

Key findings and recommendations

- The cost of the Healthy Food Access Basket (HFAB), which feeds a family of six for two weeks, has increased throughout Queensland since 2004. This difference was significant in all of the remoteness categories except *major cities*.
- In 2006 the mean cost of the HFAB statewide was \$457.46. From 2004 to 2006 the cost of the HFAB has increased statewide by almost \$51 (12.6%).
- The cost of the HFAB continues to be considerably higher in *very remote* stores throughout Queensland, especially in those towns more than 2000 kilometres from Brisbane. In 2006 the mean cost of the HFAB was \$107.81 (24.2%) higher in *very remote* stores in Queensland but \$145.57 (32.6%) higher in *very remote* stores more than 2000 kilometres from Brisbane compared with the same basket in *major cities*.
- The cost of healthy food has increased more than the cost of less nutritious alternatives.
- Inter-sectoral partnerships are needed to better understand food supply issues and to generate sustainable targeted strategies to address the high cost of healthy foods.
- National monitoring of food supply, as one component of a comprehensive nutrition surveillance system for Australia, is vital for coordinated strategic planning, priority setting and resource allocation.



Figure 1 : The 2006 Healthy Food Access Basket (HFAB) contents

HFAB survey



Introduction

The 2006 Healthy Food Access Basket (HFAB) survey is the fifth statewide cross-sectional survey of the costs and availability of a standard basket of basic healthy food items throughout Queensland.

The range and types of foods included in the HFAB represent commonly available and popular foods (Figure 1) consistent with the Australian Guide to Healthy Eating.¹ The foods selected provide 70% of the nutritional requirements and 95% of the estimated energy requirements of a hypothetical family of six people for a two-week period.² For cost comparison purposes, a number of less nutritious food items and tobacco items were also surveyed.

The variation in costs and availability of food in the basket is presented by the ABS Remoteness Structure³ using ARIA+⁴ by populated localities as the basis for the definition of remoteness (Figure 2). ARIA+ is the updated Accessibility/Remoteness Index of Australia categories and defines localities in terms of remoteness of geographical location as well as access to services.

Eighty nine stores in the five remoteness categories across Queensland were surveyed during May 2006. This report presents the cost comparison by remoteness category in 78 stores for the current HFAB survey year. The 11 additional stores in the 2006 HFAB survey were included to enhance comparison with the results of previous HFAB surveys.

Methods

Sample Selection and Data Collection

The 2006 HFAB survey included changes to its sample design. Unlike the previous HFAB surveys, towns for the 2006 HFAB were randomly selected based on their population size and one store for each town was then selected based on where most people would shop. The Urban Centre/Locality (UC/L) list⁵ produced by the Australian Bureau of Statistics (ABS) was used to obtain a distribution of where people live and to exclude towns that were very small. This list includes towns where population clusters are 200 people or greater. In

this report all urban centres and localities will be referred to as towns.

The towns were stratified to enable over-sampling in the remote areas and to limit the number of islands that were selected to control for survey costs. The towns were stratified by remoteness category. The remoteness categories include *major cities*, *inner regional*, *outer regional*, *remote* and *very remote*. The *very remote* category was further split into three strata - towns less than 2000 km from Brisbane, towns more than 2000 km from Brisbane, and islands. The sample sizes were chosen so that differences of 10% between remoteness categories could be detected at $p < 0.05$ and 90% power. Through this process a total of seventy eight towns were selected for the 2006 HFAB survey. These seventy eight towns included some towns sampled in previous HFAB surveys.

In 2006 the HFAB survey was conducted by the Office of Economic and Statistical Research whilst completing their Spatial Price Index (SPI) survey.⁶ The SPI survey was conducted in 61 Queensland regional centres to determine the price of a “basket of goods and services” based on Consumer Price Index (CPI) categories. As the SPI survey was conducted in 11 previously HFAB surveyed towns it was agreed to also conduct the HFAB survey in these towns to improve the sample size for crossover reporting purposes with the results of previous HFAB surveys. This resulted in a total of eighty nine towns surveyed during 2006 with a 100% response rate.

Stores were not advised of the specific date and time of surveys so that results reflect usual availability and cost for consumers. The survey is conducted at the same time each year in an endeavour to control for seasonality. Data collected included the prices of the cheapest brand available (including generic brands if no brand available) for the forty four HFAB food items, the six less nutritious food items (cream-filled biscuits, plain milk chocolate, ice cream, a packet of potato crisps, a soft drink and a meat pie) and the two tobacco items. As there were four additional less nutritious food items in 2006, only the 2 items surveyed since 1998 were used for crossover comparisons. The



six less nutritious food items and the two tobacco items are referred to as “unhealthy” items in this report.

Information regarding missing HFAB food items, the availability of fresh food items (vegetables and fruit) and the availability of “better nutritional choices” items was also collected. This data was collected and compared from 2000 onwards. Methods, including the complete list of the HFAB foods, are detailed in the 2000 HFAB Survey Full Report.⁷

Cost Comparisons

The mean cost of the total HFAB, the fruit, vegetables and legumes in the basket, the “unhealthy” items and the basic healthy food groups¹ were compared by remoteness category for the 78 stores surveyed in 2006. Changes in cost and availability of foods since the previous three surveys (2000, 2001 and 2004) were also analysed by remoteness category for the 47 stores included in all four surveys. Further comparisons of food prices were made for the 36 stores that were included in all five surveys (1998, 2000, 2001, 2004 and 2006), and increases were compared with the increase in the CPI for food in Brisbane over the same period.⁸ In a couple of cases the store surveyed changed to reflect changes in shopping behaviour. Because the product description for ham and cabbage changed after the 1998 survey, the total basket could only be compared from 2000 onwards.

The CPI for food is based on a wide range of commonly purchased items (including soft drinks, cakes, biscuits, confectionary, take-away and fast food) some of which incur the Goods and Services Tax (GST). Basic food items (such as those in the HFAB) that are required to support and maintain health are mostly exempt from this tax. All CPI figures, including price data for individual foods used to calculate the CPI, are available from the ABS for capital cities only.

Data Analysis

Results were analysed using Microsoft Access⁹ and SPSS.¹⁰ For missing items, the mean cost for the item in the corresponding remoteness category was used as the default price for that year. The

differences in mean costs of the HFAB contents were assessed by one-way analysis of variance and the differences in mean costs over time were assessed by paired t-tests. Kendall’s Tau was used to test for correlations between remoteness and cost.

To adjust for the different sampling fractions in the different strata, stores were weighted for the analysis. Weights were proportional to the population size for each stratum for the analysis of the 78 random stores surveyed in 2006. For comparisons with previous surveys, weights were proportional to population size for strata divided by the number of stores surveyed in that stratum.

To compare changes between consecutive HFAB surveys, only those stores previously surveyed were included. As the time intervals between the five successive HFAB surveys were different, the percent change was “annualised” to allow for comparable time frames for assessing price change. This was done by calculating the square root of the ratio of the prices for the 1998 and 2000 surveys, the cube root of the ratio of the prices between the 2001 and 2004 surveys and the square root of the ratio of the prices between the 2004 and 2006 surveys. However, the cost change in dollars was not “annualised” and was shown as an average cost.

The 95% confidence interval (95% CI) of the mean is shown on the graphs and tables in this report. A 95% confidence interval of the mean is interpreted as a 95% chance that the confidence interval contains the true population mean. If confidence intervals do not overlap then the observed means are significantly different at the 95% confidence level.

Results

Costs in 2006

The 2006 HFAB survey results highlight the extra expenditure needed to purchase basic healthy food by families living in *outer regional*, *remote* and *very remote* areas compared to those living in *major cities* and *inner regional* centres. Figure 3 shows a trend of increasing food prices with increasing remoteness categories, with the exception of



the *remote* category. The cost of the HFAB in the *remote* category was marginally lower than the *outer regional* category, but the difference was not significant.

In the *very remote* category the cost of the HFAB was 24.2% (\$107.81) higher and the cost of fruit, vegetables and legumes in the basket was 20.6% (\$41.29) higher compared with the *major cities* category (Table 1 and Figures 3a & 3b). Furthermore, there were significant differences within the *very remote* category. For *very remote* stores greater than 2000 km from Brisbane (n=12), the cost of the HFAB was 32.6% (\$145.57) higher and the cost of fruit, vegetables and legumes in the basket was 29.5% (\$59.25) higher compared with the *major cities* category. For *very remote* stores less than 2000 km from Brisbane (n=10) the cost of the HFAB was 14.0% (\$62.50) higher and the cost of fruit, vegetables and legumes in the basket was 9.8% (\$19.74) higher compared with the *major cities* category (Figures 3a & 3b).

There were significant differences in the cost of all the basic healthy food groups by remoteness category as shown in Figure 4. The bread and cereals and the dairy groups were found to have greater differences between remoteness categories than the fruit and the vegetable and legumes groups.

To compare the price of the HFAB items with unhealthy alternatives, the cost of tobacco and some commonly purchased high fat/high sugar food items were also recorded.⁷ The cost disparity across remoteness categories for the “unhealthy” items surveyed was slightly less than for the total HFAB, with the costs of the “unhealthy” items in the *very remote* category being 22.8% higher than in the *major cities* category (Table 2).

Cost increases

There has been a significant increase in the price of basic healthy food in the 47 stores that have been surveyed since 2000 (Table 3 and Figure 5). Between 2004 and 2006, the Queensland average price of the HFAB increased by 12.6% (\$50.68). The *inner regional* category experienced the greatest cost increase for the HFAB (17.2%, \$68.00).

On an annual basis, the increase in the Queensland average price of the HFAB from 2004 to 2006 (6.1%, \$25.34 per annum) is comparable to the increase between 2001 and 2004 (5.3%, \$19.39 per annum) but remains marginal compared to the 13.2% (\$40.03 per annum) increase experienced for the HFAB between 2000 and 2001.

The Queensland average price of the fruit, vegetables and legumes in the basket increased by 17.4% (\$30.51) between 2004 and 2006 (Table 3 and Figure 5b). Differences in the price of the fruit, vegetables and legumes in the basket across the remoteness categories were greater than those seen for the total HFAB. As in the 2004 survey, price increases in 2006 were found to be the greatest for the fruit group (Figure 6).

The HFAB study attempts to control for seasonal influences by surveying at the same time of year (May). While the CPI data for food in Brisbane suggests fruits and vegetables are susceptible to price fluctuations, other fresh foods such as meat, milk and bread do not appear to be so variable (Table 4).

Annualised percent increases in costs for the 36 stores surveyed from 1998 to 2006 compared with the change in the CPI for food in Brisbane over the same period are shown in Figure 7a. While the largest change in food costs was observed between 2000 and 2001 when the New Tax System (NTS) was introduced, the cost of healthier foods has continued to increase more than the CPI for food in Brisbane in the majority of the remoteness categories. The 2004 – 2006 price changes for CPI for food in Brisbane were slightly higher than those for Australia as a whole (5.7% and 5.0% respectively).⁸

The 2005-2006 Brisbane food price increases are within the basic healthy food groups, driven mainly by the surge in fruit and vegetable prices according to the ABS (Table 4). Bananas accounted for most of the increase in fruit prices due to shortages created by Cyclone Larry in March 2006. Prices also rose for other fruit, in part reflecting increased demand for alternative fruit as consumers looked for a substitute for bananas. Transportation costs, through higher automotive fuel prices, may have



contributed to food price increases in general, as may have increasing distribution and packaging costs.⁸

Availability

To determine the access to healthy foods, the HFAB survey also measured the availability of fifteen of each of the most commonly consumed fruit and vegetables in addition to food items considered to be “better nutrition choices” (Table 5).⁷ To assess the number of basic healthy food items that were not available for purchase on the day of the HFAB survey, the number of missing HFAB items were also counted.⁷

Availability data are illustrated in Figures 8a, 8b, 9 and 10. Less variety of fruit and vegetables were available in the *very remote* compared to the *major cities* category, despite a modest (non-significant) improvement in the availability of vegetables in the *remote* and *very remote* categories (Figure 8a and 8b). Overall there was a wider variety of vegetables available compared to fruit, with a drop (non-significant) in the availability of fruit recorded in all remoteness categories. Availability of “better nutrition choices” declined with remoteness, although slight (non-significant) improvements were registered for the *remote* stores since 2004 and for *very remote* stores since 2001 (Figure 9).

The number of missing basic healthy food items continued to be high in 2006, in particular among stores in the *outer regional*, *remote* and *very remote* categories (Figure 10), with almost 9% of HFAB food items not available for purchase in stores from the *very remote* category. The most frequently missing HFAB items in all stores were bananas, wholemeal flour, powdered skimmed milk, tinned ham and dry biscuits. The most frequently missing ‘better nutritional choice’ items were 100% orange juice and wholemeal bread.

Implications of findings

Price increases recorded in all the remoteness categories since 2004 raise concerns about healthy food access for all Queenslanders. Higher prices and limited availability of healthy foods are barriers to healthy eating that can compromise

nutritional and health status and add to the burden of obesity and chronic disease.¹¹ Environmental influences, such as food access, remain major contributors to the higher death rates experienced by persons from more socioeconomically disadvantaged areas and remote regions.¹² Extreme socioeconomic disadvantaged areas are found across Queensland.¹³

This inequality in access to healthy food is greatest in the most remote towns but exists throughout the state and reflects the lower cost of energy dense, nutrient poor food and drinks compared to healthy options in developed countries around the world.¹¹ With cost identified as the key factor in determining the purchasing choices of socially disadvantaged families,¹⁴ effective strategies to address this issue in all towns can only be developed by addressing the price differential between healthy food and unhealthy food at state-wide and national levels.¹⁵

Distance from food supply source appears to be a major factor contributing to the higher prices paid by the *very remote* communities located greater than 2000 km from Brisbane. Increasing transportation and distribution costs have been cited as factors contributing to this cost disparity.⁸ The substantially higher costs associated with distance from major centres exacerbate the difficulties for families in remote areas in making healthier choices. This is particularly an issue for socially disadvantaged families and Aboriginal and Torres Strait Islander peoples who suffer a disproportionate burden of poor health.¹³

The inequity in food price across the state is supported by the 2006 SPI results.⁶ The SPI survey results highlight the higher food prices in remote and very remote centres as a common feature with the findings of the 2006 HFAB survey.

The price of the “unhealthy” items is affected by remoteness category to a comparable level as the HFAB items (Table 2). This would imply that with increasing remoteness people simply pay more for food, no matter their choices.

The magnitude of food price increases since 1998 is captured in Figure 7a. The substantial cost



increase recorded between 2000 and 2001 remains the greatest impact on basic food items (as found in the HFAB) despite predictions of cost reductions secondary to the introduction of the NTS.¹⁶ Labour-intensive services such as transport, handling, distribution and retailing were previously cited as contributing to these cost increases.¹⁷ Recent adverse weather conditions in major fruit and vegetable growing areas in addition to increased fuel and packaging costs have been cited as contributing to latest price increases.⁸

The increase in the CPI for food in Brisbane in 2005-2006 was primarily secondary to fruit price increases (Table 4).⁸ While this has also had an impact on food costs of the 36 stores surveyed since 1998 (Figure 7), the HFAB cost increase continued to be higher than the CPI for food in Brisbane across all remoteness categories except *major cities* (Figure 7a). If CPI is the statewide economic benchmark this implies that the cost of foods for good health continues to be more expensive than less nutritious alternatives across the majority of Queensland. With price an important factor when deciding what food items to buy,¹⁸ the health of all Queenslanders, but particularly people of lower socioeconomic status and other vulnerable groups, may be compromised as a result.

Availability data reflects a decline in access to healthy food with remoteness (Figures 8a, 8b, 9 & 10). This fall is more apparent in the fruit compared to the vegetable varieties. The decline in fruit availability across all the remoteness categories since 2004 was associated with the banana shortages experienced during the 2006 survey period (Figure 8b). The improved vegetable variety since 2004 could be due to fruit and vegetable social marketing campaigns such as “Go for 2 & 5” (Figure 8a). Improvements in access to “better nutrition choices” in the *remote* and *very remote* stores may also be due to health promotion strategies such as store nutrition policies (Figure 9).

The decline in availability of basic healthy food items with increasing remoteness illustrates that

poor food security reduces the capacity of people living in remote locations to maintain good health.

Conclusion

The cost of healthy food has increased for all Queenslanders and, where data is available, by more than the cost of less nutritious alternatives.

Factors affecting the cost and availability of food are complex and largely lie outside of the health sector but impact upon nutrition and health. Solutions require joint commitment and partnerships across a range of sectors and at a range of levels (local, state and national).

Some current national initiatives to address food supply issues include:

- the national Remote Indigenous Stores and Take-away Project (RIST) which is developing and piloting a suite of tools designed to support the supply, promotion and sale of healthy food and drinks in remote stores and take-aways; and
- the Outback Stores initiative (OS) which aims to provide a retail management service for sustainable and “healthy” remote community stores across Australia. It is anticipated that OS will use the products of the RIST project.

In Queensland the joint Queensland Health and Aboriginal and Torres Strait Islander Policy (ATSIP) Nutrition Policy for ATSIP Community Stores and Take-Aways has recently been revised.

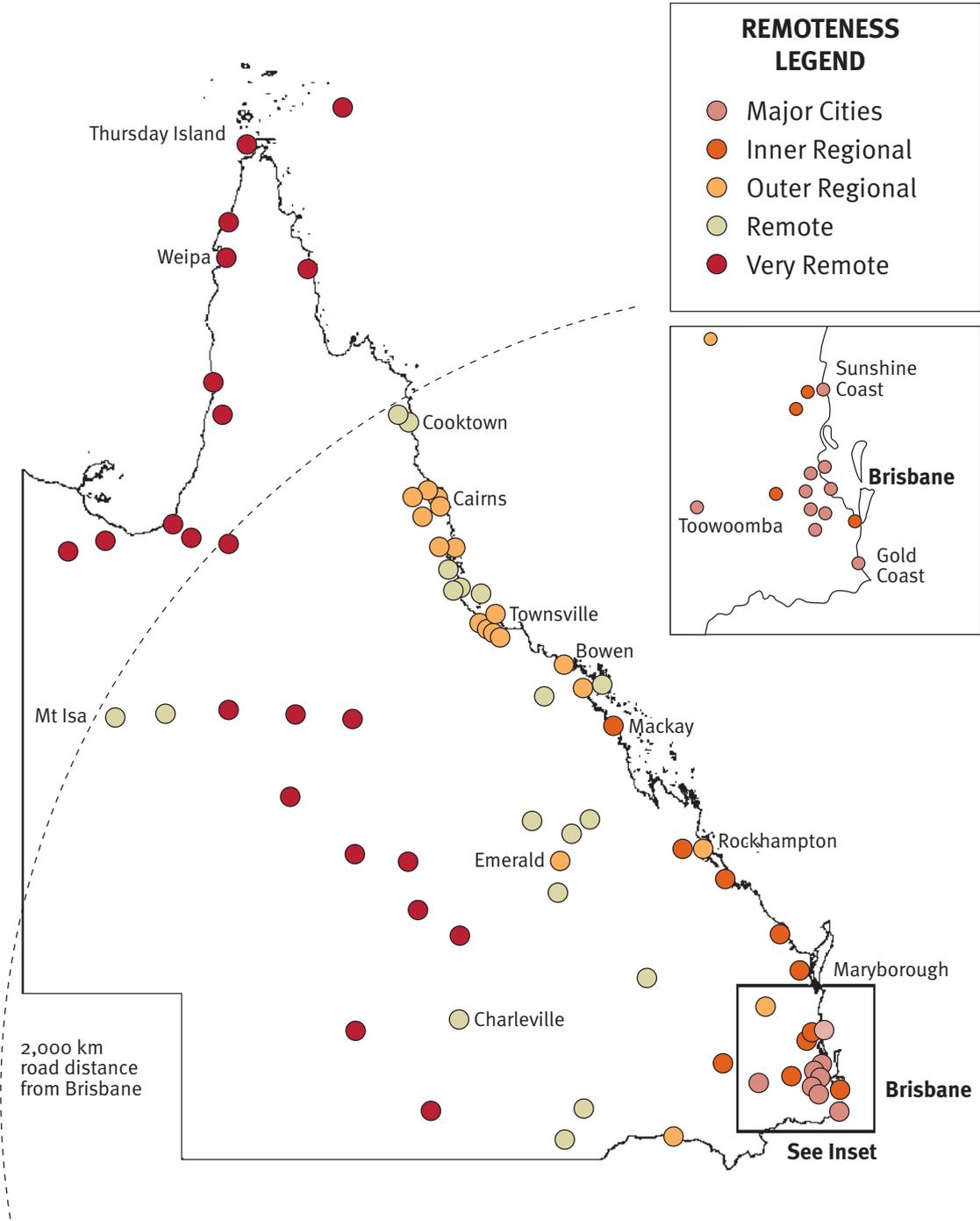
Work is currently underway to develop a national market basket survey.

The material for the Implications of Findings and the Conclusion sections was contributed by Queensland Health.

Locations



Figure 2 : Location and ABS remoteness classifications for the 78 stores in the 2006 HFAB survey



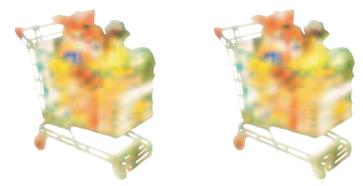
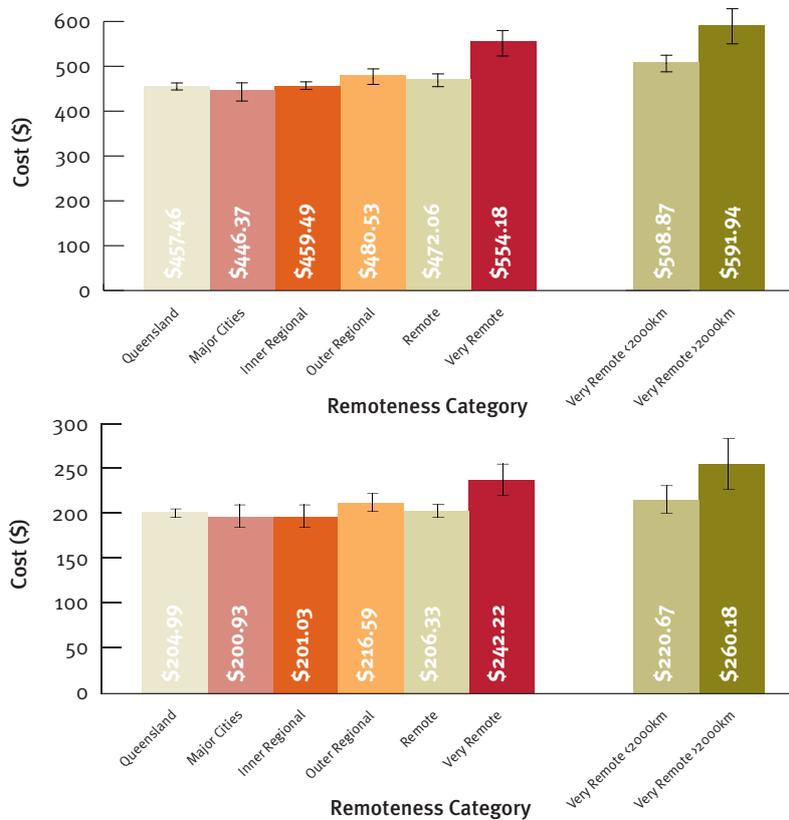


Figure 3: Mean cost (95% CI) of baskets in the 78 stores surveyed in 2006 by remoteness category^a



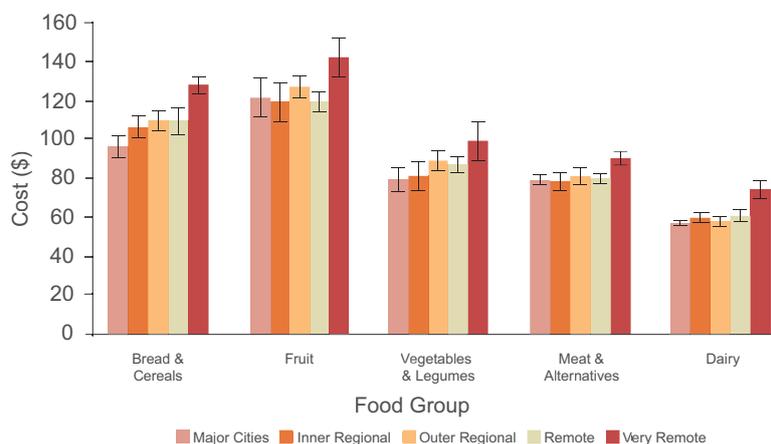
a) The Healthy Food Access Basket (HFAB)

ANOVA $p < 0.001$
^a Weighting proportional to Queensland population size by each remoteness category

b) The fruit, vegetables and legumes in the basket

ANOVA $p < 0.05$
^a Weighting proportional to Queensland population size by each remoteness category

Figure 4: Mean cost (95% CI) of basic healthy food groups in the 78 stores surveyed in 2006 by remoteness category



ANOVA $p < 0.001$ Bread & Cereals, Fruit, Meat & Alternatives, Dairy
 ANOVA $p < 0.01$ Vegetables & Legumes

Results



Figure 5: Mean cost of baskets in 2000 and increase in mean cost from 2000-2006 in 47 stores by remoteness category^{a,b}

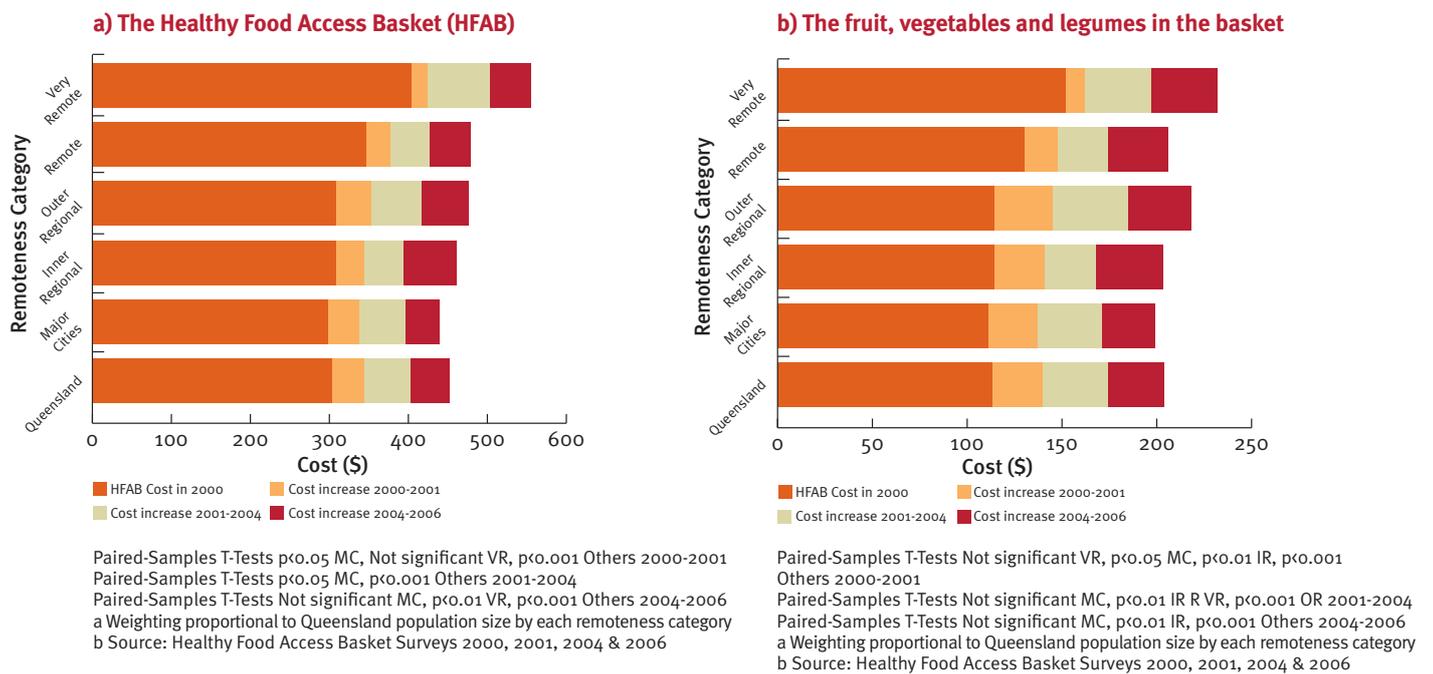


Figure 6: Mean cost of basic healthy food groups in 2000 and increase in mean cost from 2000-2006 in 47 stores^a

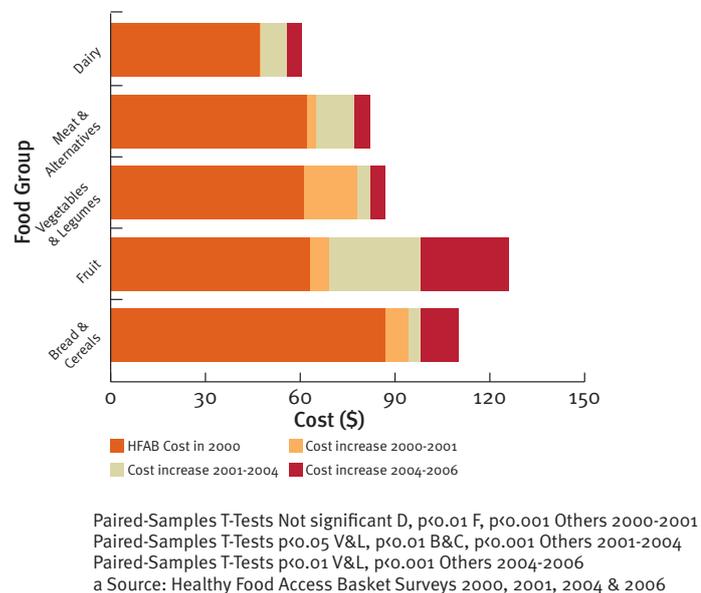
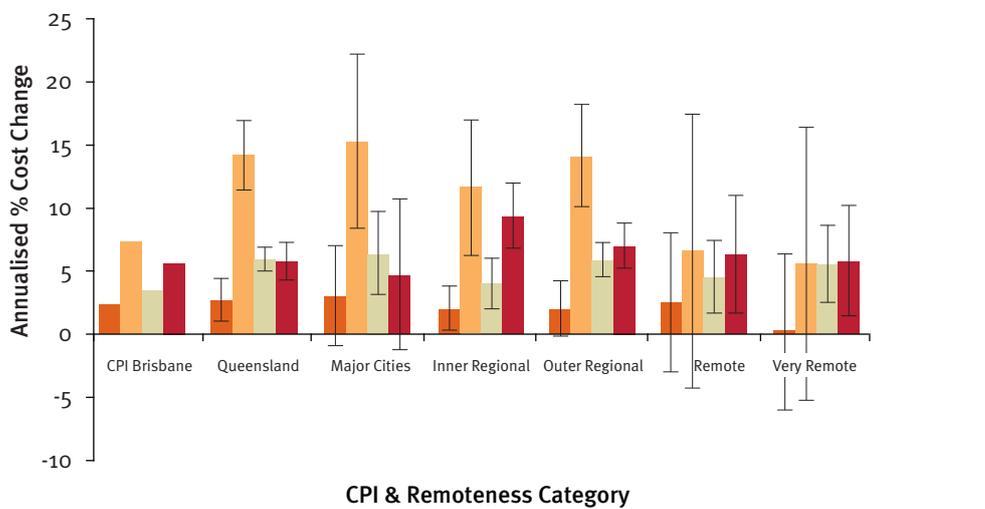




Figure 7: Annualised percent change in costs^a (95% CI) in the 36 stores surveyed between 1998 and 2006 by remoteness category^{b,c}

a) Annualised percent change in the costs of the Healthy Food Access Basket compared with the CPI for food in Brisbane^d

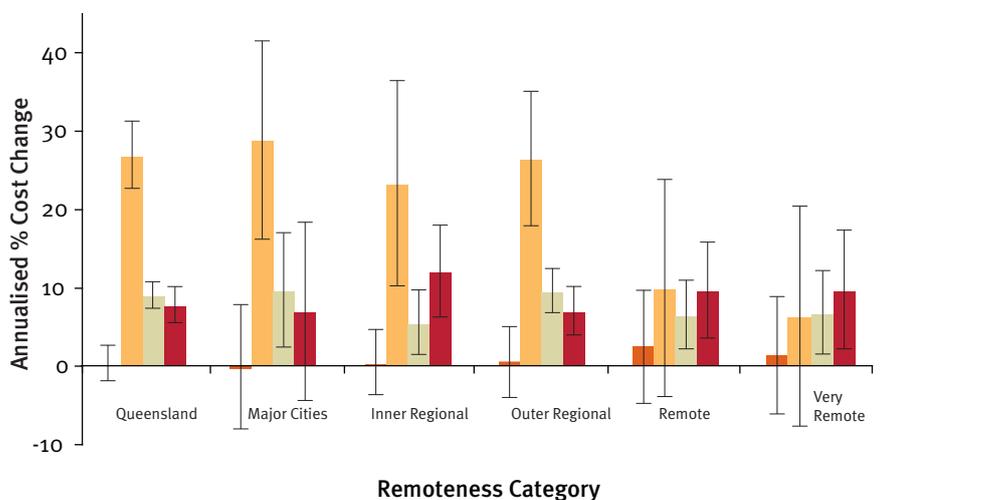


CPI & Remoteness Category

■ 1998-2000: % change per year
 ■ 2000-2001: % change per year
 ■ 2001-2004: % change per year
 ■ 2004-2006: % change per year

a Ham and cabbage excluded
 b Weighting proportional to Queensland population size by each remoteness category
 c Source: Healthy Food Access Basket Surveys 1998, 2000, 2001, 2004 & 2006
 d Source: Australian Bureau of Statistics ⁸

b) Annualised percent change in the costs of the fruit, vegetables and legumes in the basket



Remoteness Category

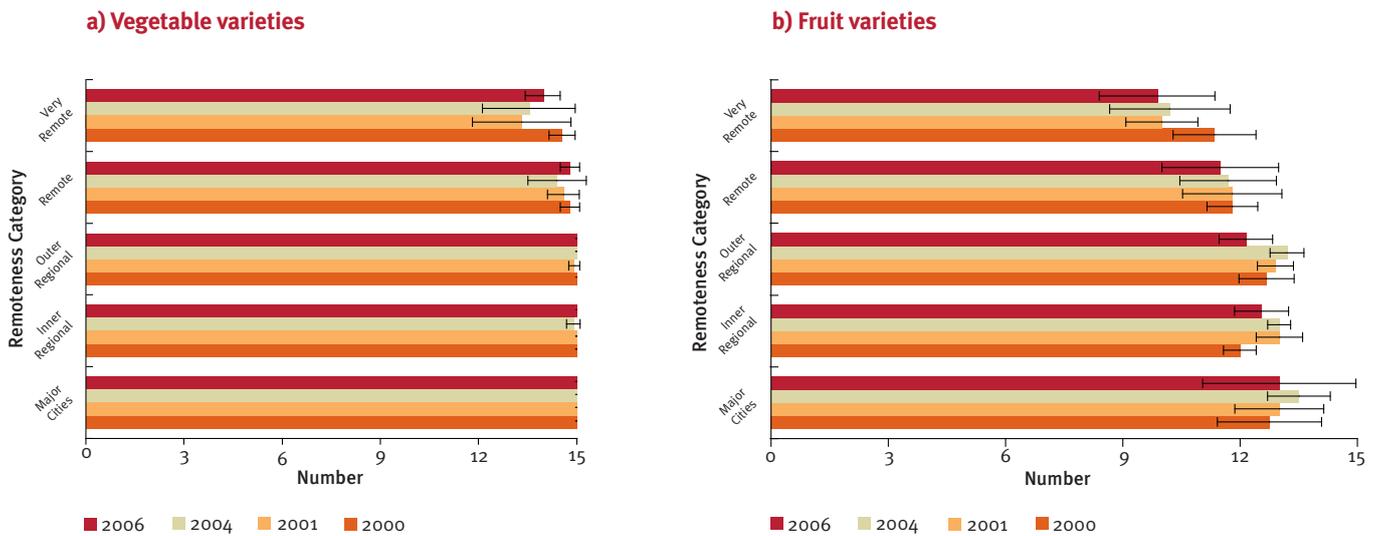
■ 1998-2000: % change per year
 ■ 2000-2001: % change per year
 ■ 2001-2004: % change per year
 ■ 2004-2006: % change per year

a Ham and cabbage excluded
 b Weighting proportional to Queensland population size by each remoteness category
 c Source: Healthy Food Access Basket Surveys 1998, 2000, 2001, 2004 & 2006

Results



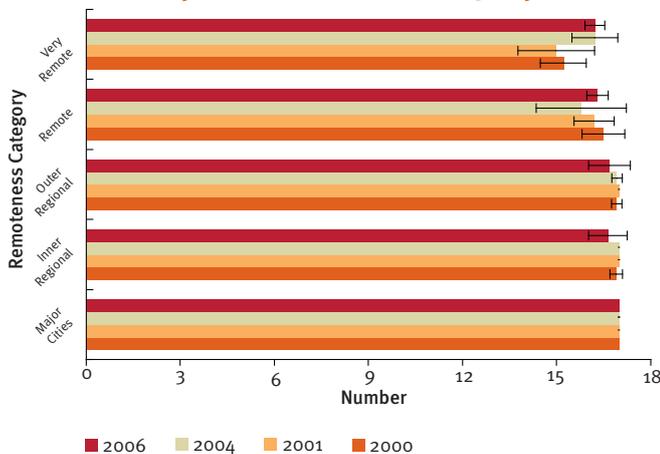
Figure 8: Availability of vegetable and fruit varieties (out of a total of 15) in the 47 stores surveyed from 2000-2006 by remoteness category^a



a Source: Healthy Food Access Basket Surveys 2000, 2001, 2004 & 2006

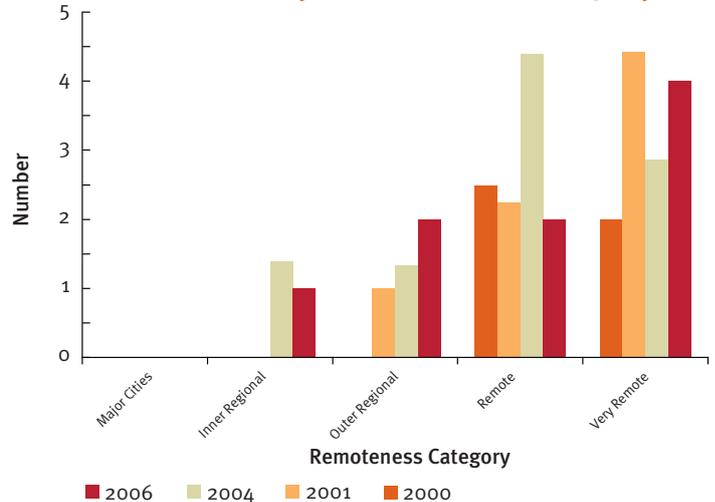
a Source: Healthy Food Access Basket Surveys 2000, 2001, 2004 & 2006

Figure 9: Availability of “better nutrition choices” (out of a total of 17) in the 47 stores surveyed from 2000-2006 by remoteness category^{a,b}



a Source: Healthy Food Access Basket Surveys 2000, 2001, 2004 & 2006
b List of “better nutrition choices”, Table 5 of this report

Figure 10: Number of missing HFAB items in the 47 stores surveyed from 2000-2006 by remoteness category^a



a Source: Healthy Food Access Basket Surveys 2000, 2001, 2004 & 2006

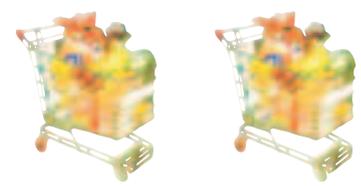


Table 1: Mean cost (95% CI) of baskets and the basic healthy food groups in the 78 stores surveyed in 2006 by remoteness category^a

	QLD (\$) (CI) n=78	Major cities (\$) (CI) n=10	Inner regional (\$) (CI) n=10	Outer regional (\$) (CI) n=18	Remote (\$) (CI) n=18	Very remote (\$) (CI) n=22	% (\$) increase in mean cost from Major cities to Very remote	Kendall's Tau p value
Cost of the Healthy Food Access Basket in 2006	457.46 (450.49- 464.44)	446.37 (427.57- 465.16)	459.49 (452.10- 466.87)	480.53 (464.29- 496.77)	472.06 (457.78- 486.34)	554.18 (526.22- 582.14)	24.2% (\$107.81)	<0.001
Cost of fruit, vegetables and legumes in 2006	204.99 (200.62- 209.35)	200.93 (188.00- 213.86)	201.03 (188.58- 213.47)	216.59 (206.79- 226.40)	206.33 (199.12- 213.53)	242.22 (223.72- 260.73)	20.6% (\$41.29)	<0.001
Cost of bread and cereals in 2006	101.52 (99.14- 103.90)	96.43 (90.88- 101.99)	105.85 (99.99- 111.71)	110.44 (105.82- 115.06)	110.29 (103.41- 117.18)	128.45 (123.94- 132.96)	33.2% (\$32.02)	<0.001
Cost of dairy in 2006	57.91 (57.01- 58.80)	56.98 (55.80- 58.15)	60.06 (56.91- 63.21)	58.19 (55.42- 60.97)	61.10 (58.00- 64.20)	73.43 (68.41- 78.46)	28.9% (\$16.45)	<0.001
Cost of meat and alternatives in 2006	79.88 (78.68- 81.08)	79.48 (77.16- 81.79)	78.39 (73.94- 82.85)	81.41 (77.30- 85.53)	80.33 (77.53- 83.13)	89.93 (86.37- 93.48)	13.2% (\$10.45)	<0.001
Cost of fruit in 2006	122.79 (119.90- 125.69)	121.77 (112.39- 131.16)	119.59 (109.64- 129.53)	127.10 (121.20- 132.99)	119.16 (114.09- 124.23)	143.02 (133.26- 152.77)	17.5% (\$21.25)	<0.001
Cost of vegetables and legumes in 2006	82.20 (79.90- 84.49)	79.16 (72.95- 85.37)	81.44 (74.26- 88.62)	89.50 (84.33- 94.66)	87.17 (83.38- 90.95)	99.21 (88.82- 109.59)	25.3% (\$20.05)	<0.001

^a Weighting proportional to Queensland population size by each remoteness category

Results



Table 2: Mean cost (95% CI) of the HFAB and the “unhealthy” items in the 78 stores surveyed in 2006 by remoteness category^a

	QLD (\$) (CI) n=78	Major cities (\$) (CI) n=10	Inner regional (\$) (CI) n=10	Outer regional (\$) (CI) n=18	Remote (\$) (CI) n=18	Very remote (\$) (CI) n=22	% (\$) increase in mean cost from Major cities to Very remote	Kendall's Tau p value
Cost of the Healthy Food Access Basket in 2006	457.46 (450.49-464.44)	446.37 (427.57-465.16)	459.49 (452.10-466.87)	480.53 (464.29-496.77)	472.06 (457.78-486.34)	554.18 (526.22-582.14)	24.2% (\$107.81)	<0.001
Cost of “unhealthy” items in 2006	44.77 (43.99-45.55)	43.57 (41.58-45.56)	45.38 (42.02-48.73)	46.74 (45.54-47.94)	49.12 (46.93-51.30)	53.48 (51.01-55.95)	22.8% (\$9.91)	<0.001

^a Weighting proportional to Queensland population size by each remoteness category

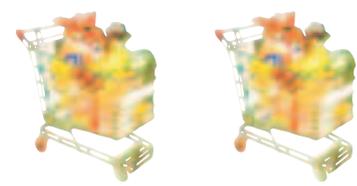


Table 3: Change in mean cost (95% CI) of baskets in the 47 stores surveyed from 2000 to 2006 by remoteness category^{a,b}

	QLD (\$) (CI) n=47	Major cities (\$) (CI) n=4	Inner regional (\$) (CI) n=11	Outer regional (\$) (CI) n=13	Remote (\$) (CI) n=10	Very remote (\$) (CI) n=9
Cost of the Healthy Food Access Basket in 2000	304.01 (289.79-309.25)	298.83 (280.50-317.16)	309.59 (303.41-315.77)	309.46 (301.92-317.00)	347.29 (327.01-367.57)	404.82 (373.74-435.90)
Cost of the Healthy Food Access Basket in 2001	344.04 (339.04-349.04)	339.56 (324.10-355.02)	345.17 (334.12-356.22)	353.59 (341.76-365.42)	377.58 (357.94-397.22)	425.29 (398.13-452.45)
% (\$) increase in mean cost 2000-2001	13.2%*** (\$40.03)	13.6% (\$40.73)	11.5% (\$35.58)	14.3% (\$44.13)	8.7%*** (\$30.29)	5.1%* (\$20.47)
Cost of the Healthy Food Access Basket in 2004	402.20 (395.50-408.90)	398.28 (366.97-429.59)	394.75 (383.07-406.43)	417.24 (406.77-427.71)	428.42 (416.47-440.37)	504.36 (479.72-529.00)
% (\$) increase in mean cost 2001-2004	16.9%*** (\$58.16)	17.3% (\$58.72)	14.4% (\$49.58)	18.0% (\$63.65)	13.5% (\$50.84)	18.6%** (\$79.07)
Cost of the Healthy Food Access Basket in 2006	452.88 (445.34-460.42)	443.00 (412.26-473.74)	462.75 (452.09-473.41)	478.27 (466.60-489.94)	480.56 (456.55-504.57)	556.40 (523.42-589.38)
% (\$) increase in mean cost 2004-2006	12.6%*** (\$50.68)	11.2% (\$44.72)	17.2%*** (\$68.00)	14.6%*** (\$61.03)	12.2%*** (\$52.14)	10.3%** (\$52.04)
Cost of fruit, vegetables and legumes in 2000	113.11 (109.44-116.78)	111.36 (91.97-130.75)	114.24 (107.72-120.76)	114.95 (108.32-121.58)	130.43 (120.17-140.69)	152.54 (139.25-165.83)
Cost of fruit, vegetables and legumes in 2001	140.38 (137.41-143.35)	138.15 (129.05-147.25)	141.84 (132.11-151.57)	146.65 (137.58-155.72)	149.08 (138.30-159.86)	162.59 (146.50-178.68)
% (\$) increase in mean cost 2000-2001	24.1%** (\$27.27)	24.1% (\$26.79)	24.2% (\$27.60)	27.6% (\$31.70)	14.3%* (\$18.65)	6.6% (\$10.05)
Cost of fruit, vegetables and legumes in 2004	174.45 (169.21-179.69)	172.54 (144.81-200.27)	169.57 (159.36-179.78)	186.65 (175.13-198.17)	175.62 (162.81-188.43)	197.62 (178.46-216.78)
% (\$) increase in mean cost 2001-2004	24.3%** (\$34.07)	24.9% (\$34.39)	19.5% (\$27.73)	27.3% (\$40.00)	17.8% (\$26.54)	21.5% (\$35.03)
Cost of fruit, vegetables and legumes in 2006	204.96 (200.15-209.77)	201.28 (176.70-225.86)	205.10 (194.13-216.07)	219.84 (212.87-226.81)	207.97 (195.70-220.24)	233.13 (211.51-254.75)
% (\$) increase in mean cost 2004-2006	17.4%*** (\$30.51)	16.7% (\$28.74)	20.9% (\$35.53)	17.8% (\$33.19)	18.4% (\$32.35)	18.0%* (\$35.51)

Paired-Samples T-Tests: * = p<0.05; ** = p<0.01; *** = p<0.001 significantly different from 2000, 2001, 2004 & 2006
^a Weighting proportional to Queensland population size by each remoteness category
^b Source: Healthy Food Access Basket Surveys 2000, 2001, 2004 & 2006

Results



Table 4: Annual percentage price change for selected food items (June Quarter 1997 to June Quarter 2006) in Brisbane^a

Items	97-98 %	98-99 %	99-00 %	00-01 %	01-02 %	02-03 %	03-04 %	04-05 %	05-06 %	00-06 %	98-06 %
CPI for food	2.8	2.4	2.2	7.3	4.8	4.1	1.5	2.7	8.7	32.5	38.8
Bread	3.4	6.5	2.2	8.4	3.4	2.9	-6.6	1.4	7.5	17.4	27.7
Bread and cereal products	1.9	2.3	1.8	5.7	3.9	5.4	-1.6	0.4	5.1	20.3	25.2
Dairy and related products	2.2	3.9	8.0	-1.2	7.3	3.8	0.8	4.5	3.9	20.5	35.3
Milk	2.2	3.4	11.5	-4.6	6.4	4.3	0.2	4.5	3.2	14.5	32.0
Fruit and vegetables	3.3	6.0	-0.8	11.4	0.7	9.0	2.6	-2.6	38.7	69.7	78.3
Fruit	-8.1	25.8	-17.7	18.2	13.3	-8.6	10.2	-4.9	65.5	112.3	119.6
Vegetables	12.6	-8.4	15.9	6.5	-9.4	26.9	-3.0	-0.7	15.9	36.6	45.1
Meat and seafood	0.7	-0.1	4.5	8.4	10.7	0.7	1.9	6.0	2.8	34.0	39.9
Soft drinks, water and juices	6.3	-1.5	-1.6	-1.3	1.4	0.2	0.6	4.9	3.0	8.9	5.6
Take-away and fast foods	3.0	3.1	3.6	11.1	3.7	3.7	3.0	3.2	3.8	31.8	40.8
Snacks and confectionery	4.2	5.0	1.8	5.5	5.7	4.9	2.0	3.7	6.2	31.4	40.5

^a Source: Australian Bureau of Statistics⁸

Table 5: Vegetable and fruit variety and “better nutrition choices” checklists^a

Vegetables	Fruit	“Better nutrition choices”
Broccoli	Apple	Wholemeal bread
Cabbage	Banana	Dried fruit
Capsicum	Grape	Dry biscuits, low fat ^b
Carrot	Kiwi fruit	Tinned fruit, in natural juice
Cauliflower	Mango	Monounsaturated oil like canola or olive
Cucumber	Orange	Fresh reduced fat milk
Green beans	Other citrus fruit	Yoghurt
Lettuce	Other stone fruit	Bottled water
Mushroom	Pawpaw	Baked beans
Onion	Peach	100% Orange juice
Potato	Pear	Diet cordial
Pumpkin	Pineapple	Diet soft drink
Sweet corn	Rock melon	Lean meat ^c
Sweet potato	Strawberry	Other dried legumes e.g. lentils, split peas, chickpeas
Tomato	Watermelon	Poly/mono-unsaturated margarine
		Red kidney beans
		Tinned bean mix

^a Source: The 2000 Healthy Food Access Basket (HFAB) Survey: Full Report⁷

^b Low fat dry biscuits are biscuits which have less than 10g of fat per 100g

^c Lean meat determined by visual inspection: lean meat if little visible fat

References



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