (winner of the Award for the Best Public Administration Book of 2011 from the American Society for Public Administration)

Professor Alford has been a Visiting Fellow at the Australian National University and a Visiting Professor at the University of Utrecht in the Netherlands. He is a National Fellow of the Institute of Public Administration Australia.

### Sophie Yates

Sophie Yates is Research Officer at ANZSOG, where she is Assistant Editor of *Evidence Base* journal and coordinator of the competitive grants program. She also writes for ANZSOG's case program.

Ms Yates has a B.A./B.Mus and a Master of Applied Linguistics from the University of Melbourne.

---

## Mapping the creation of public value: The case of child nutrition in remote Indigenous communities

Professor John Alford  
Sophie Yates  
ANZSOG  
Melbourne

It is now well-established in both the literature and practice of public management that the line between the public and private sectors is blurred. Indeed many managers and scholars in the field recognise that almost any governmental responsibility calls for inputs from a range of actors across both sectors – and also from the non-profit or community sector (Alford and O'Flynn 2012). This has meant handing over to private actors some of the work previously performed by government employees. At the same time, it has prompted an increase in other kinds of government activity, namely that designed to elicit, monitor and control the work of these private actors – for instance contract management, relationship-building, education, persuasion, regulation, funding, client engagement and service simplification.

Not only public but also private sector organisations have found that the line between their internal operations and external engagements has become harder to draw, discovering that they are part of a larger chain of activities – contractual, collaborative or negotiated – that leads to the production of goods and services. Conventional thinking would conceive of this as a series of markets, with each participant's output being someone else's input, building up from simple components to more complex products. But for some time now, many businesses have been looking at this set of relationships through different lenses – for instance, those of 'supply chain management' (Handfield and Nichols 1999) and 'value chain analysis' (Porter 1985).

These types of frameworks, now widely used in the private sector, can help make sense of the processes by which organisations might produce goods and services and/or create valuable results. They can also throw light on the contributions of both internal and external actors. However, in their raw form these business focused frameworks sit awkwardly with the specific realities of the public sector, which is different at a strategic and contextual level (Allison 1980; Alford 2001). Government organisations create not only private value for individual clients but also *public* value, which is consumed collectively by the citizenry (Moore 1995; Alford and O'Flynn 2009) and can entail complex interdependencies among program areas, with the mechanisms linking cause to effect difficult to identify – all of which pose challenges to delineating steps in the production process. Further, 'production' is usually a more multi-faceted phenomenon for government organisations than for private companies. In addition to providing products or services, government agencies use various other means to pursue outcomes, including legal authority, persuasion, information, taxes, subsidies, service convenience and other methods, many of which are difficult to encompass in a supply chain.

This paper argues for an alternative model which takes account of the specific features of public sector activity. Drawing on the public administration literature on backward mapping (Elmore 1980), co-production (Alford 2012), program logic (Baehler 2003), systems thinking (Senge 1992) and causal mapping (Bryson et al 2004), we use a case study to outline a distinctively public sector model, which we will call the public value process map, or public value map for short. In this framework, we focus on the outcomes sought from a given activity and then use a version of 'causal mapping' to identify the processes and actors actually or potentially involved in achieving that outcome. We argue that this technique is useful to public managers in several ways, but it is not without its potential drawbacks, which are weighed up against the benefits.

---

## Causal mapping in practice: The case of Indigenous child nutrition in remote communities

Throughout their lives, many Indigenous people suffer nutrition and growth disorders. At birth, Indigenous babies are substantially lighter than non-Indigenous babies. Most significantly, the proportion of Indigenous babies of low birthweight is more than twice that of non-Indigenous babies (Burns and Thomson 2008). At the growth stage where breast milk becomes insufficient by itself, Indigenous infants can be more directly exposed to their substandard living environment. They then become vulnerable to a various infections, in many cases entering the “vicious synergistic cycle of infection-malnutrition” (Burns and Thomson 2008). Many Indigenous people carry this legacy of impaired growth into early adulthood, where it has a significant impact on the health of mothers, and of the next generation.

Another consequence of poor nutrition is that from early adulthood, and increasingly even from childhood, many Indigenous people start to gain weight excessively, eventually becoming overweight or obese (Burns and Thomson 2006). Associated with the high levels of overweight and obesity in adulthood, there are alarming levels of chronic disease, particularly cardiovascular disease and diabetes (Hudson 2010).

The underlying causes of these problems lie in the extreme social disadvantage affecting Indigenous people: substandard physical environments, low education levels, high unemployment and low incomes. But they are further complicated by a number of physical, social and cultural factors.

Breast milk is an ideal source of nutrition for newborns, but Indigenous women have lower breastfeeding rates than non-Indigenous women (Australian Institute of Health and Welfare 2012). Food preparation, especially formula-feeding, is problematic in remote areas where households may not even have refrigerators (Burns and Thomson 2008). The low quality and availability of fresh foods such as fruit and vegetables, combined with the ready availability of convenience foods, strongly encourages poor diets.

Economic factors also play a role. On the supply side, food store owners, often holding a monopoly in their communities, historically tend to import and stock less healthy food (Hudson 2010). Further, in many remote areas the local store is infrequently supplied with fresh foods, many of which arrive in an unsatisfactory state. (Burns and Thomson 2008). Expensive transport and captive markets in the more remote communities means that fresh food is often highly priced (Hudson 2010). On the demand side, mothers and other carers for children can experience pressure to hand their limited income to family members to spend on alcohol, or can themselves spend it that way (Mommott et al 2001).

## Mapping the public value process for Indigenous child nutrition

Child nutrition is partly a *private* value in that it is of benefit to individuals and their families, and also a *public* value in that there are negative externalities associated with poor child health, such as strain on the public health system, lower educational outcomes for those children, higher unemployment and so on. But beyond negative impacts on the public purse, citizens also adhere to social values such as equity (Bozeman 2007). In this context, adequate nutrition is a human right. Better Indigenous child nutrition therefore creates value for the public, which can be expressed in terms of *outputs*, such as ‘more food of better quality per capita being consumed by Indigenous children’.

We can also think of child nutrition in terms of *outcomes*, such as ‘improved overall health and development of Indigenous children’ and therefore of the entire Indigenous population, as healthy

---

children have a better chance of developing into healthy adults. Downstream outcomes might include 'reduced incidence of obesity, cardiovascular disease and Type II diabetes later in life'. There are also more tangential outcomes, including the ability of Indigenous children to attend classes supported by good nutrition, leading to improved educational achievements, and therefore improved job outcomes for those children in later life.

It is important to ascertain as far as possible what is the ultimate outcome being sought – that is, the answer to the question 'why are we doing this?' The reason is that there may be alternative means to achieve the purpose, and these means are more likely to emerge from a focus on ultimate outcomes than on more immediate ones, the causes of which are also limited.

Having identified the outcomes at stake, we can start drawing our public value map. The aim is to identify:

- What specific activities do or could lead to the achievement of the outcome(s)?
- Who is or might be involved in those activities?

If we were to take an output-based view of the factors leading to improved child nutrition in remote Indigenous communities, the production process would look something like the one set out in Figure 1.



Figure 1: Chain of events leading to improved Indigenous child nutrition

However, as we have seen, many factors influence these core steps at each stage of the process. Thus, to achieve an outcome of Indigenous children eating more nutritious food, a series of activities needs to occur, each of them influenced by particular strategies and involving particular parties.<sup>1</sup>

First, healthy and reasonable quality food has to be grown and/or manufactured and then transported to distribution points in good condition, requiring freight companies to store and protect food en route, and to minimise freight time. Second, store owners/managers in remote communities have to order, stock, advertise and display food on shelves that is nutritious and in good condition.

Third, carers have to choose and purchase healthy food, and store and cook it safely, which in turn means they must understand why healthy eating is important. This is potentially influenced by a number of other parties:

- Centrelink might impose income management on carers, and/or refer them to training in budgeting, to ensure they have enough money to buy the food.
- Indigenous health services, and perhaps state and federal health departments, can provide advice to carers, or sponsor educational materials or training, to promote knowledge of which foods to buy and proper food storage/preparation.

---

<sup>1</sup> It should be noted that many of the activities described here are already carried out by various organisations, and some activities doubtless occur that are not captured in this analysis. Our purpose is not to provide a comprehensive picture of what *does* happen in this area, but rather describe the various factors that can and do influence this public value process, together with activities that might positively influence various steps in the chain.

- 
- Housing departments and contractors can ensure that guidelines for housing in Indigenous communities requires better storage, food preparation and refrigeration facilities, and also ensure that the improved guidelines are properly implemented.

Fourth, children need to understand why healthy eating is important and therefore choose to eat better; this step can be influenced by schools and indigenous health services.

Finally, pregnant women have to understand the benefits of breastfeeding for mothers living in remote areas, and practice it, leading to better baseline nutrition from infancy. Doctors, nurses and indigenous health services can encourage this awareness, and provide ongoing support for mothers experiencing difficulties with breastfeeding.

A causal map representing the core steps, the influencing factors (grey rectangles) and the potential agents (hexagrams) can be found at Figure 2.

Thus, the task of improving child nutrition in Indigenous communities calls on the contributions of an array of other parties external to the children's families, and even external to the government departments with responsibilities for Indigenous care. It is not just a technical but also a political and organisational challenge, and requires a multi-faceted approach, encompassing all the various factors that contribute to it.

### Uses of public value maps

From the case study above, we can see that the public value map has a number of uses for policy analysts and public managers. Firstly, it can be used to unearth a variety of processes and actors involved in producing the outcome, some of them several steps or links removed from the outcome and thus not immediately obvious. In this case, for instance, it brings out that freight companies have a role to play in conserving the freshness and quality of food consumed in remote communities, while schools are instrumental in raising children's awareness of healthy eating.

Secondly, it can help to identify *key* processes and actors – those with the most potential for positively influencing the outcome. This can be estimated by zeroing in on particular entities that seem to link with numerous others (i.e. they form a node) or by recognising the numbers of people or proportions of activities passing through a particular link. They can then be subjected to analysis of the benefits and costs, however defined, of engaging with them.

Third, in unearthing unexpected actors the public value map can help to identify the 'real' culprits behind negative outcomes. Thus it may be that sub-standard housing and food storage facilities have a bigger impact than some other factors through rendering healthy food inedible or impractical.

The map also highlights situations where multiple causes are at work, which can be useful both in discouraging efforts to go for a quick fix by attending to just one cause, and on the positive side by helping to identify synergies among some causal factors.

### Pitfalls of public value mapping

Public value mapping, as with all analytical techniques, is not without its potential problems. The first is that causality is tricky to uncover. It may appear that A causes B because they occur together, but in reality C may have slipped under the radar and actually be causing B (hence the well-known phrase

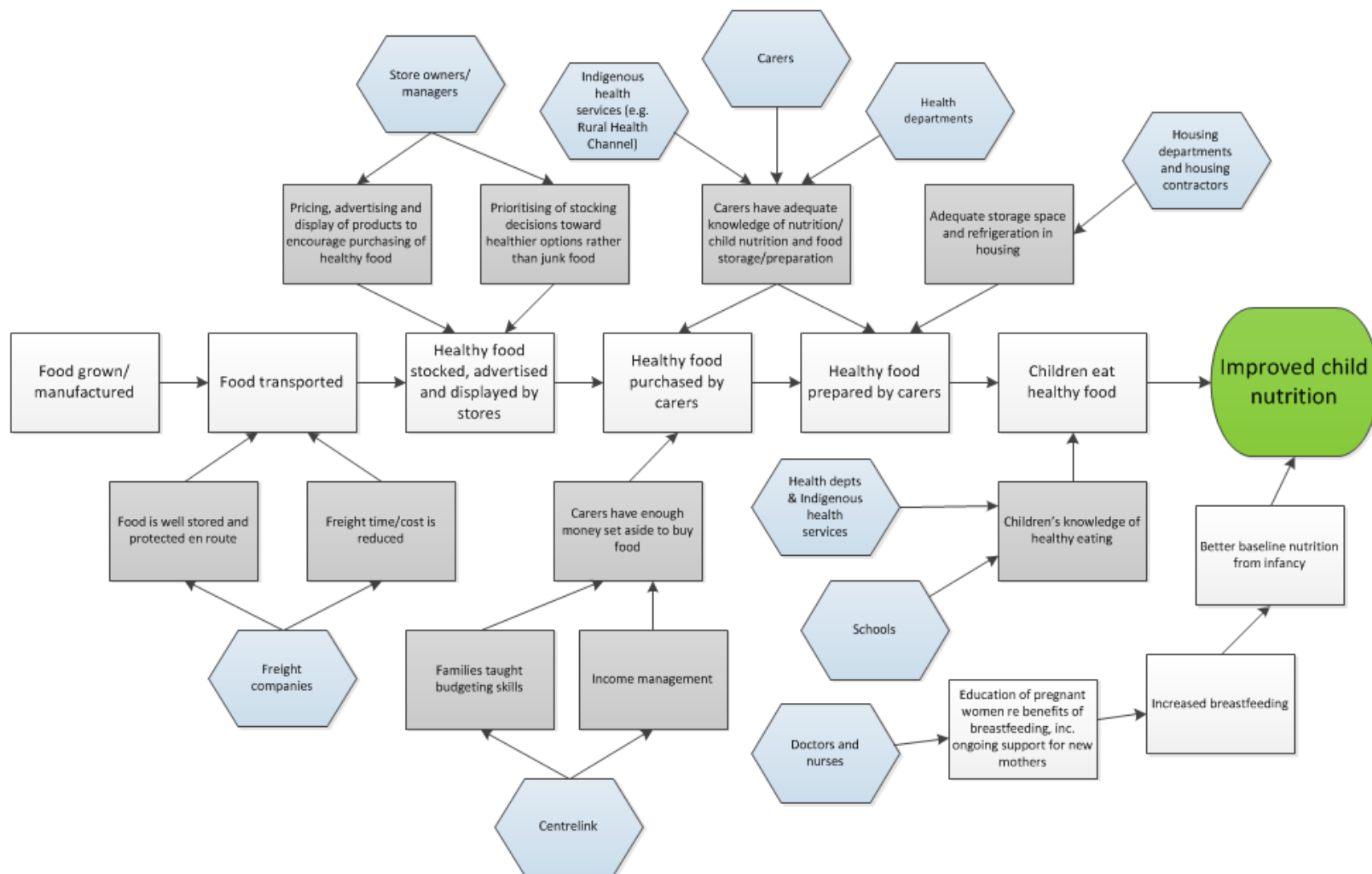


Figure 2. Factors and agents contributing to improved Indigenous child nutrition



---

'correlation does not imply causation'). In addition, causality is not always one way; feedback loops can occur in which A leads to B, which in turn makes A more likely and thus increases B, and so on. An example of this in child nutrition is the interaction between malnutrition and disease: infection makes malnourishment more likely; malnourishment leads to compromised immune function, increasing susceptibility, severity, and potentially transmission of infection; and more severe and widespread infections further worsen nutrition (Hammond and Dubé 2012). Bearing these issues of causality in mind, it is important to remember that, as noted by Bryson et al (2004), "the map is not the territory" (p. 305). In other words, the map is not necessarily an accurate representation of the situation.

It is also important to consider when mapping that there will be important trade-offs between accuracy, simplicity and generality – essentially, pick two of these. A simple, accurate map will be too small to be general. A simple, general map won't be particularly accurate – and so on (Bryson et al, 2004).

Another issue in public value mapping is where, exactly, does one start and stop? What are the boundaries of this type of wide-ranging analysis? For example, does the issue of child nutrition begin with the child's birth, or should we include the pre-natal health and nutrition of the mother in our analysis? Socioeconomic disadvantage is a significant barrier to Indigenous child nutrition; does this mean we should include factors influencing Indigenous socioeconomic status? The answer is probably that the list of steps and actors should be broad to start with, since that is likely to lead to uncovering hitherto unsuspected factors, but that those that seem like they might be more peripheral should be subject to at least some interim analysis to ascertain if they deserve more consideration. Figure 3 illustrates some possible ways a causal map might proliferate beyond the problem originally perceived.

Interestingly, this last problem also offers the benefit that it enables checking of the purpose of the activity, which may then throw up other possibilities for addressing it.

## Conclusion

Public value mapping is not a 'paint by numbers' routine. Rather, it should be seen as an *aid* to analysing public sector programs and to developing policies. It is prone to some of the same shortcomings as other methods of analysis, such as subjectivity, difficulty in relating cause to effect or knowing where to draw the boundaries of the issue. But its major advantage is that it enables the identification and to some extent the comprehension of a broader range of causal factors and actors, which heightens the possibility of imagining new and innovative solutions to difficult public policy issues, and alternative ways of delivering public services.

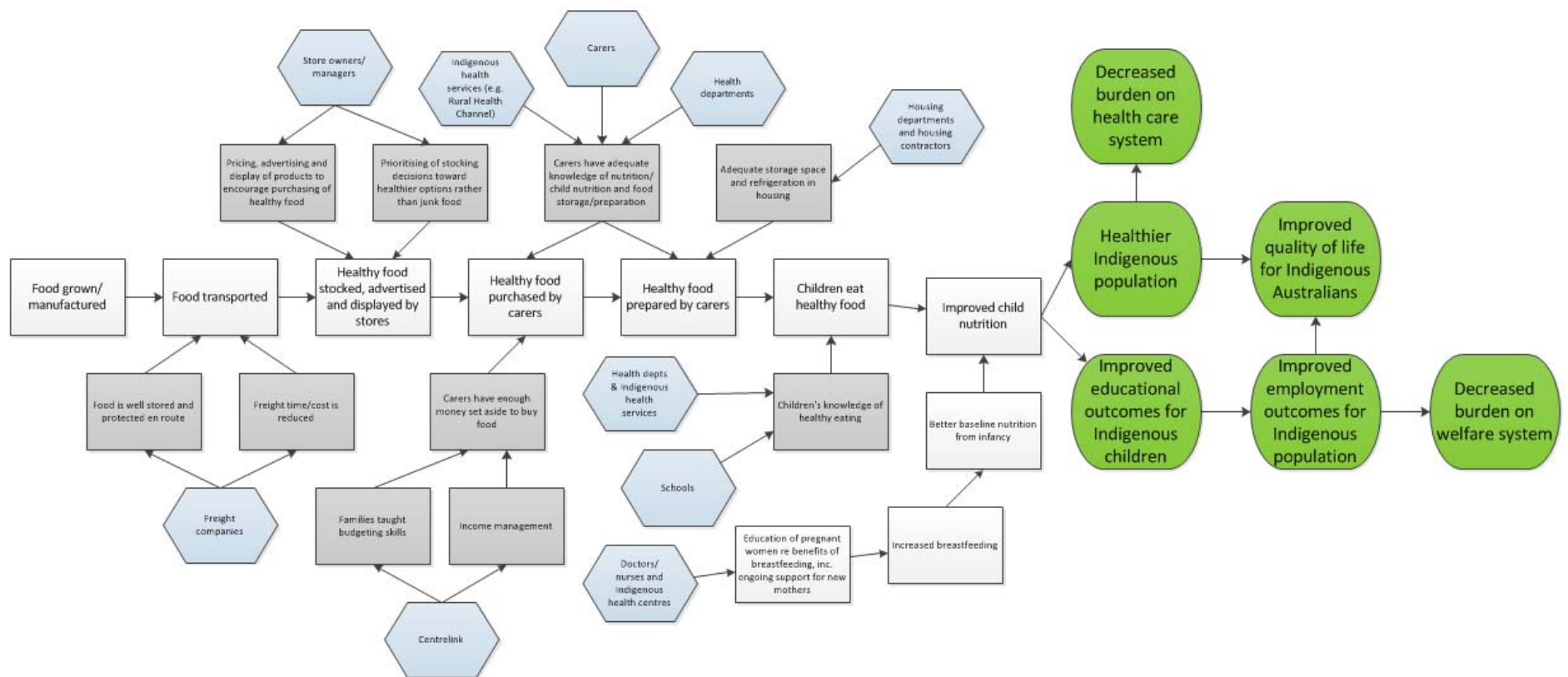


Figure 3. An expanded child nutrition map

---

## References

- Alford, J. (2001), 'The Implications of "Publicness" for Strategic Management Theory', in G. Johnson and K. Scholes (eds), *Exploring Public Sector Strategy*, London: Prentice-Hall.
- Alford, J. (2009), *Engaging Public Sector Clients: From Service-Delivery to Co-production*, Basingstoke: Palgrave.
- Alford, J. and O'Flynn, J. (2009), 'Making sense of public value: concepts, critiques and emergent meanings,' *International Journal of Public Administration*, 32(3/4): 1–21.
- Alford, J. and O'Flynn, J. (2012), *Rethinking Public Service Delivery: Managing with External Providers*, Basingstoke: Palgrave.
- Allison, G. (1980), 'Public and Private Management: Are They Fundamentally Alike in All Unimportant Respects?', in R. Stillman (ed), *Public Administration: Concepts and Cases*, 4<sup>th</sup> edn, Boston: Houghton Mifflin.
- Australian Institute of Health and Welfare (2012), *Australia's health 2012*, Australia's health series no. 13. Cat. no. AUS 156, Canberra: AIHW.
- Baehler, K. (2003), 'Managing for Outcomes: Accountability and Trust', *Australian Journal of Public Administration*, 62(4): 23-34.
- Bozeman, B. (2007), *Public Values and Public Interest: Counter-Balancing Economic Individualism*, Washington, DC: Georgetown University Press.
- Bryson, J., Ackermann, F., Eden, C. and Finn, B. (2004), *Visible Thinking: Unlocking Causal Mapping for Practical Business Results*, Chichester: Wiley.
- Burns, J., Thomson, N. (2006), *Summary of overweight and obesity among Indigenous peoples*, viewed 1 November 2012 at <<http://www.healthinfonet.ecu.edu.au/health-risks/overweight-obesity/reviews/our-review>>.
- Burns, J., and Thomson N. (2008), *Review of nutrition and growth among Indigenous peoples*, viewed 14 June 2012 at <<http://www.healthinfonet.ecu.edu.au/health-risks/nutrition/reviews/our-review>>.
- Elmore, R. (1980), 'Backward Mapping: Implementation Research and Policy Decisions', *Political Science Quarterly*, 94(4): 601-616.
- Hammond, R. and Dubé, L. (2012), 'A systems science perspective and transdisciplinary models for food and nutrition security', *PNAS Early Edition*, March, viewed 26 September 2012 at <<http://www.pnas.org/content/early/2012/07/20/0913003109.full.pdf>>.
- Handfield, R. and Nichols, E. (1999), *Introduction to Supply Chain Management*, Upper Saddle River, NJ: Prentice-Hall.
- Hudson, S. (2010), *Healthy stores, healthy communities: The impact of outback stores on remote Indigenous Australians*, Report No. 122, Centre for Independent Studies, Sydney.

---

Memmott, P, Stacy, R., Chambers, C. and Keys, C. (2001), *Violence in Indigenous communities*, Canberra: Commonwealth Attorney-General's Department.

Moore, M. (1995), *Creating Public Value: Strategic Management in Government*, Cambridge, MA: Harvard University Press.

Porter, M. (1985), *Competitive Advantage: Creating and Maintaining Superior Performance*, New York: Free Press.

Senge, P. (1992), *The Fifth Discipline*, New York: Doubleday.