



Cost and affordability of healthy, equitable and more sustainable diets in the APY Lands

Summary results brief: October 2021

Poor diet is a leading cause of preventable disease and premature death. Traditionally, Anangu ate bush foods and were healthy and strong. But now there are too many unhealthy food and drinks on the APY Lands. So Anangu are at high risk of obesity and diet-related diseases, such as type 2 diabetes, cardiovascular disease, some cancers and renal disease, which contribute to many premature deaths.¹

Many factors affect what people in remote Aboriginal communities eat, including low incomes, high transport costs, housing issues, and accessibility of healthy food and drinks.¹ Peoples' food choices are influenced by factors like the availability, placement, promotion and prices of healthy and unhealthy food and drinks in the stores.

How do we assess the cost and affordability of healthy diets?

This report presents the results of surveys conducted in October 2021 to collect prices of foods and drinks in eight stores in remote communities on the APY Lands. This information can help communities, health and store committees, service providers and others to identify what can be done to improve diets and health.

We calculated the cost, relative cost and affordability of current (unhealthy) diets and recommended (healthy, equitable and sustainable) diets, for a family of two adults and two children, using the Aboriginal and Torres Strait Islander Healthy Diets ASAP (Australian Standardised Affordability and Pricing) protocol.^{4,5}

The recommended diet (Figure 1) contains healthy food and drinks (those that are most similar to traditional bush foods, like lean meat, vegetables, whole grains and fruits).³ The current diet includes many 'discretionary' items – those food and drinks that are not a necessary part of a healthy diet and are high in added sugars, saturated fat, salt and/or alcohol.⁴ The recommended diet contains slightly less energy than the current diet, to help control excess weight gain.⁴

Household incomes were calculated based on the Aboriginal and Torres Strait Islander Healthy Diets ASAP (Australian Standardised Affordability and Pricing) protocol⁵, using national data from government agencies including the Australian Bureau of Statistics and Services Australia. When healthy diets cost more than 25% of household income, families suffer 'food stress'⁶; healthy diets are not affordable when they cost more than 30% of household income.⁴

In October 2021, we trialled new ways of collecting data which meant it was not possible to assess the availability, placement and promotion of healthy and unhealthy food and drinks (using the Food Index for Remote Stores (FIRST) survey tool) or collect prices using the previous 'market basket' survey tool. Hence, we are unable to report changes in store food environments and costs of some food and drinks over time.

In this report the stores and communities are coded to maintain anonymity.

Aṅangu Researchers

Researchers now at The University of Queensland (UQ) have been partnering with the Ngaanyatjarra, Pitjantjatjara and Yankunytjatjara Women's Council (NPYWC) and the Nganampa Health Council to collect these data in the APY Lands since 2011. In October 2021, for the first time, food prices were collected by Aṅangu researchers who live in the communities.

As it was not feasible for researchers from UQ to travel to the APY Lands in October 2021 due to Covid-19 restrictions, they provided training in the price data collection remotely to NPYWC consultant Maggie Kavanagh, who in turn recruited and trained Aṅangu researchers. Nine Aṅangu researchers were involved in data collection; some in more than one store. At each store, two researchers collected data: one using the Healthy Diets ASAP web-based portal (on an iPad) and one using the survey form (paper).

A feedback session with Aṅangu researchers will be organised to discuss these results and seek advice on how best to share findings with communities. We will also seek feedback about data collection experiences to inform the development of training and information resources to support community members in this research in future.



Findings

Diet costs in October 2021

Figure 2 shows the relative costs of the current (unhealthy) and recommended (healthy) diets for a family in the APY Lands (on average, and for each community surveyed) and in Alice Springs for comparison. The detailed diet costs (including prices for different food groups and types) are provided in Appendix 1.

On the APY Lands, on average, the current (unhealthy) diet cost \$1,179 per fortnight per family. A healthy diet would cost \$833 per fortnight. The cost of the recommended (healthy) diet was on average only 71% of the cost of the current (unhealthy) diet – so if families bought the recommended diet they would save around \$346 per fortnight, and be healthier too!

A healthy diet cost less than the current (unhealthy) diet in all communities. It was least expensive compared to the current diet in Mai Wiru stores, likely due to their store nutrition policies and pricing strategies.

Both diets were more expensive on the APY lands than in Alice Springs: the current (unhealthy) diet on average cost \$92 (8.5%) more per fortnight, while the recommended (healthy) diet was \$53 (7%) more per fortnight than in Alice Springs. However, household incomes are much lower in families living on the APY Lands than in Alice Springs.



Figure 1. Contents of the healthy (recommended) Australian diet, for reference family of 2 adults and 2 children for a fortnight

Food stress and affordability

Detailed household income and diet affordability data are included in Appendix 2. The median gross household income (that is, the middle of the range of incomes) per fortnight on the APY Lands was \$2,539. This is 33% (\$1,248) less than the median household income per fortnight in Alice Springs. The low indicative working household income on the APY Lands was \$2,657 per fortnight, and the income of households on welfare only was \$1,788 per fortnight.

To purchase the recommended diet on the APY Lands, Anangu families on median household income would need to spend 33-35 % of their income, those on low indicative income would need to spend 30-33% of their income, and those on welfare only would need to spend nearly half (45-49%) of their household income. Therefore, *healthy diets were not affordable for families in the APY Lands, especially those on welfare* (Figure 3). Except for those on median gross household income in Alice Springs (and Brisbane), all households were suffering from food stress in October 2021 (Figure 3).

For families on median income, the recommended (healthy) diet was 62% more affordable in Alice Springs than it was on the APY Lands. But wherever they live, a healthy diet would be out of reach for Anangu families on welfare (Figure 3).

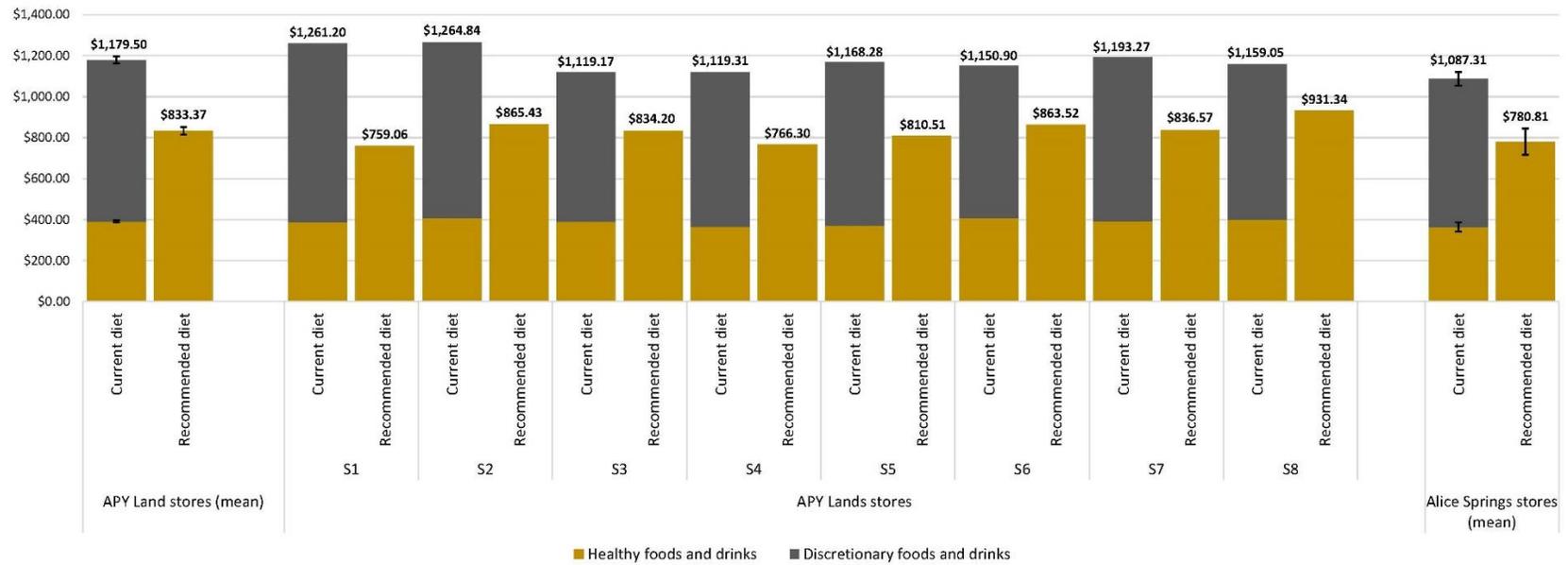


Figure 2. Total costs of current (unhealthy) and recommended (healthy) diets for households per fortnight, October 2021

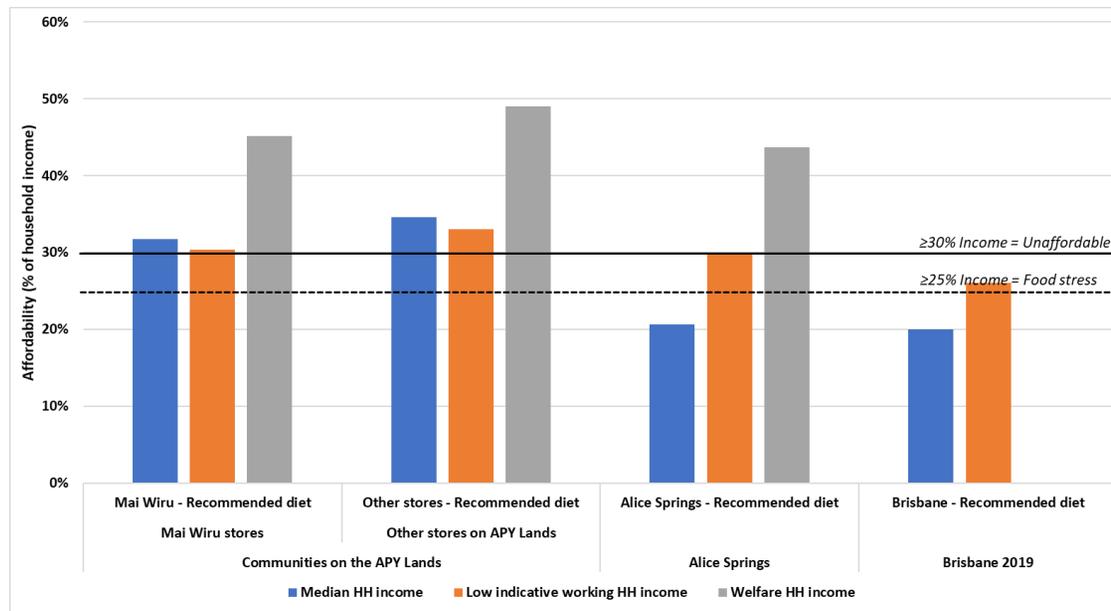


Figure 3. Affordability of recommended (healthy) diets for households on the APY Lands and Alice Springs (October 2021) and Brisbane (2019)

Cost and affordability of healthy diets over time

Costs and affordability of healthy diets since 2018 are included in Appendix 3.

Figure 4 (Appendix 3) shows that in most stores on the APY Lands the cost of a healthy diet has reduced since 2019, including since May 2021, while food and drink prices have increased in Alice Springs stores. The trend in reduced prices has been most apparent in most Mai Wiru stores (s1-s5).

Table 3 (Appendix 3) shows that, since May 2021, the healthy diet had become 1-2% more affordable for households on all income levels in the APY Lands. However, further improvement is needed.

Further improving affordability of healthy, equitable and more sustainable diets in the APY Lands

This research provides information to inform urgent policy actions to help build on Anangu expert knowledge about food, and shift diets towards the recommendations of the Australian Dietary Guidelines³ which are:

- Enjoy traditional foods whenever possible, and
- Choose store foods which are most like traditional foods.

While many stores are cross-subsidising the prices of healthy foods and drinks on the APY Lands (e.g. Mai Wiru stores sell fruit and vegetables at cost price, and bottles of water for \$1), our survey findings show that more needs to be done to improve affordability of healthy foods and drinks in the APY Lands. A major problem is poverty. This could be addressed by providing subsidies to families and increasing welfare payments. Funding community stores as essential services and subsidising freight of healthy foods could also help.⁸

Store surveys should be conducted regularly. The next store survey is due in March 2022 but likely will be delayed due to the continuing Covid-19 pandemic. This should include collection of information on availability of healthy food, which can be a big problem, especially due to impacts of Covid-19 and recent flooding in South Australia. Results should be reported to communities to help inform decision-making.

Community-led, multi-strategy programs involving both supply (availability, affordability, accessibility and acceptability) of healthy food and drinks, and demand-side measures, such as advertising, promotion and food-literacy programs building on traditional knowledge, can improve nutrition in Indigenous communities⁸ and should be in place in all communities in the APY Lands.

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Photographic credit: Margaret Kavanagh

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Further information about this study and findings is available from Professor Amanda Lee: Amanda.Lee@uq.edu.au

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Appendixes

Appendix 1: Diet costs, October 2021

Table 1 shows the detailed diet costs in October 2021 on the APY Lands (means of Mai Wiru stores and means of other stores) and Alice Springs, for the reference household of two adults and two children, per fortnight.

Table 1: Detailed diet cost data in the APY Lands and in Alice Springs (for a reference household of two adults and two children, per fortnight), October 2021

Food/food groups	APY Lands (MW stores)				APY Lands (other stores)				Alice Springs (mean)			
	Current diet		Recommended diet		Current diet		Recommended diet		Current diet		Recommended diet	
	Mean cost (A\$)	Proportion of total cost (%)	Mean cost (A\$)	Proportion of total cost (%)	Mean cost (A\$)	Proportion of total cost (%)	Mean cost (A\$)	Proportion of total cost (%)	Mean cost (A\$)	Proportion of total cost (%)	Mean cost (A\$)	Proportion of total cost (%)
Water, bottled	\$8.83	1%	\$8.83	1%	\$13.24	1%	\$13.24	2%	\$23.30	2%	\$23.30	3%
Fruit	\$63.60	5%	\$101.60	13%	\$63.77	5%	\$103.91	12%	\$61.82	6%	\$114.65	15%
Vegetables (& legumes)	\$41.90	4%	\$132.75	16%	\$45.55	4%	\$155.20	18%	\$41.86	4%	\$140.57	18%
Grain (cereal) foods	\$60.32	5%	\$154.40	19%	\$65.89	6%	\$171.07	20%	\$53.56	5%	\$140.77	18%
Lean meats, poultry, fish, eggs, nuts, seeds, and alternatives	\$129.76	11%	\$222.56	28%	\$134.13	11%	\$251.45	29%	\$123.44	11%	\$226.30	29%
Milk, yoghurt, cheese & alternatives	\$66.93	6%	\$173.42	21%	\$65.47	6%	\$167.67	19%	\$51.00	5%	\$124.87	16%
Unsaturated oils and spreads	\$1.42	<1%	\$13.56	2%	\$1.80	<1%	\$14.60	2%	\$1.20	<1%	\$10.35	1%
Artificially sweetened beverages	\$11.78	1%	-	-	\$10.82	1%	-	-	\$8.44	1%	-	-
Sugar sweetened beverages	\$141.55	12%	-	-	\$100.45	9%	-	-	\$69.36	6%	-	-
Takeaway foods	\$240.99	20%	-	-	\$227.30	19%	-	-	\$295.58	27%	-	-
Alcoholic beverages	\$97.23	8%	-	-	\$97.23	8%	-	-	\$97.23	9%	-	-
All other discretionary choices	\$322.25	27%	-	-	\$342.09	29%	-	-	\$260.51	24%	-	-
Total diet	\$1,186.56	100%	\$807.10	100%	\$1,167.74	100%	\$877.14	100%	\$1,087.31	100%	\$780.81	100%
All healthy foods and drinks	\$384.54	32%	\$807.10	100%	\$400.67	34%	\$877.14	100%	\$364.63	34%	\$780.81	100%
All discretionary foods and drinks	\$802.02	68%	-	-	\$767.07	66%	-	-	\$722.68	66%	-	-

Appendix 2: Household income and diet affordability data, October 2021

Household incomes were calculated based on the Aboriginal and Torres Strait Islander Healthy Diets ASAP (Australian Standardised Affordability and Pricing) protocol.⁵ Healthy diets are not affordable when they cost more than 30% of household income.⁴

Table 2: Detailed diet affordability data in the APY Lands and in Alice Springs (for a reference household of two adults and two children), October 2021

Household income type	APY LANDS					ALICE SPRINGS		
	MW Stores		Other stores			Income per fortnight (\$)	Healthy diet affordability (% of income)	Current diet affordability (% of income)
	Income per fortnight (\$)	Healthy diet affordability (% of income)	Current diet affordability (% of income)	Healthy diet affordability (% of income)	Current diet affordability (% of income)			
Median gross	2,539.20	32%	47%	35%	46%	3,786.72	21%	29%
Indicative low disposable	2,657.36	30%	45%	33%	44%	2,625.24	30%	41%
Welfare only	1,788.37	45%	66%	49%	65%	1,788.37	44%	61%

Appendix 3: Costs and affordability of recommended (healthy) diets over time

The cost of food and drinks in remote Aboriginal and Torres Strait Islander communities previously was monitored using a single basket of 'healthier' food items and the FARA Food Affordability Calculator for Remote Communities. Since 2018, when collecting Healthy Diets ASAP data, we have also collected prices using the FARA tool to enable time-series comparison, to show the changing costs of some food and drinks over a long period of time. As noted in the report, it was not possible for researchers to collect prices using the FARA tool in October 2021.

The time-series comparison below (Figure 4) shows the total costs of the recommended (healthy) diet in each of the APY Lands communities using data from the Healthy Diets ASAP surveys at each data collection time point since 2018. Table 3 presents the affordability of the recommended (healthy) diet in the APY Lands and in Alice Springs, for comparison, in May 2021 and October 2021.

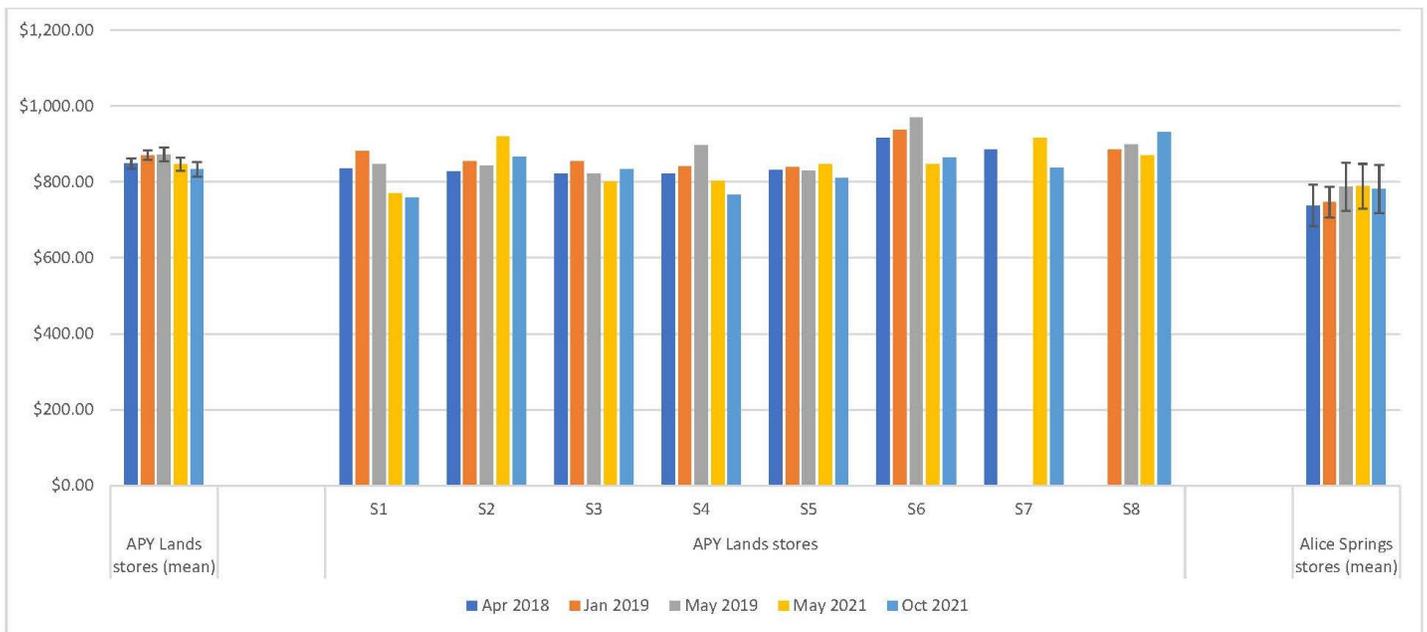


Figure 4: Total cost of recommended (healthy) diets for households (of 2 adults and 2 children) per fortnight, available data (2018-2021) [error bars represent standard errors]

Table 3: Affordability of the recommended (healthy) diet in the APY Lands and in Alice Springs (for a reference household of two adults and two children), May 2021 and October 2021

Household income type	APY LANDS				ALICE SPRINGS	
	MW stores		Other stores		May 2021	Oct 2021
	May 2021	Oct 2021	May 2021	Oct 2021		
Median	33%	32%	35%	35%	21%	21%
Indicative low disposable	32%	30%	34%	33%	31%	30%
Welfare only	47%	45%	50%	49%	45%	44%